

Our World Was On It's Shoulders

I interviewed senior employees, wrote copy and combed the archives for photos to create this commemorative newsletter for the Atlas engine program at Boeing Rocketdyne. A scan of the two-page spread on the rocket program is shown below, followed by the text.



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Powered by Rocketdyne, the Atlas has racked up records that may never be matched: A 40-year plus career, more than 550 launches to date (listed on this page) and mission profiles that have included America's first manned orbital missions, scores of military satellites and the first probes to explore Venus, Mars, Jupiter, Saturn and the asteroid belt.

No one could have foreseen that future when work began on the Atlas, the Air Force's first production ICBM, in 1954. Convair developed an innovative balloon-like stainless steel shell for the missile, and Rocketdyne initially matched it with the MA-1, a unique propulsion system made up of a two-barrel booster and a sustainer engine.

The booster engine provided maximum power off the pad, while the sustainer was optimized for high altitude performance. The result was a versatile one-and-a-half stage launch vehicle that was quickly adapted for space launch use, and during the 1960s an Atlas was fired off about every 10 days. When the Air Force retired their Atlas missiles in 1965, they converted many of the old ICBMs into space launch

vehicles. Through the 1970s and 1980s, they joined the fleet of two stage Atlas-Centaur launch vehicles that had been developed in the mid 1960s.

Over time, the MA-1 has become the MA-5A, and thrust has increased from 300,000 lb. to 429,500 lb. The Atlas has evolved into a family of launch vehicles. Convair is now part of Lockheed Martin, and Rocketdyne was acquired by Boeing. Through the years, Rocketdyne's production of Atlas engines has waxed and waned, but as the current production cycle comes to a close with the delivery of the 713th engine system, one thing won't change: The Rocketdyne-powered Atlas system will remain one of the most successful rocket programs in history.

Quotes

“The first Atlas mission to orbit was a satellite that broadcast President Eisenhower’s Christmas message. Of course, that told everyone that you could put an Atlas missile anywhere in the world.”

GEOFF HUNTER, RETIRED PROJECT ENGINEER, ATLAS ENGINE SYSTEMS ENGINE SYSTEMS

“We had a railroad track that went across the middle of the base, and on the early test launches, if it made it over the tracks, it was a successful launch.”

JIM LUCAS, RETIRED BASE MANAGER, VANDENBURG AFB

“At the program’s height, we had something like 23 test stands going at one time. These were the large engine test stands, principally for the Atlas or Thor.”

BOB SMITH, DIVISION DIRECTOR, PROPULSION PRODUCTION PROGRAMS

“The teamwork on the program has been pretty incredible. It’s been a really good experience in terms of the people and the customer I’ve worked with.”

KAREN PETERSEN, ENGINEER, ATLAS ENGINE SYSTEMS

“When I came on in 1979, Geoff Hunter said he could promise me three to five years and the program was possibly going out of business. Now, here it is 20 years later and we have 22 left to fly.”

RAY KRISE, PROJECT ENGINEER, ATLAS ENGINE SYSTEMS