

The Story of the Boeing Company

by Bill Yenne. AGS BookWorks, 2003. 288 pp., \$45.

In spite of its grandiose title, *The Story of the Boeing Company* shows that there isn't—and couldn't possibly be—just one story. In fact, one must study the book's subway-system-like map of a merger chart to comprehend all the companies Boeing has gobbled up over the past 77 years. For those who haven't kept track, McDonnell's Phantom II fighter and Mercury capsules, Hughes Helicopter's Apache, Rockwell's space shuttles, and seemingly every other name-brand airplane, missile, and spaceship are now officially—if not genuinely—part of the Boeing company's saga.

Author Bill Yenne accomplished no small task when he assimilated an industry-size chunk of history into a coffee table book. Unfortunately, it occasionally comes close to crossing the line between useful reference and corporate bragging. For

instance, it's an important revelation that the Douglas (now Boeing) A-4 Skyhawk flew in more major wars than any other aircraft, but including the fact that two T-45 Goshawks "accumulated 112 catapult launches and 112 arrested landings" during testing, or that an Air



Known as Texans in the U.S., North American Harvards served as trainers for the British Commonwealth during World War II. They are now part of Boeing's history.

Force lieutenant called the McDonnell Douglas (now Boeing) F-15E "the best damned fighter in the world" is a bit superfluous. And Yenne's matter-of-fact tone, oft-repeated phrases, and a dance of military designations and re-designations can put readers in a daze; on a random page you can find passages like "The U.S. Navy, which had ordered 77 SNJ-1 and SNJ-2 scout trainers (NA-52) based on the BC-1, placed an order for 270 NA-77s to be delivered as SNJ-3s."

Indeed, *The Story of the Boeing Company* rarely strays from the realm of product orders and wartime performance capabilities; the author has quietly eviscerated the Boeing story of controversy and disappointment—essential parts of any history. There is little about how the Douglas DC-3—now part of *der Übercompany's* legacy—all but wiped Boeing's Model 247 off the map. Boeing's failed entrant in the Joint Strike Fighter competition is succinctly spun: The "X-32 program has accomplished a great deal, especially with regard to direct-lift technology, that would benefit future Phantom Works projects." And the company's move of

headquarters from Seattle to Chicago in 2001 is mentioned just once in passing.

Biographies of CEOs and engineering visionaries such as Bill Allen, Ed Heinemann, and the Douglasses are sprinkled throughout the book, but are too brief to show the magnitude of these executives' management and ideas. On the other hand, it would have been nice to see more factoids like the sidebars about the hydrofoil warships and cars for San Francisco's and Massachusetts' light rail systems that Boeing manufactured, or the fake neighborhood that Boeing built atop Seattle factories during World War II to confuse any Japanese bombers.

Even with an unremarkable layout—clean lines, right angles, and even spacing all around—*The Story of the Boeing Company* is a pleasure to leaf through. There isn't a single page without an inset, image, or chart showing production runs for specific aircraft variants. Its photographs are crisply reproduced, though not always engaging, especially as subjects become more current. Fantastic shots of early Boeing flying boats and piston-engine warcraft far outshine military-magazine-quality photographs of modern fighters and uninspired snapshots of Boeing's jetliner family.

In fairness, nothing less than a television mini-series could thoroughly

encompass Boeing's now-sprawling history, and clearly, such depth wasn't the goal. Yenne's work is a feel-good production that will appeal greatly to thousands of current and former Boeing employees. *The Story of the Boeing Company* is positive reinforcement in print, and for that purpose, it's spot-on. —Sam Goldberg is an associate editor at Air & Space/Smithsonian.

The Big Splat: Or How Our Moon Came to Be

by Dana Mackenzie. John Wiley & Sons, Inc., 2003. 232 pp., \$24.95.

This book could have been called *The Giant Impact*, the term the author uses for the collision between Earth and a speeding Mars-size planet that is believed to have created the moon. Or it could have been called *The Big Whack*, as the event is less formally known. But for Dana Mackenzie,

an imaginative science writer who has a Ph.D. in mathematics, *The Big Splat* is more evocative of an unimaginable explosion, equivalent to trillions of hydrogen bombs, that totally disfigured Earth and sent many

trillions of tons of debris into orbit, where it eventually cooled and coalesced to form what some astronomers call the fifth inner planet.

Indeed, it is the unimaginable nature of such an "event" (as scientists call ungraspable, brain-numbingly large explosions like the Big Bang and the asteroid hit that did in the dinosaurs) that forces writers like Mackenzie to reach for metaphors. So he describes an Earth turned into a lopsided blob, spilling its guts like a watermelon shot with a rifle, or that most creepy and untidy of all microorganisms: the amoeba.

