

Come Aboard on a Trip to the Moon!

In a few short years, you'll be able to rocket your way through

"A TICKET to the moon on next Thursday's rocket, please."

The year is 1975. The scene is a travel agent's office. And the speaker—that could be you.

Fantastic? Not at all. Our first manned landing on the moon should take place in 1967, and within a few years after that, lunar vacations should be relatively commonplace.

All you will need will be the price of a round-trip ticket (probably several thousand dollars) and the ability to pass a minor physical checkup. After that, you will be whisked to Cape Canaveral, Fla., via ballistic passenger liner (as described in FAMILY WEEKLY, Sept. 2, 1961). You might spend a short time in the beautiful resort city of Cocoa Beach before boarding the majestic silvery Nova rocket that will take you out of this world.

Just before flight time, a bus picks up you and the other lunar tourists at the rocket port and takes you to a van at the launch complex.

Here you put on your space suit, which is much lighter and less cumbersome than the ones used by our first astronauts. The suit is form-fitting, cotton-lined, and has a helmet which becomes an oversized collar when not in use. You'll wear this suit during the entire trip except in the hotel on the moon.

The gantry elevator takes you up to the Nova passenger cabin, which is in the third-stage section of the three-stage rocket. The stewardess directs you to your contour couch, checks your seat belt, and secures the air-lock doors. You can

hear the conversation over the ship's intercom between the pilot and blockhouse. When the countdown reaches zero, you hear a tremendous roar as the 4,500-ton rocket lifts away.

When its fuel is gone, the first stage of the rocket separates and is recovered by a special patrol boat 300 miles out in the Atlantic. The second stage also separates when empty and is picked up.

The third-stage section in which you are riding fires until it reaches a speed that will allow it to coast to the moon in 55 hours. Then the motor shuts off, and you are weightless. After a few moments, the pilot announces over the intercom, "Lunar tourists, you are on your way. You may open your helmets and unfasten your seat belts if you wish to float around the cabin."

The Newest in Bird's-Eye Views

There are grab rails along the aisles so that you can pull yourself about. At a porthole you watch the earth through binoculars and enjoy the beautiful spectacle once reserved for astronauts. You gaze at the glorious, star-studded heavens and then at the moon, which already appears larger than you have ever seen it.

"Meal time," says the stewardess.

Everyone returns to his seat and fastens himself in. The food is in a hinged-lid pan which clamps onto your knee. A fork, pincher tongs, and a plastic squeeze bottle for beverages are clamped on the side of the pan and connected to it by strings. All food is bite-sized. While you are chewing, the lid must be kept closed so your food doesn't float away.

