

# THE MODEL MAN

*Bill Topping built an empire in plastic, but he should have paid more attention to the paperwork.*

Story and photographs by Chad Slattery







Lot 1823 went on the block at 4:25 p.m. The catalog showed a tiny plastic Mercury space capsule soaring over a baby-blue globe. In the photo it looked dignified. In person it looked slightly toy-like. To the hundred bidders gathered at Superior Stamp & Coin's space memorabilia auction in Beverly Hills, California, in October 1995, it looked irresistible. "It's an icon," explained auction organizer Michael Orenstein. "You can't just go out and buy a 1961 spacecraft. But you can get a model from that era. It's as close as an average person will get to owning a real Mercury capsule in his living room. Plus, this one's a Topping."

A Topping model, that is, and in perfect condition to boot. The Space Age baby boomers shifted anxiously in their seats as bidding opened at \$200. In a heartbeat it hit \$1,000 and then \$2,000, and when it was over, the five ounces of plastic and metal had fetched \$2,645. Fifty seconds had elapsed.

It was a record price for a mass-produced aircraft model, and that it came from Bill Topping's company surprised

*Bill Topping hoped that the money he earned making precision desktop models would keep his family comfortably afloat. But his fortune, like that of the Martin SeaMaster (above), sank in a sea of troubles.*

no one. *These are not toys, he liked to say. They are precision miniatures.*

In truth they were sophisticated sales aids. For the past 60 years manufacturers have promoted their aircraft, missiles, and spacecraft by selectively distributing desktop promotional models. Few of those models survive today. Those that do are avidly sought by collectors, and the most eagerly sought are those made by Topping Models.

While Bill Topping was not the first to produce miniatures for the airplane industry, he was the first to recognize that emerging postwar plastic technologies could be used to mass-produce cheap, accurate models, and he believed that he could persuade aircraft industries to use them as sales tools. "Before Bill, models were carved, one at a time, from wood," says Walt Hyatt, Topping's long-time West Coast sales representative. "It was slow and labor-intensive and so expensive that companies hoarded them. Topping sold airplane companies the idea that they should order these things by the thousands and then





give them to anyone even remotely connected with buying their airplane.

He was a master salesman."

Photos show a cheerful man of medium height and stout build, with dark wavy hair and thick-rimmed glasses setting off an open face. He was warm, quick to laugh, and radiated optimism.

He also knew his way around a factory floor. While colleagues remember Topping's gift for sales, the cornerstone of his success was a thorough knowledge of modern production engineering. He had studied mechanical engineering at Case Western Reserve University in Ohio, run a hardware factory for a few years, and then taken a job in sales at Goodyear Tire & Rubber.

Topping loved selling but hated tires; he wanted to be around airplanes. Just before the outbreak of World War II he

transferred to Goodyear Aircraft to sell self-sealing fuel tanks. On a sales call at Grumman in 1942, Topping spotted a Hellcat model in a purchasing agent's office and asked to buy it for his son. Told it cost \$7.50, he mused aloud that he could make a better one at half the cost with injection molding—pumping molten plastic into a steel mold (called a die), letting it cool, and then popping the model out like an ice cube from its tray. The 1,000th model would be precisely identical to the first, he told the agent. He walked out with an order for 1,500 models.

Grumman liked the result and ordered more. Buoyed by these and contracts from other Goodyear con-

tacts, Topping quit the firm in 1943 to found Topping Models and set up shop in Akron.

Success came quickly. As the cold war heated up, companies competed fiercely for new aircraft and missile programs. Sales forces clamored for something to leave behind on a Pentagon desk. Topping's models were perfect: cheap, easy to carry, and always welcome. "He had an automatic market," says Walt Hyatt. "First place, military people would take anything for nothing. Second, they *love* models. Pentagon offices are loaded with them. Bill tapped into that."

