



# **The Third International Starlight Conference**

**Lake Tekapo**

**New Zealand**

**10-13 June 2012**

## **CONFERENCE PROGRAMME**

**The Godley Hotel**

**Lake Tekapo**



## Sunday 10 June

6.00 pm      **Opening reception**

Foyer of the Godley Hotel, Lake Tekapo

Karanga, led by Anne Te Maharoa Dodds (Waitaha)

Karanga whakautu – response by Pauline Harris (Rongomaiwahine)

Mihimihi, by Rangimarie Te Maharoa, Ariki Rangatira Waitaha

Waiata, karakia

Welcome – Margaret Austin

Response – John Hearnshaw, on behalf of the University of Canterbury and  
Starlight Conference Organizing Committee

Welcome – Cipriano Marín, Starlight Initiative, Canary Islands, Spain

Welcome – Albert Brantley, on behalf of Genesis Energy, one of the major  
sponsors of the Starlight Conference

Announcement – Bob Parks, the International Dark-Sky Association,  
Washington , DC

Reply to Bob Parks from Claire Barlow – Mayor of Mackenzie District

Letters from the Prime Minister, the Rt Hon. John Key, from the New Zealand  
Ambassador to the United States and former Prime Minister, Mike Moore  
and from Lord Rees of Ludlow, the Astronomer Royal, Trinity College  
Cambridge, read by Margaret Austin.

6.40            Opening of the Third International Starlight Conference by Sir Tumu Te  
Heuheu, Paramount Chief of Ngati Tuwharetoa

Playing of The Karakia to the Stars

courtesy of David Hamilton, the New Zealand composer, and the NZ Chamber  
Choir

7.00            Buffet dinner

### **Ariki Sir Dr Tumu te Heuheu Tūkino VIII Paramount Chief of Ngāti Tūwharetoa**



***Ko Tongariro te Maunga  
ko Taupō te Moana  
ko Te Heuheu te Tangata***

Tongariro is the Mountain  
Taupō is the Lake  
Te Heuheu is the Man

**Ariki Sir Dr Tumu te Heuheu, Tūkino V111** – known to all as Tumu – is Paramount Chief of Ngāti Tūwharetoa. A direct descendant of Te Heuheu Tūkino IV, Horonuku, who in 1887 gifted the Central North Island mountains to the nation. An Honorary Doctorate from Massey University in 2007 was followed with a Knighthood in 2009. Sir Tumu is a former chair of the World Heritage Committee and is a close confidant to governments and big business entities. A most respected tribal leader, he sits on a number of prominent national boards and committees. Married to Lady Susan, they are both proud parents and grandparents.

# Monday 11 June

## Session #1

9.00-10.35

**Themes: The Starlight Initiative; UNESCO and World Heritage**

**Chair:** John Hearnshaw

- 1.0 9.00-9.05 John Hearnshaw, Chair, Starlight Conference Committee.  
Welcome
- 1.1 9.05-9.35 Cipriano Marín (I), Tenerife, Canary Islands, Spain.  
The Starlight Initiative: towards a Covenant for Night Sky Defence
- 1.2 9.35-10.05 Clive Ruggles (I), Leicester, UK.  
The recognition of 'outstanding universal value' in relation to  
astronomy at dark-sky sites
- 1.3 10.05-10.35 Michel Cotte (I), Nantes, France.  
The implementation of the World Heritage Convention in the field of  
astronomical heritage; context and constraints.

Morning tea/coffee break

## Session #2

11.00-12.30

**Themes: Lighting engineering, sky brightness and dark-sky protection; light and the ecosystem**

**Chair:** Steve Butler

- 2.1 11.00-11.30 Reginald Wilson (I), Sydney, Australia.  
Practically Achieving Dark Sky Protection Planning Requirements
- 2.2 11.30-11.50 Michael Chapman, Sydney, Australia.  
By the Light of Sydney Bright
- 2.3 11.50-12.10 Malcolm Smith, La Serena, Chile.  
Attempting to Control Light Pollution in Northern Chile
- 2.4 12.10-12.30 Richard Wainscoat, Honolulu, USA.  
Protection of Mauna Kea Observatory from light pollution

