To: FRRS Board of Directors
From: Paul Finnegan, Webmaster
Re: Museum Web Page
Date: July 3, 2017

2017 Convention

Working together with Eugene Vicknair, we created several web pages for the 2017 Western Pacific Railroad Historical Convention held in Reno. The main pre-convention web page had 1,144 page views. 61% were from desktop users, the remaining 39% were mobile or tablet users. I wanted to include the following graphic last month, but it got lost before I submitted my June report.

2017 Convention Page Views (desktop and mobile)
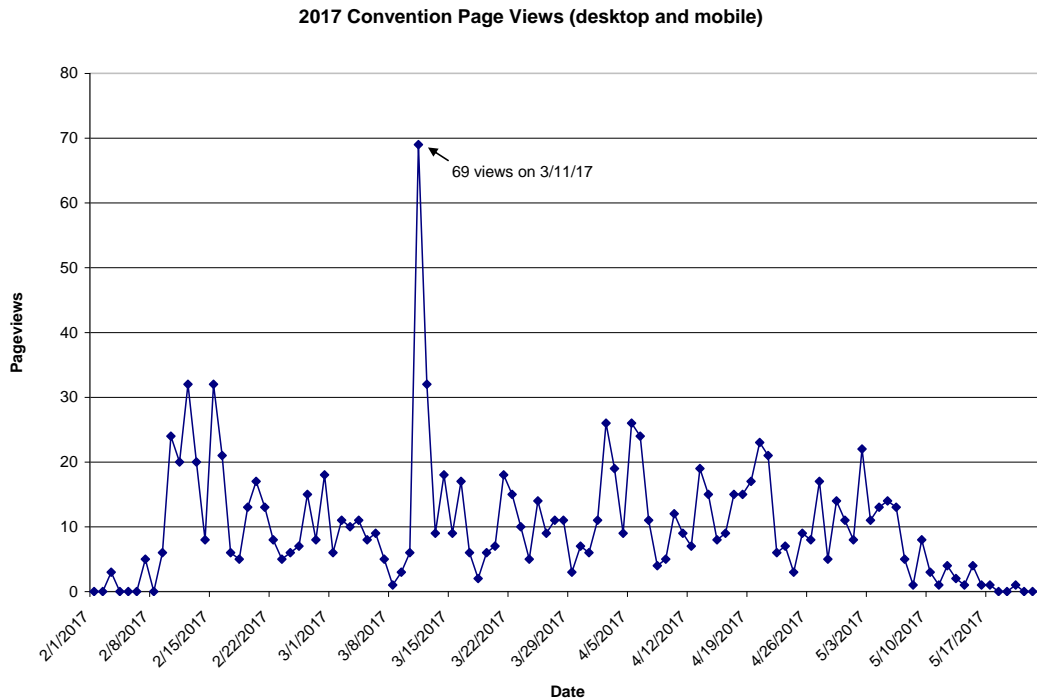
New On-line Conductor Report

Over Memorial Day Weekend we rolled out a new web based Conductor Report for the Operating Department. At the end of any train operations, the conductor should fill out a train report. Last year at the end of the season it was discovered that a few reports were either lost or had never been created. I created a new set of web pages, compiled C++ programs and cgi scripts to implement a custom reporting system on our web site. Using the new system, an electronic copy of the report is permanently kept on-line and is mailed at the end of the day to the Operating Department mail alias. Additionally, individual crew service records are automatically updated with each report. If there is a scheduled train, but no conductor report is created, an automatic email is sent to the Operating Department mail alias at the end of the day advising a report is missing. This will allow for immediate follow-up to ensure we have our paperwork in proper order.

As an example for your review, I have attached the report email from the July 1st train crews as a separate report.

I also created on-line training material for the new report system. It is kept on the Operating Department Training Material web page under the RECORDS AND REPORTS (500) section. There is also a printer friendly version.

Two Train Crew members asked that we set up a reminder email two days before their sign-up date (web ticket 20170-0053.) An automated email system was set-up, tested and put on-line June 10, 2017. An additional request was made to display recent conductor reports in addition the latest one to aid in creating work reports, this feature was added to the Today's Crew web page. The new system seems to be working well with the crews and will improve our record keeping.

New On-line Board Minutes, Reports & Membership Meeting Material

A new web page was created under the Members pull-down menu, "Minutes & Reports." This page has the minutes from Board and Members' meetings along with the written reports submitted. There is currently some missing information, which we hope to find and post. The plan for the future is to post the preliminary minutes as soon as they become available after a meeting. The reports will be added as they become available and then the preliminary minutes will be replaced with the approved minutes after the next meeting. This is meant to significantly improve communication within the society.

Web Site Updates

The summer season kicked off Memorial Day weekend followed by the Members' Meeting the following weekend. The web site's "FRRS/WPRM News Archive" (under the News pull-down menu) and "WPRM Photo & Video Gallery" (under the About Us pull-down menu) pages were frequently updated to reflect the latest events. One of the more entertaining items is a short video created by ABC10 of Sacramento promoting our Run-a-Locomotive program. The video and a look behind the scenes while the video was being made are on the "WPRM Photo & Video Gallery" page.

