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GLObal Robotic telescopes Intelligent Array for e-Science

Multimedia broadcasting and storage

Periodic report with statistical results

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R.1	Broadcasting Astronomical events report (2012 Total Solar Eclipse)	DEL-028	1

Index

Figures Index

1. Overview

The following document covers the statistics made during the first two astronomical events broadcasted by the GLORIA project. Each section contains figures regarding the visits to the main website as well as the number of viewers watching the phenomena online. This document represents a summary of other documents submitted in the GLORIA project.

The website section includes also collected information from the web visitors in real-time such as their geographical location, operating system and web browser. The live broadcast section shows the results of concurrent and unique viewers filtered by their IP addresses. The recorded broadcast section analyses the information of viewers after each astronomical event, when they were published in the GLORIA website.

All the content have been elaborated by the partners of the GLORIA project, which means “GLObal Robotic-telescopes Intelligent Array for e-Science”. This project is funded by the European Union 7th Framework Programme FP7/2007-2013) under grant agreement no. 283783.

2. Transit of Venus June 2012

2.1. Website

The Figure [1] describes the number of visitors to the main website during the astronomical event in UT time. The left Y-axis corresponds to the amount of unique visitors, whereas the right Y-axis refers to the total number of visits to the website.

According to the data collected in real-time, the maximum peak of 11.245 web visitors happened when Venus became fully visible in front of the Sun (June 5, 22:27:26 UT). During the live broadcast, 52.674 visitor navigated through the main website to get information regarding the Transit of Venus. The total number of page views reached 86.581 in different sections of the website, where 23.172 page views correspond to the maximum peak.

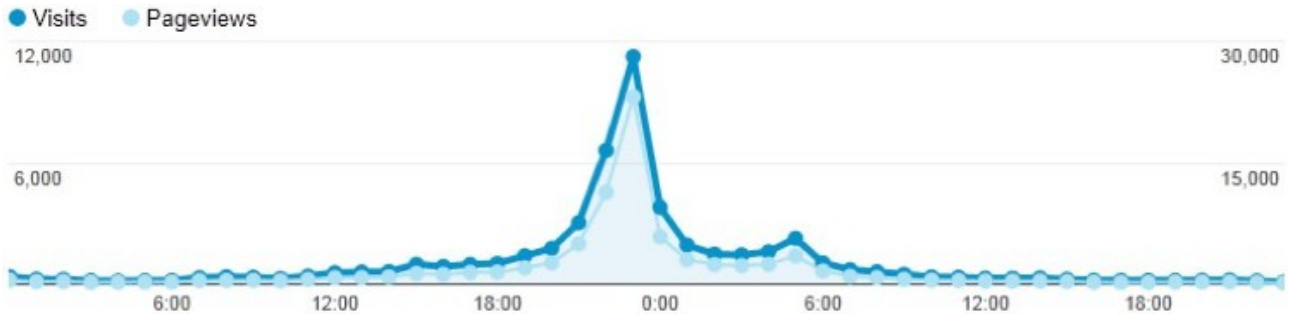

Figure 1: Website statistics for the Transit of Venus 2012

On the other hand, the Figure [2] shows the geographical location by country of the web visitors, where Spain, Poland and Mexico cover more than half of all the viewers to the main website. Figure [3] and [4] contain information about the web browser and operating system used by the visitors, where Google Chrome and Firefox were the most popular web browsers and Windows the dominant operating system.

