



The Eclipse “Megamovie” Project

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Paglierani, Randy Russell, Jon Sattleberger, Larisza
Krista, and many others.....you?



August 21 2017

Michael Zeiler

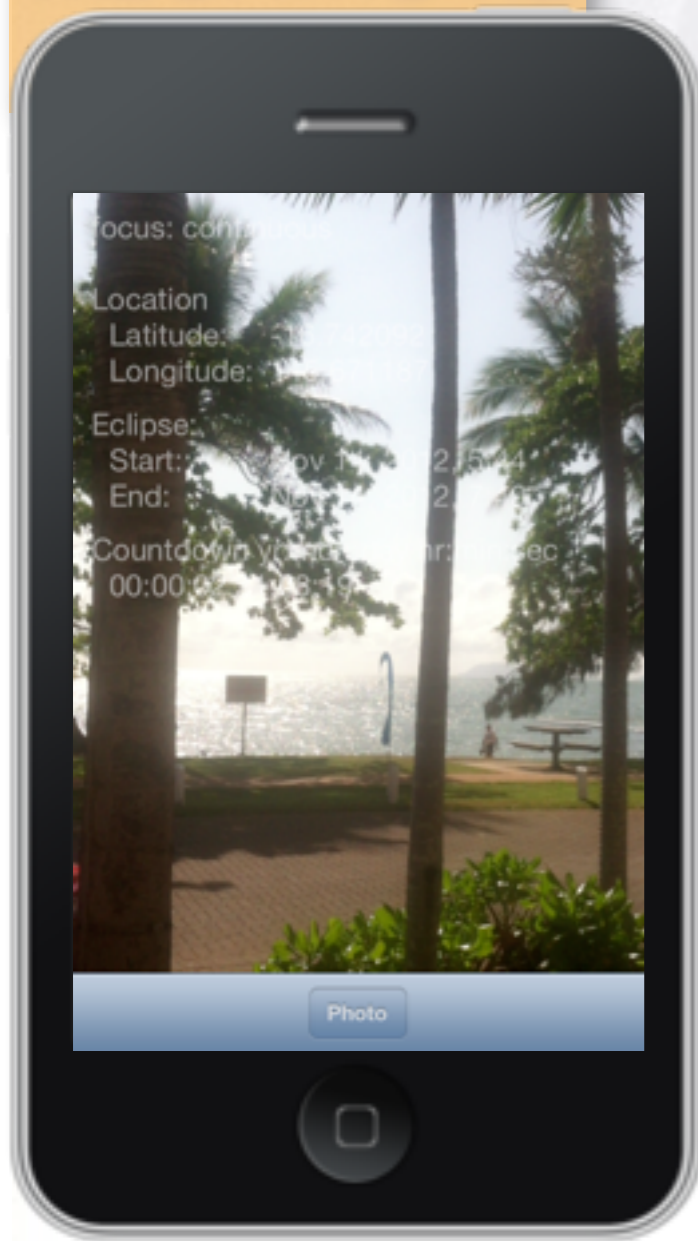
While we're at it we want to capture the 95 minute coast-to-coast transition of the total solar eclipse using citizen and professional observers dotted across the path of totality to make a million frame (MEGA) movie!

100,000,000+ will witness "The Great American Eclipse"



The EMP “Vision” Crowd-Sourcing Citizen Science

THE
ECLIPSE
MEGAMOVIE



- ★“Observers” collect images of the eclipse.
- ★“Observers” submit their images to the EMP portal (directly or indirectly).
- ★Images are co-aligned, co-registered, and sequenced on the EMP portal.
- ★Feedback is given “immediately” to scientist - their “megamovie” - on the Portal.
- ★Images are segmented into “Pro” and “Am” categories for final movie production.
- ★EMP Portal sequences uploaded “Pro” images and builds movie-updates served on the EMP webpage and distributed to media with running credit roll of users.

