In My View

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RESPONSE TO “INNOVATION, INTERRUPTED: NEXT-GENERATION SURFACE-COMBATANT DESIGN,” BY DAVID H. LEWIS, NAVAL WAR COLLEGE REVIEW 75, NO. 1 (WINTER 2022), PP. 107–40

Sir:

While I enjoyed reading David Lewis's highly informative article on innovation in the Winter 2022 edition of the Naval War College Review, I was chagrined to read his contention on page 120 that “American dive-bombers . . . were unknown when the first American aircraft carriers were designed in the 1920s and early 1930s.” Unfortunately, although Professor Lewis is well versed in shipbuilding technology, his knowledge of the development of U.S. naval aviation in the interwar years is less than comprehensive.

The first experimental dive-bombing practice against a moving target by U.S. carrier aircraft took place in the fall of 1927. As I noted in Destined for Glory: Dive Bombing, Midway, and the Evolution of Carrier Airpower (Naval Institute Press, 1998), “The bombing scores obtained during the light-bombing exercise against a moving target showed the high degree of accuracy that could be obtained through the use of dive bombing with relatively little practice.” Although the F6C-3s that participated in this exercise carried relatively light bomb loads, they were the forerunners of the ever-more-capable dive-bombing aircraft that evolved into the SBDs of Midway fame. Had Professor Lewis been familiar with these developments he could have used them as another example of how doctrine changes in response to technological improvements in weapons.

During the pre–World War II era, the U.S. Navy—like other navies throughout the world—viewed the “decisive action” of the next war in terms of what had happened at the Battle of Jutland in the First World War. It continued to focus on the gunnery duel that was expected to be the determining factor in the outcome of the great battle that would ensue when two opposing fleets met on the high seas. Many of the fleet exercises, board games, and tactical studies conducted during the 1920s were designed to evaluate various aspects of this engagement.
In most scenarios, the gunnery duel would be preceded by a destroyer torpedo attack initiated in an attempt to damage at least some of the opposing battleships. The destroyers did not have to sink any of the dreadnoughts to be successful; their job was to slow down the enemy line. Searching for a way to counter the dreaded destroyer attack, the Navy conducted exercises using dive-bombers against moving targets, and their success opened the door for light-bombing (as it was known then) to be used for that purpose.

An even more important role for the dive-bomber was discovered during Fleet Problem IX. It was conducted in March 1930 in response to the first carrier-versus-carrier duels carried out during the exercises leading up to it—exchanges that later would characterize the World War II naval war in the Pacific. The results during these duels showed that the carrier that was first to locate and attack its counterpart in the opposing force was able to achieve air superiority, gaining an overwhelming advantage for its own fleet. During the critique that followed the conclusion of Fleet Problem IX, Rear Admiral Henry V. Butler, Commander, Aircraft Squadrons, Scouting Force, described the situation now facing carrier commanders. The opposing forces, he explained, were “like blindfolded men armed with daggers in a ring[;] if the bandage over the eyes of one is removed, the other [was] doomed.” The only solution was to locate the enemy carrier and attack while the latter’s planes were still on deck.

With this knowledge, the Navy (via the Bureau of Aeronautics) began efforts to develop the scout-bomber (a type unique to the U.S. Navy, and not mentioned by Professor Lewis). That program ultimately resulted in the design and subsequent deployment of the dive-bomber known as the Douglas SBD (for Scout-Bomber Douglas).

THOMAS WILDENBERG

AUTHOR’S RESPONSE TO “NOT SO!” ON CARRIERS,” BY JAMES ALVEY, NAVAL WAR COLLEGE REVIEW 75, NO. 2 (SPRING 2022), PP. 189–91

Sir:

I praise James Alvey for his detailed research on USS Ranger (CV 4) and his knowledge of World War II aircraft carriers in general. Individuals interested
enough in naval history to seek out primary sources in archives are rare and deserve support. We need more such dedicated researchers and writers.

However, as Alvey admits, my article was but a very brief survey of small aircraft carriers and the decisions to build them. I do not claim to have done original research in primary sources; I prowl the archives only occasionally. I do not even consider myself an historian; instead I am a defense strategist and a strategic/security studies scholar. Therefore, I am a “user of history,” and I rely on the work of the top historians in the field. My focus is on what lessons history may offer for our deterrence of and preparation for future wars. History is the only real laboratory for human decision-making, so, after critical evaluation, I incorporate it into all my work.

The two questions I set out to analyze in my article were: “What is the history of ‘small’ aircraft carriers?” and “Did small carriers prove effective in war?” Answering them necessitates discussing the decisions to build the ships in question and assessing their effectiveness in the aggregate.

