FOR RELEASE

General Motors Futurama

NEW YORK WORLD'S FAIR

FUTURAMA FACTS AND FIGURES

THEME

The theme of the Futurama is the hope and inspiration implicit within mankind's possibilities for progress. Futurama visitors share in an imaginative yet realistic foretaste of life on the moon, within the Antarctic, beneath the sea, within the jungle and desert and the city. Some of the projections made by the designers may well become realities within the lifetime of the Futurama visitor; others look farther into the future. Each, however, is a definite possibility attainable with the technology developed to date.

DESIGNER

General Motors Styling Staff created the entire exhibit

EXHIBIT MANAGER

Thomas H. (Bob) Roberts, phone 888-5570

PUBLIC RELATIONS MANAGER

E. A. Bracken, Jr., phone 888-5580

TOTAL SITE AREA

8½ acres in the Transportation Section of the Fair

BUILD ING

Designer Dimensions Design Capacity General Motors Styling Staff; Sol King, AIA, architect 230,000 sq. ft., 680 ft. long, 180 ft. wide, 110 ft. high

100,000 persons per 12 hour day

FUTURAMA RIDE

Capacity Length Speed

70,000 persons per 12 hour day 15 minutes in duration (1,850 ft. of track) 1.4 miles per hour

1,389

Seats Area

Music

Environmental Sets

Sound System

(90% located in building basement) 70,000 sq. ft. Six (Moon, Antarctic, Undersea, Jungle, Desert, City) Binaurally recorded and stereophonically reproduced on optical film through speakers in each individual seat

Original score by James Fagas

Text by Edward Reveaux; voice of Alexander Scourby Narration

EXHIBITS Area

(not including Futurama ride nor 77,700 sq. ft. outside exhibit areas)

GM Divisions Represented

32

ATTENDANCE, 1964 Total Visitors

(a new record for any world fair industrial 15,680,923 exhibit during one year)

87,116 persons

Daily Average Total Futurama

Ride Passengers Daily Average (Ride)

12,193,859 67,743 persons

Largest Single Day

121,077 persons on July 6, 1964





for release IMEDIATELY

WORLD'S FAIR - Futurama - General Motors' record-breaking exhibit - will open with the New York World's Fair on April 21 and offer an updated preview of the world of tomorrow.

Host to more than 15.5 million persons, the Futurama was the most popular exhibit last year attracting almost half the people who came to the Flushing Meadow fairgrounds.

The same elements which were acclaimed in 1964 - the famed "ride into tomorrow;" the Avenue of Progress scientific and engineering exhibition; the display of General Motors automobiles, trucks and custom-designed kitchens - have been restyled for '65.

Artists, scenic designers, painters, craftsmen and other skilled workers have spent the past six months renewing the entire exhibit.

"With a year in which to experiment, we have produced an even greater show for 1965," GM Vice President William L. Mitchell said. The GM Styling Staff, under Mr. Mitchell's direction, created the Futurama exhibit.

"The ride scenes have been improved, the lighting and animation of various exhibits have been made more effective," he explained.

"Some displays, particularly in the Avenue of Progress, have been replaced with newer developments and others have been updated."

'We have also refined the means by which people are brought into and through the building," Mr. Mitchell stated. "This should result in greater comfort and convenience for every Futurama visitor."

(more)

General Motors Futurama

New York World's Fair
Flushing, New York 11380

Phone 888-4000 Area Code 212

For Further Information Contact: -

Harry A. Turton, ______ 888-6320 William J. Knight, _____ 888-7826

Terry W. Wilson, ______ 888-7822

Changes have also been made in the outdoor exhibits spotted about the $8\frac{1}{2}$ -acre site and new displays have been added.

The site will resemble a landscape artist's palette of colors. Scheduled to be in bloom when the fair opens are 6,000 red, white, yellow or orange tulips; 6,000 white and yellow pansies; red and pink azaleas, pink weeping cherry trees and a host of other flowering shrubs and plants.

At night the 10-story high canopy which welcomes visitors to the Futurama will be bathed in an ever-changing panorama of color, one of the most striking attractions at the fair.

Visitors will see a better-than-ever "ride into tomorrow." Seated three abreast in sound-equipped lounge chairs, they will ride through animated scenes in which innovations in science and technology have enabled man to overcome the hostile environments which bar him from many areas today.

Thus man is shown exploring the moon, colonizing Antarctica, vacationing at the bottom of the sea, readbuilding through the jungles and the mountains, farming the deserts and - lastly - creating a new city vibrant with beauty, culture and commerce.

Many of the futuristic proposals presented within the ride scenes are detailed along the Avenue of Progress in a series of exhibits devoted to the scientific and engineering research and development conducted by GM.

The avenue features such developments as fuel cell power sources; missile control systems; underwater acoustical experiments; a cosmic ray spark chamber; a Stirling thermal engine and improved gas turbine; a mechanical heart; superaccurate gauging of materials characteristics and new auto safety devices. (more)

Also along the Avenue of Progress are three experimental automobiles. One - Firebird IV - is the latest in a series of turbine driven cars developed by GM. It is a transcontinental cruiser designed for use on automatic highways.

GM-X, a two-door coupe, is a more personalized vehicle designed for high performance.

For the suburbanite, GM has created the Runabout, a highly-maneuverable, three-wheel vehicle which includes a removable shopping cart system.

A number of advanced auto design concepts are incorporated within the experimental models. For example, the GM-X is fitted with air foils which help stabilize the car in a sudden stop; the Firebird is steered by hand grips in arm rests of the seat rather than a wheel; the Runabout entrance canopy would be activated by a sensor unit or voice command permitting "no hands" opening.

The Firebird boasts contoured, reclining swivel chairs; television; stereo; game table and refrigerator for full-family fun while cruising along automatic highways.

All three of these cars have advanced lighting systems for better safety, integral, fully-enclosed monocoque bodies and stand-up entrance and exit.

General Motors automotive and household products will once again
be displayed within the upper and lower product plazas. Each of the
automotive divisions - Cadillac, Buick, Oldsmobile, Pontiac and Chevrolet will present its 1965 line of automobiles plus new, highly-individualized
"show" cars. (more)

The Frigidaire Division will exhibit custom-designed kitchens whose motifs were drawn from five global areas.

In the outdoor product display areas GMC Truck and Coach Division will exhibit a "Tower of Power," four trucks of different design stacked one atop the other. Also on display will be "Turbocruiser II," a turbine-powered bus, and three new van-type vehicles fitted out for family camping.

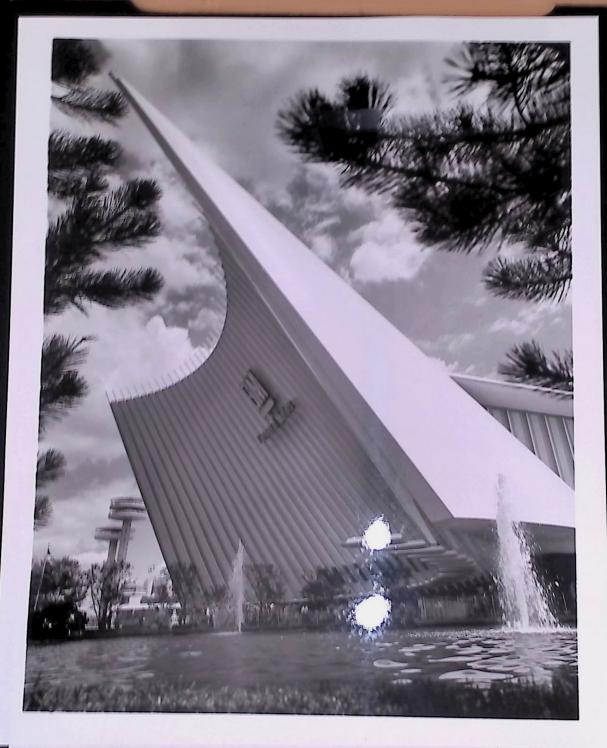
Automobiles and trucks manufactured by GM divisions in England, Germany and Australia will be displayed as will heavy construction vehicles produced by GM's Euclid Division and a railroad engine made by the Electro-Motive Division.

