

belief that all things natural are supportable, Marcus acted nobly through plague, war, the loss of wife and children, treachery and rebellion, poor health, and his final sickness unto death.

*Contemporary Affairs*

**DEEP BLACK  
Space Espionage and  
National Security**  
by William E. Burrows  
Random, 1986  
401 pp. \$19.95

General George McClellan's aerial reconnaissance unit—the U.S. Army's first—advanced on Richmond in May of 1862 equipped with hot air balloons, heavy cameras, and balloonists with sketchpads. The Army Balloon Corps was credited by its leader, meteorologist Thaddeus S. C. Lowe, with saving the Union Army from at least one defeat. From its modest beginning, aerial reconnaissance has evolved into a sophisticated form of high-technology spycraft.

Despite the mystery surrounding overhead reconnaissance, Burrows, director of New York University's Science and Environmental Reporting Program, has managed to piece together its history since World War II. His book details the astonishing capabilities of spy planes such as the U-2 and its successor, the SR-71. The KH-11 satellite carries an electro-optical imaging system that transmits real-time pictures with a resolution comparable to that of the finest still cameras.

Burrows devotes considerable attention to disputes among federal agencies assigned to interpret data gathered by this sophisticated gadgetry. These include the CIA and the Air Force, not to mention the heavily funded but officially nonexistent National Reconnaissance Office, created in 1960 to design, develop, procure, and manage all U.S. reconnaissance satellites.

And what of the information gained? During the 1962 Cuban Missile Crisis, U.S. aerial reconnaissance not only spotted Soviet missile emplacements in Cuba but also determined that the U.S. stock of nuclear weapons was, at a minimum, equal to that of the USSR, giving President John F. Kennedy a strong hand.

But can we count on this technology to verify arms control agreements? "The evidence suggests overwhelmingly," says Burrows, "that the U.S. technical collection system, with its vast network of sensors and multiple redundancies, is adequate for verification."