Sales reps targeted pilots in particular. "The manufacturers gave them to all the operating

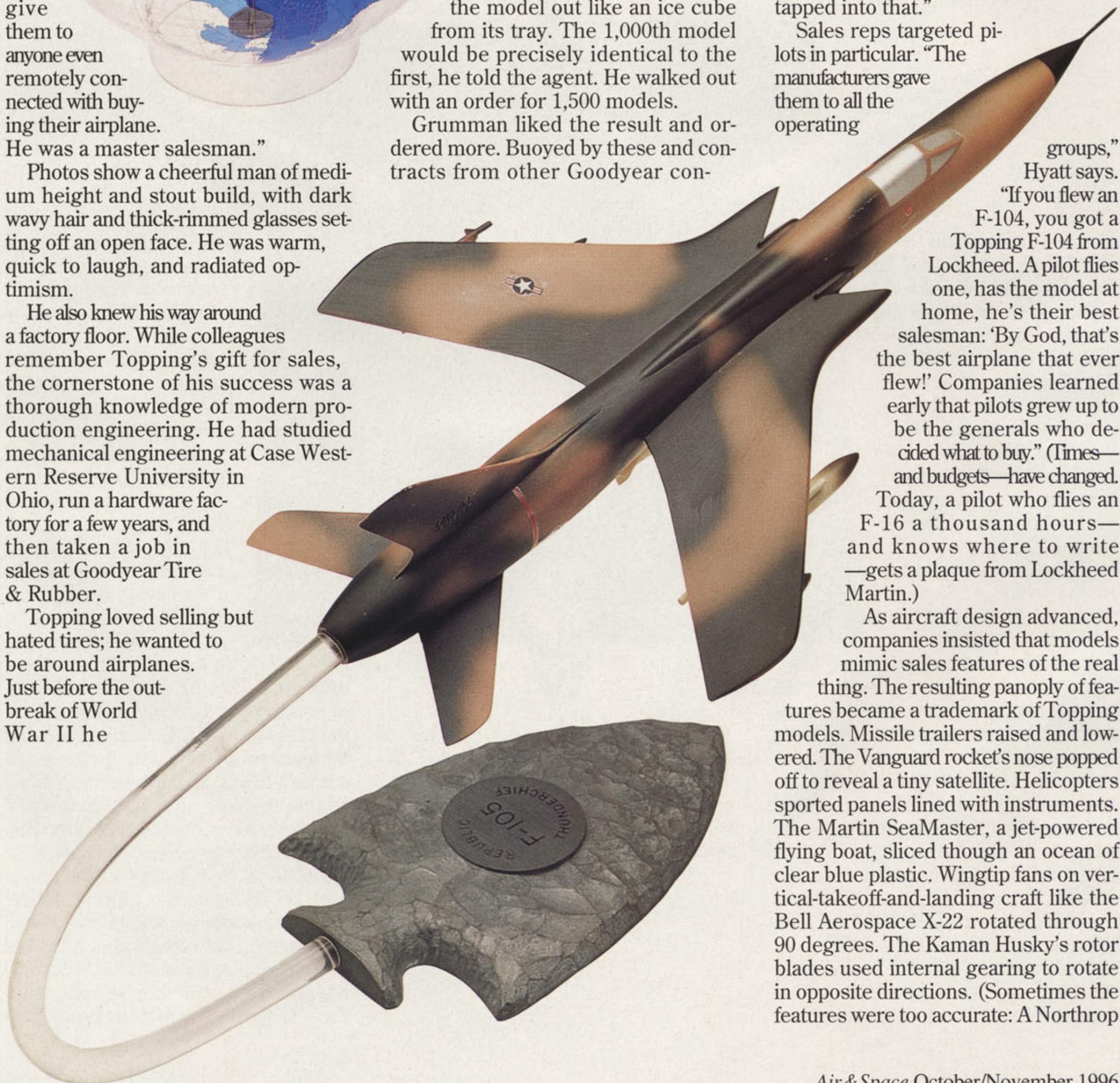
groups,"

Hyatt says.

"If you flew an F-104, you got a Topping F-104 from Lockheed. A pilot flies one, has the model at home, he's their best salesman: 'By God, that's the best airplane that ever flew!' Companies learned early that pilots grew up to be the generals who decided what to buy." (Times—and budgets—have changed.