The Allison Division, manufacturer of airplane engines and other equipment, will display its products as will the Detroit Diesel Division.

The United Delco Division, which makes automotive service parts, and the AC Spark Plug Division will offer newly-styled exhibits of their products.

"Metro-Mobility," GM's proposed solution to the problem of urban traffic congestion and mass transit, will be detailed in an animated display.

During the final season of the fair, the GM exhibit will face two challenges; to retain its title as the most popular pavilion and to break the one-year attendance record it set last year for an industrial exhibit at a world's fair.



A 10-STORY entrance canopy greets visitors to the General Motors Futurama exhibit at the New York World's Fair. More than 15.5 million persons passed through the entrance last year, making the Futurama the most popular pavilion on the fairgrounds. Designed by GM's Styling Staff, the exhibit houses a 15-minute "ride into tomorrow," a preview of some of the research and development GM has undertaken for the future and a display of GM's latest automotive, household and other products from around the world.



NEW YORK WORLD'S FAIR

NEWS

for release IMMEDIATELY

WORLD'S FAIR - The Avenue of Progress is a short cut to the future in the General Motors exhibit at the New York World's Fair.

Innovations that give promise of benefiting mankind in hundreds of ways during the years to come are on display within the GM Futurama, the most popular exhibit at the fair.

The Avenue of Progress is an animated depiction of some phases of the pure and applied research conducted by General Motors in science and engineering.

Within the past half century this research has not only contributed to the continued improvement of General Motors automotive, household and other products, but has also resulted in a number of non-product developments.

From General Motors laboratories have come such diverse inventions as knock-free gasoline, a refrigerant gas that created a new industry, new power sources from diesels to gas turbines, a mechanical heart for human surgery, a centrifuge used to sterilize polio vaccines.

Along the avenue current studies that have an equally exciting and varied potential are presented. They range throughout the worlds of scientific and engineering research and development.

With the almost unbelieveably rapid acceleration of technical progress in recent years, the scientist is now not far behind the dreamer. Today, almost as fast as science fiction writers can conceive an idea, it becomes reality and the innovation is made obsolete. Budding prototypes of some of the new concepts envisioned within the Futurama ride can already be seen along the Avenue of Progress.

- more -

General Motors Futurama -

New York World's Fair Flushing, New York 11380 Phone 888-4000 Area Code 212 For Further Information Contact: -

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Each idea is a proposal for progress and, as such, helps document the feasibility of the new techniques, devices and processes demonstrated within the Futurama "ride into tomorrow."

One example of the inter-relationship between the two areas lies in the undersea scene of the ride, one of six scenes which show man developing areas of the world that are unused today.

Gliding silently through the depths of the sea is a submarine train hauling crude oil pumped from the ocean floor. The sub-train could be powered by a Stirling engine.

Within the Avenue of Progress visitors see a Stirling engine and an animated display of the way it works. GM is scheduled to deliver two eight-horsepower Stirling engines to the U. S. Army this year for field tests and continue studies aimed at developing Stirling units up to 5,000 horsepower.

Also along the avenue are examples of a coming new generation of materials, new concepts of mobility, new applications of scientific and engineering principles, new areas of thought and study made possible by breakthroughs across the spectrum of scientific investigation.

In no previous GM exhibit has this story of materials, methods and man's ingenuity been so comprehensively presented. It embraces not only the work of GM's Research Laboratories, Engineering Staff and Defense Research Laboratories but also the varied scientific and engineering projects of the corporation's operating divisions.

Highlighted within this area is a model of the world's first selfpowered, portable radioisotope projector. Conceived by GM Research
Laboratories, the unit permits on-the-scene x-rays of diagnostic quality
without the need of electrical power.

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Originally designed for industrial applications, the isotope projector is attracting increasing attention from the medical profession for use in underdeveloped countries, on the battlefield or in disaster areas.

One of the smallest exhibits is a sampling of minute ferrite components made with a new GM "cookie cutter" process. Ferrites (magnetic materials) made with this technique are opening the way to motors and electronic components of revolutionary design.

There are large exhibits as well. One is the biggest cylindrical cosmic ray spark chamber known to exist. This new, sophisticated tool for the study of high-energy particles provides a method of tracing the paths and observing the behavior of the countless radioactive cosmic rays constantly bombarding the earth.

Also displayed within the 18,500 square foot exhibit area is a hyper-velocity gun which simulates the impact of meteorites on space vehicles; new metals, plastics and ceramics tailored to improve strength, stiffness, corrosion, durability and appearance; and the world's first mechanical heart which was invented by GM.

Research to develop peaceful uses of atomic energy has resulted in several advancements visitors can view. Super-accurate measurements, heretofore impossible, have been accomplished using radioactive substances.

GM Research has also discovered the "inside" story of automotive engines through a radioactive device that detects flaws hidden within cast cylinder blocks.

The avenue is not devoted solely to the technical results of research, however, there is beauty within the world of science and a portion of the exhibit area is a gallery of pictures only the scientist usually sees.

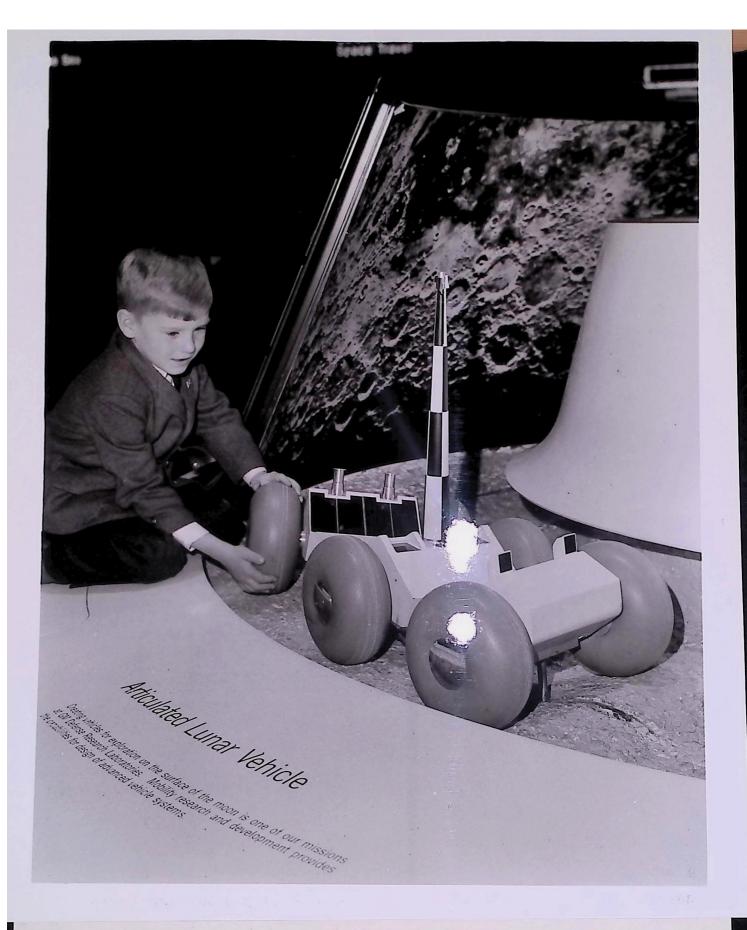
Photographed through microscopes and enlarged as much as 8,000 times are colored pictures of the orderly, patterned atomic structure of matter.