ECL
MEGAMO
PROJ



“Oz 2012”: A Limited Control Test

http://www.ustream.tv/CairnsEclipse2012



USTREAM

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Cairns Eclipse 2012

Follow

2,310 followers



16:40 / 19:37

OFF AIR

Like 5.9k Tweet 2,321 +1 175

Enable Ustream Social to add this to your Facebook Timeline



Cairns Eclipse 2012

News - Other News

2,310 FOLLOWERS

710,854 VIEWS

Follow

The official [Live Stream](#) of the Solar Eclipse over Cairns and Great Barrier Reef, Australia. This channel will be live from 5am November 14th 2012 (AEST)



VIDEOS

SOCIAL STREAM

Cairns Eclipse 2012 (02:49)
Recorded 3 months ago
10k views

Cairns Eclipse 2012 (04:48)
Recorded 3 months ago
3.5k views

Cairns Eclipse 2012 (04:42)
Recorded 3 months ago
1.6k views

Cairns Eclipse 2012 (17:05)
Recorded 3 months ago
1.1k views

Cairns Eclipse 2012





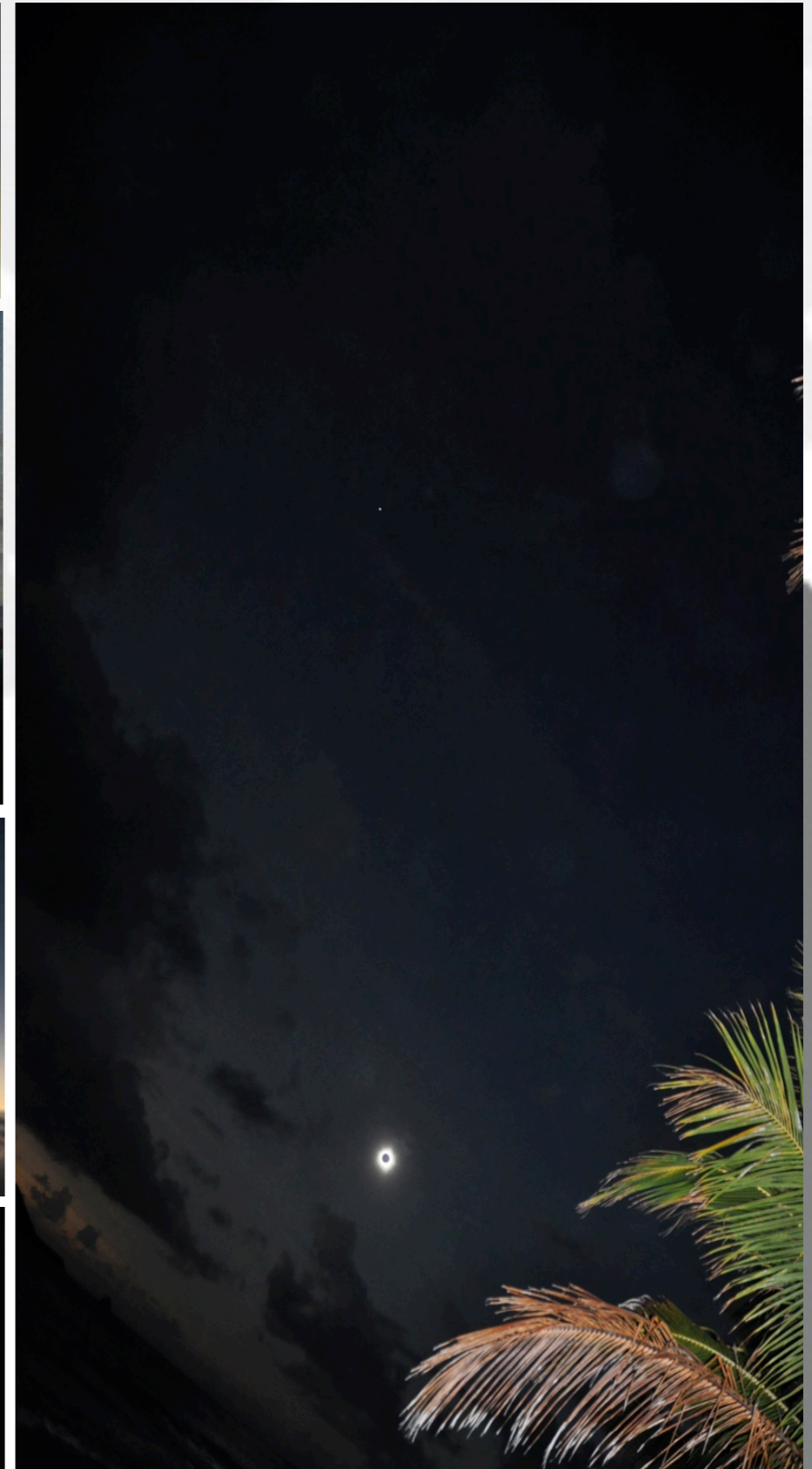
The Corona is visible in initial iPhone App tests!



