



Strengthening our services July 2021 update



We are undertaking a program to strengthen and improve the services we provide for all Australians.

The Bureau of Meteorology is well advanced in our three-year program to strengthen our services and deliver improved impact and value to the Australian community.

We continue to make stepwise changes in how we work, and how we support our customers, partners and stakeholders to make decisions that better protect lives and property.

Since our program commenced in 2019, we have continued to move towards more integrated and nationally consistent operations delivered across three specialist functions including National Production, Environmental Prediction and Decision Support Services. This has included:

- Establishing **National Production** capability to lead the delivery of 24/365 national forecasts and guidance including a streamlined national weather narrative and excellent operational response.
- Building **Environmental Prediction** centres of excellence for Severe Weather, Marine and Antarctic, Water, and Climate domains to increase specialisation and impact.
- Enhanced regional **Decision Support** capability with a deeper focus on supporting our emergency management partners and the Australian community.

Collectively these changes are helping to create a nationally integrated footprint that is resilient and scalable, with greater capacity to deploy our specialist expertise wherever it is needed most.

Delivering an enhanced operations approach in 2021

Ahead of the 2021/22 peak season, we are implementing an enhanced operations approach that will further mobilise and strengthen the Bureau's capabilities and build greater resilience for our services. This is an important step towards our future operations approach that, when fully realised in 2022, will embed an enduring uplift in our approach to deliver public services.

Over the coming months, key initiatives include:

- Forecasting and warning production services will transition to specialist National Production and Environmental Prediction Services.
- Regionally based Decision Support staff will engage more deeply with emergency management partners and the Australian community.
- Multi-disciplinary teams of scientific specialists will be deployed as needed to support and enhance the Bureau's operational resilience; and to deliver value-added environmental prediction information, enhancing our products and services.
- Continuing to uplift customer facing skills, systems and processes to deliver an outstanding customer experience.
- Continuing to collaborate and co-design with our staff and customers, stakeholders and partners to test and trial and embed new ways of working.

Uplifting tools and technology

As we move towards a new operations approach, we are uplifting critical science, technology and operational capabilities. We have recently implemented several improvements to our tools and technology that enhance the accuracy and quality of our forecasting services, as well as our ability to communicate hazards, risks and impacts to the Australian community.

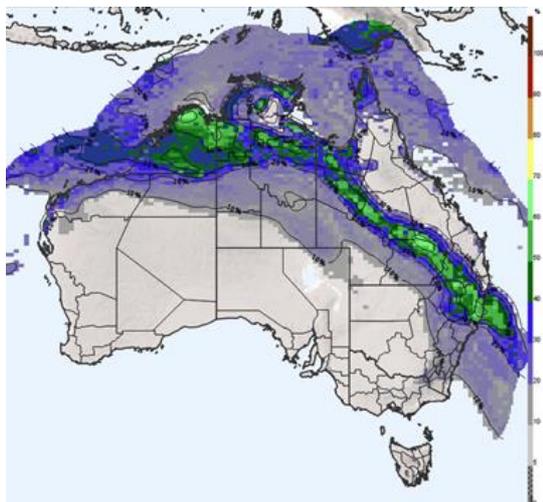
Some of these improvements include:

Enhanced forecasting operations

Earlier this year, we implemented a national forecasting system that means we can now prepare and issue forecasts for any location from any office, creating a more resilient and responsive enterprise.

Improved thunderstorm and lightning forecasts to improve community safety

We have recently introduced an upgraded Calibrated Thunder system and new lightning strike density product that helps diagnose, forecast and warn of thunderstorms more accurately and efficiently. These will improve safety for both the Australian community and key partners; including our aviation and defence partners.



Example of the upgraded Calibrated Thunder system (colours show % chance of lightning within 10km of a point).

This new capability provides meteorologists with a more effective way to estimate the

probability of lightning, and to improve thunderstorm prediction, up to nine days ahead. It will improve our ability to diagnose thunderstorms and communicate expected impacts to our customers, emergency management partners and the community.

Further work over the coming months will see refinements to a range of thunderstorm forecasting scenarios including tropical oceans, as well as elevated, dry, and cold-airmass thunderstorms.

New wind speed forecasts to better suit customer needs

From July 2021, our emergency management partners and customers will notice an improvement in the Bureau's wind speed forecast services.

To date, the Bureau has provided forecast information on the sustained wind speed and wind gust out to seven days. Looking forward, three wind speed forecast fields will be available to customers – the sustained wind speed at the start of every hour, the peak sustained wind speed expected within the hour and the peak 3-second gust within the hour.

This additional data will provide more useful and consistent wind forecasts for customers and for the Bureau's partners (for example, fire agencies).

It will also contribute to improved accuracy of products that incorporate wind data such as Marine Wind Warnings, Severe Weather Warnings, Fire Danger Indices, Sheep Graziers Alerts and Road Weather Alerts.

Next steps

As we move into the final phase of the program, we are focussed on embedding the new skills, systems and processes and ways of working that have the customer at the heart of everything we do, and focus on operational resilience, and systematic and continuous improvement in the quality and impact and value that we contribute to the nation.

**MORE
INFORMATION**

If you would like to receive more information on our transformation program, please register your details at public-services@bom.gov.au