While art in science is of esthetic interest, a more practical field for GM is energy conversion. Within a power theme center some of GM's most recently developed engines are on display. One is an improved gas turbine engine - the GT-309 - now undergoing tests in various heavy-duty vehicles. Another is the Toro-Flow diesel representing new achievements in economy and weight reduction.

The Avenue of Progress also features some of the research and development conducted by the 30,000 General Motors employes engaged in product engineering.

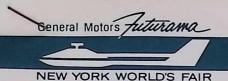
Automobile components familiar to the public are shown undergoing laboratory tests which record the stresses and strains to which they are subjected. This data enables the Engineering Staff to continue the product improvement which has marked GM products for more than half a century.

The Futurama was the most popular exhibit on the fairgrounds during 1964, playing host to some 15.5 million persons. Waiting time for admission to the building at times reached one hour, but the Avenue of Progress - with its separate entrance - is immediately accessible.



CRAWLERS, controlled by radio and designed to travel over almost any terrain, are expected to someday explore the surface of the moon. Kevin Knight, 6 inspects a proposed lunar vehicle developed by the Defense Research Laboratories of General Motors. The crawler is displayed within the Avenue of Progress of GM's Futurama exhibit at the New York World's Fair





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IMMEDIATELY

WORLD'S FAIR - "We drove to the fair in our Firebird."

That's the father of a family of four speaking to a friend as they stroll along the fairgrounds.

"Just Joan and I came out, so we drove the Runabout," the friend replies.

Is this the 1965 New York World's Fair? No, but it might be the world fair scheduled for 1976 to commemorate the birth of the United States.

The Firebird, the Runabout and a third vehicle - the GM-X - are futuristic cars now on display within the General Motors Futurama at the New York World's Fair.

The vehicles incorporate a host of innovations to make driving safer, more comfortable and more fun in the years to come. Each was created for a particular motoring purpose and will be adopted - or supplanted - as time progresses and as transportation needs dictate.

Designed and built by the General Motors Styling Staff under the direction of Vice President William L. Mitchell, the trio is the latest in GM's series of advanced idea vehicles which have been shown for 25 years.

The Firebird IV, newest in a series of GM gas turbine-driven cars, was conceived for swift, cross-country touring on automatic highways.

The GM-X is a two-passenger, high performance coupe with special appeal for car enthusiasts seeking a highly personalized driving experience.

The Runabout is a new type of vehicle coupling maneuverability and utility with style for tomorrow's city and suburban resident.

- more -

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 Displayed within the Futurama's Avenue of Progress - a series of exhibits portraying GM's scientific and engineering research and development - the three full-size experimental cars were seen by more than 15.5 million visitors in 1964.

Miniature models of the vehicles are also displayed within various scenes during the 15-minute Futurama "ride into tomorrow." The futuristic vehicles help portray the theme of the ride: that improved mobility will enable man to expand the habitable and productive areas of the world.

The Firebird IV anticipates the day when the family will drive to the superhighway, turn over the car's controls to an automatic, programmed guidance system and travel in comfort and absolute safety at more than twice the speeds possible on today's expressways. Upon reaching the express exit closest to his destination, the driver will resume personal control and continue along conventional streets and highways.

While traveling the automatic highway the Firebird IV would provide the comforts of a living room on wheels for four passengers with reclining swivel seats, television, pull-out table and built-in refrigerator.

Firebird IV takes its name from General Motors' three previous experimental Firebirds which first demonstrated turbine-power and electronic guidance concepts in the United States. Its designers anticipate that it might be powered by a rear-mounted, regenerative type turbine of advanced design.

Because it has no rear window the driver would see an extra wide view to the rear on an electronic screen. This screen would also receive standard television when the car was operating on automatic highways.

Advanced lighting concepts are shown in all three cars. Rear lighting incorporates a color distinguisher system using blue for tail lights, amber lights to distinguish deceleration and red lights for braking and turning. The vari-colored lights clearly signal the driver's intentions.

The aircraft-inspired fast-back-shape of the GM-X gives it a directional look accentuated by an extended hood flowing to a pointed nose.

The vehicle was inspired by aircraft design and its two-passenger cockpit has a jet aircraft atmosphere which promises an exciting driving experience.

Passengers enter from the rear between the two seats. The entrance door includes most of the rear end roof panels permitting stand up entrance and exit.

An aircraft type steering assembly consists of hand grips at the ends of two spokes radiating from a steering column mounted on the cockpit side wall. Thumb buttons on each hand grip activate the horn and turn signals.

Air intake in the completely enclosed body would be accomplished through rectangular ports across the lower width of the front end. Occupants would communicate with persons outside via a two-way radio system using an external speaker-microphone unit and the car's two-way radio telephone equipment. A door in the roof allows for the transfer of small items.

The GM-X would also have an automatic air conditioning system.

New interior design concepts are also features of the three cars.

Inside wall surfaces are molded from synthetic material which makes possible free flowing surface shapes and total design unity.

The three-wheeled Runabout will appeal especially to women because it was designed for shopping and other daily errands. Men may also find the Runabout a handy vehicle, well-suited for commuting but also containing adequate load space for golf clubs and other recreational equipment.

Designed primarily for short trips in urban traffic, the Runabout's single front wheel can be turned 180 degrees to provide extreme maneuverability and ease of parking. A molded vinyl bumper, painted the body color, extends completely around the car for maximum protection and glass surfaces dominate the upper body for greater visibility in urban traffic.

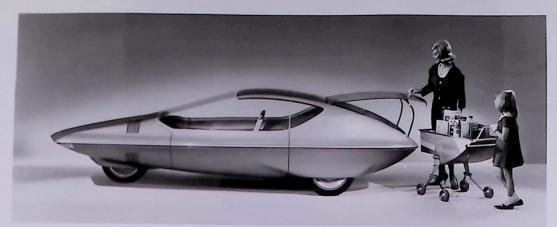
Two built-in shopping carts are a unique feature of the Runabout.

When in place, they form an integral part of the car's rear end. The modern shopper will roll a cart from the vehicle, load it at the shopping center, roll it back into the Runabout and unload it in the kitchen at home.

A small, light-weight power plant would propel the Runabout. A possibility might be the GM version of the Stirling engine coupled to a thermal heat storage unit which would provide basic energy for the engine in the place of liquid fuel. One advantage of the system would be a total absence of noise and fumes.

Futuristic as they may be, some of the innovations incorporated in the experimental vehicles may be adopted in the not too distant future while others may be delayed as they undergo further refinement by GM's Styling and Engineering Staffs.

There is little question, however, that motorists driving to the 1976
World Fair will travel in vehicles much improved over the cars that will
carry millions of visitors to this final season of the New York World's Fair.







THREE EXPERIMENTAL CARS are featured at the General Motors Futurama at the New York World's Fair. Designed by GM Styling, they represent the latest in GM's quarter-century series of advanced idea cars. Each is highly specialized, to fill a particular motoring purpose. From top they are: the "Runabout" - a highly maneuverable, three-wheeled, utility vehicle to ease the commuting and shopping tasks of the future city and suburban resident; the "Firebird IV" - designed especially for fast, cross-country trips on automatic highways, the "GM-X" - a two-passenger, high performance coupe with special appeal for the car enthusiast.