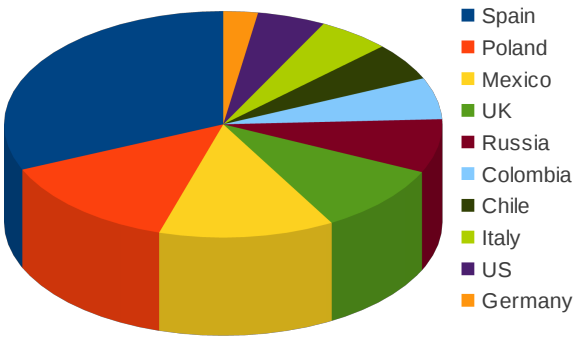

Figure 2: Transit of Venus 2012: user location

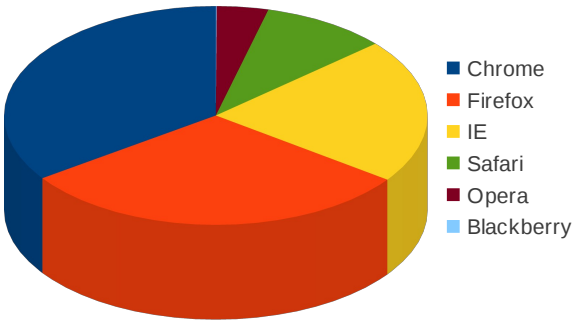

Figure 3: Transit of Venus 2012: web browser

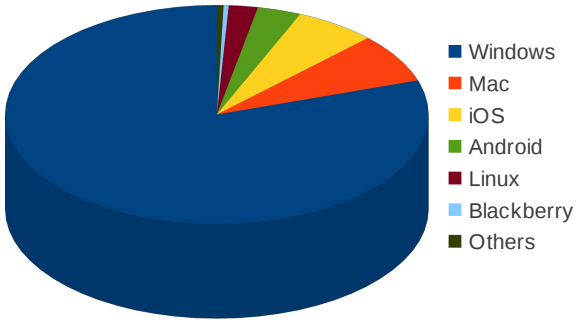

Figure 4: Transit of Venus 2012: operating system

2.2. Live broadcast

During the three live broadcasts of the Transit of Venus 2012, the maximum peak for the first streaming was 5.863 viewers, where 1.361 and 1242 viewers correspond to the second and third live broadcast respectively as shown in Figure [5]. In addition, Figure [6] represents a cumulative graph of the total viewers during the astronomical event, where 92.939 live streams were dispatched from the content delivery network.

