

# Community Eclipse Planning



Totality in Palm Cove, Far North Queensland  
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## September 2015

*WHITE PAPER*

# Introduction

The purpose of this document is to provide introductory guidance for the planning of a total solar eclipse in your community. It includes an overview of the complexities of planning for this once-in-a-lifetime event in your region.

The three core messages of this White Paper are:

1. Start planning early;
2. Focus on the community in addition to eclipse tourists;
3. Consult with eclipse experts to prepare for the unknowns.

When a total eclipse occurs in your community, residents and visitors alike will remember it for a lifetime. Having been involved in community eclipse planning for several years now, both within my own community in Australia in 2012, and then as the Eclipse Consultant in the Faroe Islands for 2015, I know from personal experience that it is a challenging, exciting and hugely rewarding role. I hope this guidance helps you with your planning.

*Kate*

Dr Kate Russo  
Eclipse Consultant

## A note from a past Eclipse Coordinator

Tórstein Christiansen, Faroe Islands 2015

*This White Paper is an important document to bring to future eclipse organizers. When planning, you have an idea of what a total solar eclipse is like. But it is not until you meet eclipse-chasers who share the actual experience that you really get an idea of what is involved in preparing your region for it.*

*Kate helped us to see things that we didn't see, and we actually couldn't know about. Her involvement made us realize the importance of providing information and interaction with the community through the media when preparing for the eclipse. This was one of the most enjoyable aspects of planning, and the impact on the community has been so positive.*



Kate and Tórstein, Faroe Islands, 2015

# Eclipse Facts



A total solar eclipse occurs somewhere on Earth once in every 18 months on average.

In any one location, a total solar eclipse is very rare, occurring on average once every 375 years.

During a total solar eclipse, the Moon's shadow is cast upon the Earth. There are two parts to this shadow – an outer shadow that covers a wide region creating a partial eclipse, and a much smaller central shadow that creates the total eclipse. As the Earth rotates, the central shadow creates a thin path known as the path of totality.

If you are located within the path of totality, you will experience nature's most amazing spectacle – a total eclipse of the Sun.

Those outside of the path of totality will experience a partial eclipse, an event nowhere near as dramatic as a total eclipse.

Even if only 1% of the Sun is visible, it is still 10,000 times too bright to see the exciting eclipse phenomena. You must be within the path of totality to feel the full experience.

Even those who know what is happening can be caught off guard by a total solar eclipse. It is eerie, awe-inspiring, unsettling, beautiful, and often emotionally overwhelming.

Most people find it hard to describe the totality experience.

It is essential to consider eye safety when planning for the eclipse. People must use solar filters to view the partial phases of the eclipse.

Organizers should ensure that inexpensive solar filters are available across the region.

Totality can be viewed safely with the naked eye, but only if you are in the path of totality.

Few people that you will meet have experienced a total solar eclipse. Most people remain unaware of how incredible this natural event is.

Often the total eclipse is the single largest event to occur within a region, attracting major crowds and media interest on a scale never previously experienced.

# Planning for the Unknown

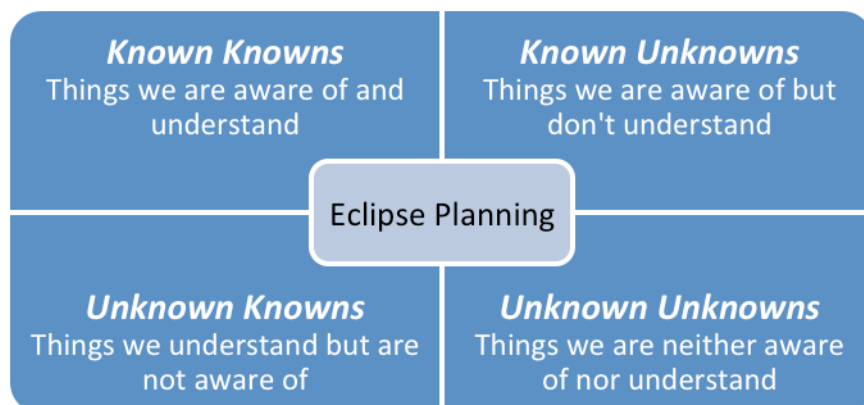
Eclipse planning usually occurs in regions that have no living memory of seeing a total solar eclipse. Even the planners usually have never experienced the phenomenon. The community, therefore, will not know what an eclipse is, what it means for them

and what they should do to prepare. Because of this situation, it is useful to consider a framework of the knowns and unknowns, as Donald Rumsfeld, former U.S. Secretary of Defense, famously referred to in his 2002 press speech in Brussels:

***“There are known knowns.  
These are things we know that we know.  
There are known unknowns.  
That is to say, there are things that we now know we don’t know.  
But there are also unknown unknowns.  
These are things we do not know we don’t know”.***

The table below is a clearer way to frame the process of planning for things that are beyond our own personal experience or awareness. It is common to simply focus planning on what is known, but effective planning is all about reducing and managing the unknowns.