The giant impact theory is one of four that describe how the moon came to be, all of them standard fare in Astronomy 101. The author wisely gives plenty of space to the other three—the moon came from someplace else and was "captured"; it was formed with Earth in the beginning; or it is the amalgamation of small planetesimals that were caught early on in Earth's "feeding zone"—but he offers persuasive evidence that the Big Splat did the deed.

To his credit, Mackenzie makes it clear that the giant impact theory is not

new; it dates back to the middle of the last century and was later championed by a succession of planetary scientists, including William K. Hartmann, Alastair Cameron, and Ralph Baldwin. He's assigned himself the job of telling the story, and he has done it admirably and accessibly, though with more background about Aristarchus, Galileo, Kepler, and Pythagoras than is necessary.

If *The Big Splat* validates the giant impact theory, it less obviously but still importantly also validates the science rationale for the Apollo program.

Mackenzie, again wisely, credits science with being the longest-lasting accomplishment of Apollo. The giant impact hypothesis was only proven, he maintains, because scientists inspected the lunar surface first-hand and drew intuitive as well as scientific conclusions. Ultimately this knowledge—not a short-lived propaganda victory over the

EXCERPT

from *The Wright Brothers and the Invention of the Aerial Age*

by Tom D. Crouch and Peter L. Jakab. National Geographic Books, 2003. 240 pp., \$35.

Any thoughts of abandoning their aeronautical experiments were finally erased when Wilbur received an invitation [in 1901] from Octave Chanute to speak in Chicago before the prestigious Western Society of Engineers on their recent gliding experiments at Kitty Hawk. Though flattered by the invitation, Wilbur had never spoken publicly on aeronautics and was apprehensive about presenting a lecture to a group of professional engineers. With the encouragement of Orville and Katharine, Wilbur graciously accepted the opportunity with a self-effacing reply to Chanute, agreeing to deliver "a brief paper of a rather informal nature" at the Society's next meeting. . . . As the date of Wilbur's talk approached, his brother and sister queried him on whether the speech was to be witty or scientific. Wilbur quipped he thought it would be "pathetic."

From the book *The Wright Brothers and the Invention of the Aerial Age* by Tom D. Crouch and Peter L. Jakab. Copyright © 2003 Smithsonian Institution. Portions adapted from *The Bishop's Boys: A Life of Wilbur and Orville Wright* by Tom D. Crouch. Copyright © 1989 by Tom D. Crouch. Used by permission of W.W. Norton & Company Inc. Reprinted by arrangement with National Geographic Books.

Soviet Union—is what Apollo gave all mankind. —William E. Burrows, the author of *This New Ocean: The Story of the First Space Age*, is a contributing editor for Air & Space.

On Glorious Wings: The Best Flying Stories of the Century

edited by Stephen Coonts. Forge Books, 2003. 464 pp., \$27.95.

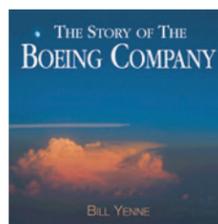
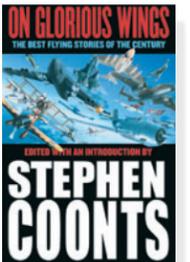
To carry out his mission of assembling "the best flying stories of the century," former U.S. Navy aviator and Vietnam veteran Stephen Coonts enlisted a platoon of literary heavyweights, among them William Faulkner, John Hersey, James Michener, and Joseph Heller. There's also Len Deighton, Louis L'Amour, Frederick Forsyth, and, not surprisingly, Stephen Coonts.

What will surprise readers are flying stories by Edgar Allan Poe, Arthur Conan Doyle, and Rudyard Kipling.

On Glorious Wings is a thoughtful, chronologically organized collection that enables Coonts to guide the reader through the airplane's changing roles, from the time when flight was an amusement, through the airplane's transition from toy to weapon, and on to airborne technology of today and the future. Many of the 23 selections are familiar. Among these are "The Raid" from Hersey's *The War Lover*, and the short, powerful "For Want of a Fokker" from *The Blue Max* by Jack D. Hunter.

Some are better than others, but even the lesser efforts, such as General H.H. "Hap" Arnold's breathless tale of a young man's first flight, are enjoyable. Had the air pioneer and U.S. Air Force Chief of Staff's military performance matched his skills as a boys' adventure writer, Hermann Goering might have retired to Palm Springs instead of poisoning himself. Louis L'Amour, a writer of westerns, contributes a pulp fiction piece, "Wings over Khabarovsk," one of the volume's lighter stories, in which soldier of fortune Turk Madden and his loyal sidekick, Shin Bao, deal with sinister Russians in a situation reminiscent of B westerns of the 1940s.

It was good to re-encounter V.M. Yeates, who wrote *Winged Victory*. His excerpt, "Learning to Fly," demonstrates



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