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# Voyager's Historic View of Earth and Moon

**C**RESCENTS in a dark void, the earth and its moon are photographed in tandem for the first time by NASA's Voyager 1 spacecraft. Clouds swirl above our planet, bottom, partially obscuring eastern Asia and the western Pacific. Because the moon reflects much less light than earth, engineers at the Jet Propulsion Laboratory in California enhanced the craft's imaging data to make the moon more visible.

En route to Jupiter and Saturn, Voyager recorded data for this remarkable picture September 18, 1977 (diagram, below), when it was 11,660,000 kilometers (7,250,000 miles) from earth, directly above Mount Everest and well beyond the moon's orbit.

Trailed by a sister ship, the 815-kilogram (1,797-pound) Voyager 1 will fly by Jupiter in March 1979 to scrutinize that planet and several of its 13 moons. Jupiter's gravity—more than twice that of earth—will accelerate the two spacecraft in slingshot fashion, whipping them toward a rendezvous with Saturn. Voyager 2 may then proceed to Uranus, arriving in 1986.

Thus man explores worlds beyond his

own. Two Pioneer spacecraft are being launched this year to probe the atmosphere of Venus. From high above the earth in 1983, a Space Shuttle orbiter will launch two vehicles to observe the polar regions of the sun; in addition, a telescope it sends into orbit will extend man's gaze about seven times farther into space, perhaps to the fringe of the visible universe.

Meanwhile, the two Voyagers cruise onward. When their missions are complete, they will exit our solar system and embark on interstellar space journeys that could last millions of years. If—somewhere, somehow—spacefarers of another civilization should encounter a Voyager, they will discover on board a phonograph record of terrestrial sounds and electronically encoded photographs—some provided by the National Geographic Society.

Imagine these beings, if you can, listening to sounds as dramatic as Beethoven's Fifth Symphony, as curious as crickets' chirps, as soft as a kiss, and puzzling over pictures as diverse as porpoises, Andean girls, and the Sydney Opera House in Australia. □

