Making Earthquake Forecasting Operational in California

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Natural Hazards: Earthquake • Volcanic Eruption • Landslide • Flood • Geomagnetic Storm • Wildfire • Tsunami • Coastal Erosion
What is needed?

- A scientific model
What is needed?

- A scientific model

Research

SCEC
USGS
CSEP
What is needed?

- A scientific model

Research

Working Group
Andy Michael & Tom Jordan

SCEC
USGS CSEP
What is needed?

- A scientific model - **Research**
- An automated model
What is needed?

• A scientific model - **Research**
• An automated model
What is needed?

• A scientific model - **Research**
• An automated model - **Model Development**
• A tested model
What is needed?

- A scientific model - **Research**
- An automated model - **Model Development**
- A tested model

Model Testing

**CSEP**
What is needed?

- A scientific model - **Research**
- An automated model - **Model Development**
- A tested model - **Testing**
- Useable products
What is needed?

- A scientific model - **Research**
- An automated model - **Model Development**
- A tested model - **Testing**
- Useable products
What is needed?

• A scientific model - **Research**
• An automated model - **Model Development**
• A tested model - **Testing**
• Useable products - **Product Design**
• A real, realtime product
What is needed?

- A scientific model - **Research**
- An automated model - **Model Development**
- A tested model - **Testing**
- Useable products - **Product Design**
- A real, realtime product

**Operations**

*ANSS/CISN*

Seismic networks
What is needed?

- A scientific model - **Research**
- An automated model - **Model Development**
- A tested model - **Testing**
- Useable products - **Product Design**
- A real, realtime product - **Operations**
- Assessment
What is needed?

- A scientific model - **Research**
- An automated model - **Model Development**
- A tested model - **Testing**
- Useable products - **Product Design**
- A real, realtime product - **Operations**

- Assessment
Operational Earthquake Forecasting

Research

Model Development

Testing

Product Design

Operations

UCERF
CISN
CSEP
SCEC
SAFRR
Operational Earthquake Forecasting

- Research
- Model Development
- Testing
- Product Design
- Operations

- UCERF
- CISN
- SCEC
- EEW
- CSEP
- SAFRR