

eclipse path, a bright ring of direct sunlight will be visible around the black lunar disk. The Latin word for ring is "annulus," which is why this is called an annular eclipse.

Celestial Timetable for May
MAY EDT

1	10:00 a.m.	Moon nearest, distance 227,600 miles
	2:00 p.m.	Venus passes north of Saturn
4	5:01 p.m.	Full moon (penumbral eclipse not visible in North America.)
12	7:19 a.m.	Moon in last quarter
13	9:00 a.m.	Moon farthest, distance 251,300 miles
15	5:00 a.m.	Moon passes south of Saturn
16	1:00 p.m.	Moon passes south of Venus
20	5:43 a.m.	New moon (annular eclipse of sun, not visible in North America)
22	7:00 p.m.	Moon passes north of Jupiter
27	3:00 a.m.	Mercury behind sun
	4:51 a.m.	Moon in first quarter
	10:00 a.m.	Moon nearest, distance 229,800 miles

Subtract one hour for CDT, two hours for MDT, and three hours for PDT.

Distance of Visible Planets

	May 1	May 31
Mercury	97,200,000 miles	121,700,000 miles
Venus	81,400,000 miles	102,300,000 miles
Mars	228,000,000 miles	231,000,000 miles
Jupiter	537,000,000 miles	564,000,000 miles
Saturn	958,000,000 miles	919,000,000 miles

• Science News, 89:295 April 23, 1966

METEOROLOGY

Long Gun Being Tested For Air Measurements

► PROJECTILES launched from a gun 118 feet long are being tested as an inexpensive method for making high-altitude measurements.

The total cost per shot, including depreciation of the gun, is less than \$6,000, no more than 40% of the cost of comparable flights made by rockets.

The program to probe the upper atmosphere using gun-fired projectiles is known as HARP, for High Altitude Research Project. Under the program, five-inch projectiles have been sent to heights of 42 miles and 16-inch projectiles have been placed 80 miles above Barbados in the West Indies.

The 118-foot gun has a smooth bore and weighs 200 tons. The projectiles it launches spread trimethyl aluminum high in the atmosphere. The luminous trails this chemical leaves enable scientists to measure winds at great heights.

Charles H. Murphy of Aberdeen Proving Ground, Md., Gerald V. Bull of McGill University, Montreal, and Howard D. Edwards of Georgia Institute of Technology, Atlanta, reported details to the American Meteorological Society meeting in Los Angeles.

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