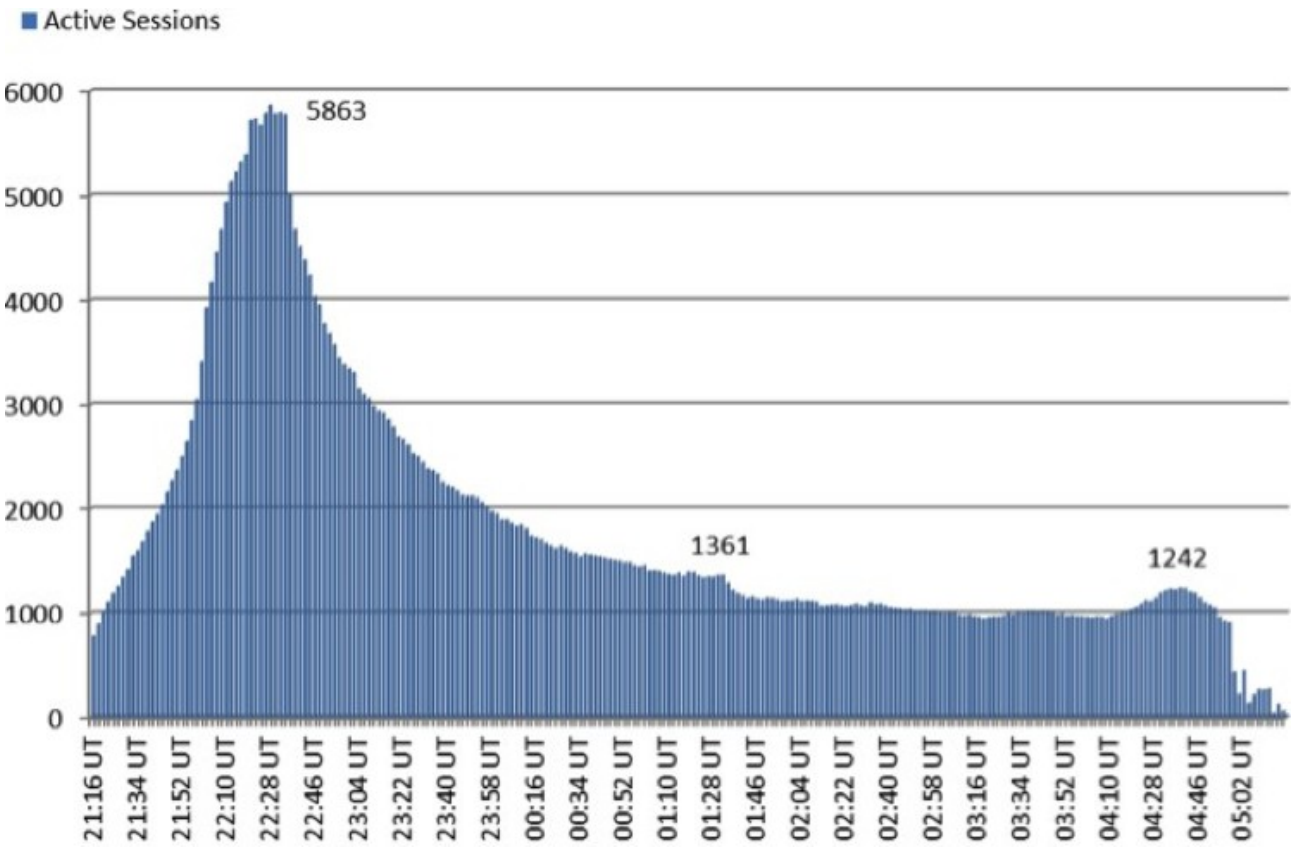

Figure 5: Transit of Venus 2012: live viewers

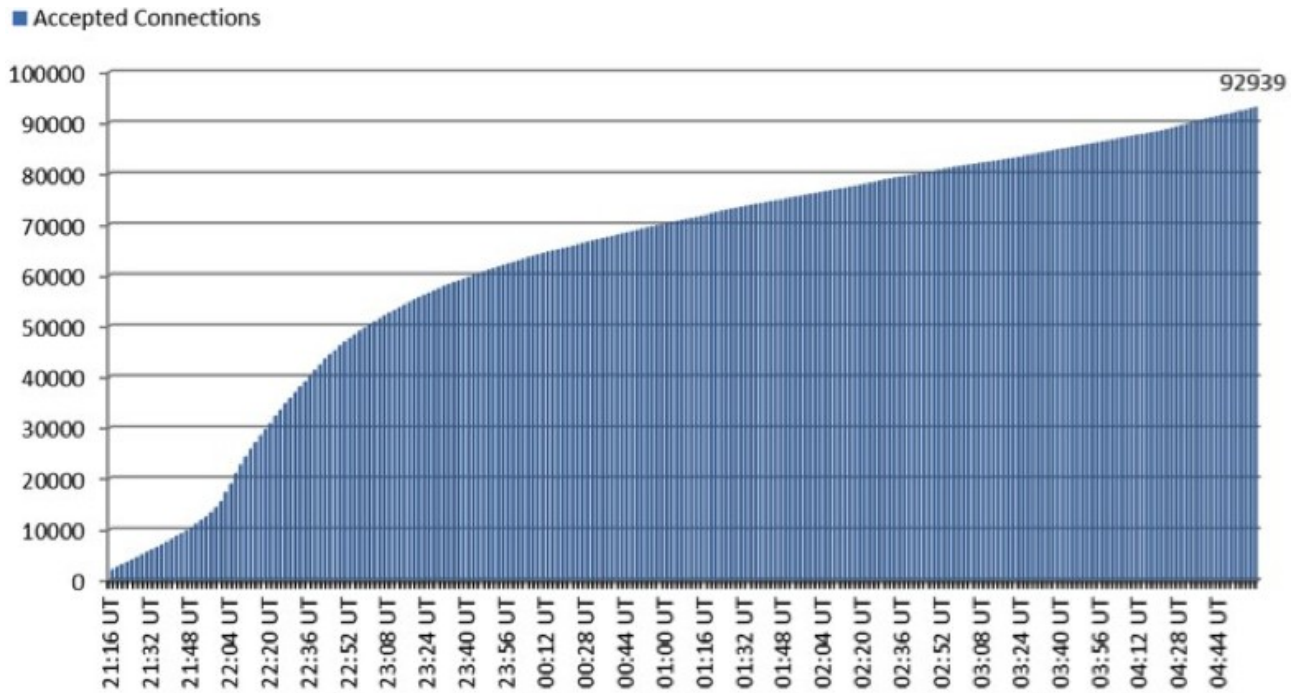

Figure 6: Transit of Venus 2012: cumulative live viewers

2.3. Recorded broadcast

After the live broadcast, the recorded streams were published in the GLORIA website. Figure [7] and Table [1] show the number of views few days after the astronomical event. In total, 5.040 viewers watched the three recorded streams, where 4.009 views were received on the 6th of June.

