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## Computer Methods for Investigating Naval History Panel Overview and Summary

*Linton Wells II,  
Office of the Assistant Secretary of Defense  
Panel Chairman*

The application of technology to the study of naval history holds enormous promise. In the late 80s, when working on a book on Japanese cruisers, digital enhancement of gun camera imagery allowed publishable views of previously unknown photos, even of ships for which no photos were known to exist. Today, Photoshop and similar programs bring such capabilities within reach of a much broader group of researchers.

To this end, the authors in this section have used a variety of analytical or computer-aided approaches to examine three very different aspects of historiography.

Anthony Tully's paper on "Calculating Scenarios in the Loss of CV Shôkaku" uses analytical techniques and simulations to test hypotheses about the carrier's sinking. It outlines both the strengths and weaknesses of simulations, and then refines the evaluation based on data from Japanese sources that became available after the first calculations were made. The result is a more complete understanding of the end of Shôkaku than we have ever had before.

Richard Wolff's description of "Computer Methods for Investigating CV Taihō" incorporates several different approaches. First, it suggests how tabular data can be searched to suggest patterns not previously evident. Then it shows how drawing software can be used to compare "competing" images, such as blueprints, to detect errors, illuminate differences between reference works, and determine changes introduced during various refits and modernizations. It further examines how imaging software can refine blurred, mis-colored or distorted images, as well as to compare photos directly with related drawings. Ultimately, these techniques could be used to build three-dimensional images from two-dimensional sources. Some of the Imperial Navy-related resources available on the world-wide web are discussed as well.

Jonathan Parshall's proposal for "Creation of a Web-enabled Naval Operations Database" could allow a heretofore unprecedented understanding of inter-related operational events. The use of "historical events" as central objects in a database, rather than ships, units, or weapon systems, opens the possibility for very rich queries and comparisons. In particular, the application "lends itself well to answering complex naval operational questions, thereby creating "new" information from a synthesis of several

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“old” data types.” Being web enabled, it offers the potential for making such newly created knowledge available to a much broader group of researchers.

In sum, all three papers show how analytical approaches, computer modeling, modern data processing and the world-wide web together can increase the historian’s ability to make new contributions to the store of human knowledge.