Today, a pilot who flies an F-16 a thousand hours—and knows where to write—gets a plaque from Lockheed Martin.)

As aircraft design advanced, companies insisted that models mimic sales features of the real thing. The resulting panoply of features became a trademark of Topping models. Missile trailers raised and lowered. The Vanguard rocket's nose popped off to reveal a tiny satellite. Helicopters sported panels lined with instruments. The Martin SeaMaster, a jet-powered flying boat, sliced through an ocean of clear blue plastic. Wingtip fans on vertical-takeoff-and-landing craft like the Bell Aerospace X-22 rotated through 90 degrees. The Kaman Husky's rotor blades used internal gearing to rotate in opposite directions. (Sometimes the features were too accurate: A Northrop





engineer studied the engine air intakes on Topping's Northrop N-156F approval model—the F-5 prototype—and by working backwards was able to calculate the maximum velocity at which air would enter the inlet, thus arriving at the aircraft's top speed, which was classified. Topping duly modified them.)

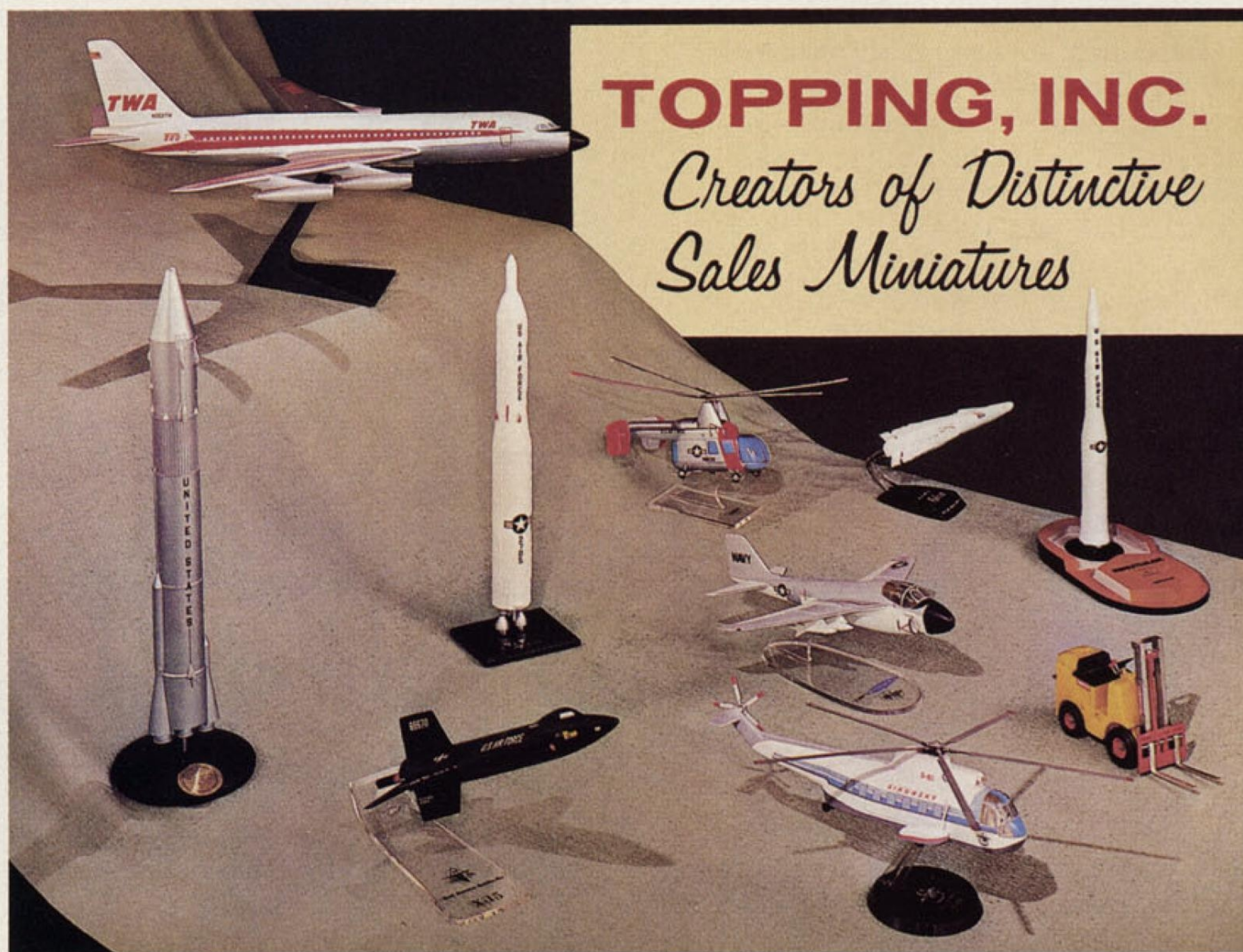
The dies similarly grew in complexity. From the beginning, Topping's molds were made by Ohio craftsman Joe Goldsmith. Goldsmith had learned his art through an arduous Old World-style apprenticeship, and he applied these skills to the creation of modern dies with modules that were sequentially moved, enabling complex designs to be cast with just one shot of plastic. A less imaginative toolmaker would have made the parts separately—wings, tails, engines, and so forth—and glued them together. Goldsmith, however, knew this process would demand extremely precise assembly and a highly skilled labor force. He developed ingenious molds that required workers merely to push and pull rods at various stages of the injection process.

