

# Remote Sensing Scientist

Science and Innovation

**Title:** Remote Sensing Scientist  
**Division:** Research Hub  
**Location:** Raglan or Wellington  
**Responsible to:** Head of Data Science (Research & Innovation Hub)  
**Date:** September 2024  
**Code:**

## Purpose

The Remote Sensing Scientist provides subject matter expertise in satellite remote sensing, contributing to innovative scientific research and development related to weather prediction and modelling, and the delivery of operational products.

The role ensures MetService remains abreast of developments in the fields of remote sensing and data fusion, and can leverage ongoing advances in this area to strengthen its long-term competitive position and deliver enduring value for its customers.

## Accountabilities

Key Responsibility Areas	
<b>Operational Delivery</b>	<ul style="list-style-type: none"><li>• Responsible for independent assignments within the broad field of remote sensing science, requiring research, analysis interpretation, conclusions, and decisions.</li><li>• Responsible for scientific ownership of remote sensing datasets, requiring review, analysis, and upgrading.</li><li>• Identify and analyse issues and interdependencies to enable MetService to effectively respond and adapt to customer and business needs.</li><li>• Translate data analysis and intelligence into usable information to inform quality decision making.</li><li>• Remain up to date with technology, trends and methodologies to support better business and customer outcomes.</li><li>• Deliver outcomes independently, with oversight from more experienced people.</li><li>• Independently evaluates, selects and applies scientific techniques, processes and criteria, using judgement in making minor adaptations and modification.</li><li>• Co-authors referred publications, contract reports and science extension activities including digital applications and may occasionally be the first author.</li><li>• May involve project management.</li><li>• Manages small projects/decision maker for small projects or pieces of work.</li></ul>

<b>Collaboration &amp; Communication</b>	<ul style="list-style-type: none"> <li>• Collaborate with other teams to ensure successful migration to operations.</li> <li>• Collaborate with external companies and scientific institutions to support MetService’s scientific and business goals.</li> <li>• Undertake project work for other scientists.</li> <li>• Demonstrate steadfast commitment to transparent communication and ethical decision making</li> </ul>
<b>Peer Support</b>	Provide subject matter expert support to less experienced people.

## Key Relationships

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### Relationships

<b>Internal</b>	<ul style="list-style-type: none"> <li>• Industry &amp; Data Services colleagues</li> <li>• General Manager Industry &amp; Data Services</li> <li>• Product Managers</li> <li>• Meteorological Services - Managers and Meteorologists</li> <li>• MetService Architecture Team</li> <li>• CIO</li> <li>• ISG staff</li> <li>• Sales and Delivery senior managers</li> </ul>
<b>External</b>	<ul style="list-style-type: none"> <li>• Clients</li> </ul>
<b>Staff Responsibility</b>	<ul style="list-style-type: none"> <li>• Nil</li> </ul>
<b>Financial Responsibility</b>	<ul style="list-style-type: none"> <li>• Nil</li> </ul>

## Person Specification

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### Knowledge, Skills & Qualifications:

#### Required:

- A tertiary qualification or post-graduate qualification (M.Sc or PhD level) in a relevant scientific or engineering field.
- Previous experience analysing and processing remote sensing data, ideally for satellite-based radar and/or spectral applications.
- Ability to critically assess the code base for existing remote sensing data products and develop solutions when customers raise issues.
- Experience with cloud computing (e.g. AWS or Azure).
- Experience using GIS software (e.g. QGIS, ArcGIS, Surfer, Global Mapper).
- Proficiency in Python and experience working in Linux environment.
- Strong communication skills, both written and verbal.
- Integrity and high standards.
- Ability to work on multiple projects simultaneously.
- High level of attention to detail.
- Initiative in seeking out collaborative scientific opportunities.

#### Desirable:

- Experience with Artificial Intelligence / Machine Learning methodologies.
- Broad domain knowledge across multiple types of remote sensing applications.
- Previous experience with atmospheric or oceanographic modelling and weather products.
- Experience with Artificial Intelligence / Machine Learning methodologies.
- Experience in mentoring junior scientists and collaborating across industry and scientific institutions.

**Note:** The requirements of this position description may change from time to time to meet operational or other requirements.

Our Values	Values in Action	Values Descriptor
<p><b>ADAPTABILITY AND FLEXIBILITY</b></p> <p>To be flexible and adaptable in response to, and ahead of, changes in conditions and stakeholder needs.</p>	<p><b>Embrace Change</b></p> <p><b>Optimise our Business</b></p>	<p>Recognises that change is at the core of our business. Knows how to make change work, by thinking ahead or being open minded to new ideas.</p> <p>Makes the most of our business opportunities. Is responsive, makes smart decisions and positions our business to achieve its goals.</p>
<p><b>THE POWER TO SHINE</b></p> <p>Having the skills, abilities, drive and support to do a great job.</p>	<p><b>Recognise Success</b></p>	<p>Takes the initiative to bring out the best in themselves and others. Celebrates successful outcomes.</p>
<p><b>EVERYONE IS VALUED</b></p> <p>To appreciate equally the value of everyone working at MetService and their individuality.</p>	<p><b>Collaborate</b></p> <p><b>Respect All</b></p>	<p>Actively contributes to a work environment where together we achieve our goals. Openly communicates and cooperates with colleagues, customers and suppliers.</p> <p>Recognises and shows a genuine appreciation for the strengths and opinions of others. Engages in debates in a respectful manner.</p>
<p><b>ACHIEVEMENT</b></p> <p>To achieve something noteworthy and admirable through meeting challenges both personally and professionally.</p>	<p><b>Take Ownership</b></p>	<p>Takes responsibility for their own decisions and actions. Always works with the best business interests of MetService at heart.</p>
<p><b>FREEDOM TO ENJOY LIFE</b></p> <p>Working for a financially successful company with a sustainable future.</p>	<p><b>Support Growth</b></p> <p><b>Enable Innovation</b></p>	<p>Future focused or an advocate for continued improvement where we learn from experiences and mistakes.</p> <p>Supports a climate of creativity and new ways of doing things.</p>