

# Team Looks Into Future Of Airplanes

Researchers Here Fly 'Idea' Ships on Drawing Board Paper

A bevy of engineering talent is hard at work over drawing boards at Convair's Fort Worth division designing airplanes that will be front-page news 10 and even 25 years from now.

This research and development team is far removed from the B-36 assembly line and today's production realities in aircraft manufacturing. The researchers are living in the world of tomorrow.

It is a favorite expression at Convair that the technical designers are forever "reaching for a big chunk of blue sky" in their studies of future airplanes. The designers are visionaries of a sort but their concepts are tempered by the physical limitations of materials and men.

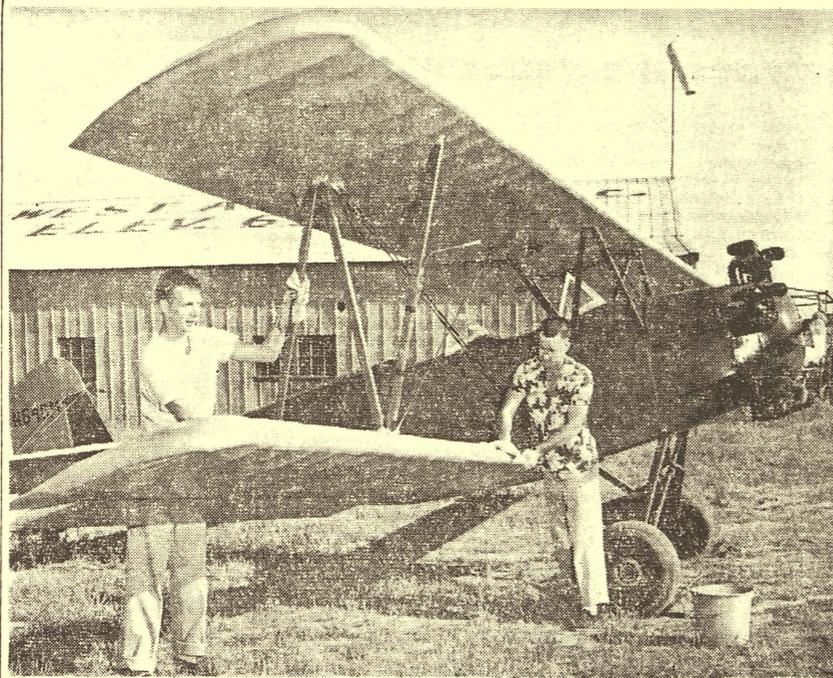
Technical designers at Convair make intensive studies to determine what airplane sizes, shapes and means of propulsion will meet the specifications laid down by the military. They fly "idea" airplanes on paper with such electronic aids as the Reeves Electronic Analog Computer. From their calculations, it is determined which of these "idea" airplanes have the best chance of survival.

### SCALE MODELS.

The preliminary designers then put together the findings of the technical designers and construct on blueprints the most efficient aircraft within the limits imposed by the findings of the technical designers.

The next step in the research and development process is constructing and testing of scale models in the most modern wind tunnels in the country. The models are tested at simulated altitudes higher than man has ever flown and at speeds that run far into the supersonic realm.

After the wind tunnel tests are completed and results evaluated, appropriate changes are made in the design before actual production drawings are started on the basic parts of the airplane—structural designs, power plants, armament, electronic and electrical installations, furnishings and equipment. The drawings are then released to the tooling department and the factory is "tooled up" for production of the airplane.



—Star-Telegram Photo.

VINTAGE 1929—This early-day product of Convair, Fleet Model 2, is still airworthy. Its owners, A/2C Dale K. Willard, left, and A/1C William R. Davis, give the 1929 plane a bath at Midwest Airport.

into the desired configuration. This work is done in Convair's million-dollar engineering test laboratory where conditions ranging from desert sand storms to Arctic blizzards can be simulated.

One of the newest phases of research and development is the study and evaluation of the state of the art of building airplanes throughout the free world to determine what will be available at any specified "target" date in the future. This type of scientific forecasting becomes more and more necessary as the cost and complexity of modern warplanes increase.