Those who have never experienced totality before cannot know about the eclipse experience or the needs of the community and eclipse tourists. These are the unknown unknowns. For this reason, I recommend all planners consult with eclipse experts to help them prepare for what is to come.





# Key Planning Challenges

## Resourcing

An eclipse occurring in your region is a known event (a known known). If your community is the focal point of eclipse celebrations, planning needs to start years in advance. Smaller celebrations may be planned closer to the time. Six months is too late to take full advantage of the opportunities to promote the region to a wide audience.

*Most past planners have shared that in hindsight, they would have started planning earlier as the eclipse was much larger than expected.*

It can be difficult to secure money for eclipse planning activities because most funding sources are unaware of how significant the eclipse will be. Regions within the path of totality benefit substantially, both in the short and long term, from the sheer scale of visitors and huge media interest. Funding fulfills several needs: it can ensure a dedicated Eclipse Coordinator for the region; it can facilitate the wide promotion of the region; it helps to secure printed materials, signage, venues and other necessities related to eclipse viewing and celebratory events; and it can fund the purchase of eclipse-viewing glasses for the community.

*Local council and government funding are essential to facilitate eclipse planning.*

Eclipse planning requires a dedicated person whose time requirements increase as the eclipse draws near. Additional support staff may also be necessary, especially in the final months. These include people for marketing support, managing and updating websites, media communications, and the development and production of additional materials.

*The Eclipse Coordinator typically works in a tourism capacity but should have strong government links.*

*Early planning*

*Funding*

*Extra resources*

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## Communication

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Few people have experienced a total solar eclipse, so organizers need to educate the public about what to expect. This can involve simple handouts, radio and television announcements, social media participation, and more. Teachers must have access to robust teaching materials. In addition, organizers can schedule lectures, information events, and develop citizen science projects to educate and involve the public about the eclipse.

***The eclipse is an opportunity for people to come together and learn about the workings of the universe.***

We live in an online age. One of the few ‘must-haves’ for the event is an official eclipse website and social media page for your region. This serves as the central source of information for locals and visitors. General information must appear first, then organizers can add additional material, such as advice on how to prepare, safe viewing techniques, list of events, road closures and so on.

***Setting up your official eclipse website and social media page must be among your first key tasks. Be sure to update them daily.***

The general public often does not see how an eclipse is relevant for them. Continual negative media coverage of unrealistic numbers, traffic gridlock, food shortages, outrageous prices, estimated figures for the local economy, and scientists flocking to the region can all be off-putting for locals to constantly hear about, and potentially damaging to the tourism reputation of the region. Also, many people cannot relate if the material is only presented as a scientific event, or communicated by scientists or academics.

***Stories about all facets of the eclipse experience, that feature ordinary eclipse-chasers, are important to bring the experience alive.***

***Education & Outreach***

***Official website***

***Negative media***

*Media  
communications  
plan*

*Media conference*

*Official eye safety  
guidance*

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## Communication (cont.)

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Media coverage in the lead up to and during the eclipse is one of the greatest benefits for regions within the path of totality.

*Having a media communications plan that suggests educational and positive story angles can be helpful.*

Local, national, and international media will be looking for eclipse-related stories, and will want to interview key organizers. Along with factual information about the eclipse, people addressing the media must have details about available events, tourist activities within the region, numbers expected, the status of bookings, available weather information, details about interesting people in the region, and more. The months leading up to the event provide an ideal time to generate additional material to promote your region.

*Prepare eclipse-related media packs, and be ready to distribute them around three months before the eclipse.*

Those playing key roles in planning will find that they will be in demand with the media, especially during the two weeks before the eclipse. Those most in demand will be the Eclipse Coordinators, tourism officials, meteorologists, astronomy experts, and eclipse-chasers with personal experience.