The dies were not cheap. In June 1958, when a new

Chevrolet cost \$2,200, tooling for a 15-inch Lockheed JetStar came to \$12,040. But they gave Topping products an unprecedented accuracy and consistency.

In the early 1950s Topping briefly branched into other industries. He created a small model of the first Youngstown Kitchens dishwasher so that salesmen could demonstrate the technology to

disbelieving housewives: Hooked up to the kitchen faucet, it sprayed a stream of water through the "Jet-Tower" center column onto a rack of tiny dishes. For the Ferguson farm equipment company he produced a tractor trailing a disk harrow. Involving over 60 parts, it featured a moving gearshift and steering wheel, rolling tires, and a lever in-



According to a blurb in the Topping catalog (above), "Topping can also be used to work for you after your salesman has left. Many firms give them to customers and prospects, who display them prominently." Former Topping sales rep Walt Hyatt (left) agreed: "First place, military people would take anything for nothing. Second, they love models." Delta Airlines thanks travel agencies with a Boeing 767 in a globe (opposite, top), and the F-105 Thunderchief (opposite) scored a bull's eye with its builder, Republic.



ternally geared to raise the harrow.

Industry rewarded his innovations with nonstop orders. By today's standards, Topping's volume was enormous. In May 1957 Lockheed placed an order for 4,500 models of the F-104. Boeing ordered 3,000 707s in one week. Convair would buy over 200,000 Atlas missile variants, and North American Aviation purchased 250,000 models of its F-86 and F-100 fighters.

