



UNIVERSITY OF  
NEWCASTLE

# CENTRE FOR SPACE SCIENCE & TECHNOLOGY FOR AUSTRALIAN RESILIENCE (SSTAR)

**The Centre for Space Science & Technology for Australian Resilience (SSTAR) leverages space-based technologies to advance our understanding of space weather, the Sun, as well as the Earth's atmosphere and surface. This understanding will enhance Australia's resilience to environmental changes, technological challenges, and security threats.**

## PARTNERSHIP CAPABILITIES

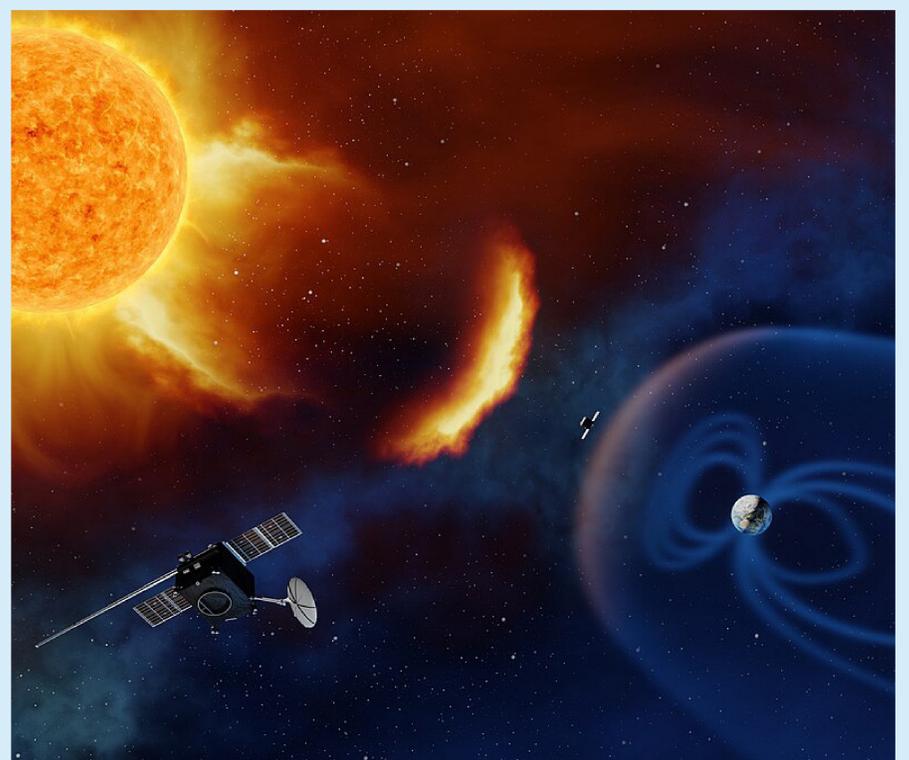
- **Collaborative Problem-Solving:** Joint development of tailored research towards space weather forecasting, Earth observation, and autonomous systems to meet national challenges
- **Technology Development:** Satellite-based monitoring platforms and AI-driven analytics
- **Expert Consultation:** Strategic advice on space resilience and technology integration
- **Data Analysis & Monitoring:** Data processing and predictive modelling for environmental resilience

## PROVEN IMPACT

- **Space Collaboration:** Partnered with CSIRO and Defence to develop autonomous systems for space and Earth applications
- **Technology Innovation:** Developed real-time space weather monitoring tools for infrastructure protection
- **Research Advances:** tackle complex physical problems related to the Sun's magnetic field to improve our understanding of space weather, helping to protect critical technologies

## PROTECTING INFRASTRUCTURE WITH SPACE WEATHER FORECASTING

SSTAR is supporting the development of real-time space weather forecasting systems that help protect critical infrastructure from solar storms. We are working with the Bureau of Meteorology and energy providers to mitigate risks and ensure operational continuity, demonstrating the power of space science in safeguarding national assets.



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