*Plan a structured media conference each day starting at least three days before the eclipse to make this busy time easier for everyone involved.*

One of the biggest challenges for eclipse organizers is managing communication about eye safety. Some individuals or groups will suggest that there is no safe way for viewing the eclipse. Those advising to watch the eclipse on TV, to remain indoors or to turn their backs are uninformed, and may wish to simply avoid possible litigation rather than educate about safe viewing. Inconsistent safe viewing messages can lead to confusion and may have the counter-effect of increased risk of eye damage as a result.

*Official eye safety advice should be used, widely distributed and featured prominently in all communication to ensure consistency and avoid confusion.*

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## Strategy

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Organizers often view the eclipse, at least initially, as a tourist event. However, this rare natural event occurs within a community. It brings people together and leaves the region with a ‘feel-good’ factor. The local population will make up the largest numbers of those viewing an eclipse in all but the smallest communities. Locals and eclipse tourists differ significantly in how they approach the eclipse and both groups must be taken into account.

***Total eclipses are a once-in-a-lifetime event for any community, so plans must involve the local community.***

The local population most likely will want to view this special event in places that are meaningful. Some choose to do this in a large public gathering. Others may choose to view from home with their family and friends. Eclipse-chasers, on the other hand, are not committed to view from any one location and will favor mobility, confirming their viewing plans the day before – or even the day of the eclipse - based on the weather forecast.

***Planners should consider viewing locations that can cater for large crowds.***

The largest group of visitors may well be those living within a half days’ drive of the path of totality, who may travel in just for the eclipse. These people will be looking for public viewing locations, or other quieter places to view. Visitors from afar usually stay in the region for about three to five days, and will want to view the eclipse and also participate in a range of celebratory and usual tourist activities. If merchants in your community artificially raise prices too high, people will simply choose to stay elsewhere, and drive in on the day. Information about any planned road closures or parking restrictions should be communicated well in advance.

***It is essential to make plans for traffic management and parking to facilitate the movement of large numbers on eclipse day.***

***Community involvement***

***Viewing preferences***

***Appealing to visitors***



## Weather forecasts

## Strategy (cont.)

The path of totality covers a very narrow but long path, giving people a choice of locations for viewing. The best places for viewing are anywhere along the centerline and in locations that have the best chance of clear skies at eclipse time. All eclipse-chasers will gladly sacrifice seconds of totality for a better chance of clearer skies.

***Regions with superior climate at eclipse time will have a distinct advantage and should make major plans to appeal to and manage large numbers of eclipse tourists.***

The weather on eclipse day is of utmost importance. The eclipse will happen regardless, but if it is cloudy then nobody will see it. A cloudy eclipse does not provide any of the awe and wonder that seeing totality can, although it will still provide a memorable moment. Organizers should be aware that changes in weather will mean people will uproot themselves to travel to – or from – your location.

***Eclipse-related weather information should be made available in a timely manner so people can make informed choices regarding their viewing location.***



Kate addressing locals and tourists together in Eidi, Faroe Islands

© 2015, The Independent Traveller

eclipse  
travel deal list

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## Leadership

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Ideally, a community will appoint an Eclipse Coordinator as the go-to person for everything related to the eclipse. This person needs to have project management experience, and ideally will have existing relationships with a wide variety of tourism and government stakeholders, who they will lead throughout the process. They need to be able to learn the facts about the up-coming eclipse and be confident at communicating them effectively at meetings, events and in the media.

***Eclipse Coordinators need to view the eclipse as significant for the community and to convey this belief to others.***

The Eclipse Coordinator must be proactive and strategic regarding the many decisions and actions that need to be taken. Often, they must suggest actions on things that are outside of their usual control. Examples are prompting consideration for eclipse day being a public holiday; whether schools should close to facilitate families wanting to share the event; arranging for automatic outdoor lights to be turned off during the eclipse; and encouraging agreement across the region regarding capping prices to avoid a negative reputation and visitors choosing to view elsewhere. They may have to encourage others, such as local businesses and artists, to create local eclipse-related merchandise.

***It is common for Eclipse Coordinators to feel that there should be others 'in charge' of the eclipse. But an eclipse just happens, and leadership is required to prompt others into action.***

***Eclipse Coordinator***

***Directing other stakeholders***

# Eclipse Task Force



Key organizers communicating to the international media the day before the eclipse, Faroe Islands  
© 2015 Associated Press

Your community should develop an Eclipse Task Force, which should consist of a range of stakeholders from across the region. These should include, but are not limited to, representatives from tourism, council and government, policing, event co-ordination, creative industries, education, health, business, and local media.

