

EXPLORING SPACE WITH A CAMERA



Nearly one full hemisphere of the Earth is revealed in this picture, showing South America, much of North America, and parts of Africa, Europe, and Greenland. It was taken on November 18, 1967, by ATS III, which was stationed over the Equator at approximately 47° W. "This picture," explains LEONARD JAFFE, Director, Space Applications Programs, NASA, "is actually made up of 2400 horizontal lines, with each line encompassing a swath of Earth approximately 2 nautical miles wide and extending from horizon to horizon. Using very careful scrutinizing techniques, features as small as 2 nautical miles on a side can be seen. As evidenced here, color makes it easier to distinguish between clouds, dry land, green vegetation, and bodies of water. A particular example is the clarity with which Lake Titicaca (a tiny dark spot) can be observed at the bend in the west coast of South America."

- Contents -

[Foreword](#)

[Introduction](#)

[SECTION ONE: ABOVE THE ATMOSPHERE](#)

[Prelude to Progress.](#)
[The Clouds Draw a Map.](#)
[A Satellite Discovers a Hurricane . . . and Begins to Save Lives.](#)
[Ice Is Tracked . . . and a Cold Line Opens.](#)
[480 Pictures in 24 Hours Girdle the Globe.](#)
[Latest Pictures Are Broadcast.](#)
[In-Depth Research.](#)
[Night Temperatures and Clouds.](#)
[Europe Tunes In.](#)
[More Than Men See.](#)
[The Curls in Clouds.](#)
[Help for Cartographers.](#)
[Every Day's Weather Everywhere Becomes a Matter of Record.](#)
[Alma's 9-Day Whirl.](#)
[Weather Pictures for the Asking.](#)
[Characteristics of Churning Air.](#)
[Daily Global Weather Coverage.](#)
[Fast Service for Airmen.](#)
[Six Disturbances Seen Simultaneously.](#)
[A Day Passes a Stationary Photographer.](#)
[Storms are Photographed From their Cradles Until They Die.](#)

[SECTION TWO: TO THE MOON AND BEYOND.](#)

[The Moon That Man Had Never Seen Before.](#)
[Rangers Bring the Moon Up Close.](#)
[First Soft Landings on the Moon.](#)
[Footprints in the Lunar Soil.](#)
[Surveyor I Takes a Look Around.](#)
[A Far Mountain, a Near Crater.](#)

[The Long Lunar Night Descends.](#)
[Self-Portraits of a Star Performer.](#)
[After the Sun Went Down.](#)
[Hop, Skip, and Jump.](#)
[Putting Man's Hands on the Moon.](#)
[Relating Surveyor III to Its Surroundings.](#)
[Surveyor V Lands and Slides.](#)
[Investigating What the Moon Is Made of.](#)
[Surveyor VI Checks Out Another Landing Site for Apollo.](#)
[Lessons in the Lunar Soil.](#)
[Surveyor VII Examines Tycho's Highlands.](#)
[Spotting Two Laser Beams From Earth.](#)
[Recording Details of Lunar Highlands.](#)
[Surveyor VII Repairs Itself . . . and Photographs a Hard Day's Work.](#)
[Man's First Look at Earth From the Moon . . . and an Oblique View of the Moon Itself.](#)
[Orbital Tours Bring Surprises.](#)
[Orbiter II Takes the "Picture of the Year".](#)
[Ancient Lava Flows and a Rock Field.](#)
[Orbiters Help Find a Place for Men To Land.](#)
[The Spot Where Ranger VIII Crashed.](#)
[Orbiter III Locates Surveyor I . . . and Peers Into Tsiolkovsky.](#)
[The Moon's Face Grows More Familiar.](#)
[Stories in the Moon's Scars.](#)
[Some Studies in Rocks and Rilles.](#)
[Orbiter IV Maps the Moon's Near Side.](#)
[A Crater as Big as New York State.](#)
[Moon "Dunes" Against a Crater Wall.](#)
[Orbiter V Photographs the Nearly Full Earth.](#)
[A Closer Look at Copernicus.](#)
[Lunar Tales in Tracks and Troughs.](#)
[The Intricate Structure of Tycho.](#)
[Penetrating Views of Aristarchus.](#)
[Schroter's Valley and Some Sinuous Rilles.](#)
[The Moon's Pale Self and Distant Views.](#)
[Earth's First Close Views of Mars.](#)

[SECTION THREE: MAN'S VENTURES INTO SPACE.](#)

[From Cameras Held by Men.](#)
[A New Art Germinates.](#)
[Men Stepped Out in 1965.](#)
[A Variety of Shores.](#)
[Rendezvous at 17 000 mph.](#)
[Targets Attained.](#)
[Above and Beyond.](#)
[Zodiacal Light.](#)
[And a Star's Spectrum.](#)
[Tethered Targets.](#)
[The Astronauts' Record Climb.](#)
[The Next Big Step.](#)

[APPENDIX](#)

[Nimbus](#)
[Tiros](#)
[ESSA](#)
[ATS](#)
[Ranger](#)
[Mariner](#)
[Lunar Orbiter](#)
[Surveyor](#)
[Mercury](#)
[Gemini](#)
[Apollo](#)

[Index](#)