Convair is now heavily occupied in the engineering phases of a supersonic bomber of radical new design. The Fort Worth division is also nearly two years along the road toward developing a nuclear-powered airplane. A number of other research and development contracts of a classified nature are in the mill. Some may never see the light of day but others are sure to make news in the world of tomorrow.

### Checkup Shows Speed Of TV's Development

NEW YORK, May 30 (AP).—The speed with which coast to

Baltimore, Washington.

In the five years since then the circuits, which include both coaxial cable and microwave links, have been extended to the West Coast, to the North and

South and to intermediate points so that relay service now is available over 34,000 miles of relays to 87 cities.

Before 1953 is out, 13,000 more channel miles will be added.

## IT'S A GREAT DAY!

When our big neighbor Convair celebrates a birthday, it is indeed a great day. We are truly proud that Convair is at home here.



### Ancestor of B-36

## Little Fleet Biplane, Long Out of Date, Still Sturdy

The granddaddy of the B-36, a little five-cylinder Fleet biplane with open cockpits, sits in an obscure T-shaped hanger at Midwest Airport on the eastern fringe of the city.

It is the \$400 property of two Carswell airmen who bought it from a bread truck driver last January. They fly it on week-ends when they have money enough for gas.

The senior owner, A/1C William R. Davis, talks proudly of the plane's 160-mile-an-hour top speed and 65 when it's cruising.

"She'll do anything we're men enough to try," he boasted.

Davis and Co-owner Dale K. Willard, an airman second class, had just finished hosing a two-week accumulation of mud from the plane's skinny fuselage. A brass plate on the plane is inscribed: "Fleet Model 2, Buffalo, N. Y., 1929." The radial engine, a 100-horsepower Kenner, carries the same date.

"I'm checking out on aerobatics," Davis confided. "Somebody told me this plane would do more outside loops than any other kind but every time I get her on her back, she conks out."

Davis figures it costs \$2.50 an hour to keep the ancient Consolidated plane in the air.

"In September, I'm flying it home to Arthurdale, W. Va., on furlough," he said. "Hope to make it in one day if I get an early enough start. Say, what time does the sun set in September anyway?"

### Integral Fuel Tanks

Consolidated Aircraft was the first company to design and install integral fuel tanks; that is, gasoline tanks located within the wings of large airplanes (first used in PBV Catalina flying boats), thus providing greater fuel load and increased cargo space.

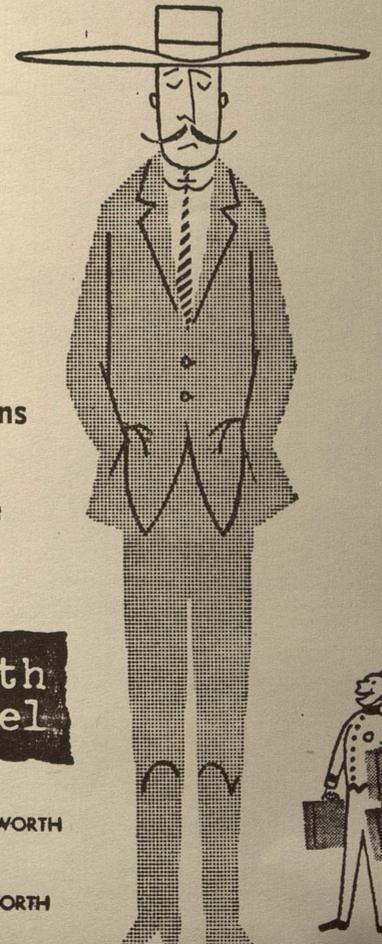
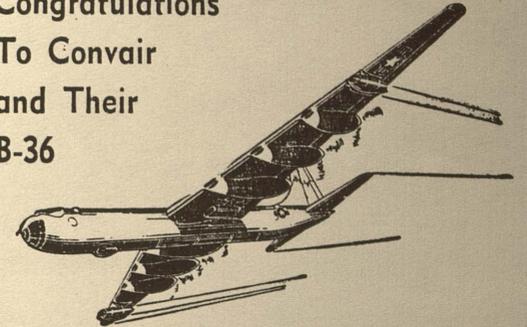
### Flying Classroom

As the first military plane built especially for training U. S. Air Force navigators and bombardiers in groups, the Convair T-29 "Flying Classroom" made its first flight at San Diego on Sept. 22, 1949.

