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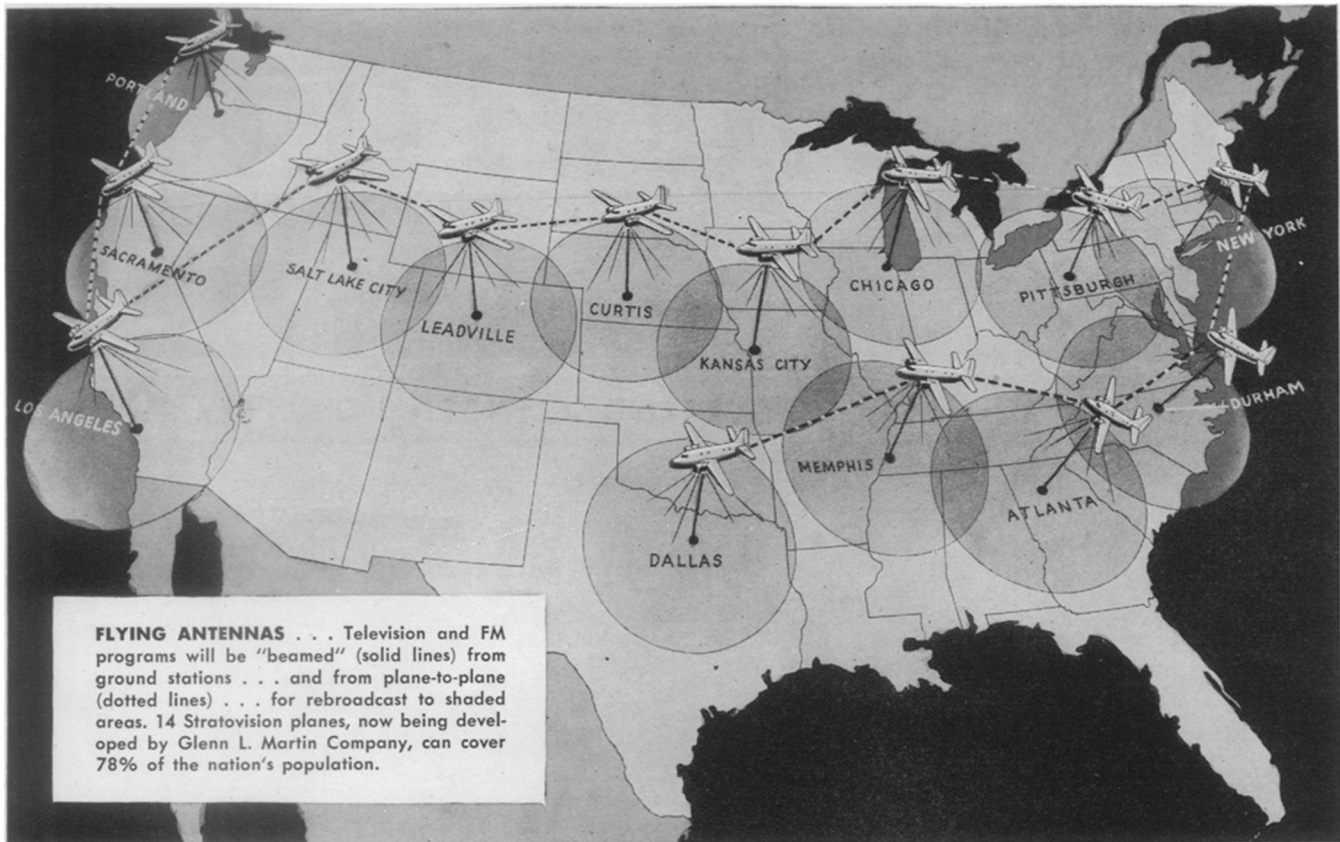
# SCIENCE NEWS LETTER

THE WEEKLY SUMMARY OF CURRENT SCIENCE • NOVEMBER 17, 1945



Unusual Infant  
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A SCIENCE SERVICE PUBLICATION



## How Westinghouse STRATOVISION took the final headache out of Television and FM

**E**VEN before the war ended, Television and FM transmitting and receiving equipment had reached a high degree of perfection. But a final difficulty remained—the problem of broadcasting such programs on a nationwide basis.