NEWS

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WORLD'S FAIR - A futuristic freight center operating within the General Motors Futurama exhibit at the New York World's Fair is the symbol of a coming new era in the high-speed, automated movement of world commerce.

Equally symbolic of tomorrow's transportation is the standardized freight container which the center is designed to handle.

GM designers who created the Futurama foresee containerization as one of the most beneficial innovations on the transport horizon today. Someday, they contend, freight will move swiftly and economically to all parts of the world in standardized containers which can be accommodated by trucks, railroads, airplanes, ships or barges.

When will it all come to pass? GM sets no schedule, but at the Futurama - whose 15.6 million visitors in 1964 made it the most popular pavilion at the fair - the automaker shows a highly specialized handling system which gives promise of dramatic improvements in freight transportation.

Containerization - the keystone of the proposed system - offers many advantages over the unconsolidated shipment of freight generally in practice today.

Shippers and carriers have found in experiments which have mushroomed since the end of World War II that material packed in a standard-size container can be shipped more cheaply, quickly and safely. Moreover, containerized freight shipments require less handling, suffer less damage, run up lower storage costs and are protected from exposure, spoilage and possible contamination.

-more-

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A case in point is "piggybacking," a form of containerization in which loaded truck-trailers are shipped inter-city on railroad flat cars. Truck tractors haul the containers from the shipper to the railroad and from the railroad to the consignee. The U.S. Interstate Commerce Commission has called piggybacking "one of the most dynamic formulas for transportation of freight this country has ever seen."

In addition, the United States government has thousands of freight containers in use with many of them serving to transport delicate missile and rocket components from the manufacturer to the assembler.

Domestic and foreign airlines, in particular, have long been committed to containerization. Airplane operators and manufacturers have cooperated to develop advanced-design containers and handling systems. Steamship and barge lines, trucking firms and railroad companies are also striving to perfect and expand the use of containers.

Why, then, isn't all freight shipped in this manner?

The answer is complex, but revolves principally about the difficult necessity of creating a shipping system which can serve all modes of transportation equally well.

However, the first steps toward a universally useful system have already been taken. Standard sizes have been adopted for containers or vans which may measure 10, 20, 30 or 40 feet in length, be eight feet high and eight feet wide.

While these have been determined to be optimum measurements to meet most cargo and vehicular needs, they do not meet all such requirements. As a result there often is a severe limitation on the transfer of a van from one form of vehicle to another and - until this limitation is erased - containerization cannot achieve its full potential.

There are other problems restricting the development of a standardized container freight system. One is the cost of the containers and the adaptation of existing vehicles - or the creation of new ones - to haul them. Another is the cost of standardized equipment needed to handle the containers.

In addition, carriers face the loss of payload or shippers face increased charges because of the weight of the container; the transport of empty vans to the shipper must be paid for; existing non-standard containers must be modified or scrapped.

GM does not propose solutions to all these problems at its World's

Fair exhibit nor does it claim the solutions it does offer will be

adopted. It does point up, however, that the swift and economical transportation of goods is vital to the continuing betterment of mankind.

Within the famed Futurama "ride into tomorrow" - a 15-minute trip through six scenes of the world as we may someday know it - and within an animated display of a futuristic, highly-sophisticated mobility system, GM exhibits the tools and techniques it feels may speed a renaissance in transportation.

The Futurama freight system is fully integrated and features speciallydesigned containers, vehicles and terminal installation for land, sea and
air. Unlike today, there is no restriction on the transfer of containers
from one mode of transportation to another.

Raw materials, finished goods, liquids, food and other shipments are packed in standardized containers which can be carried as easily by an airplane as by a truck.

Transportation centers served by electronically-controlled highways, high-speed railroad trains, vertical take-off airplanes and all-weather barge-ship canals are located on the outskirts of cities. Cargo containers reach downtown or industrial areas over express truck routes, on cross-country conveyor belts or through pneumatic pipelines.

The nerve center of the system is the freight center where shipments are received, stored and dispatched automatically. Containers, impervious to the weather, are stored in open bays served by external elevators.

Computers in the center's control station maintain a terminal-wide inventory and prepare shipping schedules.

GM's designers offer proposals of a number of vehicles specially designed for use within the system. They range from turbine-powered freight haulers for cross-country highway runs to off-the-road transporters for use in undeveloped areas to ground effect machines for the movement of containers within the freight center.

GM's Inland Manufacturing Division is already marketing the key component of the ground effect machine - perforated plastic bags through which air is pumped to elevate them slightly. Tons of freight loaded on platforms floated by the bags can be moved easily.

A proposed twin-turbine transporter - the Bison - is shown full-size in a separate display. The Bison would cruise on one, 280-horsepower turbine engine and would have another turbine, rated at 720 horsepower, for additional acceleration or hill-climbing power. The Bison is designed to haul standardized freight containers.

Another truck, destined for intra-city container transport, is a flat-bed van designed to load or unload at shipping dock or ground level. Its features include high maneuverability, a one-man crew and specialized control and communications equipment.

Elements of all the vehicles are refinements of many trends evident in truck design today - aerodynamic shapes, lightweight construction, improved power plants, variable load-unload levels - which have been projected to meet the transportation demands anticipated by the GM Styling Staff.

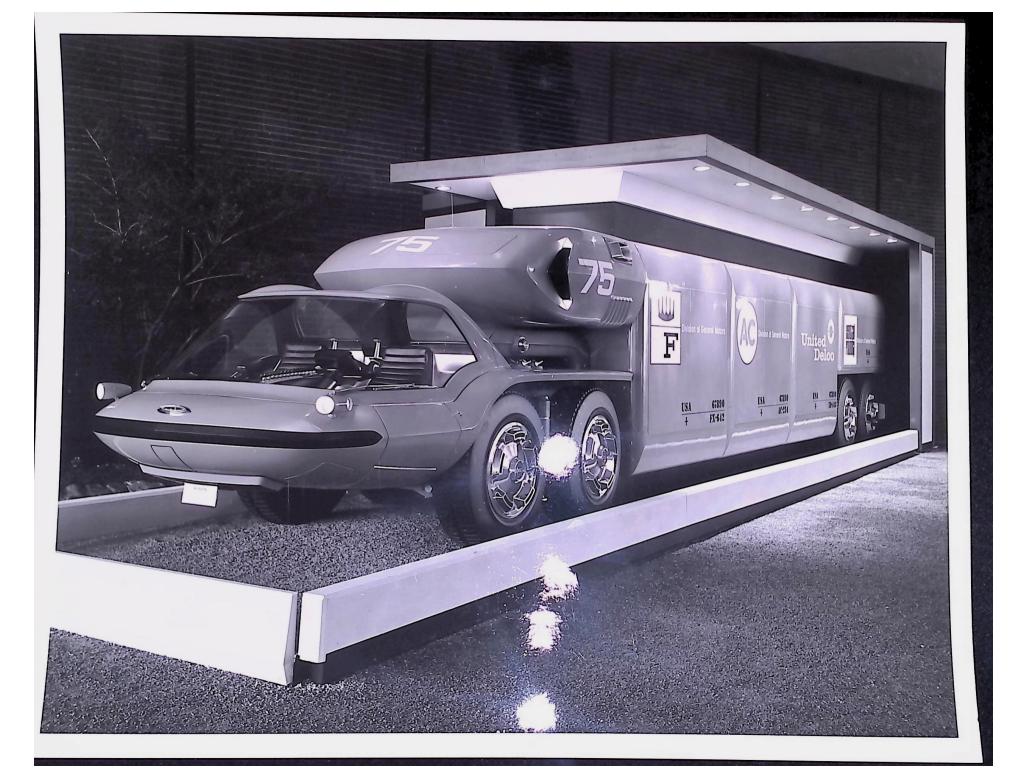
Economy of operation, durability and safety are also areas of intensive research for the years ahead.