It is strongly recommended that your Eclipse Task Force is supplemented with expert advisors in order to reduce the unknowns. The following are key advisors to consider, and their potential roles. If you are lucky, you may be able to find credible individuals within your community who can fulfill several of these roles.

## ***Astronomy Expert***

An astronomy expert will ensure that all astronomical information about the eclipse is correct. They will most likely lead the community viewing event. They can advise on viewing locations, equipment, eye safety, and a variety of other concerns.

## ***Science Educator***

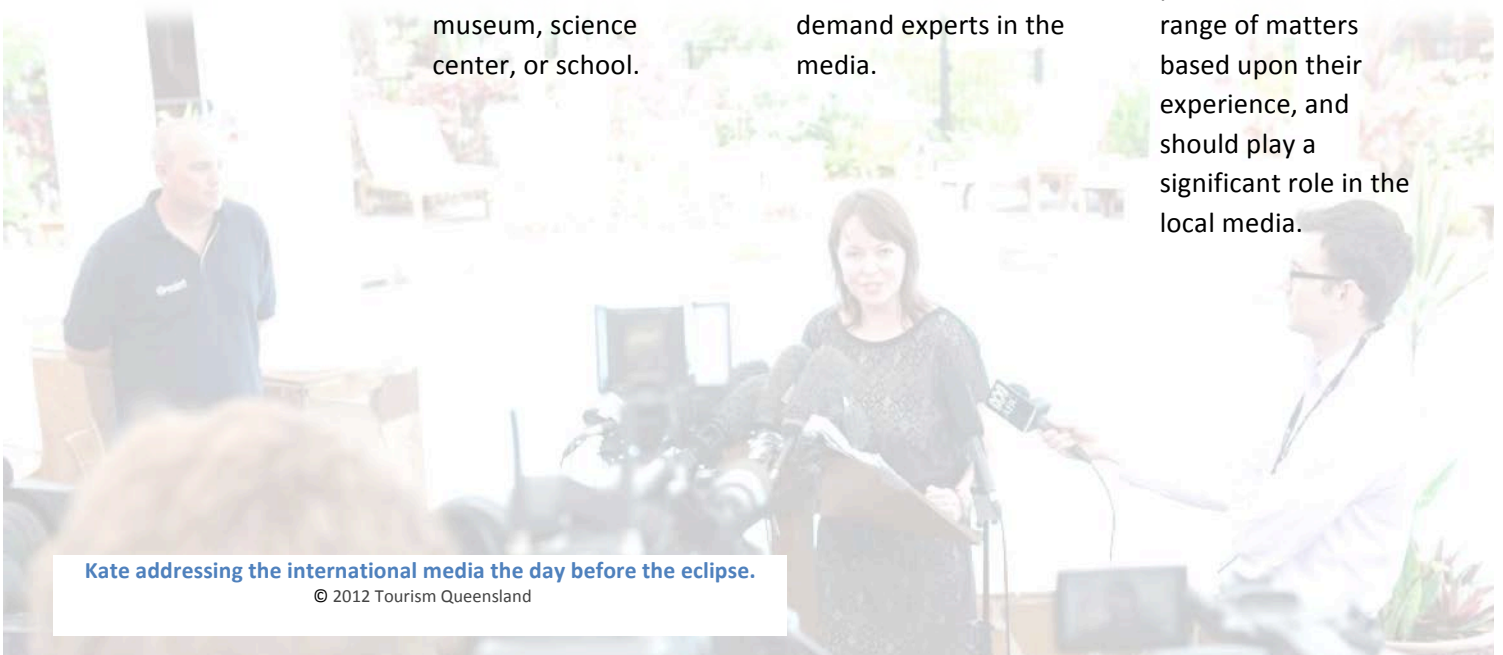
A science educator can help develop the program of events, exhibitions, workshops, and lectures for schools and for the public. They may also develop viewing activities or citizen science projects. Usually, this person works at a local museum, science center, or school.

## ***Meteorologist***

A local meteorologist can provide information on past weather patterns, areas to avoid due to microclimates, and specific eclipse weather changes. In the final days before the eclipse the meteorologist plays a crucial role and will be one of the most in-demand experts in the media.

## ***Eclipse-Chaser***

An eclipse-chaser is ideally placed to help address the unknown unknowns. They have experienced totality before, perhaps many times, and have first-hand experience with how other regions have prepared for a total solar eclipse. They will contribute practical advice on a range of matters based upon their experience, and should play a significant role in the local media.



Kate addressing the international media the day before the eclipse.