### Largest Bomb Load

The world's largest load of bombs ever carried in one airplane—two 42,000-pound bombs—was dropped by a Convair-built B-36 on Muroc (now Edwards), Cal. Air Force Base bombing range, on Jan. 29, 1949.

## Congratulations To Convair and Their B-36



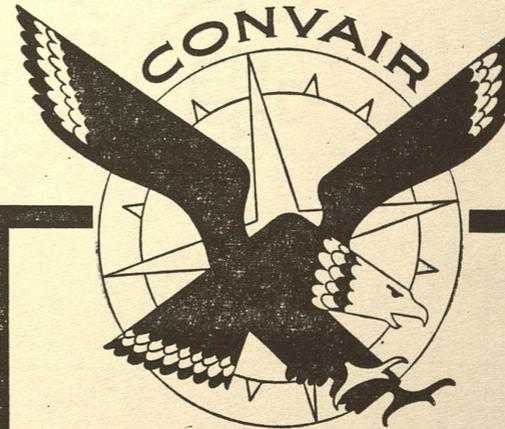
as big as the Texans who make 'em!

worth hotel

IN FORT WORTH IT'S THE WORTH



## CONGRATULATIONS,



PICKWICK FOOD STORES

"We Reserve the Right to Limit Quantities"

4 CONVENIENT FOOD STORES

1818	1900	4837	1503
MEMPHIS	MIAMI	OKLAHOMA	OKLAHOMA

efficient aircraft within the limits imposed by the findings of the technical designers.

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**MATERIALS TESTED.**

Before actual construction begins, however, materials are tested for every foe devised by nature—humidity, heat, cold, corrosion, mildew and the like—and for inherent strength before and after they are shaped

at any specified "target" date in the future. This type of scientific forecasting becomes more and more necessary as the cost and complexity of modern warplanes increase.

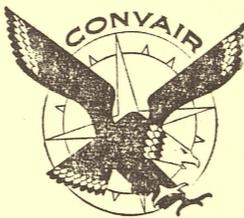
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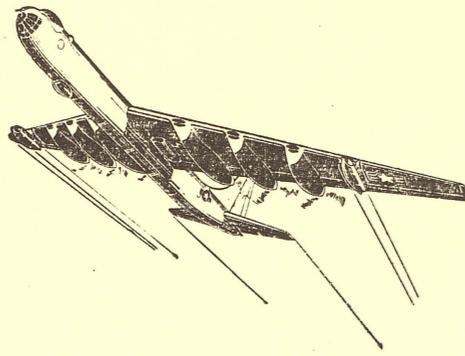
NEW YORK, May 30 (AP).—The speed with which coast to coast television has developed is clearly shown by a checkup of the records.

On May 1, 1948, only 196 miles of TV circuits were available to connect five cities along the eastern seaboard, including Boston, New York, Philadelphia,

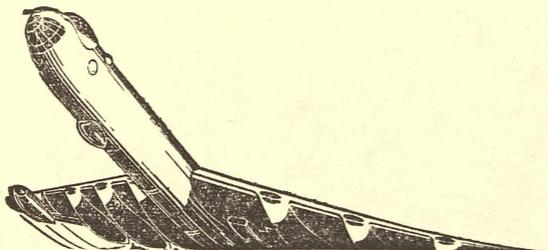
When our big neighbor Convair celebrates a birthday, it is indeed a great day. We are truly proud that Convair is at home here.