The Futurama freight system is, admittedly, a prospect for tomorrow. But the beginning is already underway and its momentum is increasing. Each day discloses new developments in containers, trucks, ships, cargo airplanes, barges and warehouses.

These pioneer developments, carrying the promise of even greater benefits to come, have already spurred the faster, safer, less costly movement of the riches of a busy and prospering world.



THE BISON, a twin-turbine freight hauler of sleek new design which could carry containerized cargoes at new peaks of efficiency on tomorrow's express highways, is featured by General Motors at the New York World's Fair. The Bison incorporates the latest innovations in handling, communications, maintenance and crew comfort.





.....from CHEVROLET MOTOR DIVISION

General Motors Corporation • General Motors Building Detroit, Michigan 48202 — TRinity 3-7200

FOR RELEASE

IMMEDIATELY

CHEVROLET AT THE NEW YORK WORLD'S FAIR

(4032)

Automotive showmanship ranging from "dream cars" to a "dreamboat" spices Chevrolet's variety-packed 1965 New York World's Fair exhibit.

Special show pieces designed for the Fair's exhibit are intended to dramatize the versatility and advance ideas of the 1965 car and truck lines with which Chevrolet seeks another year of record sales.

The dream vehicles plus a representative selection of 20 Chevrolet cars and trucks and several intricate hand-built engineering exhibits are included in the division's displays both inside and outside the General Motors Futurama Building.

An advance design version of the Corvette Sting Ray hardtop and a sampling of Chevrolet passenger cars for 1965 are featured in the Chevrolet area on the upper level of the circular product plaza at the east end of the Futurama Building.

A futuristic watersport combination made up of a nautically styled El Camino sport pickup with trailer and ski boat highlights the outdoor car and truck exhibit in the area below the domed product plaza.

The upper level exhibit is presented in a setting capturing the charm of Old New Orleans with a panorama of scenery including the Mardi Gras atmosphere, a Mississippi river boat and other colorful backdrops.

(4032) 2

Prominent in the exhibit is the Corvette "idea car," another in a succession of design study automobiles that include the Shark, the XP-700 and the Sting Ray, all seen in major shows of previous years. Incorporating many forward looking sports car features, the car's design has an even more aerodynamic accent than its predecessors. The lines include a faster back, more forward sloping nose and hipline emphasis, a hinged roof and louvers in place of a backlight.

Two versions of Chevrolet's famed "lift body" exhibits give visitors an inside view of chassis working parts and construction details of passenger cars. One is a turquoise Chevelle Malibu Super Sport coupe whose body lifts over two feet above the brightly painted chassis.

The other is a turquoise Impala Super Sport convertible which not only lifts up and down but also tilts to a 45-degree angle toward the viewer, giving a closeup of the bucket seat interior.

An added highlight of the passenger car area is the recently introduced Caprice Custom Sedan, the much-discussed new prestige option on the Impala sport sedan.

A wide assortment of Chevrolet production cars demonstrates the division's diversified lines for 1965 which include 46 models in five different car sizes. Eight cars representing Chevrolet, Chevelle, Chevy II, Corvair and Corvette will be shown in the interior display. Five additional passenger cars, including the new Sportvan, will be in the outdoor exhibit.

An eye-catcher of the outdoor area is the Surfer I, a specially styled combination of topless El Camino in nautical trim with ski boat and trailer to match. The El Camino, only 32 inches high at the cowl, has elm wood pickup bed planking and trim to match the boat deck.

The boat itself calls attention to Chevrolet's role as a major supplier of basic engines to the boating industry. A high performance 425-hp. version of Chevrolet's new Turbo-Jet 396 V8 is installed in the craft with specially engineered exhaust stacks to set it off.

Also in the outdoor area is a feature-filled truck display, with the accent on camping and mobile living. Seven trucks ranging from pickup camper units to a large tractor demonstrate Chevrolet's wide range of haulers which for 1965 totals 324 models.

Three travel and camping units, all different models, are among the truck models in the open air exhibit.

In the center of the truck exhibit is a mobile unit which has a selection of Chevrolet truck engines and power trains mounted in a huge plexiglass showcase. The unit is attached to a heavy-duty Chevrolet tractor. Spectators can look into the case and see the inner mechanisms of the engines in operation. There are also exhibits of truck air brakes, front suspension and power steering.



1965 Chevrolet Impala sport coupe



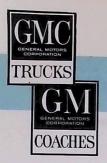
1965 Convair Corsa convertible

PACE SETTERS OF CHEVROLET WORLD'S FAIR

EXHIBIT—Here are two of the 20 production vehicles displayed in the Chevrolet exhibit at the New York World's Fair. Both are representative of the division's completely redesigned lines for 1965. Above is the IMPALA Sport Coupe, largest individual seller of the 46 models in five lines offered by Chevrolet. Below is a CORSA convertible. The Corsa is the top series of the Corvair and is equipped with a 140 h.p. rear-mounted six-cylinder engine. A 180 h.p. turbo-supercharged version of this engine is optional.



DREAM BOAT AT WORLD'S FAIR—The surfer I combination, created to display Chevrolet's new turbo-jet 396 V8 engine, is made up of a specially-styled Chevelle El Camino sport pickup towing a trailer with a 17-foot ski boat powered by the engine. It is displayed in the outdoor section of Chevrolet's exhibit at the New York World's Fair.



GMC TRUCK & COACH DIVISION GENERAL MOTORS CORPORATION 660 SOUTH BOULEVARD EAST PONTIAC, MICHIGAN 48053

FOR RELEASE

IMMEDIATELY

WORLD'S FAIR -- A pyramid of trucks towering three stories into the sky and a new experimental turbine-powered bus will highlight GMC Truck & Coach Division's all-new exhibit at this year's New York World's Fair.

The display outside the General Motors Futurama Building also includes three sleek camper vehicles, a huge highway tractor-trailer combination, a new passenger carrier and an exhibit depicting 50 years of progress in milk hauling.

GMC Truck's colorful "Tower of Power" consists of a stack of four light-, medium- and heavy-tonnage trucks, dramatizing the complete model coverage offered by the Division.

The bottom vehicle is a large diesel highway tractor with flatbed trailer. Riding "piggyback" on it is a heavy-duty platform truck. This vehicle in turn supports a medium-duty tilt-cab model. The top unit is a light GMC Handi-Van cargo carrier.

The show trucks and their tie-downs weigh 30 tons and are supported by three 18-inch reinforced concrete slabs.

Near the Tower of Power is another new GMC display, "Turbo-Cruiser II."

This "laboratory on wheels" was developed recently by GMC

Truck & Coach Division in conjunction with GM Research Laboratories.

It represents one of the latest advances in bus rapid transit research.

While Turbo-Cruiser II has many design innovations, its most unique feature is a 280-horsepower, regenerative gas turbine power plant that has outstanding combustion characteristics and an extremely desirable power-to-weight ratio. The engine may be seen through a clear plastic housing.

