

College/Division:	Australian National University
Faculty/School/Centre:	Institute for Climate, Energy & Disaster Solutions (ICEDS)
Department/Unit:	Institute for Climate, Energy & Disaster Solutions (ICEDS)
Position Title:	Research Fellow – Cyclogenesis
Classification:	Level B
Position No:	
Responsible to:	Head of Disaster Risk, ICEDS
Number of positions that report to this role:	
Delegation(s) Assigned:	

PURPOSE STATEMENT:

This Research Fellow position is a joint appointment between the ANU Institute for Climate, Energy & Disaster Solutions (ICEDS) and the Research School of Earth Sciences (RSES).

Climate, energy and disasters are crucial and growing issues for Australia. The <u>Institute for Climate, Energy and</u> <u>Disaster Solutions</u> (ICEDS) initiates and supports the development of transdisciplinary research teams across ANU with the aim of ensuring broad societal impact as well as leading outreach, policy engagement, facilitation and coordination roles. Additionally, the Institute is taking a lead role in the ANU Below Zero initiative which aims to reduce ANU greenhouse gases to net zero by 2025 and below zero by 2030.

The <u>ANU Research School of Earth Sciences</u> (RSES) is Australia's leading academic research institution for Earth and Marine Sciences and is ranked in the top 25 in the world for Earth and Marine Sciences (QS World University Rankings by Subject 2021). Our research addresses the current major challenges in the Earth Sciences, including modelling ocean currents and climate change to inform societal debate and actions. Cutting-edge research at RSES is underpinned by highly trained technical staff. The collaborative culture and state-of-the art facilities at RSES provide an unparalleled environment for high-quality research training of our graduate students. Our people and facilities are the foundation for our vision to deliver world-class future-focussed and research-led undergraduate teaching.

Tropical cyclones are one of the most powerful kinds of storms to affect the earth, with massive economic and social impact including the loss of life of around 10,000 people per annum. Cyclone severity is predicted to increase with climate change. This position will investigate factors that influence cyclogenesis and subsequent movement, its detection and assessment of cyclone trajectory and intensity.

The role has a strong focus on research. The Research Fellow will also make some contributions to education and service (especially outreach and engagement regarding the research). The Research Fellow will contribute cooperatively to the overall intellectual life of ICEDS and to a range of Schools and Centres across the University. The allocation of time to each area will be discussed with ICEDS and the School supervisor annually and be reflective of the appointee's research agenda, of the interests of ANU, ICEDS and of teaching requirements and leadership opportunities within the School environment. The staff member will contribute cooperatively to the overall intellectual life of the Institute, School, College and University.

POSITION DIMENSION AND RELATIONSHIPS:

The Research Fellow will be a member of both ICEDS and RSES. The Research Fellow will be accountable to the Head of Disaster Solutions, ICEDS and the Head, Climate & Ocean Geoscience, RSES. In consultation with the applicant, the Research Fellow will work closely with a Supervisory Panel of Experts from the ANU, Australian and international community. The Research Fellow will also work with the Australian Earth-System Simulator National Research Infrastructure (ACCESS-NRI), an NCRIS-enabled software engineering facility for Australia's Earth system research, which models past, present and future climate, weather and Earth-systems to support research in Australia.

The Research Fellow will be expected to work collegially, leading by example to develop and maintain effective, productive and beneficial workplace relationships with academic and professional, Institute, School and College staff, students and honorary appointees, as well as with industry stakeholders. This position will also have a mentoring role for students and will engage in collegial and productive collaborations with local, national and where possible, international colleagues

Role Statement:

In their role as an Academic Level B the Research Fellow is expected to:

- 1. Undertake independent research in the area of cyclogenesis and in coupled ocean-atmosphere modelling with a view to publishing original and innovative results in refereed journals, present research at academic seminars and at national and international conferences, and collaborate with other researchers at a national and/or international level.
- 2. Actively seek and secure external funding including the preparation and submission of research proposals to external funding bodies.
- 3. Actively contribute to all aspects of the operation of ICEDS and, where relevant, RSES.
- 4. Contribute to supervision of students working on individual or group projects at undergraduate, honours, graduate-coursework levels and teach in short courses as required by ICEDS research students.
- 5. Supervise research support staff in your research area.
- 6. Assist in outreach activities targeted at prospective students, research institutes, industry, government, the media and the general public.
- 7. Maintain high academic standards in all education, research and administration endeavours.
- 8. Take responsibility for their own workplace health and safety and not willfully place at risk the health and safety of another person in the workplace.
- 9. A demonstrated understanding of equal opportunity principles and policies and a commitment to their application in a university context.
- 1. Engage with and support reduction of the University's greenhouse gas emissions via the ANU Below Zero Initiative.
- 2. Other duties as required that are consistent with the classification of the position.

Skill Base

Level B (Research academic staff)

A Level B research academic will normally have experience in research or scholarly activities, which have resulted in publications in refereed journals or other demonstrated scholarly activities.

A Level B research academic will carry out independent and/or team research. A Level B research academic may supervise postgraduate research students or projects and be involved in research training.

SELECTION CRITERIA:

- 1. A PhD in atmospheric and atmosphere/ocean modelling or a related area such as the fundamental physics of cyclone formation. Ideally the candidate will be familiar with weather and climate models for cyclone prediction, and have experience in simulating and predicting cyclones/hurricanes/tropical storms.
- 2. A track record of independent research in the field of atmospheric modelling and/or cyclone formation as evidenced by publications in peer-reviewed journals and conferences, a record of developing and maintaining collaborations and by other measures such as awards and invitations to present at conferences.
- 3. Evidence of the ability to articulate and prosecute innovative research in the field of atmospheric modelling and/or cyclone formation and a vision for the activities they will undertake at ANU.
- 4. A demonstrated ability and commitment to apply for competitive external funding to support individual and collaborative research activities.
- 5. Evidence of an ability and willingness to contribute to teaching and to student supervision.
- 6. The demonstrated ability to work as part of a team, contributing to team management and a demonstrated ability to meet deadlines.
- 7. Excellent oral and written English language skills and a demonstrated ability to communicate and interact effectively with a variety of staff and students in a cross-disciplinary academic environment and to foster respectful and productive working relationships with staff, students and colleagues at all levels.
- 8. A demonstrated understanding of equal opportunity principles and policies and a commitment to their application in a university context.

Background Checking:

The ANU conducts background checks on potential employees, and employment in this position is conditional on satisfactory results in accordance with the <u>Background Checking Procedure</u> which sets out the types of checks required by each type of position.

Delegate Signature:	Date:	
Printed Name:	Position:	

References:		
Academic Minimum Standards		