GLOBAL SYSTEMS LABORATORY

NOAA GSL VISION

Forecast systems that deliver solutions.

NOAA GSL MISSION

Lead research and directed development through the transition of environmental data, models, products, tools, and services to support commerce, protect life and property and promote a scientifically literate public.

GSL'S GRAND SCIENTIFIC CHALLENGE

Provide actionable environmental information through the research and development of rapidly-updating global storm-scale prediction and innovative decision support capabilities to reduce societal impacts from hazardous weather and other environmental phenomena.

GOAL 1 — Invest in people, partnerships, and organizational performance.

A healthy, diverse, high-achieving,agile, and enthusiastic staff that is empowered and supported by a forward-thinking administrative and IT support staff and infrastructure, and that enables diverse perspectives and effective internal and external collaboration to achieve high impact results.

GOAL 2 — Develop state-of-the-art Earth-system prediction capabilities.

A computationally efficient and scale agnostic next generation Earth system prediction capability that is mission relevant, using advanced techniques in assimilation, physical and atmospheric composition processes, verification, and leverages a broad range of observations for improved forecasts.

GOAL 3 — Revolutionize communications, products, and services to enable informed decision-making.

Environmental information systems and impact-based verification services that are useful and actionable. Decision-makers and the public have access to clear visualizations and communications of weather and climate risks leveraging social, behavioral and economic science. These services should use a centralized data source, cloud storage,and cloud computing that informs decision making associated with potential impact of environmental hazards.