© 2012 Tourism Queensland

# Conclusion

A total solar eclipse often imparts a long-term legacy to a region, including a significant economic benefit, new strategic partnerships, international exposure, new tourism connections, and a feel-good factor that lasts a lifetime.

The event often inspires children and adults alike to develop an interest in nature and astronomy.

Planning for a total solar eclipse in your region is challenging, but also exciting and rewarding. Indeed, the awe-inspiring phenomenon that is a

total solar eclipse provides a unique opportunity to promote your region to the whole world.

It is hoped that this White Paper has highlighted both the challenges and opportunities in community eclipse planning, and has given some guidance on how to address these issues. Hopefully your community planners will embrace this challenge and help to create an unforgettable experience for your whole community.

***If you are in a government or tourism role and are responsible for eclipse planning in your region, Kate is happy to provide a free one-off consultation about your eclipse planning activities. Please see contact details on last page.***





# Useful Websites

## *Eclipse Information*

Fred Espenak, known as Mr Eclipse, is a retired NASA astrophysicist and renowned eclipse-chaser. For every eclipse, he publishes detailed eclipse circumstances, statistics, maps and other useful information that can be found on his website and also purchased in book format.

[EclipseWise.com](http://EclipseWise.com) and [mreclipse.com](http://mreclipse.com)

## *Eye Safety*

Jay Pasachoff is the Chair of the International Astronomy Union Working Group on Solar Eclipses and Field Memorial Professor of Astronomy at Williams College, Massachusetts. His website has links to a variety of eclipse-related resources.

[eclipses.info](http://eclipses.info)

## *Interactive eclipse maps*

Ralph Chou is an eclipse-chasing Professor Emeritus of Optometry, considered to be the leading authority on eclipse eye safety.

[eclipse.gsfc.nasa.gov/SEhelp/safety2.html](http://eclipse.gsfc.nasa.gov/SEhelp/safety2.html)

## *Detailed eclipse maps*

Xavier Jubier is an eclipse-chasing engineer and IT manager based in France. He is the Inventor of solar/lunar eclipse interactive Google Maps & Google Earth files and the author of several eclipse and astronomy apps. The Google Earth files are an especially useful tool that allows users to see detailed eclipse circumstances for any location.

[xjubier.free.fr/en/site\\_pages/SolarEclipsesGoogleMaps.html](http://xjubier.free.fr/en/site_pages/SolarEclipsesGoogleMaps.html)

## *Eclipse weather predictions*

Michael Zeiler is an eclipse-chasing cartographer based in New Mexico. He produces detailed eclipse maps for every eclipse.

[eclipse-maps.com](http://eclipse-maps.com) and [greatamericaneclipse.com](http://greatamericaneclipse.com)

## *The experience of totality*

Jay Anderson is an eclipse-chasing meteorologist based in Canada, and provides detailed information of weather prospects along the path of totality for each eclipse.

[eclipser.ca](http://eclipser.ca)

Dr Kate Russo is an eclipse-chasing psychologist and is the leading authority on the eclipse experience. Her website provides an overview of the experience and has links to her published work.

[beingintheshadow.com](http://beingintheshadow.com)



# About the Author

Dr Kate Russo, Eclipse Consultant

I am an Author, Psychologist and Eclipse-chaser, and have served as an Eclipse Consultant for a variety of agencies. I saw my first total solar eclipse in 1999 and have since traveled the world to see nine total eclipses. As a psychologist, I am fascinated by the experience of totality, and have been researching this for several years.

I became interested in how communities plan for eclipses in 2012, when the path of totality occurred in my home region of North Queensland, Australia. For the first time, I was a local within the community in the lead up to the eclipse. This gave me unique insights into the local perspective – and highlighted that key eclipse messages were not getting through. I spoke to many people who did not see that the eclipse was relevant to them, with some stating they were planning to leave the region to ‘avoid the chaos’.

I then went to work doing as much outreach as I could to ensure that my fellow locals knew the eclipse wasn’t just for tourists or scientists - but rather a special event for the whole community.

I was already interviewing locals before and after the eclipse, and I included eclipse planners in these interviews to capture the planning process and lessons from hindsight.

I then went on to be the Eclipse Consultant for the total solar eclipse of March 2015 in the Faroe Islands, ensuring that both the local community as well as tourists were prepared

for the eclipse. After the eclipse, I again interviewed those involved in planning to gain further insights into the planning process.

This White Paper is the result of what I have learned through all of these activities over the years. I am keen to share these experiences with others who are lucky enough to be living within a future path of totality and to help them prepare their communities for this wonderful event.



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