One question that immediately comes to mind is how the abc10 video impacted the RAL page on the website. Using information from the Google Analytics tool I installed last year, I was able to create the following graph:

RAL Webpage Pageviews
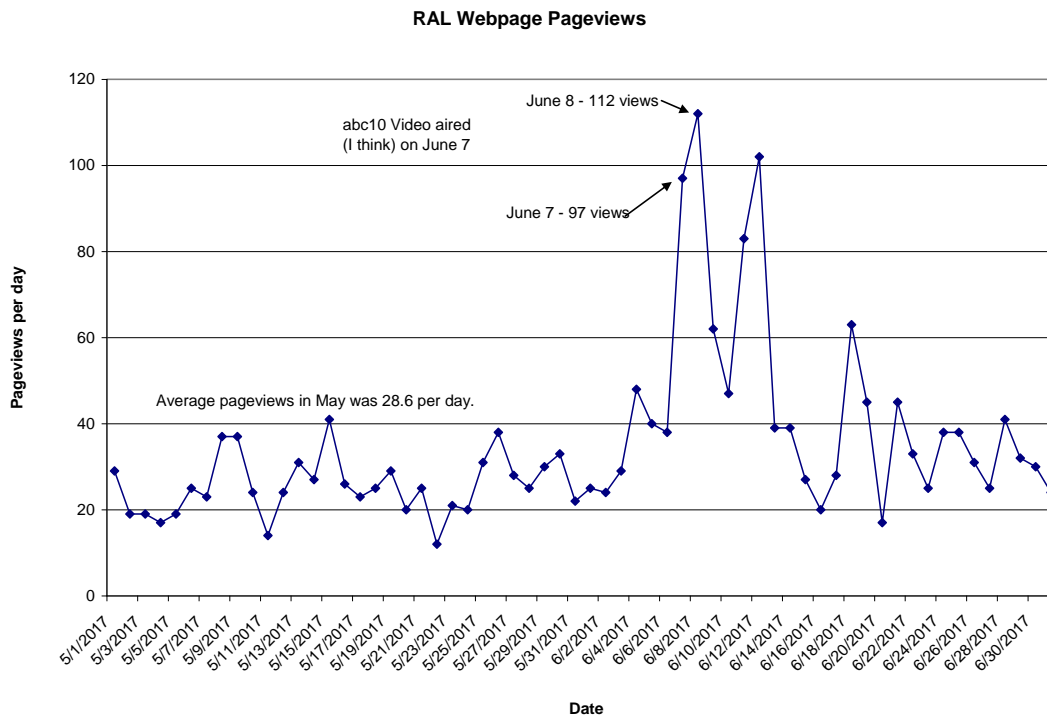
Web Site News

A new WPRM Gallery was created "2017 Season Opens" with photos from Memorial Day Weekend, the "Lost & Found" bike event and the Members' Meeting.

A news item was created to document the Spring 2017 Track Work underway on the balloon track to help recognize all the volunteers who are working together to get it back in service.

At the June Board Meeting a RAL price increase was approved. Several special web page announcements were immediately created to communicate the upcoming new fares to the members and public. It was also stressed that any RALs PAID IN FULL before the price increase on July 1st would be honored. The idea was to generate some immediate cash flow for the society. Then at exactly 00:00 July 1st PDT a cron job ran that released the new RAL fares with updated PayPal code from Eugene Vicknair reflecting the new pricing and removed all the "PAID IN FULL" comments.

Search Engine

A long desired feature was added to the web site in early June. A Google Custom Search Engine widget was added to the home page, just under the menus. (On the mobile home page it is about in the middle of the page.) This powerful search engine is meant to help users easily find things that are anywhere on our web site.

General Issues

One of my major objectives with our website is to provide timely information to our members and the public. We now have several web pages (e.g. the Extra Board) that may update several times a day. Other places on the website (e.g. the *Latest Museum News* column on the home page) are regularly updated with new information. Depending on how the user has configured their web browser, the user may not see the new information because their web browser will display a locally cached copy of the web page to improve the perceived performance.

Over the last five months I have done extensive research and testing on how to force the local browser to refresh pages that have volatile data on them. Many of the methods recommended by various web hosting resources do not really work. I recently completed an on-line JavaScript programming class and took one of the recommended solutions, modified it to better serve our needs and have implemented it on a few of our most popular, volatile web pages. It appears to be working well and eliminated the stale information issue on those pages. Since it does impact performance (every time the user loads the page, it is fetched from the web host server) I only want to implement it where it is important. I plan to continue to put it in place as I have other work to do on the related pages. (For those who are interested in how it works; instead of having the href in a link just be something like "http://wplives.org/pagename.html", it is something like http://wplives.org/pagename.html?<datecode like 1707031306>. The date code is the current time that the user clicked on the link to load the page. The number after the question mark will force the browser to fetch the page from the server because it will not match anything in cache. There are still ways the user can defeat this method (e.g. using bookmarks), but it is much better than the other things I have tried.)

I placed a "Help Wanted ad" in the latest issue of the *Trainsheet*. I am a little disappointed (but not surprised) that no one has taken me up on my offer.

After more thought and discussion, I have raised the idea of not developing an in-house web base RAL management system (web ticket 2017-004), but rather suggested we explore using Google Calendar instead. This may meet our needs in a much simpler and robust system. The RAL team is considering this approach. For now, I have put my work on hold.

Hostmonster Service

As reported earlier, we have been having significant performance issues with our web service provider, Hostmonster. It started on 4/8/17 when Hostmonster did a scheduled update on our server. I spent many hours on the phone with technical support trying to convince them they had introduced serious performance issues with their update.

Due to their lack of response I began to prepare our site for a possible move to a new provider and moved all my development work off the server in Utah to a UNIX system at my home.

On June 8th Hostmonster did another scheduled system update and the performance has now returned to the original level before the April 8th changes. This change has reduced the urgency of changing providers, but I will continue to monitor the performance of our web site.