**CLOVER GRILL**  
*Main at Sixth*



**LEADERS**  
**in Aircraft Progress**  
**SINCE 1923**



**PICKWICK**  
**FOOD STORES**

"We Reserve the Right to Limit Quantities"

**4 CONVENIENT FOOD STORES**

1818 HEMPHILL	1900 EVANS	4837 GR. OAKS	1503 NO. MAIN
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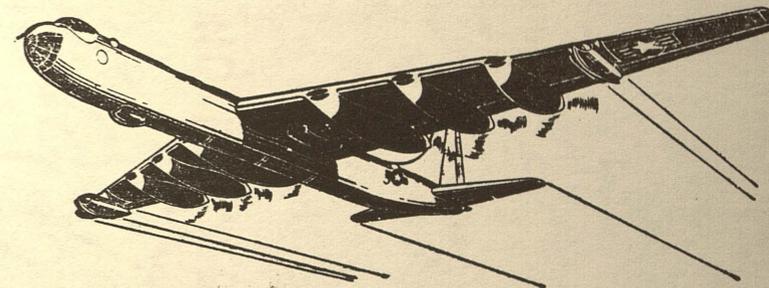
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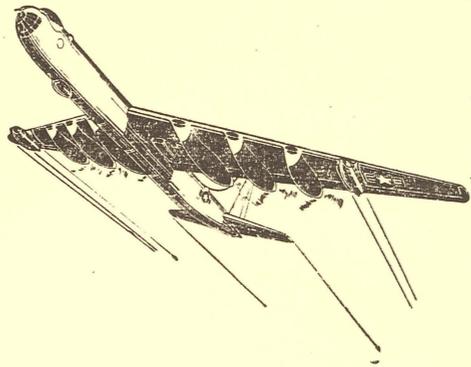


Jack Farrell  
Manager

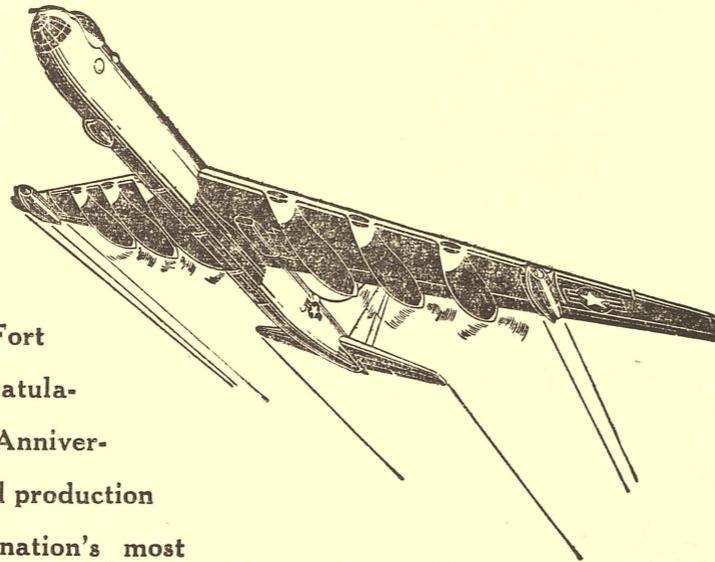
AIR-CONDITIONED—GARAGE IN CONNECTION



**C**ONGRATULATIONS  
**CONVAIR!**



# LEADERS in Aircraft Progress SINCE 1923



Kemble Bros. joins all of Fort Worth in extending congratulations to Conqair on its 30th Anniversary of design, research and production progress in one of the nation's most valuable industries . . . It has been our privilege to serve the people of Conqair for almost eleven years.

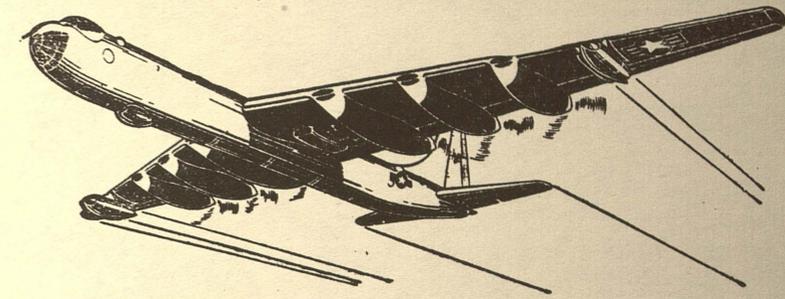
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- ★ Save extra money with Everybody's Savings Coupons.
- ★ Let us cash your payroll checks with no obligation to you.
- ★ Park in our Free Parking Lot—corner of Belknap and Taylor.
- ★ Enjoy cool, healthful shopping in our Air Conditioned Store.

**EVERYBODY'S**  
THE STORE WHERE EVERYBODY SAVES!