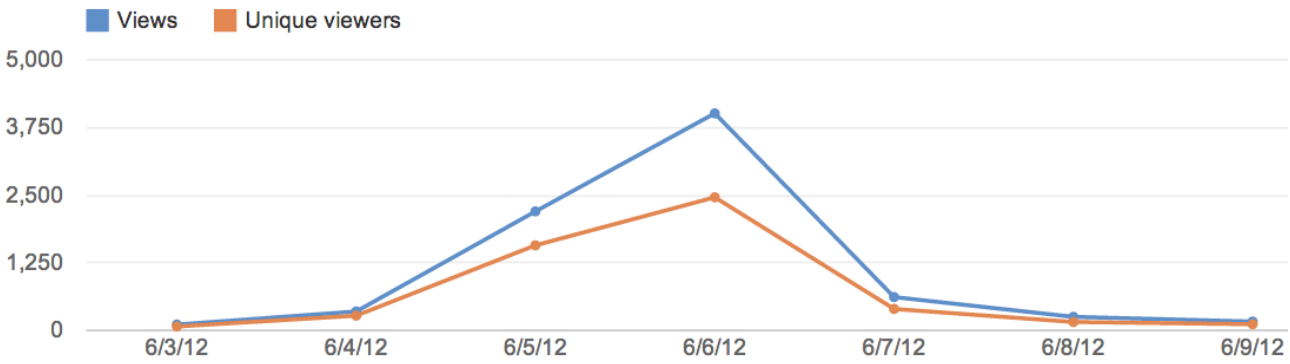

Figure 7: Transit of Venus 2012: recorded broadcast views

	Views	Unique views
Maximum	4009	2459
Total	5040	3127

Table 1: Transit of Venus 2012: recorded broadcast views

3. Northern lights August 2012

3.1. Website

The Figures [8][9][10][11][12] contain the number of viewers who accessed the main website on each day in UT time during the five live broadcasts of the northern lights in southern Greenland. The left Y-axis corresponds to the amount of unique visitors, whereas the right Y-axis refers to the total number of visits to the website.

According to the data collected, the main website reached 32.769 page views and 21.163 visits in total. During the live broadcasts, the website reached 4.588 page views and 1.969 visits. The references from other websites are not covered by these results.

The most popular day was the live broadcast of August 28th when the main website reached 1.481 page views and 605 visits. The maximum amount of viewers every day matches with the time of each live broadcast (00:00 – 01:00 UT) except for the broadcast on August 27th when most of the viewers were originally from Poland thanks to the media impact.

