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

Peter Arnold and I are continuing to make progress on the *Western Pacific Headlight* Master Index web page. Peter sent me another update March 24th. We now have issues 10 to 49 indexed with 314 topics and 1,528 index entries.

Over the last month we added several announcements and graphics to the web site. We had moderate success promoting the *"Get Ready for Opening Work Party"* parts one and two. Although we had the Museum Volunteer Sign Up and Museum Volunteers pages last season, they were rarely used. With Eugene's and Leisa's help promoting it, we had several members use them this year. I also got some email from people who signed up and helped at the work parties that said they would not have known about the activity without the web posting and the email blasts that Eugene sent out. I think it is important to communicate to the membership when we need help and then provide them with the timely information to make them feel needed and appreciated. I hope we can continue to use these web site services. If we can get everyone in the habit of marking up, we can do a better job of managing the activities around the museum.

Rick Gruninger called me with information about the *"Lost & Found"* bike event in June. With additional input, I updated all the appropriate pages for volunteer signup, crew signup, RAL, calendars, created a news item page, etc. He also told me of the dates for RR Days so I updated the appropriate pages for it too now that we know the dates.

Eugene gave me information and a graphic for a special WP 165 *"Light the Fire"* fund raiser. I posted this prominently on the web site. I also updated the web site now that the museum is open for the 2017 Season, with days and hours.

Kerry Cochran provided me with an important message, "Why the Western Pacific Railroad Historical Society name is being retired by the Feather River Rail Society..." and asked me to add it to the home page.

Crew Members have continued to use the Register for Crew Training web page and we have a pretty good sign up for this year's training. We have several first time new members signed up. You can see who has signed up by looking at the 2017 Crew portion of the Operating Dept Roster.

As previously reported, I am utilizing the off-season to work behind the curtain on improving the documentation for the website and the automated audit tool. This turned out to be a much bigger issue than I originally recognized. I started using two html validation tools to inspect our web site. The first tool is available on-line at https://www.onlinewebcheck.com/check.php . You can go to that site and paste in the full URL of any public web site and it will validate the code. I used this on a few of our main web pages and was shocked to see how many HTML errors were in our code. Our web pages rendered OK in various web browsers, but this was because the main browsers (e.g. Chrome, Firefox. IE) take the web site's HTML code, see the error and "fix it" on the fly. The problem is they don't necessarily fix it the same way. So a "bad" page may look very different on different browsers.

To compare us to others, I ran the on-line validation tool on selected sites and discovered:

Site (home page)	Errors	Warnings
California State RR Museum	9	8
Western Railway Museum	2	9
Illinois Railway Museum	19	25
Union Pacific Railroad	17	14
FRRS (July 2015 copy)	26*	16
FRRS (April 3, 2017)	0	0

* - the tool stops reporting at 26 errors or warnings.

So basically we are similar to other railroad web sites, but we could be better. Using the on-line tool would be too time-consuming to check all our pages; so I found a Java tool that runs under UNIX. I installed the tool and automated validation of all our web pages. This turned out to maybe be a mistake on my part! I had to fix every single web page on our web site. Some issues were because HTML has changed over the years and code has been deprecated. Some was code I wrote, some was code I inherited. Since the pages had rendered OK on the browsers I used to test our web site, I was unaware we had so many code issues.

We have a shared cascading style sheet (css) file that is used by all the web pages for global styling (e.g. font sizes, colors, backgrounds, etc.) It also had many syntax errors in it. Using two different css lint checker programs, I also diagnosed and fixed all of the reported css issues in it while I was fixing the web pages.

Last year I had created mobile friendly web pages for the main web site pages, but our collection pages were mostly still very mobile hostile. I realized that since I was going to have to update all the pages, I could use this as the opportunity to make sure all our collection page entries (e.g. the locomotives in our collection) had both desktop and mobile friendly views.

It has taken about six weeks of work, but I am proud to announce that now all of our web pages report no errors or warnings using the HTML validation tools and we have (almost) 100% mobile friendly pages. (A few special pages are still lack mobile friendly pages, but they are not intended for public viewing.)

The Sacramento Northern web site is better, but it also still needs a lot of work. It uses a completely different style of web page. I fixed some common issues (and it is checked for spelling) but it has many HTML and css issues remaining.

The HTML validation tool is now part of our weekly automated web site audit suite. This will enable the webmaster to keep the site clean over time.