A half century of progress in milk hauling is dramatized in another new GMC Truck exhibit. It features a 1915 GMC milk truck displayed beside a 1965 Toro-Flow diesel tank truck.

Descriptive posters report that GMC milk truck capacities have risen from 500 to 3400 gallons in the past 50 years. Horsepower is up from 40 to 170 and road speeds have increased from 14 miles per hour to legal expressway maximums.

Of special interest to outdoor enthusiasts are three separate camper-truck displays. These include a light GMC Handi-Bus Camper complete with bunks and cabinets, a pickup truck with removable camper body, and a larger permanent camper body mounted on a one-ton GMC truck chassis.

Camper bodies include many luxurious features, such as carpeting, intercoms, and full-length mirrors.

Another vehicle, the GMC Handi-Bus, will be displayed near the campers. This vehicle is an attractively appointed station-wagon-type unit built on a rugged truck chassis for dependable town and country performance.

Supplementing the vehicle displays are several engine exhibits.

Show engines include a famous GMC Toro-Flow diesel, a V-6 gas engine and a 6V-71N heavy-duty diesel engine.

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A "Tower of Power" takes shape in the GMC Truck & Coach Division exhibit site at the New York World's Fair.

The 30-ton pyramid of trucks is a featured attraction at the Division's all-new exhibit behind the General Motors Futurama Building.

From: GMC Truck & Coach Division Pontiac, Michigan

GENERAL MOTORS OVERSEAS OPERATIONS DIVISION

1775 Broadway - New York N.Y. 10019 - U.S.A.

Public Relations Department (212) PLaza 7-4000

NEWS

WORLD'S FAIR -- An historic automobile and a new motion picture theater will be feature attractions here in the 1965 edition of the General Motors Overseas Operations exhibit in the GM Futurama.

The one-of-a-kind automobile is a special Vauxhall Victor 101 Deluxe Sedan, the ten millionth vehicle manufactured outside the United States and Canada by General Motors. Its manufacture was actually a tale of two countries. The components for this historic Victor were made in Great Britain, at GM's Vauxhall factory, then transported by truck and ship to Belgium, where it was assembled at General Motors Continental at Antwerp.

Since the ceremonies for the ten millionth GM overseas vehicle, early this year, the milestone Vauxhall has starred in major automobile shows in Belgium, the Netherlands and Switzerland. It is making its debut appearance in North America on a special stand at the entrance to the GM Overseas Operations display in the Futurama.

A special deep metallic Firefrost Silver finish is exclusive to the milestone Vauxhall, which is trimmed in fine silver leather with panels of deeply quilted silver brocade and a headlining of wild silk. Even the Vauxhall's engine is silver-painted and chromed to complete the theme.

The special Vauxhall, a symbol of international cooperation and the progress made since GM began manufacturing overseas in 1925, is displayed before a background of illuminated color photos which show the ways in which an international corporation like General Motors helps create a better life in the world community.

Along the left side the overseas plants and people of GM are shown providing industrial facilities, creating jobs and promoting exports, while on the right General Motors is seen supplying special skills, producing useful goods and contributing tax revenues for the support of local governments.

Futurama visitors in 1965 continue to be delighted by the replica of a town hall of southern Germany along the left side of the Overseas Operations exhibit, where Opel automobiles are displayed. These cars, the Opel Kadett, Rekord and Diplomat, are made by GM's subsidiary in Rüsselsheim, Germany.

A moment's relaxation for the footsore Fair visitor may be enjoyed on the benches of the gabled "English Pub" on the right side of the exhibit, in the shade of a gnarled English oak tree (also an accurate simulation). Here one may examine the products of Vauxhall Motors Limited, the car- and truck-building subsidiary of General Motors in Great Britain.

In the Holden display, showing the automobile made by GM's subsidiary in Australia, the specialized skills of a taxidermist were obtained to prepare the exhibit for 1965. His ministrations were required by typical denizens of the "down-under": a koala bear, duck-billed platypus, kangaroo and such distinctive Australian birds as the kookaburra, galah and crimson rosella parrot.

Visitors may sit down and enjoy a short but informative presentation in the motion picture theater of GM Overseas Operations, the only such facility in the Futurama. The film explains the ways in which General Motors is active in more than 160 countries throughout the Free World. The theater is located outdoors in the Overseas Pavilion, specially enlarged for 1965.

Around this Pavilion some of GM's overseas commercial vehicles are shown.

Included is the luxurious six-wheel Bedford Val bus that was a popular attraction in

1964, even though, contrary to the hopes of one charming lady, it doesn't make periodic trips into Manhattan.

Details of these exhibits and the products they display are explained to Futurama visitors of many nationalities by a remarkable multi-lingual staff provided by GM Overseas Operations. Young men are on hand from General Motors plants in Europe, South America and Australia. Languages spoken include French, German, Italian, Spanish, Portuguese, Swedish, Norwegian, Flemish, Maltese, Arabic, Japanese, Hindi and Urdu. The abilities of these men are of course called upon by the many overseas visitors to the GM Futurama.

* * * *



April 7, 1965

DETROIT DIESEL

THE UNIVERSAL POWER

The Detroit Diesel exhibit at the General Motors Futurama Building stresses the key role of the diesel engine in present and future world development and economy.

At the time of the 1938 World's Fair, diesel power was restricted because of engine size and had barely begun to make its presence felt. In the intervening years, 120 million Detroit Diesel horse-power has been produced and put to work in over 3,000 different kinds of power applications, requiring from 20 to 1400 horsepower. Today they may be found just about everywhere . . construction projects, trucking fleets, pleasure and work boats, oil rigs, mining and lumbering camps, defense installations, and even the standby power systems of most American hospitals. In short, Detroit Diesel has become the Universal Power.

This theme is graphically depicted in the exhibit by eight paintings of typical modern diesel applications. They were done specially for the display by the well known industrial artist team, Robert and Ina Meta Taylor. A special 16-page booklet featuring full-color,

full-page reproductions of these paintings is available at the exhibit.

In addition to three actual models of Detroit Diesel engines, the Division's exhibit includes an activated cutaway engine. This cutaway demonstrates how the diesel ignites its fuel without benefit of spark plugs or electrical ignition systems. The display also shows how all Detroit Diesel engines operate on the two-cycle principle which is largely responsible for their smaller size compared to other diesels of equal power output.

Another display of interest is a Detroit Diesel standby generator set housed in a glass structure outside the Division's main exhibit. This is a "live" unit ready to supply power for temporary lighting automatically within seconds in the event of emergency. These units are now standard equipment in many hospitals and other institutions, and comprise another highly important Detroit Diesel power application.

The wide horsepower range of the Detroit Diesel family of engines all built to one basic design regardless of power output and their wide flexibility in meeting hundreds of mobile and stationary power applications are features unique to the industry. The flexibility of these engines also extends to the fuels on which they can operate efficiently. Due to their "multifuel" characteristics they can burn any fuel from furnace oil to gasoline with only slight modification.

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A theme of "Universal Power" is expressed by the Detroit Diesel Engine Division's World's Fair Exhibit in the Lower Product Plaza of the General Motors Futurama Building. On display are a number of engines representative of the Detroit Diesel line, along with colorful photo murals depicting their widespread use in trucks, buses, construction, industrial and agricultural equipment, boats, and military installations.

NEWS



DIVISION OF GENERAL MOTORS CORPORATION . DAYTON 1, OHIO

For Release: On Receipt

SUPERIDE SHOCK ABSORBERS

Delco Superide shock absorbers, on display at General Motors Futurama at the New York World's Fair, are engineered for the replacement market with special valving to help compensate for the usual wear of springs and suspension parts.