This sequence was recorded by 7 year old Grant Tierney at Palm Cove, QLD.



Collecting Images



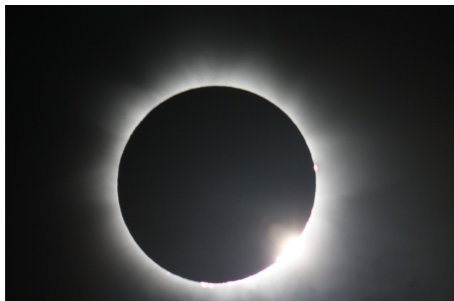
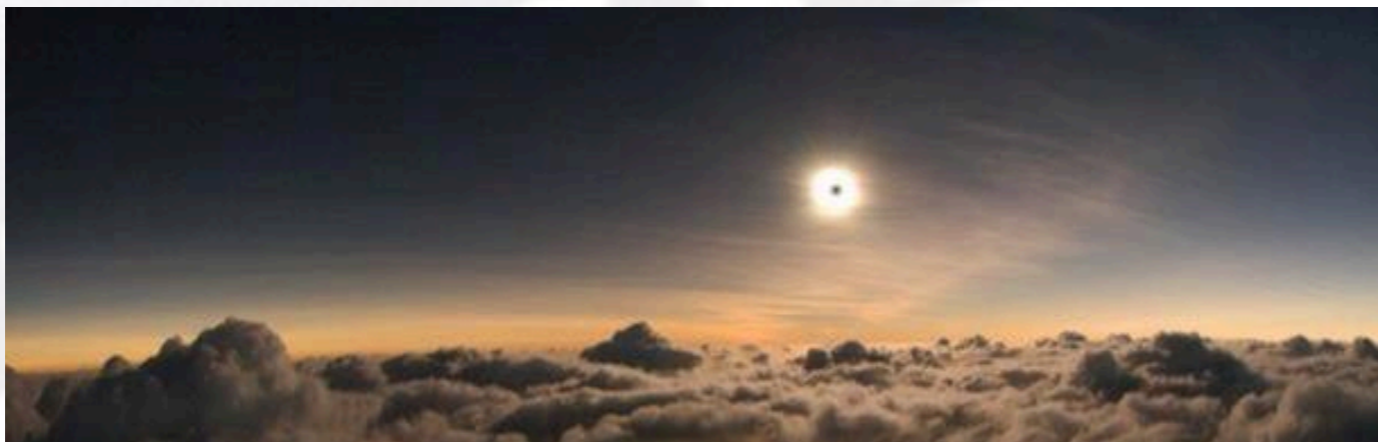
focus: continuous