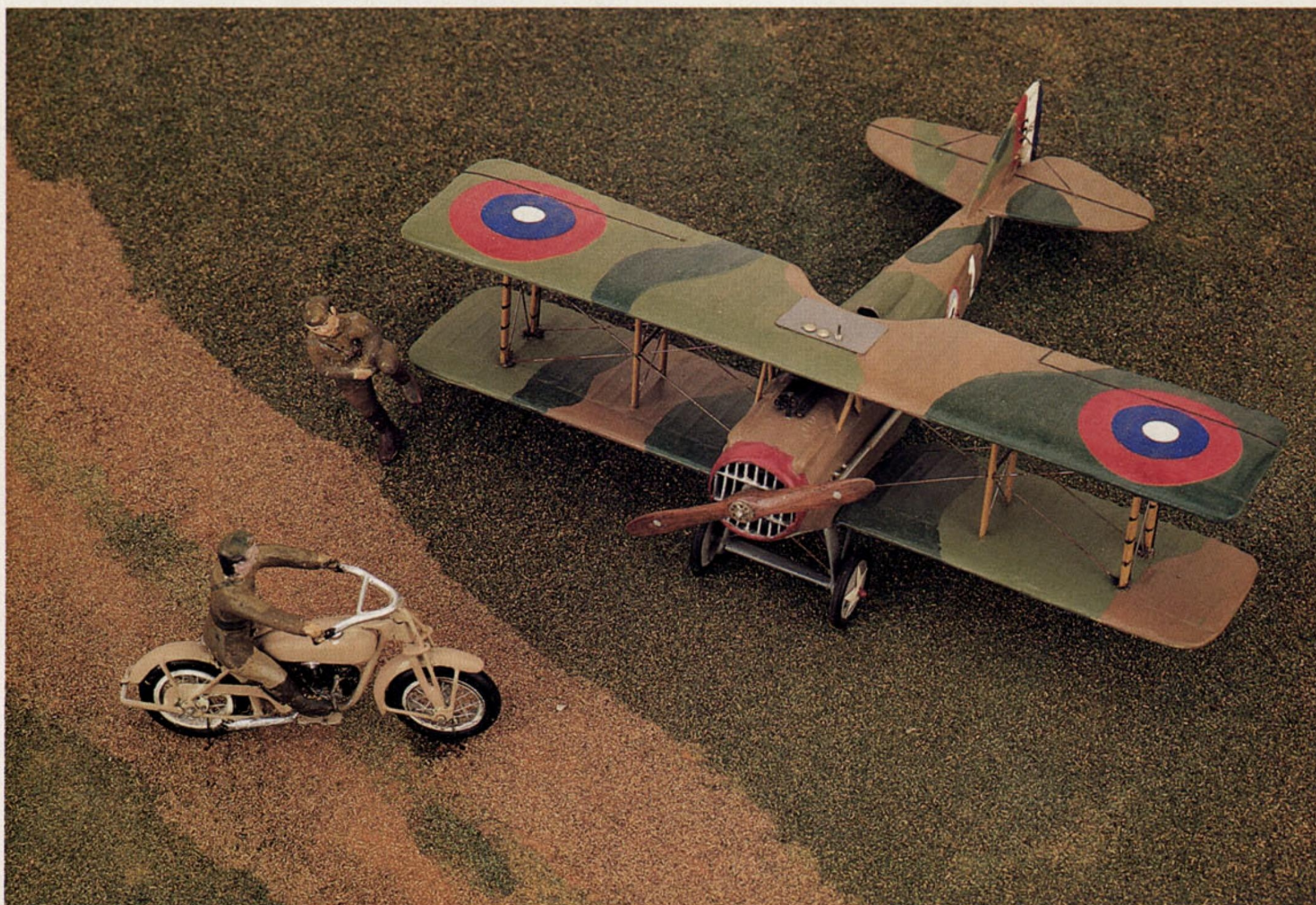
These large numbers easily recouped the dies' costs, and other costs were low. Goldsmith's elaborate molds—his Boeing 707 tooling had a phenomenal 39 moving parts—minimized the num-

*Topping's range extended beyond aircraft to include a functioning dishwasher for Youngstown Kitchens (right) and a Ferguson tractor with 60 parts. His pet project was a series of scratch-built dioramas (below) that covered the history of aviation.*



ber of parts, reducing assembly labor. The acetate butyrate plastic that Topping used was cheap and sturdy and bonded instantly without clamps. He kept wages down by hiring hourly instead of full-time salaried labor to paint and finish models. As a result, in 1957 even a complex Martin P5M Marlin sold for under \$5, and a Convair B-58 went for under \$6. By 1961 Topping's sales brochure boasted that he had produced more than two million models, and he was grossing over \$1 million a year. Unfortunately, he was spending even more.

Accustomed to luxury, operating in an industry afloat with defense dollars, Topping never learned to economize. He always flew first class, patronized luxury hotels, and picked up \$2,000 dinner tabs after military trade shows. He owned a huge home in Akron's best neighborhood. At Christmas he gave clients \$500 gifts from Abercrombie & Fitch; his wife Evelyn recalls the day he returned home and announced that





*Topping's empire crumbled when his 1964 World's Fair Unisphere (right) was undercut by cheap imports. Today, however, collectors have boosted the prices of Topping models sky-high. A McDonnell Mercury capsule (below) brought \$2,645 last fall.*

he had just bought a speedboat for a good customer at Grumman.

