

To: FRRS Board of Directors
From: Paul Finnegan, Webmaster
Re: Museum Web Page
Date: February 8, 2017

Peter Arnold and I are continuing to make progress on the [Western Pacific Headlight Master Index](#) web page. Peter sent me another update January 22nd. We now have issues 17 to 49 indexed with 263 topics and 1,118 index entries.

On Sunday January 22nd, Kerry Cochran contacted me, and after discussion, instructed me to retire the WPRRHS website. Kerry, Frank Brehm and I have been working for some time to enhance the [Historical/Archive Department webpage](#) on the wplives.org website. Kerry decided it was time to deadline the old WPRRHS website since it has not been maintained or expanded for a long time.

Acting on Kerry's instructions, I created a 404 error page so anyone trying to access the old website would be directed to the current Historical/Archive Department webpage. I retired the old web site, but archived all of the material "as is" for future re-use if desired.

The [election information](#) on the Membership web page was updated several times during January:

2017-01-04 Paul Finnegan - per email from David Epling added Kerry Cochran to verified candidates.

2017-01-15 Paul Finnegan - per email from David Epling added Greg Elems to verified candidates.

2017-01-21 Paul Finnegan - per email from David Epling added Charlie Spikes to verified candidates.

On February 1st I removed the "Nominations are open" messages from the web site.

I worked with Eugene Vicknair and Patty Clawson on the 2017 Convention web page, I just received the final revision of the information for the webpage, I will complete it and release it to the public.

The biggest effort on my part in January was to update the Webmaster's documentation for the website and create an automated reporting/auditing tool. The website has grown and has become more complicated with the increased automation and features added over the last year. I felt it was important to put in place a good set of documentation for myself, and future webmasters so they will not have to reverse engineer many of the things I have done. The documentation is kept in a secure location on the web server at ~/webmaster_notes. A major feature of the documentation is it is auto-updating. As the website continues to develop, the documentation is easily kept in sync by running the UNIX make utility in the documentation directory.

In addition to the documentation generator, I created a new custom wplives.org web site audit tool. It starts at the home page and explores all the web pages, images, cgi scripts and PDF files referenced by the web site. For each web page it generates a one page summary report for the web page (as a web page.) The report has a link to the actual web page, the web page's title field, the last modification time stamp, how many lines of code are in the web page and if the page uses pull-down menus or not. The report also lists all pages and PDF files that the page references. Additionally, it lists the wplives.org web pages that reference this page, i.e. a reverse look up tool.

The tool explores all references (local and external) to make sure they are valid links and highlights in red any that may have an issue.

While running, the audit tool creates a list of errors/notes/warnings that is emailed to the webmaster. The webmaster can easily check if there are any issues requiring attention without opening the report page from the email.

A web page showing all the PDF files referenced in the website sorted by file name showing which pages call each PDF file is also created. This will enable us to easily answer the question where a

particular PDF file is used in the website. This would be very valuable if we want to safely remove a PDF file from the website.

Sample output is shown below for the web page reports. The audit tool is configured to run once-a-month automatically. The webmaster can also run it manually with only one short command at the UNIX prompt on the web server. The report is kept behind a user/password authentication system so the public does not have access to it.

Sample lines from the webmaster's email:

```
...
ERROR: external reference problem to "http://teslacoalmines.netfirms.com/teslabook.html" in "/wphistory_books_and_videos.html" Status = 000
ERROR: external reference problem to "http://www.gettransportation.com/rail/rail-products.html" in "/locomotivepages/d_milw5057.html" Status = 404
...
NOTE: Page HTML title tag has HTML tag in it for /gallery/WP_917_Startup_May_25th_2016.html
...
WARNING: The page "~/public_html/TBD.html" referemced in "/m_template6.html" was not found.
371 errors/notes/warnings reported.
91 errors reported.
217 notes reported.
63 warnings reported.
```

Two example images of the web page reports (there are 505 web pages explored by the tool) :

Report for /locomotivepages/wp707.html

File information:
-r--r-- 1 wpliveso wpliveso 16609 Jan 31 09:11 /home1/wpliveso/public_html/locomotivepages/wp707.html
383 lines of code.
Page HTML title tag: Western Pacific Railroad Museum - wp707
This page **does not have** pull-down menus.

[Go to the top Site Map Report web page](#)

This report created: Sun Feb 5 11:46:24 PST 2017

This page has references to:
(Note: Pull-down menu references are only reported for /index.html and /sn/index.html)

locomotivepages/m_wp707.html	View page links	View page
locomotivepages/wp2001.html	View page links	View page

Reverse lookup, this page is called from:

locomotives.html	View page links	View page
locomotivepages/wp2001.html	View page links	View page
locomotivepages/m_wp2001.html	View page links	View page
locomotivepages/d_wp2001.html	View page links	View page
m_locomotives.html	View page links	View page
d_locomotives.html	View page links	View page
news_items/uphs_160728.html	View page links	View page
news_items/m_uphs_160728.html	View page links	View page
news_items/d_uphs_160728.html	View page links	View page

PDF Files referenced from this web page:

[http://www.fra.dot.gov/downloads/Research/r0717.pdf](#) - bad status returned by curl. Status = 302
[/train_sheet_archive/pdf/ts021.pdf](#)
[/train_sheet_archive/pdf/ts023.pdf](#)
[/train_sheet_archive/pdf/ts024.pdf](#)
[/train_sheet_archive/pdf/ts025.pdf](#)
[/train_sheet_archive/pdf/ts026.pdf](#)
[/train_sheet_archive/pdf/ts037.pdf](#)
[/train_sheet_archive/pdf/ts056.pdf](#)
[/train_sheet_archive/pdf/ts097.pdf](#)
[/train_sheet_archive/pdf/ts108.pdf](#)
[/train_sheet_archive/pdf/ts122.pdf](#)
[/train_sheet_archive/pdf/ts135.pdf](#)

This report is created/updated by the shell script: update_site_map.sh

Report for /locomotivepages/milw5057.html

File information:
-r--r-- 1 wpliveso wpliveso 11530 Jan 30 08:10 /home1/wpliveso/public_html/locomotivepages/milw5057.html
285 lines of code.
Page HTML title tag: Western Pacific Railroad Museum - milw5057
This page **does not have** pull-down menus.

[Go to the top Site Map Report web page](#)

This report created: Sun Feb 5 11:46:04 PST 2017

This page has references to:
(Note: Pull-down menu references are only reported for /index.html and /sn/index.html)

http://www.gettransportation.com/rail/rail-products.html	Bad External Status = 404	View page
locomotivepages/m_milw5057.html	View page links	View page

Reverse lookup, this page is called from:

locomotives.html	View page links	View page
m_locomotives.html	View page links	View page
d_locomotives.html	View page links	View page

PDF Files referenced from this web page:

[/train_sheet_archive/pdf/ts025.pdf](#)
[/train_sheet_archive/pdf/ts027.pdf](#)
[/train_sheet_archive/pdf/ts029.pdf](#)
[/train_sheet_archive/pdf/ts038.pdf](#)

This report is created/updated by the shell script: update_site_map.sh

When the tool was first fully functional on February 7th, it reported: 91 errors, 217 notes and 63 warnings. Using the tool's results, I have now resolved all of the errors and warnings. There are currently zero errors and warnings. There remain 60 notes reported. The "Notes:" are not necessarily problems, but report things that the webmaster should be aware of. Some of the errors were links to other websites that were broken and have been removed or replaced. Others were broken links within our site that were mostly typos and easily fixed. Some of the issues were on pages that have not been changed for years.