A surface warfare officer, Rear Admiral Wisecup was Commander, Carrier Strike Group 7 (USS Ronald Reagan Strike Group), immediately before becoming the 52nd President of the Naval War College. The second College president from Clark County, Ohio, he followed in the wake of Clarence Williams, the 17th president. A 1977 Naval Academy graduate, Wisecup earned a master’s degree from the University of Southern California, was an Olinsted Scholar at the University of Strasbourg in France, and graduated from the Naval War College in 1998. At sea, he was executive officer of USS Valley Forge (CG 50) and commanded USS Callaghan (DDG 994) and Destroyer Squadron 21 during OPERATION ENDURING FREEDOM. He received the Vice Admiral James Stockdale Award for Inspirational Leadership. Ashore, Wisecup was assigned to NATO Headquarters in Brussels, served as force planner and ship scheduler for Commander, U.S. Naval Surface Forces, Pacific, and as an action officer for Navy Headquarters Plans and Policy Staff. He was a CNO Strategic Studies Group Fellow, Director of the White House Situation Room, and Commander, U.S. Naval Forces, Korea.

As President of the Naval War College, Admiral Wisecup oversaw the continuing growth of the College, inaugurated the Chinese language library for the College's China Maritime Studies Institute, and hosted two highly successful Current Strategy Fora as well as the Nineteenth International Seapower Symposium. His administration saw increased cooperation and support from the Naval War College Foundation with substantial growth in its membership.