Norman Friedman, Emily Goldman, Charles Melhorn, William Trimble, and the Belote brothers (one of whom was my professor, oh so long ago) are or were top scholars in their fields. Charles Melhorn was also a naval aviator, so he could assess USS Ranger from an experienced perspective. I did search for more-recent sources, but I found none that contradicted the conclusions of these experts or added much more than detail.

The sometimes-contradictory writings of Rear Admiral William A. Moffett, USN, the father of naval aviation, reflect the fact that he routinely changed his mind on the basis of incoming facts. He tried multiple methods of bringing airpower to sea: large carriers, small carriers, floatplanes, flying boats, and airships. Some proved successful; some did not. He was lost in the April 1933 crash of the naval airship USS Akron (ZRS 4) at sea; like Admiral Hyman G. Rickover, USN, he was not afraid to test his own programs personally.

I am not going to spar with Mr. Alvey on all details. However, in writing that there were six CVLs constructed, I could be considered technically correct—only six carriers were designated CVL upon commissioning. Others, such as USS Princeton (CV/CVL 23)—let us honor its heroic crew and those of the ships that came to its aid—were built as CVs, but then redesignated CVLs after they were operating at sea. Neither USS Ranger nor USS Wasp (CV 7)—both approximately the same size as the CVLs—was redesignated. However, if I were to revise the article, I think I would adopt Mr. Alvey’s approach to counting CVLs. Thank you, sir.

One mistake he did not catch is that I identified USS Valley Forge (CV 45) incorrectly as belonging to the Midway class rather than the Essex class. Another reader took issue with my contention that the United States built 146 carriers (of all sizes) during World War II, and proposed an alternative number. Establishing
a total depends on whether one counts the CVEs built for the British and those that were almost completed but were never commissioned. Let us just agree that U.S. production was more than eight times that of imperial Japan.

On a related note, at the final meeting at which the top imperial Japanese decision makers debated whether to start a war with the United States, held in October 1941, the question of the U.S. potential and ability for war was asked. The consensus answer was about seven to eight times that of Japan. Good assessment; bad choice.

Despite our differences over details, Mr. Alvey does not challenge my main thesis. There is no operational evidence that a large number of small carriers can substitute in effectiveness for a smaller (but proportional) number of large carriers. No war or major naval operation has demonstrated that as fact. Therefore, we cannot just assume that they would today. Modeling and simulation are not evidence.

If you think me wrong, please challenge me on that! If any reader can prove me wrong, please get in touch with me via sam.tangredi@usnwc.edu. In designing a future fleet, this is a critical issue that still has not been addressed satisfactorily. And, Mr. Alvey, if you would like to give a lecture on USS Ranger (CV 4) at the Naval War College, I will sponsor you.
both Admiral Isoroku Yamamoto’s and Admiral Chūichi Nagumo’s decision-making needs to be appreciated.

Yamamoto intended the island to function as bait to lure the remaining American carrier forces into battle. But it became more than that: an objective in and of itself, as evidenced by the planned amphibious assault. This, in turn, suboptimized the Japanese force deployment, with Nagumo’s carriers being dual tasked both to reduce the island’s defenses and to be ready to engage any U.S. carrier forces sent out to defend the island. Multitasking is a dangerous proposition for naval forces, especially if too few units are available. Had Nagumo had the full six-carrier complement of the Kidō Butai, multitasking would not have been so much of an issue, salvo equations or not.

As it was, Midway Island lured in the Japanese, such that it became a distraction, and thus served Nimitz’s carriers as bait. Yamamoto’s plan virtually guaranteed that Nagumo would be faced with a multitasking dilemma. If Yamamoto simply had sailed the reduced Kidō Butai toward Midway without intending to invade, the island’s malign influence on his and Nagumo’s decision-making could have been avoided. Nagumo would not have been faced with the dilemma of whether to disobey Yamamoto’s order to maintain an alert antiship package. American advantages in intelligence and scouting and Japanese failures in those functions might not have mattered so much.

Of course, the principle of striking effectively first still would have governed, but the effects of the various exigencies that favored the Americans might not have weighed as heavily if the Japanese had not been distracted by Midway itself.

In my Review article “Deconstructing Nimitz’s Principle of Calculated Risk” (Winter 2015), I concluded that Nimitz was determined to engage Yamamoto at Midway. His suggestion to Fletcher to move west to be able to get in a first strike effectively negated the concept of calculated risk. Nimitz had good reasons for doing this, as Parshall points out, but the crux of the matter is spelled out in the OP 29-42 plan: “Operate with Task Forces available initially to the northeast of MIDWAY . . . in order to seize opportunity to obtain initial advantage against carriers which are employing their air groups against MIDWAY.” In other words, the whole strategy revolved around catching Nagumo with his pants down, and that is just what they did.