Before the eight-hour sleeping period, you go

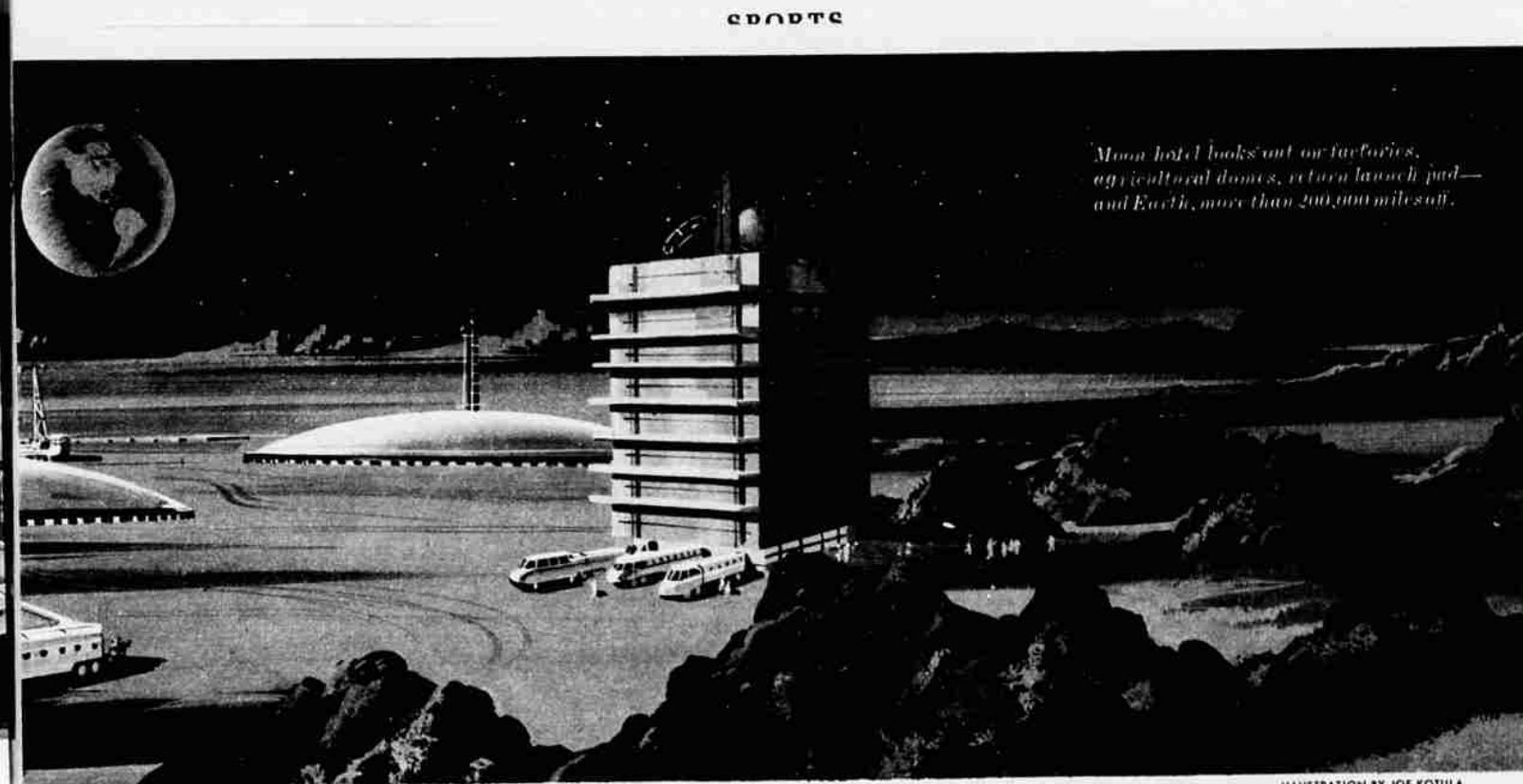
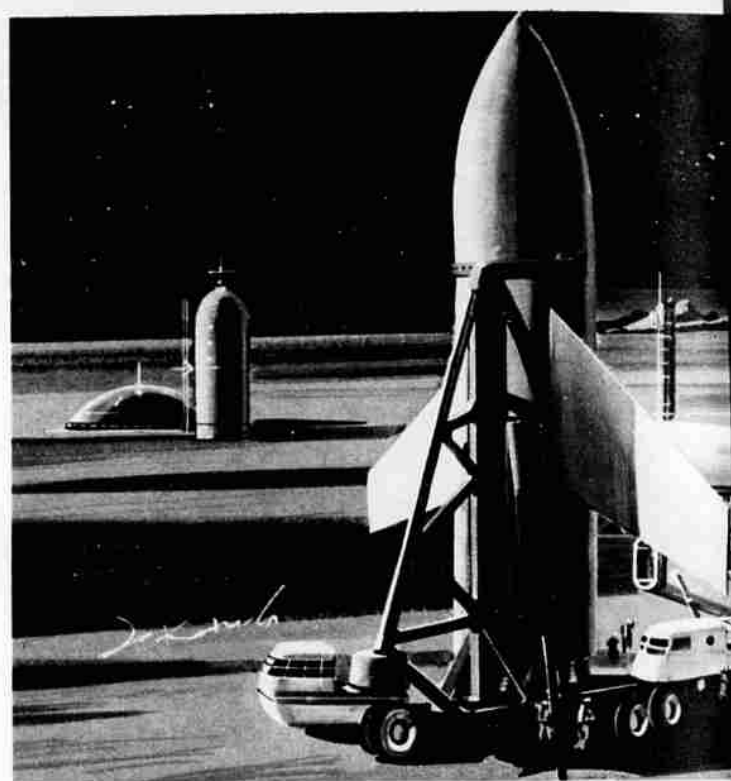
to the rest room to wash up. You fasten your belt to a hook and stick your hands inside a washing tube. Pushing a valve with your foot causes warm water to spray from several nozzles inside the tube. A fan in the bottom of the tube pulls the used water into a collector so little spheres of the liquid don't float about the room. You suds your hands and face, moisten a washcloth for rinsing, and then dry yourself on a cycling towel machine.

Sleeping weightless while strapped in your couch is the easiest thing to do in space. When you awaken, you eat breakfast, then the stewardess announces: "Those who wish to go outside the ship, please form groups of three and line up."

When it is your group's turn, the stewardess ushers you into the air-lock chamber and closes the inner door. You put on your gloves, plug the lines from the radio and the air-supply container on your belt into your collar receptacles, and close your helmet. The stewardess checks your equipment and makes sure your safety line is attached to a rail inside the air lock. Then she touches the decompress button, a sign reading "Vacuum" lights up, and the outer door opens to the black, star-speckled void.

