



North American Aviation

**DROPPED INTO FLIGHT**—The North American X-15 depends on the mother wing of the big B-52 to rise skyward, but after that the tiny aircraft is on its own. Under its own power, the X-15 can reach speeds of more than 3,600 miles an hour.

## ENTOMOLOGY

## Wood Ticks Still Prevalent

► CAMPERS, picnickers, vacationers and hunters should beware of ancient game trails, paths and roadways overhung with vegetation, for tiny, eight-legged parasites that feed on blood are waiting for unsuspecting wanderers.

More commonly known as wood ticks, they need the blood of an animal or human being before they can become adults, mate and reproduce several thousand offspring at one time.

Their bite, which is painful, may transmit such diseases as relapsing fever, Rocky Mountain spotted fever, tularemia or rabbit fever and tick paralysis among men. Those animals most often affected by tick-transmitted disease are sheep, cattle, horses, rabbits, dogs and birds.

By the end of July the common American dog tick, carrier of the dread Rocky Mountain spotted fever in the East, disappears. Large numbers of this species occurred this year in Rhode Island, the Middle Atlantic states of New Jersey, Maryland and Delaware and the Northern states of Wisconsin, Minnesota and North Dakota.

The American dog tick, which occurs everywhere except in the Rocky Mountain area, prefers cooler weather and is apt to disappear in the midst of a hot spell. His western counterpart, the Rocky Mountain wood tick, is active all summer, however, and the adults remain alive over the winter season. The Rocky Mountain female tick sometimes lays more than 18,000 eggs at one time before dying.

These two ticks are distinguished by the shields on their backs, which are spotted or streaked with white. Although they bite people, they would rather feed on rodents, dogs and cattle.

A familiar tick in the southern United States is the lone star tick, identified by a small white dot or two small crescents on its shield. Unusually large numbers of these ticks affecting cattle have been reported in Arkansas, Georgia and Oklahoma.

The lone star adult ticks virtually disappear after July, but the larvae, which feed in clusters sometimes numbering more than a thousand, will attack from now until September.

The black-legged tick, found primarily along the East Coast, is abundant during the fall and early winter. A shiny black shield and black legs mark this tick, which feeds on deer, cattle, sheep, hogs, dogs and people.

Other common members of the tick family include the brown dog tick, the winter tick, the fowl tick, the Gulf and Pacific ticks and the rabbit tick.

The brown dog tick is a common household pest, brought in by the family dog. After a full meal of blood, a swollen, bluish-gray female tick will drop off the dog and seek a hiding place in the home to lay her several thousand eggs.

Although ticks are difficult to kill, the Department of Agriculture recommends spraying an insecticide on the grounds or in the home, and dipping clothes in insect repellents.

Before spraying outside, a cotton flannel cloth attached to a stick should be dragged over the ground. As the rough flannel brushes the ground and shrubbery, the ticks will attach themselves to the cloth, as to a host, and the person spraying will be able to find the areas where ticks are concentrated.

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## AERONAUTICS

## New Altitude Mark in X-15 Set by Walker

► THE RECORD ALTITUDE of 350,000 feet (66.3 miles) on a flight in the X-15 research airplane was reached by Joseph A. Walker, chief research pilot of the National Aeronautics and Space Administration Flight Research Center, Edwards, Calif.

Mr. Walker, a civilian pilot for NASA, topped all previous altitude marks for manned winged aircraft following launch from the B-52 at 45,000 feet over Smith Ranch Lake, Nev., on July 19. He reached a maximum speed of 3,866 mph (mach 5.09) and landed on Rogers Dry Lake at Edwards after an 11-minute flight.

Highest previous altitude of 314,750 feet was flown by Major Robert M. White, former Air Force project pilot, on July 17, 1962.

The X-15 was originally built, under joint sponsorship of the Air Force, Navy and NASA, to obtain research data at speeds up to 4,000 mph and altitudes to a maximum of 250,000 feet.

This flight was the 90th made in the three X-15 airplanes since the program began June 8, 1959.

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## METEOROLOGY

## Death Valley a Hot Spot, Arizona Hottest State

► DEATH VALLEY, Calif., holds the all-time record for being the hottest spot in the U.S.

The temperature at Greenland Ranch, Death Valley, on July 10, 1913, was 134 degrees in the shade—the hottest temperature ever officially recorded in the United States. This is a full seven degrees above any temperature attained elsewhere in the country.

The Greenland Ranch Weather Station often records temperatures in excess of 125 degrees Fahrenheit, and has exceeded 129 degrees three times, all in July 1913.

Although not many people live in Death Valley, many live in Arizona, the hottest state in the U.S. Unable to match the Death Valley all-time high, Arizona nonetheless manages to produce some impressive figures.

The highest official temperature recorded in the U.S. outside Death Valley is 127 degrees, reached at both Ft. Mohave and Parker, and the highest one-month average for any U.S. city is held by Yuma, which managed an around-the-clock average of 96.7 degrees in July, 1959.

In fact, Yuma is generally conceded to be the hottest city in the United States, with Phoenix a not-too-distant second. Yuma had a 101-day continuous run of highest temperatures of more than 100 degrees, back in 1937, and an average daily maximum of 109.4 in July, 1959.

These figures and others were reported by David M. Ludlum in *Weatherwise*, 16:108, 1963, a publication of the American Meteorological Society in Boston.

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