"Bill lived high on the hog," says Goldsmith. "He wanted to be a big shot, and he played the role. He spent more than he had coming in. But giving the gifts he gave got him nothing. He didn't need to do it; he had a great product that sold itself. It was sad."

He had always financed his business and his lifestyle by securing advances and by borrowing on purchase orders. As notes came due, Topping would simply show new purchase orders to the bank and roll the loan over. He had blue-chip clients and charm to spare; bankers viewed him as a safe bet. Then Robert S. McNamara stepped onto the field.

In 1961 Pentagon sources began warning Topping that the new secretary of defense planned to tighten controls over military spending. Topping knew that companies purchasing his models usually charged them back to the services as overhead, and he sensed that McNamara's hatchet would affect him. Looking for new markets, he approached organizers of the 1964 New York World's Fair.



The fair's focal point was a huge stylized globe dubbed the Unisphere. Topping signed an exclusive contract to produce models of it. Against Hyatt's advice, he anted up a \$35,000 license fee, then borrowed \$250,000 to produce 100,000 models. Full of confidence, he arrived in New York as the fair opened, stopped by a drugstore near his hotel, and saw shelves full of shiny Unispheres. Startled, he picked one up. It came from Japan.

He hadn't read the fine print. The contract gave him exclusive rights only on the fairgrounds. Other companies had secured off-site rights and then flooded the city with inexpensive knock-offs. Fairgoers bought the cheap souvenirs, not the exquisite miniatures. Topping sold just \$300 worth of Unispheres.

Disaster struck again only a month later. McNamara issued a directive prohibiting military personnel from accepting any contractor gift worth over \$5. Topping's cash cow

dried up immediately. "The next orders we got from the companies, where they had bought 5,000 models, they bought 500," says Walt Hyatt. "Ninety percent of our business evaporated." In 1965, out his Unisphere investment and without large orders to borrow against, Topping Models collapsed into bankruptcy.

The following year Topping suffered a stroke. He retreated to his basement and for the next two decades worked on a series of 24 dioramas depicting aviation history in 1/32 scale, beginning with the Wright Flyer and ending with the ultralight Solar Challenger crossing the English Channel in 1981. His logbook records that he spent 9,436 hours fabricating the 117,000 parts. Calculating prevailing wages for a master model maker, he pegged the collection's value at \$400,000, and set out to sell it.

By then, he and Evelyn had lived 20 years at a standard far below what they once enjoyed, subsisting on Social Security and her salary as a hospital receptionist. "I think Father always hoped that the dioramas would sell, that he







*During the aviation industry's cold war heyday, North American Aviation ordered 250,000 models of its F-86 (right) and F-100.*

would make his last statement in life, that final big sale, then be on easy street and have the money for Mother," says Topping's youngest son, John. In 1988, he crated the collection and sent it to Jack Rowe, retired manager of customer relations at Hughes Aircraft. "He was a hell of a good salesman," recalls Rowe. "But he also made everyone his friend. And it was a genuine friendship. He was just wonderful people. Now he needed help. So I volunteered to help sell them."

While Rowe was trying to sell the dioramas, a collector's market was quietly developing for Topping's promotional models. For 50 years Topping models have toppled, snapped, and been test flown by curious grandchildren into bits and pieces. Propellers break while being dusted, missiles snap off during earthquakes, and seaplanes drown in bathtubs.

Supply is diminishing just as demand is rising. A garden-variety F-104 that cost Lockheed \$3 in 1957 and a collector \$100 in 1992 will bring \$150 today.

Early Grumman jets like the Panther and Cougar in good shape average \$200. The Martin P5M that sold for \$5 in 1957 fetches \$350—if you can get one. Walt Hyatt's observation is every collector's lament: "North American built only three X-15s. But we shipped 32,000 models of it. And just try to find one today."