Over her radio, the stewardess says: "Push yourselves gently out the door and you will drift away from the ship. By gripping your safety line and applying friction to it, you can stop and hover several yards from the ship. When you want to return to the air lock, draw on your line, hand over hand, until you drift back in."

While you are hovering in this immense emptiness, your companions hand you their camera



Moon hotel looks out on factories, agricultural domes, return launch pad—and Earth, more than 200,000 miles off.

ILLUSTRATION BY JOE KOTULA

space—for an "out-of-this-world" vacation **By JOHN B. STEVENSON**

Member, American Rocket Society

and ask you to take pictures of them floating in space with the ship in the background. They do the same for you before returning to the ship.

It is more than 54 hours since liftoff. You were in your seat earlier for a mid-course correction; you are now strapped in again for the landing. The ship has been turned so that it is falling tail first. You look out a port and can see the moon's horizon looming up.

You are falling nearly 7,000 miles an hour when the rocket automatically turns on. The thrust of the motor decreases as the ship nears the moon's surface. You can see that you are below the level of a nearby mountain range when, *thump*, the dish-like feet of the landing gear touch and the motor shuts off. You've soft-landed on the uneroded, airless surface of the moon.

You unfasten your belt and stand up. You have weight again, even though it is only $\frac{1}{6}$ normal. Your ship is on a lunar plain which is crisscrossed with tire and tractor tracks. It has been cleared of crevices and small craters.

Moon-Tel Room and Bath

You see an electric bus approaching. It has an enclosed airtight passageway on one side. One end of this passage can be raised so that its door end can be brought flush against the door of the ship's air lock. Thus all doors can open without any loss of air.

The moon hotel is very much like an earth hotel except that it is airtight and made out of lunar masonry materials. You bathe, and your space suit is taken, washed, and serviced. You have your first moon meal on the top-floor observation dining room, where you can look out at

the great man-made wonders of the moon.

You see the landing clearing, the return launch pad, the rocket propellant factories, nuclear and solar electric power plants, agricultural domes and cave entrances, astronomical and radio observatories, residential areas where the people who work in these facilities live, and an industrial area where certain types of products can be made at a lower cost than on earth because of free solar electric power, perpetual vacuum, low gravity, and richer lunar deposits of raw materials.

Later, you talk to some of the dedicated pioneers who live here. You find they enjoy living under artificial conditions where they control the climate and never have bad weather. The $\frac{1}{6}$ gravity is ideal for people with leg ailments and heart conditions.

Sight-Seeing by Leaps and Bounds

Dressed in your space suit, you leave the hotel through an airtight revolving door. After you push it a quarter turn, it stops for a few seconds so that the air can be pumped from the right quarter into the left. Then the brake is released, and you revolve the quarter you are in to the outside vacuum.

A short walkway leads to a pass between two cliffs and then into a park where the natural lunar landscape is preserved, except for a network of footpaths used for short hikes.

When walking these paths, you can take bounding steps five feet high and 20 feet long because of the low gravity.

But this is only the beginning of your lunar sight-seeing. A huge nuclear bus takes you on a

Three-week trip all the way around the moon over trails which were blazed by explorers in nuclear electric tractors during the early '70s. On your excursion, you see the man-made sites, mining areas, and lunar oddities of nature.

After a bon-voyage party at the hotel, it's time to return to the earth. Your Nova third stage has been serviced and refueled. It lifts off and ascends into a low mountaintop-skimming orbit around the moon. You can see a network of vehicle trails crisscrossing over crater floors and lunar plains. You pass over the Russian community and those of other nations.

In two hours you have completed $1\frac{1}{2}$ orbits around the moon and are strapped in for the firing which makes the ship leave the moon and go into orbit around the earth. After 70 hours and one mid-course correction, you are in your seat again and the ship is at the closest point of its return orbit, grazing the upper layers of the earth's atmosphere. Your seat is swiveled around so that your back is toward the nose of the ship.

Re-entry begins. You feel the force of multiple gravities, and you can see the wings glowing red hot. Then the ship bounds back into space for one more smaller, cooling orbit. When it re-enters the second time, the pilot keeps the ship up in the thin layers of air until he is in a glide path going east across the Gulf of Mexico.

When the speed is reduced to subsonic, a jet intercepts the ship and tows it back to the Cape. It lands on a sea ski in the Banana River, and a motor launch picks up the passengers. The third stage is towed to a landing ramp near the Nova launch complex—where it is made ready for its next voyage to the moon.