Location
Latitude: -16.740610
Longitude: 145.671100

Eclipse:
Start: Nov 14, 2012 15:44
End: Nov 14, 2012 16:44

Countdown yr:month:day:hour:minute:second
Prepared for Eclipse

Photo



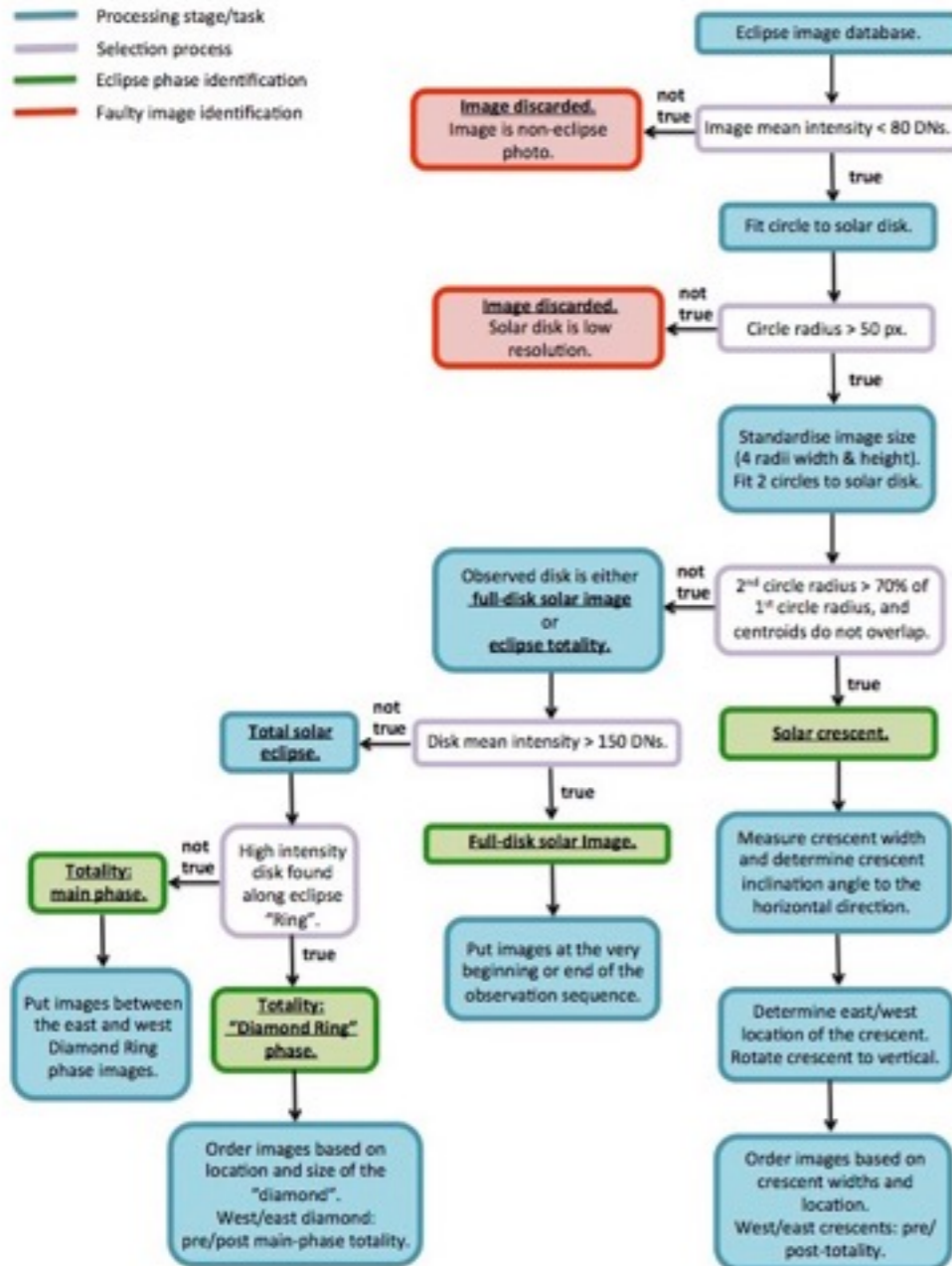
Collecting Images



Building A "Proto-Movie"

"eminent" members of community - "this cannot be done!"

SEISS image processing steps



In order to co-align, co-register, and sequence the eclipse images we have built "SEISS" - the Solar Eclipse Image Standardization and Sequencing - algorithm.

SEISS:

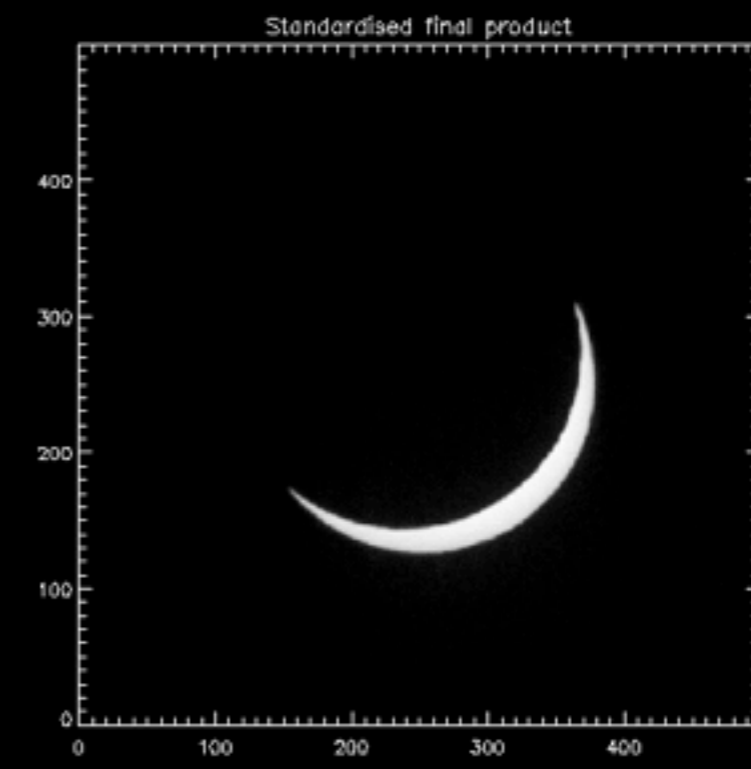
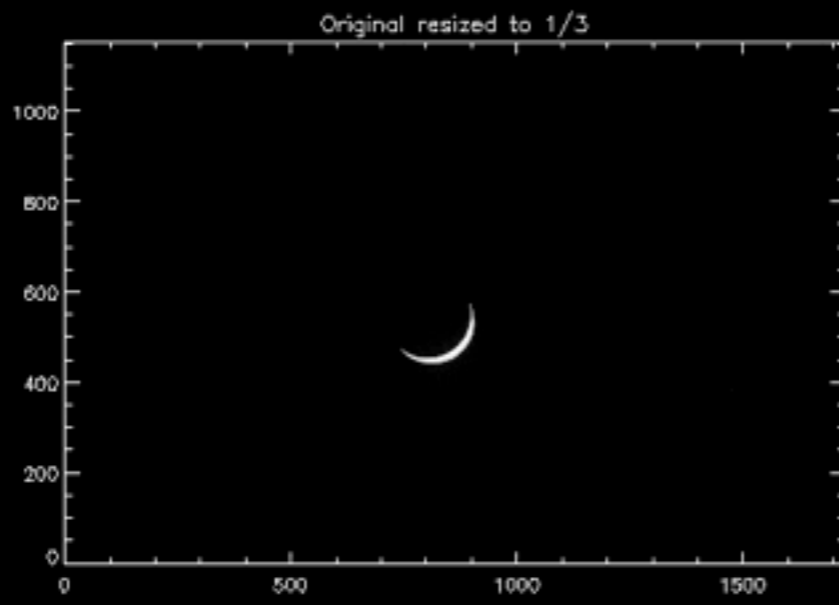
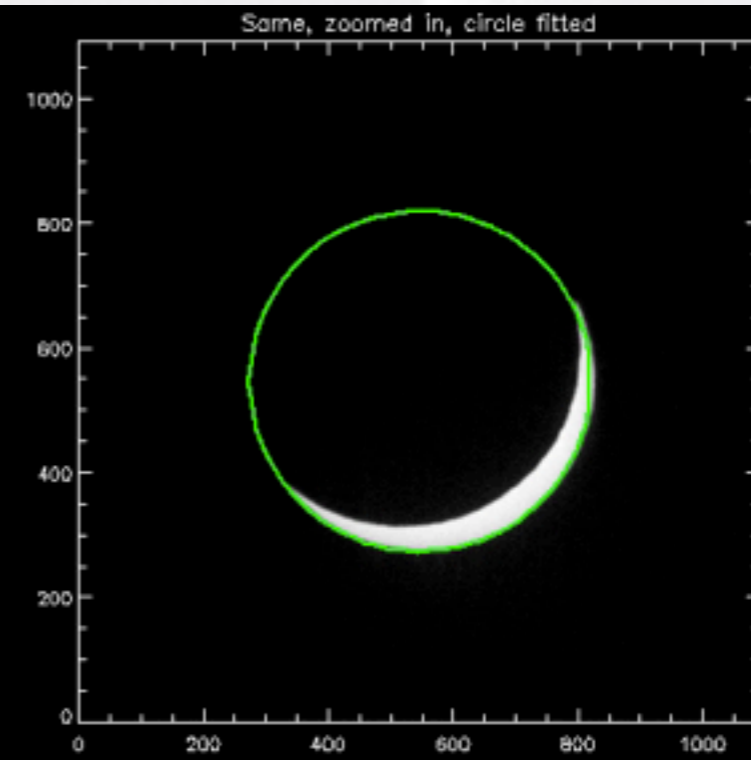
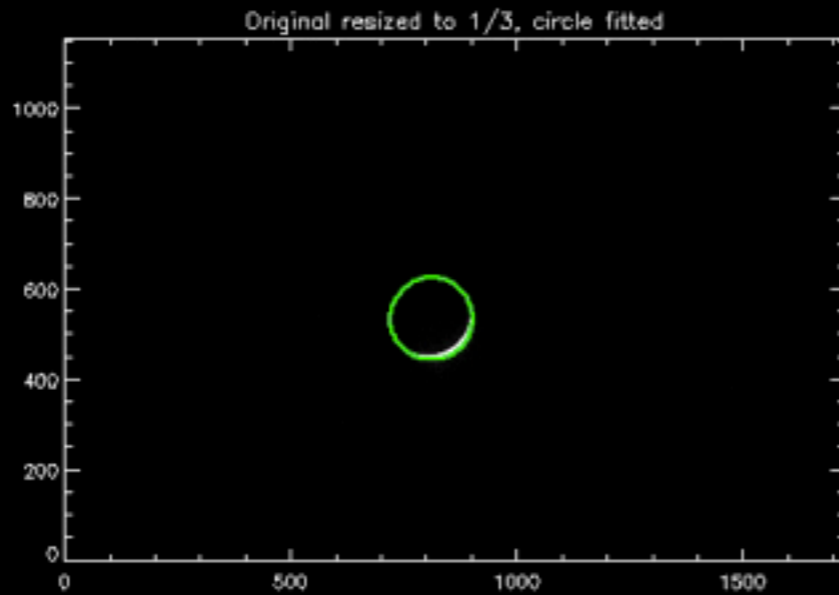
- ★Filters the images - no cats :-)
- ★Identifies the Sun in the images
 - ★Co-aligns the images
 - ★Standardizes the image resolution
- ★Uses disk identification to decide on phase of the eclipse.
- ★Sequences eclipse images using characteristics of the limb/disk/crescent evolution.