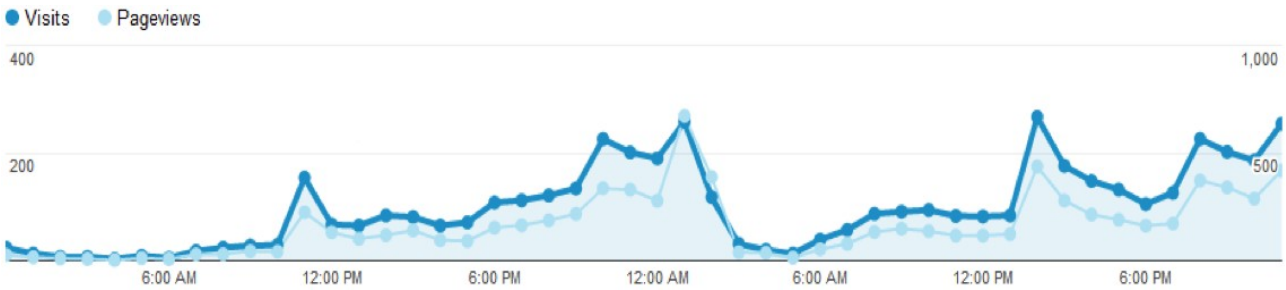

Figure 8: Website statistics for the northern lights 2012 on August 24th

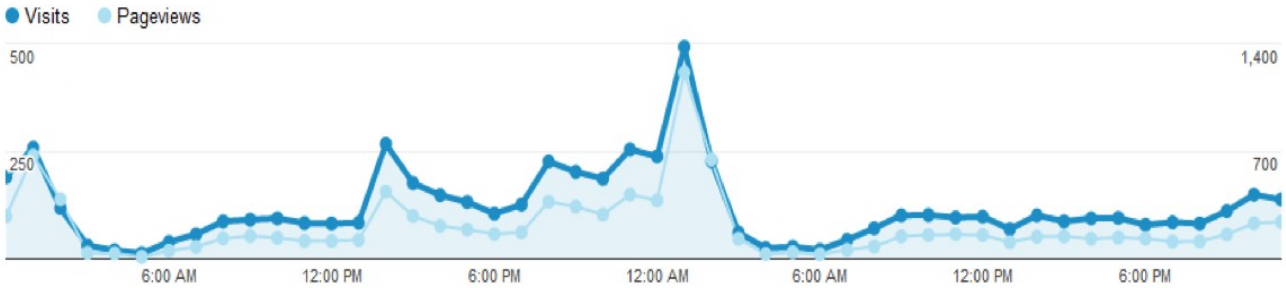

Figure 9: Website statistics for the northern lights 2012 on August 25th

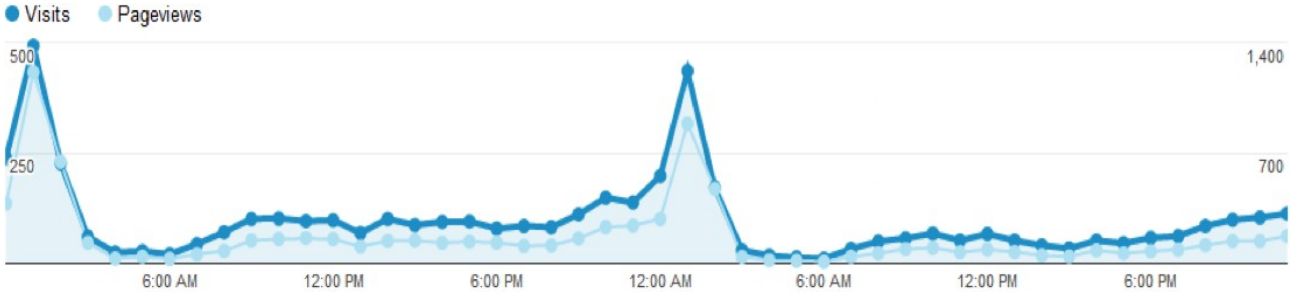

Figure 10: Website statistics for the northern lights 2012 on August 26th

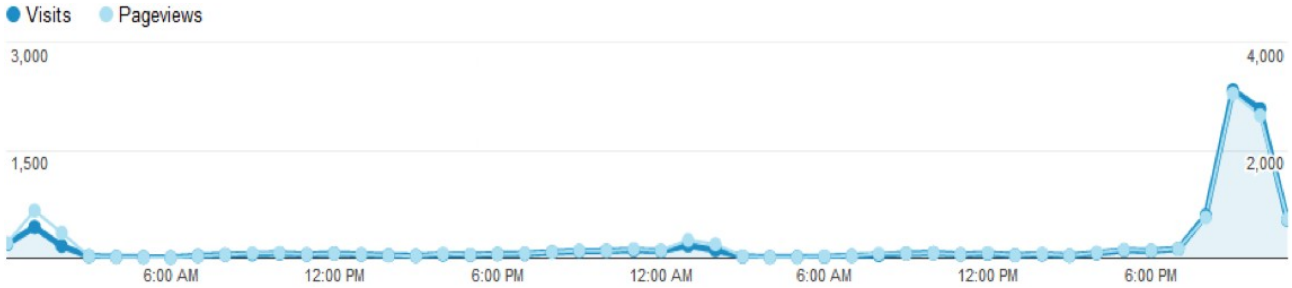

Figure 11: Website statistics for the northern lights 2012 on August 27th

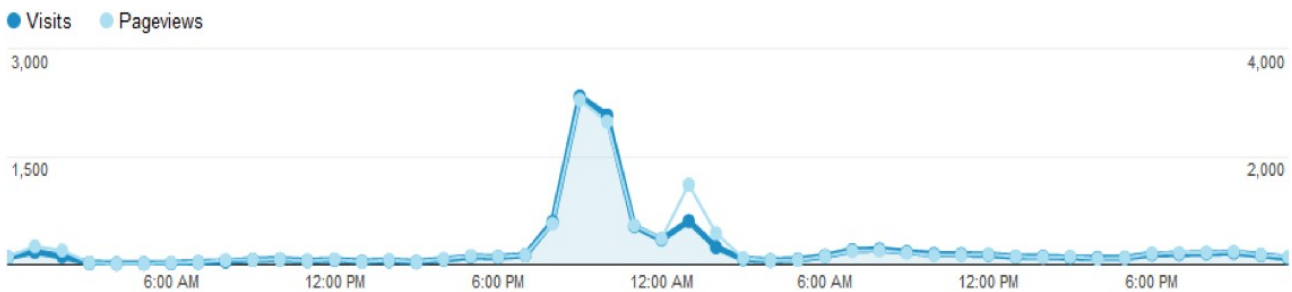

Figure 12: Website statistics for the northern lights 2012 on August 28th

As in the previous astronomical event, Figure [13] shows the geographical location of the web visitor by country, where Spain and Poland cover more than 82% of all the viewers to the main website. Figure [14] and [15] contain information about the web browser and operating system used by the visitors, where Google Chrome, Firefox and Internet Explorer were the most popular web browsers. Windows is also the dominant operating system.

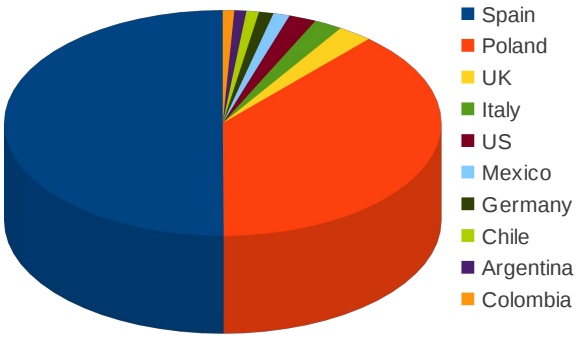

Figure 13: Northern lights Aug 2012: user location

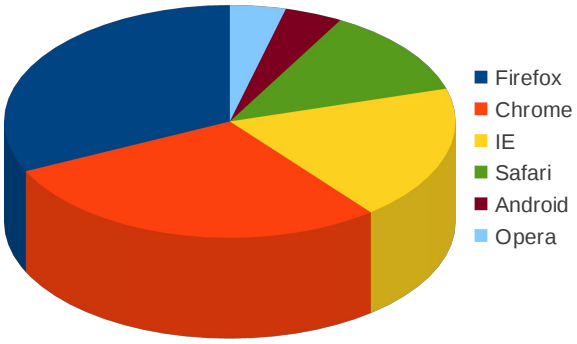

Figure 14: Northern lights Aug 2012: web browser

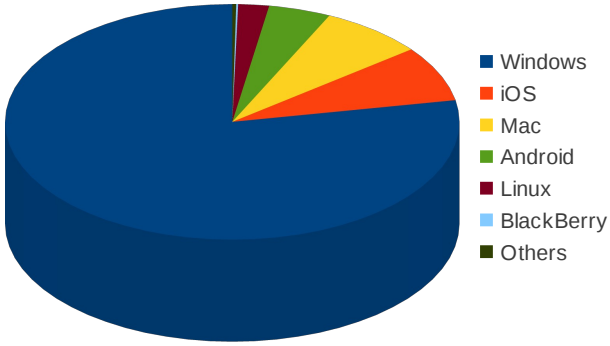

Figure 15: Northern lights Aug 2012: operating system

3.2. Live broadcast

During the five broadcasts of the Northern Lights 2012, a total number of 39.881 viewers could fetch the live stream (See Figure [16]), whereas 1.665 active users were watching the astronomical event simultaneously through different websites (See Figure [17]).