An outstanding feature of Superide, available in Delco-built shock absorbers, is the nylon skirted piston which provides a smooth bearing surface for longer life. The nylon ring prevents scored cylinder walls that cause fluid leakage past the piston and loss of control.

Other construction features for safe, dependable performance of the Superide are "Posicontrol" fluid which keeps the load constant regardless of temperature changes, and "Posicontrol" valves which maintain the best ride on all types of roads. A multilip rod seal doubles protection against fluid loss. Superide's induction hardened piston rod of polished, high-carbon steel is extra strong and resists wear.

Made of all-welded construction for greater durability, Superide has a mirror-finished cylinder of precise dimensions and smooth bearing surface to give long lasting reliability. High precision guide bearing assures accurate alignment and smooth, quiet operation.

All Superide shock absorbers are the same price. . . front. . . rear. . . for all American cars.

Delco Superide shock absorbers are distributed nationally through United Delco.

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MEWS FROM PONTIAG

PONTIAC MOTOR DIVISION OF GENERAL MOTORS CORPORATION • PUBLIC RELATIONS DEPARTMENT • (AREA CODE 313) 332-8111 • PONTIAC, MICH.

FOR RELEASE UPON RECEIPT

Visitors to Pontiac Motor Division's exhibit area at the New York World's Fair will view a complete selection of the award-winning 1965 Pontiac cars and two special show units, all displayed in an atmosphere of the great Southwest and the Rocky Mountains.

Pontiac's exhibit is located in the upper product plaza in the General Motors
Futurama Building at the Fair.

The sets and scenes in the 5,000 square-foot, fully-carpeted, Pontiac area are the results of three years of planning,

Occupying a prominent position in the exhibit area will be a Palm Springs country club scene. The center of attraction there will be a customized show car, a special Bonneville convertible named the "Esprit."

The "Esprit" contains an exterior paint of fire-frost cerise, which is cherry-like in color. The interior is done in a pink pearl cerise hue. The bucket seats and door panels are all trimmed with Florentine leather work done in a scroll pattern accenting the seats and door panels. The Florentine scroll is bright silver and marks the first time such leather work has been displayed in an automobile.

The carpeting is a pink puff pile and the lower portion of the instrument panel has the pink pearl shade.

The "Esprit" will revolve on a spotlighted platform which will be suspended

over a pool of water.

A Grand Canyon scene will set the stage for the other Pontiac on special display, a maize yellow 2 Plus 2 convertible which will tilt forward to a 51 degree angle permitting a clear view of the interior. The 2 Plus 2 features an interior of parchment Morrokide trim and black carpeting. The convertible is equipped with bucket seats, four-speed Hurst floor shift transmission, console and 421 cubic-inch engine.

Surrounding the 2 Plus 2 will be the desert with a realistic supply of sand and cactus with the painted Grand Canyon and horizon in the background.

Two other scenes familiar to the Rockies will be a camping area with a tent and a replica of a ski lodge.

Along the back wall of the Pontiac exhibit will be a diarama of paintings providing a suitable background for this geographical atmosphere.

A cross-section of 1965 Pontiac cars, which will include a Bonneville Brougham, GTO convertible, Grand Prix, Catalina nine-passenger station wagon and Tempest four-door sedan, will be set among the geographical sets.

Pontiac, selling third place nationally for the fifth consecutive year, will also display the "Car of the Year" trophy recently presented to Pontiac by Motor Trend Magazine for "engineering and styling leadership" for the entire line of 1965 Pontiacs and Tempests.

In the patio area outside the Futurama building Pontiac will display several cars, including a LeMans four-door sedan, a Bonneville Vista, a Bonneville fastback coupe and a Catalina four-door Vista.



No. 14015-2

FOR IMMEDIATE RELEASE

SYMMETRY AND SUBTLE CONTRAST are evident throughout this Oriental kitchen profile, displayed by Frigidaire at the World's Fair. Harmonizing with the symmetrical kitchen arrangement are subtle contrasts. Sparkling white appliances offset the dominant black decor. Quintet of World Kitchens is set in a colorful display-in-the-round in GM's Futurama Building.

Frigidaire is currently celebrating "Fifty Years of Building for a Better Tomorrow."



FOR IMMEDIATE RELEASE

UNIQUE INSTALLATION of cooking top on ornamental slab-type counter is a highlight of the Oriental kitchen profile, one of five World Kitchens displayed by Frigidaire in General Motors' Futurama Building at the World's Fair. Formal, clean-lined design of kitchen makes perfect setting for sculptured sheer look of white appliances and the contrasting filigree lacework on Flair wall oven at right. Frigidaire is currently celebrating "Fifty Years of Building for a Better Tomorrow."



NEWS

for release

IMMED LATELY

WORLD'S FAIR --- General Motors opened the doors of its Futurama exhibit at the New York World's Fair today and displayed for the first time the results of "Many Minds and Many Hands Serving the Needs of Mankind."

Some 350 press, radio and television newsmen were the guests of GM at a preview of the Futurama two weeks to the day before the fair opens April 22.

The newsmen, who came from the New York metropolitan area, neighboring states and from GM's home state of Michigan, rode the Futurama "ride into tomorrow," inspected a display of GM's scientific and engineering research and viewed an exhibition of products manufactured here and abroad.

About the landscaped, $8\frac{1}{2}$ -acre Futurama site they saw an exhibit of General Motors trucks, buses and other heavier equipment. They also toured five Frigidaire kitchens representing the latest in world-wide decor, furnishings, room accessories and appliances.

At the preview General Motors introduced three experimental automobiles and an experimental truck powered by a gas turbine engine.

The experimental cars, created for the future, represent the designers' styling, operation and convenience goals of today. One - the GM-X - is a two-passenger, high-performance, personally-styled coupe for the driving enthusiast.

Firebird IV, the latest in a series of General Motors advanced vehicle concepts, is a four-passenger, inter-city touring cruiser for automated highway travel.

The Runabout, a multi-purpose car for shopping and commuting, departs from traditional design in that it has a single wheel in front.

The turbine-powered Bison is a proposal of a future highway freighter for exclusive use on expressways as the lead unit for trains of containerized freight.

- General Motors Futurama New York World's Fair Flushing, New York 11380 Phone 888-4000 Area Code 212

For Further Information Contact: —

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Terry W. Wilson, ______ 888-7822

In a statement issued today, GM Chairman Frederic G. Donner and President

John F. Gordon said it was fitting for General Motors - an international corporation - to display its manufacturing and marketing operations in "this great
international showcase."

But, they added, a world fair "should be more than an international trade show or bazaar. It may signalize past and present accomplishments, but of even greater interest is its focus on the future."

The fair, they said, "provides a medium whereby planners and designers can try out in three-dimensional near-reality their forward-looking concepts and bold imaginings of what economic and social advances the future may hold for mankind.

General Motors has attempted this in its Futurama ride."

Seated three abreast in sound-equipped lounge chairs, the newsmen took the quarter-mile long Futurama ride through what GM designers, who created the entire exhibit, feel the future has in store.

They traveled past the moon and saw an expeditionary force exploring its mountains and deserts, pushing back the frontiers of man's knowledge of the universe.

Swinging back to earth near the South Pole they came upon another expeditionary force developing the natural resources of Antarctica and - deep within its icy crust - operating a global weather forecasting station.