Building A "Proto-Movie"

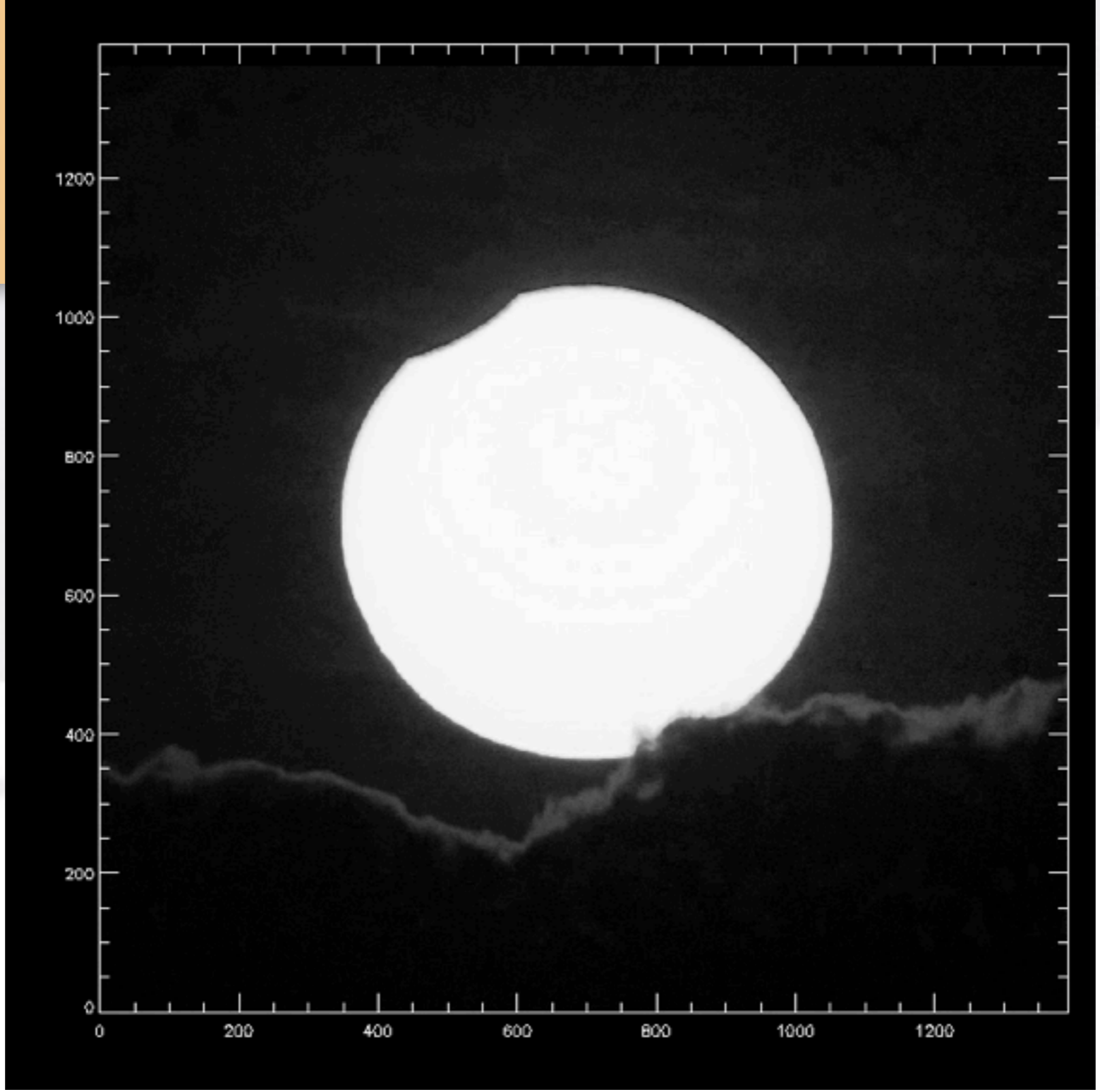
SEISS in action.....

THE
ECLIPS
MEGAMOVI
PROJEC



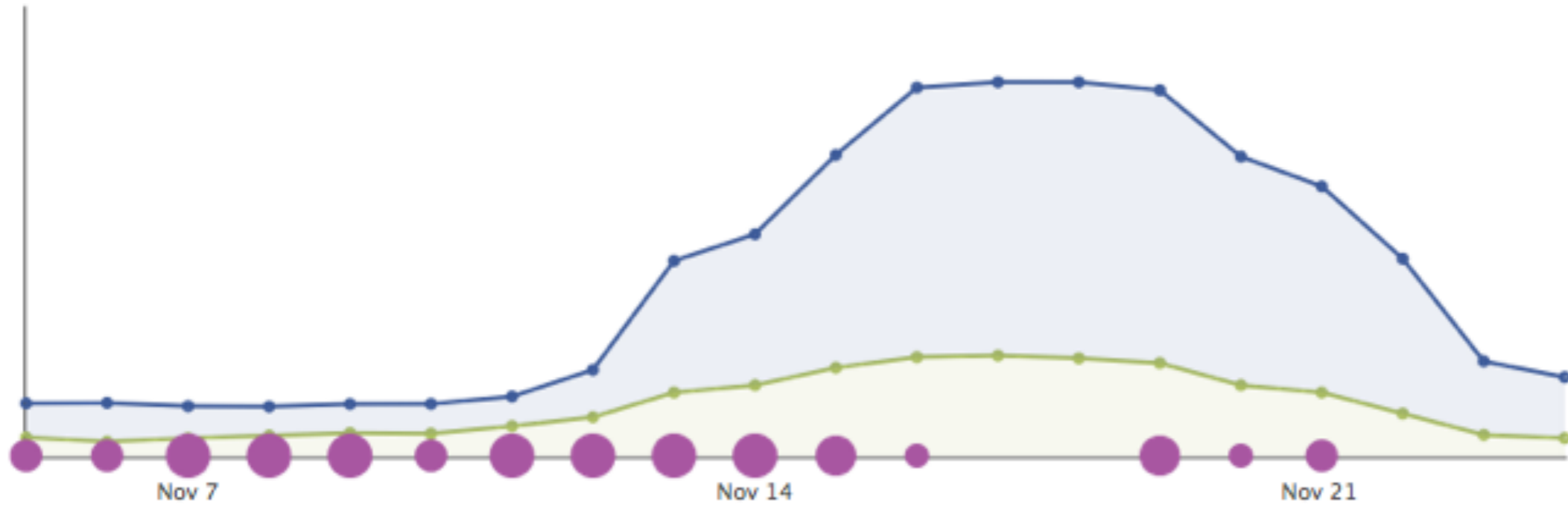
Building A "Proto-Movie"