Most of the viewers got access to the live streaming through external websites such as public TV channels, except for the last broadcast of August 28th when the live broadcast reached its maximum number of viewers with 12.492 connections coming mainly from the main website. On the other hand, a maximum peak of 442 active viewers was reached on August 26th.

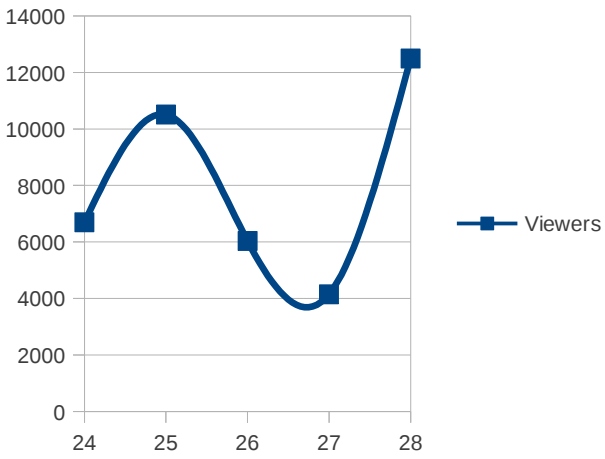

Figure 16: Northern lights 2012: live viewers

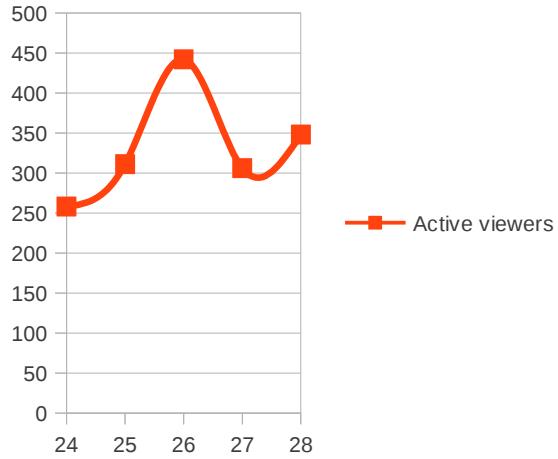

Figure 17: Northern lights 2012: live active viewers

3.3. Recorded broadcast

After the live broadcast each day, the recorded streams were published in the GLORIA website. Figure [18] and Table [2] show the number of views accessing the media content. In total, 1.315 viewers could watch the five recorded streams and the most popular day was August 24th.

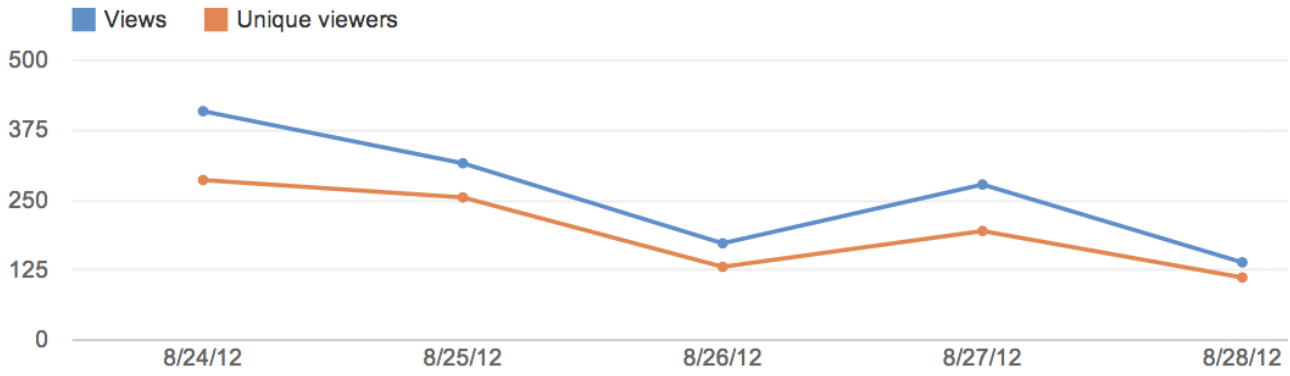

Figure 18: Northern lights 2012: recorded broadcast views

	Views	Unique views
Maximum	409	286
Total	1315	979

Table 2: Northern lights 2012: recorded broadcast views

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