Or a Convair B-58, North American XB-70, or Chance Vought XF8U-3. "I feel I'm buying a piece of aviation history," says Jonathan Rigutto, a 34-year-old nuclear medicine technologist who haunts swap meets and antique stores. "It's not just an airplane kit that you got at a store, along with three million other kids. Toppings were exclusive. And they're getting a lot harder to find.

"The Holy Grail for me would be an

Avro Avrocar," says Rigutto, describing Avro Canada's 1961 saucer-shaped vertical-takeoff-and-landing craft. He bought his first model in 1990, thinking 50 would be a large collection. "But I couldn't stop there, and soon I had a hundred. Now I can't see an end in sight. There are still a lot of models out there that I want." Having now acquired some 200 models, he estimates he's spent some \$20,000 on his collection.

Non-aviation Toppings are particularly rare. A New Idea Farm Equipment Manure Spreader bought by farm kids for \$1 in 1952 is worth \$300 today, and the Youngstown dishwasher goes for \$600. But by far the greatest run-up has been in space models.

The Mercury capsule auctioned for \$2,645 had gone for \$1,725 six months earlier, and was a relative steal in 1993 when one sold for \$875. At an auction in 1994, a collector paid \$1,200 for a Lunar Excursion Module that had cost Grumman \$19.42 when new. Topping's seven-inch-high model of a Gemini capsule, new in the box, brought \$1,100 at the same auction.

Today, like the industry they serve, model companies have downsized and consolidated. But their best customers are in the civil sector, not the military. Federal Express distributes hundreds of models to customers throughout the world. Delta Airlines thanks travel agencies and corporate travel departments with a small 767 model perched in a transparent globe. All Nippon Airways commissioned the Pacific Miniatures company to produce a model 747, intricately adorned with a schoolgirl's winning decal design, that sells in Tokyo



gift shops for \$900. Western Pacific's 737, decorated with characters from "The Simpsons," is already worth triple its cost.

There is another difference that mimics the larger industry: volume. Topping regularly sold 20,000 models a month; today it takes current industry leader Pacific Miniatures six months to sell that many.

