



NEWS

Canadian Naval Technical History Association

CNTHA Website Overhaul

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CNTHA News

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www.cntha.ca

When intruders hacked the CNTHA website over Christmas, they did us a favour. In the early hours of December 29th our server became an email spam bot, a holiday surprise our monitoring scripts announced at 8:00 a.m. We quickly stopped the spam, but the message was clear: our defences still needed work.

Every program is a potential source of intrusion, and so we decided to eliminate as much server software as we could. You could call this phase of the process: *Barring the Windows and Doors*. The biggest program on our server was our content management system (CMS), a popular mechanism used to generate web pages on demand. Our goal was to move web page generation offline, out of reach for potential intruders.

We evaluated several open source frameworks, and then once a viable set of tools was found and customized we wrote a program to extract the content from our CMS and convert it into the new format. We gave the website a fresh coat of paint as well as a new navigation structure, and we improved the site's search feature. The first version of the upgraded site was delivered in late April.

The search feature is a core capability of the site, and so it shows up on every page. Its default behaviour is to perform a so-called *fuzzy search* of input terms, allowing for a certain amount of misspelling. In some cases this casts too broad a net, for example it considers *processor* and *professor* to be equivalent terms because there is only one character distinguishing them (the search engine allows for roughly two edits per word). In response we have defined two more restrictive forms of input. If multiple terms are wrapped in double quotation marks (e.g. "signal processor") the system will ensure that these words are found near each other. If exact terms are required, the fuzzy spelling feature can be disabled by appending an exclamation mark (e.g. professor!).



Sue Easterman

Thank you

The CNTHA extends its deepest gratitude to **Sue Easterman** and **Joy Thatcher** for their dedicated work in transcribing the CNTHA's recorded Oral History interviews over the past number of years. This work requires careful attention to detail, and these two women always turned in amazing transcriptions from long hours of recordings. Sue turned five interview recordings into legible text for us from 2008 to 2010, and Joy produced 19 transcriptions for us.

In previous years our search index had contained only the content of our web pages, but our improved construction process has allowed us to expand the search index to include the text for the *Maritime Engineering Journal* and all PDF content. We went live with this in May.

The continuing phase of our upgrade is what we characterize as: *Increasing the Guard*. In practical terms this means automating the replacement of our servers so that we can roll out editorial changes and security updates quickly, but most importantly are able to respond to any suspicious behaviour by automatically replacing rogue servers without the need for administrator intervention.

We hope you will visit the upgraded CNTHA site and that its expanded search capability will help you appreciate the Royal Canadian Navy's outstanding technical heritage.