Because of the ultra-high frequencies employed, Television and FM waves travel only in straight, "line-of-sight" direction. They do not bend around the earth's surface . . . as do those of standard-band radio.

This limits the range of a Television or FM station to a maximum of 50 miles—even when perched atop the tallest building.

A chain of radio-relay stations across the country—or coaxial cables spanning the nation—have been proposed as a solution. But these are terrifically expensive and, worse yet, cause serious distortion of long distance programs.

Now, at last, Westinghouse research engineers have discovered a practical solution—"STRATOVISION"—

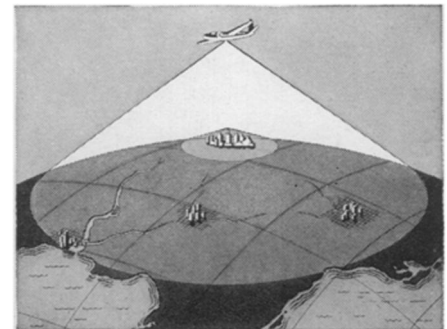
broadcasting Television and FM programs from planes flying six miles high in the stratosphere!

At this altitude, a single Stratovision plane can cover an area 422 miles in diameter . . . 103,000 square miles . . . approximately the combined area of New York, New Jersey and Pennsylvania.

Westinghouse engineers predict that 14 of these flying broadcasting stations can transmit 4 Television and 5 FM programs simultaneously to 78% of the nation's population.

The conception and planning of Stratovision broadcasting are a tribute to the ingenuity and engineering "know-how" of Westinghouse radio technicians . . . gained through producing approximately \$400,000,000

worth of Radar and radio equipment for our armed forces.



**HERE'S THE SECRET . . .** Stratovision broadcasting, serving an area of 103,000 square miles, will require only 1/50th as much power as a 50 kilowatt ground transmitter covering only 7,900 square miles. That's why a single Stratovision plane can easily carry and power the equipment needed for simultaneously transmitting 4 Television and 5 FM programs.

# Westinghouse

PLANTS IN 25 CITIES OFFICES EVERYWHERE

Tune in: JOHN CHARLES THOMAS—Sunday, 2:30 pm, EST, NBC.  
TED MALONE—Monday through Friday, 11:45 am, EST, American Network

## Helping you sleep better



It may seem a bit unusual... that an electrical manufacturing company serving so many needs of a wide-awake, workaday world should be interested in helping you *sleep*. But with General Electric it's a fact.

Air conditioning units that make every night in the year "a good night to sleep"—automatic home heating systems—silent fans—quieter street cars and buses—heating pads—and feather-weight electric blankets for zero nights...

These are only a few of the many aids to better sleep developed by General Electric engineers and research scientist. *General Electric Company, Schenectady, N. Y.*



**She likes** to sleep "snug as a bug in a rug" on zero nights. Her husband is a rugged, warmer-blooded sort. But a feather-weight G-E automatic blanket for each is perfect—for these blankets can be adjusted to keep beds at any degree of warmth evenly all night long, despite temperature changes. G-E automatic blankets are made according to the same principle that keeps high-altitude flying suits "electrically warm" even at 60° F. below zero.



**Taking the clatter out** of the trolleys. Lucky indeed are folks sleeping along the routes of modern street cars and G-E powered electric trolley coaches. For these hush-hush vehicles barely whisper when they pass—even at full speed. The electric trolley coach is quieter by actual noise-meter test.



**Taking the buzz out** of fans means taking the buzz out of the blades. For a lot of fan noise, like airplane noise, comes largely from the whirring blades. The result of G. E.'s designing and testing innumerable fan blades is the unique "Vortalex" type. You can hardly hear it even if you listen carefully!



**Taking street light out** of bedrooms. This new street light is the greatest advance in residential street lighting in 40 years. Designed by G-E lighting engineers, it projects light away from the houses and to the street. It provides more light on the street where it belongs and less on your house front.

*More Goods for More People at Less Cost*

**GENERAL  ELECTRIC**

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