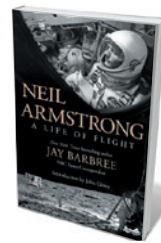




Neil Armstrong trains in a simulator ahead of the *Apollo 11* Moon landing mission.



Neil Armstrong:
A Life of Flight
JAY BARBREE
Thomas Dunne: 2014.

mission on his back for more than 40 years. And he did much during his reclusive years after *Apollo 11*, serving on multiple national studies about spaceflight for NASA and various presidents. Although some at NASA would have preferred that he gave more public support to the agency's initiatives, Armstrong's thoughtful perspective carried weight.

I would have appreciated an explanation of the space-policy issues that Armstrong became involved in, as well as a full discussion of his role. Barbree briefly mentions a letter sent by Gene Cernan (*Apollo 17*), Jim Lovell (*Apollo 8* and *Apollo 13*) and Armstrong to US President Barack Obama in response to the space shuttle's impending retirement, but does not fully explain its content. It warned that failure to pursue an aggressive government spaceflight programme "destines our nation to become one of second- or even third-rate stature". That debate still rages. It originated in no small measure over whether to maintain the traditional approach to human spaceflight that NASA has taken for 50 years, which Armstrong apparently backed: owning the vehicles and operating them through contractors. By contrast, those from the 'new' space world want to allow private-sector firms to seize the initiative and pursue entrepreneurial approaches to human spaceflight. Traditionalists believe that the entrepreneurs will sacrifice safety; entrepreneurs point to the large, over-budget programmes of the traditionalists.

Barbree has the longest tenure of any journalist covering the space programme; his knowledge is both broad and deep. A more personal account of Armstrong would have been welcomed by all. As it is, Armstrong the man has been best captured in James R. Hansen's *First Man: The Life of Neil A. Armstrong* (Simon & Schuster, 2005). The astronaut cooperated with every aspect of that book. There will be many other fine biographies, but it is unlikely that any will be definitive, given Armstrong's complexity. ■

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SPACE SCIENCE

Lunar star

Roger D. Launius is perplexed by a biography of Neil Armstrong that profiles the missions, not the man.

Whatever else Jay Barbree's *Neil Armstrong: A Life of Flight* might be, it is not a biography of the first man to walk on the Moon, who died in 2012. Instead, it is an almost mission-by-mission summary of NASA's Apollo programme, observations on the nature of human spaceflight throughout the past half century and a few insightful stories. The anecdotes are detailed and effective, and sometimes illuminate larger issues. There are conversations with space celebrities, astronauts' jokes and debates over the focus of space initiatives. At the very least, this represents a unique opportunity to read the details of what some astronauts, including Armstrong, might have been thinking at times in their careers.

But what might a full biography of Armstrong have explored? First and foremost is Armstrong's multifaceted persona. He spent his life flying, becoming a pilot before he could drive. He was most proud of his naval service during the Korean War, when he flew combat missions from the *USS Essex* against targets immortalized in the James Michener novel *The Bridges at Toko-Ri* (Random House, 1953). Later, as a research pilot, he flew high-performance aircraft such as the X-15.

As an astronaut, Armstrong sought neither fame nor riches. He could have done anything he wished after he completed the *Apollo 11* Moon landing mission, yet he chose to teach aerospace engineering at the University of Cincinnati in Ohio. Perhaps no one ever really