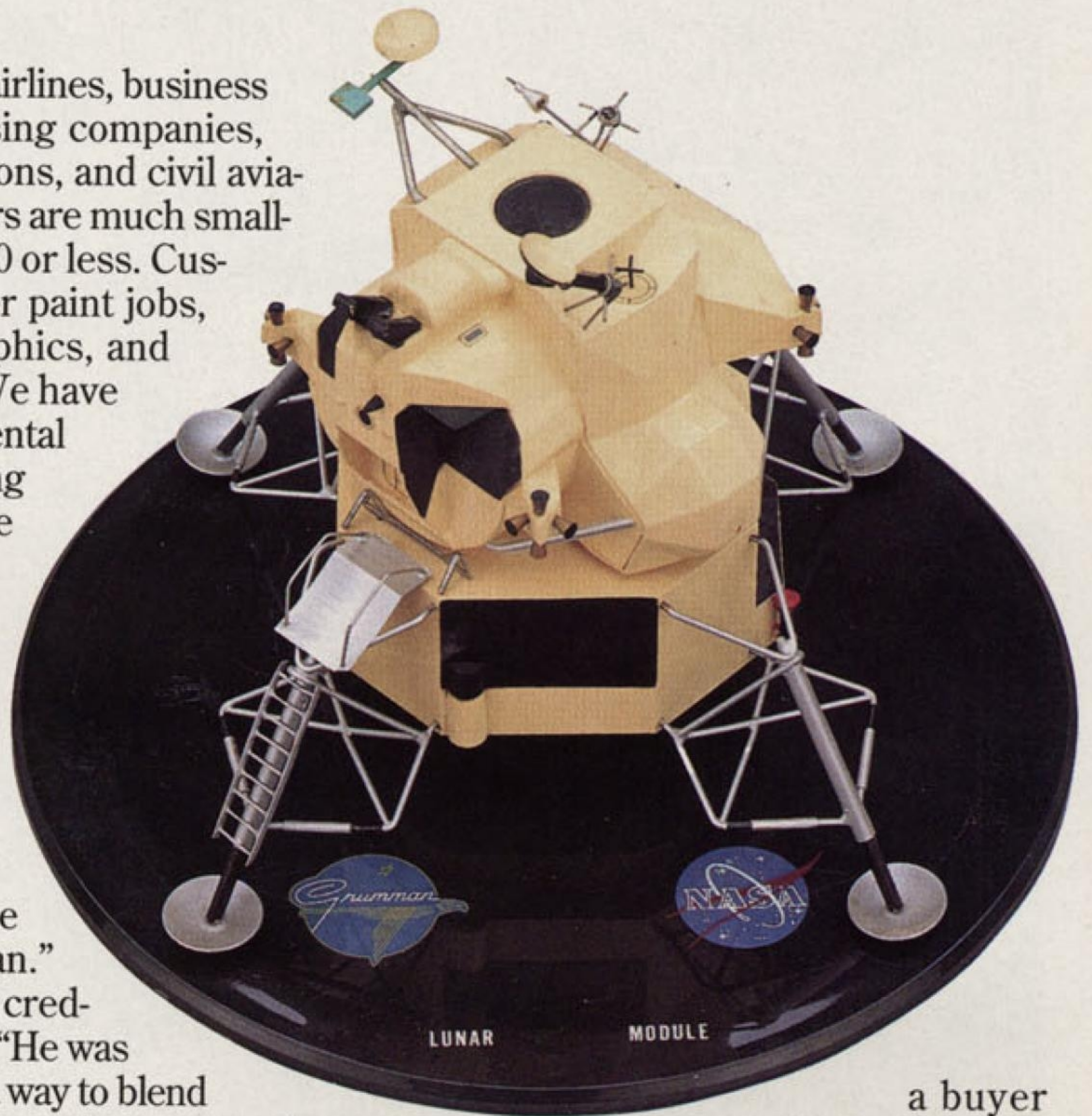
The antithesis of Topping in looks and business philosophy, Pacific Miniatures president Fred Ouweleen is having lunch in his spartan office in the Fullerton, California factory. Topping frequented four-star restaurants; Ouweleen is eating an apple from his brown-bag lunch. Between bites he compares his business with Topping's.

"His client base was 90 percent military and 10 percent civilian," says Ouweleen. "Ours is the reverse of that:

We sell mostly to airlines, business jet operators, leasing companies, air freight operations, and civil aviation sectors. Orders are much smaller now, runs of 100 or less. Customers want super paint jobs, very detailed graphics, and fast turnaround. We have to meet environmental regulations Topping could never have imagined. And he focused just on the U.S.; we sell to five continents."

Ouweleen tosses the core in a wastebasket. "The best lesson Topping taught us," he says, "is to stay lean." But he is quick to credit Topping's vision: "He was the first. He found a way to blend technology and art to make great products at a low cost. Even today, when I call on my customers, I still see his models on people's desks. They're obviously cherished possessions."

Bill Topping died in a nursing home in December 1992; Walt Hyatt passed away last April. The Topping dioramas remain unsold, crated in Jack Rowe's garage. Evelyn Topping lives in a small apartment near son John, who is visiting her on a winter's day. Like his father, he is optimistic that Rowe will find



a buyer for the dioramas. If pressed, he'll bring out some old boxes, each with one or two Topping airplanes, yellowed from 30 years' storage in an attic that bakes in summer and freezes in winter. He rummages around and finds two perfectly preserved Unispheres. They are bright and still shiny, full of promise for a better world. Without a trace of irony, he explains that he has saved them for his children as a remembrance of their grandfather. →



*Topping's Space Age clients included North American Aviation (the Rocketdyne S3 liquid-fuel missile engine, above) and Grumman, which built the Apollo program's lunar module (top). Today Pacific Miniatures' president Fred Ouweleen (right) finds that the business has changed. "The best lesson Topping taught us is to stay lean," he says.*