Lunch

### **Session #3**

**1.30-3.00**

**Themes: Lighting engineering, sky brightness and dark-sky protection; light and the ecosystem; Mt John Observatory**

**Chair:** Alec Boksenberg

- 3.1 1.30-2.00 Steve Muir (I), Christchurch, NZ.  
Latest Developments in Public Amenity and Road Lighting in New Zealand
- 3.2 2.00-2.20 Günther Wuchterl, Tautenburg, Germany.  
In search of the perfect sky - towards a cultural and astronomical quantification
- 3.3 2.20-2.40 Ed Budding, Wellington, NZ.  
Nightsky Brightness and Biospheric Stability
- 3.4 2.40-3.00 Karen Pollard, Christchurch, NZ.  
Research at the University of Canterbury's Mt John Observatory

Afternoon tea/coffee break

### **Session #4**

**3.30-5.20**

**Themes: Astro-aesthetics**

**Chair:** Marilyn Head

- 4.1 3.30-4.00 John Drummond (I), Gisborne, NZ.  
Cosmic Colours Above Your Head!
- 4.2 4.00-4.20 Hide Ozawa, Lake Tekapo, NZ.  
A stargazing guide
- 4.3 4.20-4.40 William Tobin, Vannes, France.  
The Transit of Venus as a Muse
- 4.4 4.40-5.00 Marea Atkinson, Adelaide, Australia.

## The Chiaroscuro of Starlight

4.5     5.00-5.20     Fraser Gunn (I), Lake Tekapo, NZ.  
Night Sky Time-Lapse Animations

### **Evening session**

**Stargazing at Mt John University Observatory** courtesy of the University of Canterbury and Earth and Sky Ltd

**and screening of the documentary ‘Sky Whisperers Ranginui’** directed by Kathleen Gallagher. Kathleen Gallagher will introduce her documentary and answer questions.

### **Clear weather programme:**

7.40-11.00     Vehicles depart from the Godley Hotel for 10 km trip to Mt John Observatory; vehicles will depart in a continuous shuttle approximately every 20 minutes. Stargazing courtesy of the University of Canterbury and Earth and Sky Ltd. Visit to main telescopes. Dress warmly. Hot drinks available in Mt John Astrocafe. Last shuttle leaves Mt John at 11.00 pm.

8.00-9.20     Screening of ‘Sky Whisperers Ranginui’, documentary produced by Kathleen Gallagher, Wickcandle Films, Christchurch.

9.40-11.00     Second screening of ‘Sky Whisperers Ranginui’, documentary produced by Kathleen Gallagher, Wickcandle Films, Christchurch, if there is demand.

### **Cloudy weather programme:**

8.00-9.20     Screening of ‘Sky Whisperers Ranginui’, documentary produced by Kathleen Gallagher, Wickcandle Films, Christchurch.

If there is sufficient demand to see the telescopes on Mt John on a cloudy night, we will arrange a visit.

# Tuesday 12 June

## Session #5

9.00-10.30

**Themes: Conservation issues**

**Chair:** Grant Christie

- 5.1 9.00-9.30 Alastair Morrison (I), Wellington, NZ.  
Out of sight, out of mind.
- 5.2 9.30-10.00 Steve Butler (I), Invercargill, NZ.  
The Dark Side of New Zealand's Environmental Management
- 5.3 10.00-10.30 David Welch (I), Ottawa, Canada.  
Dark sky protection – a new dimension for protected areas.

Morning tea/coffee break

## Session #6

11.00-12.30

**Themes: Astrophysics; astro-law**

**Chair:** Cipriano Marín

- 6.1 11.00-11.30 Alec Boksenberg (I), Cambridge, UK.  
The Nature and Information Content of Light from an Astronomical Viewpoint
- 6.2 11.30-11.50 Grant Christie, Auckland, NZ.  
Astronomical Research from a Large Urban Centre
- 6.3 11.50-12.10 Julie Abbari, Christchurch, NZ.  
Starlight and the law
- 6.4 12.10-12.30 Phil Cameron, Shanghai, China.  
Laws of Glocalization and Starlight – Reducing the glow of industrialization through International law, regional agreements, State based laws, and local ordinances.