THE
ECLIPSE
MEGAMOVIE
PROJECT

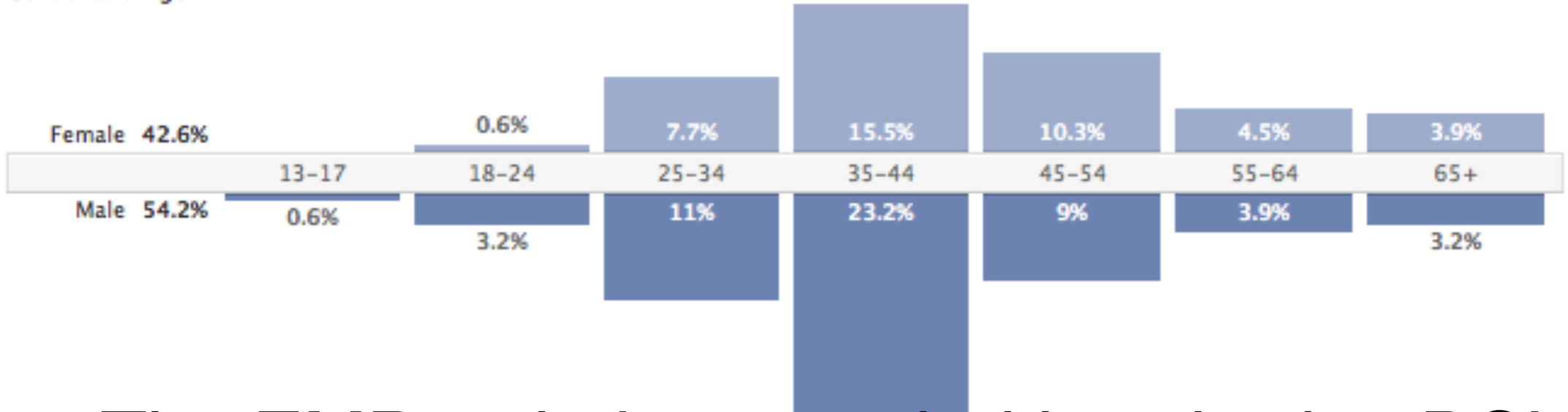


Total Likes? **229** ↑47.74% Friends of Fans? **52,942** ↑4.84% People Talking About This? **1,109** ↑908.18% Weekly Total Reach? **487** ↓-87.5% Total Subscribers **--**

Posts? People Talking About This? Weekly Total Reach?



Gender and Age?



The EMP website recorded hundreds+ DSLR images and app uploads. **ALL** local to Palm Cove.

Lessons Learned

The public are phenomenally interested in the Sun, and it's impact on our society.

Getting people to part with their eclipse images is tough! **

The EMP App was difficult, time-consuming, and (ultimately) technically/hardware limited, although not a complete waste of time!

(subsequent efforts will be better)

Where 2 Next?

There is an incredible amount of interest in what we are trying to do with EMP. Especially for 2017, the “Great American Eclipse”. The project resonates with funding agencies and “joe on the street”

Form Observing Partnerships

(Amateur, Pro, College, School, You?)

Lock-down Sources of Funding - Private & Public

(NSF, Google, GoPro)

Document The Project

(Discovery/NatGeo Documenting Progress)

K-12 Engagement

(Neil deGrasse Tyson & Elmo)

Gulfstream “GV” Flight

(NSF/NCAR Community Experiments)





2017

2024

Carbondale, IL

“The Great American Eclipse II”: EMP’s Revenge



Want to be involved?

eclipsemegamovie@gmail.com

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