Lunch

## **Session #7**

**1.30-3.00**

**Themes: Maori astronomy; astro-tourism**

**Chair:** Clive Ruggles

- 7.1 1.30-2.00 Ken McAnergney (I), Christchurch, NZ.  
The Realm of Ranginui
- 7.2 2.00-2.30 Pauline Harris, Wellington, NZ  
Revitalising Māori Astronomy and inspiring our next generations:  
Māori Astronomy, Modern Astrophysics, and Bridging the Divide.
- 7.3 2.30-3.00 Steve Owens (I), Glasgow, UK.  
Developing Astronomy Tourism in Dark Sky Places

Afternoon tea/coffee break

## **Session #8**

**3.30-5.00**

**Themes: Radio-frequency interference; Light pollution**

**Chair:** Alan Gilmore

- 8.1 3.30-4.00 Sergei Gulyaev (I), Auckland, NZ.  
The Radio Sky and the right to observe it.
- 8.2 4.00-5.00 Ian Cheney, New York, USA.  
Documentary 'The City Dark' Wicked Delicate Films, New York  
Introduced by Bob Parks, Executive Director of IDA, Washington,  
DC, USA

## **Conference banquet**

7.00- Godley Hotel, dining room.

An after-dinner speech will be given by the renowned environmentalist, David Round, School of Law, University of Canterbury.



## Wednesday 13 June

### Session #9

9.00-10.30

**Themes: The International Dark-Sky Association; Dark-sky reserve management and starlight tourist destinations**

**Chair:** Karen Pollard

- 9.1 9.00-9.30 Bob Parks, Washington, DC, USA.  
The Future of Dark Sky Protection
- 9.2 9.30-9.50 Friedel Pas, Hever, Belgium  
Outreach and tourism of a Dark Sky reserve need to be more than just astronomy-related
- 9.3 9.50-10.10 Antonia Varela et al., Tenerife, Canary Islands, Spain.  
Ensuring the excellence of Starlight Destinations: astronomical requirements for astro-tourist activities.
- 9.4 10.10-10.30 Alison Loveridge, Christchurch, NZ.  
Dark sky over a bright landscape: A Starlight Reserve for the Mackenzie Basin

Morning tea/coffee break

### Session #10

11.00-12.30

**Themes: The local scene: the Aoraki Mackenzie International Dark Sky Reserve**

**Chair:** Sergei Gulyaev

- 10.1 11.00-11.30 Graeme Murray (I) et al., Lake Tekapo, NZ.  
Lake Tekapo and the Mt John Observatory – an International Window to the Universe (speakers will include Phil Yock, University of Auckland and staff from Earth and Sky)
- 10.2 11.30-11.50 Phil Brownie, Lake Tekapo, NZ.  
An overview of tourism in the Mackenzie District
- 10.3 11.50-12.10 Margaret Austin, Christchurch, NZ.  
A Journey from the Antipodes to the Stars
- 10.4 12.10-12.30 John Hearnshaw, Christchurch, NZ.  
So why do we need a Dark-Sky Reserve?

Lunch

## **Session #11**

**1.30-3.00**

**Themes: Astro-tourism, the local scene. Discussion and resolutions, part 1**

**Chair:** Margaret Austin

- |      |           |   |
|------|-----------|---|
| 11.1 | 1.30-1.50 | Alan Gilmore, Lake Tekapo, NZ.<br>A history of Lake Tekapo lighting                             |
| 11.2 | 1.50-2.10 | Freidl Hale, Lake Tekapo, NZ.<br>You Are Here: Promotion of a Cosmic Perspective                |
| 11.3 | 2.10-3.00 | Discussion, resolutions, future plans, part 1.<br>Introduced by Cipriano Marín, Tenerife, Spain |

Afternoon tea/coffee break

## **Session #12**

**3.30-5.00**

**Themes: Discussion and resolutions, part 2. Public forum**

**Chair:** Margaret Austin

- |      |           |  |
|------|-----------|--|
| 12.1 | 3.30-4.00 | Discussion, resolutions, future plans, part 2  |
| 12.2 | 4.00-5.00 | Public forum. Panel discussion for all conference participants with a panel of six international experts. Open to members of the public.<br>The following have agreed to serve on the panel:<br>Steve Owens, Glasgow, UK<br>Bob Parks, Washington, DC, USA<br>Friedel Pas, Hever, Belgium<br>Malcolm Smith, La Serena, Chile<br>David Welch, Ottawa, Canada<br>Reg Wilson, Sydney, Australia |

5.00 Close of the Third International Starlight Conference

## **Post-conference party at Tekapo Springs**

6.30- Try curling, and soaking in a hot spa pool at Tekapo Springs; drinks and nibbles will be served. Register by noon 12 June. Cost \$35.