Entering the Antarctic Ocean the newsmen moved north and in warmer seas viewed the operation of an underwater oil, gas and mineral drilling operation. Within still warmer seas they journeyed through an oceanic playground complete with resort hotels.

Rising from the depths they entered the jungle and saw trees being felled by machines equipped with laser beams. Close behind came a highly-sophisticated highway builder which left in its wake an elevated roadway.

Within the moon, Antarctic, undersea and jungle scenes and within the scenes which lay ahead the newsmen saw illustrations of the ways in which GM designers proposed that improved mobility might give man access to areas now denied him.

The newsmen followed the highway - symbolic of mankind's progress - over the mountains and across the desert. Here a farm irrigated with desalted sea water and tilled with remotely-controlled field machines, bloomed in the mineral-rich sands.

Beyond the desert the ride skirted the city of tomorrow, a glittering assemblage of new architectural expressions and urban planning designed to solve the problems besetting the cities of today.

Within the futuristic metropolis the newsmen saw highly-specialized trucks, commuter buses, passenger cars and other vehicles transporting men and goods swiftly and efficiently.

Containers moved on conveyors between the heart of the city and the outlying freight center; vehicular traffic was programmed on electronic highways by computers; high-rise transportation centers provided split-second, automatic parking.

The self-contained, inner-city living area was constructed over the multi-laned highway as were many of the other structures. Within the commercial area pedestrians traveled via covered, moving sidewalks.

Beyond the city the newsmen saw the finale of the ride, the city at night as its lights - glittering far below - etched its highways and byways, its homes and its business buildings in the night sky.

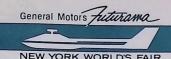
"The ride is not a blueprint of tomorrow and does not claim to be," said

Mr. Donner and Mr. Gordon in their statement. "It represents a few refractions from
our crystal ball, an exploration of our thinking about some of the world's potentialities for progress.

"These predictions may appear bold, but the opposite is as likely to be true.

Just as the facts of the 1960's have far out-distanced the fancies of the GM Futurama at the 1939 fair, so is history apt to repeat itself and the fancies of 1964 may prove but a pale foreshadowing of the facts of a generation or two hence."

Leaving the Futurama ride the newsmen traveled the Avenue of Progress, a highlydetailed depiction of GM's scientific and engineering research and development programs which improve the products made today and create the products which may be made tomorrow. In concluding their statement Mr. Donner and Mr. Gordon said whatever the future holds, "whatever progress our society makes, General Motors intends to be a part of that future and contribute to that progress. General Motors is indeed, as its Futurama theme states, 'Many Minds and Many Hands Serving the Needs of Mankind'."



NEWS

for release

APRIL 8, 1964

Following is a statement issued today by Frederic G. Donner and John F. Gordon, chairman and president of General Motors:

WORLD'S FAIR -- General Motors is proud to be a participant in the New York World's Fair. We take pride in the fact that Futurama is completed and ready well in advance of the opening of the fair on April 22.

We are proud, too, that the exhibit was conceived by our own people. We were our own architects for the building shell. What is inside is wholly the concept of GM designers, engineers and technicians. The idea of the ride was ours; our engineers designed its mechanics; we did our own research, in consultation with leading authorities in the sciences and humanities, on how the future could be depicted, and we planned each scene and diorama to give dimension to these ideas. In all these respects Futurama, we feel, is unique among fair exhibits.

As an international corporation it is fitting that General Motors should display its wares in this great international showcase and dramatize the worldwide character of its manufacturing and marketing operations. The fair affords GM an all too-infrequent opportunity to bring together under one roof all of its products from 125-ton dieselectric locomotives through cars and trucks to electric motors and tiny ball bearings.

But a World's Fair should be more than an international trade show or bazaar. It may signalize past and present accomplishment, but of even greater interest is its focus on the future. It provides a medium whereby planners and designers can try out in three dimensional near-reality their forward-looking concepts and bold imaginings of what economic and social advances the future may hold for mankind.

General Motors has attempted this in its Futurama ride. However, the ride is not a blueprint of tomorrow and does not claim to be. It represents a few refractions from

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our crystal ball, an exploration of our thinking about some of the world's potentialities for progress. These predictions may appear bold, but the opposite is as likely to be true. Just as the facts of the 1960's have far outdistanced the fancies of the GM Futurama at the 1939 fair, so is history apt to repeat itself and the fancies of 1964 may prove but a pale foreshadowing of the facts of a generation or two hence.

However, whatever the future holds, whatever progress our society and our country makes, General Motors intends to be part of that future and contribute to that progress. General Motors is indeed, as its Futurama theme states, "Many Minds and Many Hands Serving the Needs of Mankind."

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for release

IMMEDIATELY

FLUSHING MEADOW, N.Y. -- The unending night of deepest space broods everywhere, gives way for a moment as a multi-colored map of the earth appears, then darkness covers all again.

The General Motors Futurama ride has begun.

The darkness eases and the craggy surface of the moon appears close at hand illumined by a spectral half-light. Traveling three abreast in contoured lounge chairs, visitors watch manned lunar crawlers make their tortuous way over the pitted floor of a canyon or up the side of a crater. Vehicles, unlike anything seen on earth, transport men and equipment on their exploratory travels. Nearby a control station watches over a cluster of spaceships poised for launching. A distant range of mountains promises new challenges, new adventures for the far-ranging earthmen.

Mounted on either side of a headrest atop the back of each lounge chair loudspeakers small as the palm of a hand bring Futurama riders a detailed account of the world GM designers foresee for tomorrow . . . or perhaps the day after. The moon is the latest target of man's curiosity and derring-do; the antarctic is a research center; automated farms bloom in the wastelands of the world; the jungle prospers as it yields to the advance of progress; the sea is a playground, a mineral storehouse, an inexhaustible larder; the city is a glittering complex of commerce and urban living.

As the ride moves on the moon disappears and utter darkness returns. Suddenly a space station, surrounded by small rocket vehicles hovering to land, orbits silently past. The station serves as a way stop between the moon and the planet earth which has appeared suspended at a great distance.

Phone 888-4000 Area Code 212

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The earth, its Southern Hemisphere in view, draws closer, then disappears in the myriad hues of an aurora. Through the aurora an Antarctic vista appears, a wind-swept, ice-studded, snow-covered plain that reaches to a distant ice shelf at the ocean's edge. Penguins, seals and birds move across the plain.

Cut into the ice-shelf adjacent to the land mass which forms the Antarctic continent is an all-weather port. The harbor is in the shape of a tube several hundred feet in diameter sunk through the ice shelf into the unfrozen sea and anchored to the land.

The water within is kept from freezing to allow atom-powered submarine trains, sailing beneath the ice shelf, to surface within the harbor to discharge their cargo. During the savage Antarctic winter, when the shelf extends far into the sea, the sub-trains can unload directly onto the land mass and save heavily-laden transporters the necessity of long and sometimes dangerous trips over the shelf.

The area around the port serves as a staging point for supplies coming into Antarctica. Cargo containers are being unloaded from VTO (verticle take-off) airplanes and loaded onto multi-wheeled, multi-purpose, over-ice haulers. One hundred feet in length, the flat bed units can be joined into trains to handle freight or -- when fitted with prefabricated, modular structures -- can serve as mobile laboratories, control stations or dwellings.

The transports roll inland over the wind-ravaged plain which lies at the foot of towering mountains whose snow-covered flanks sparkle in the sun. The vehicles head for a weather study base which is under construction. Smaller versions of the over-ice haulers, personnel carriers and other vehicles move busily midst a group of individual modular structures pre-fabricated of plastics and specially-insulated to withstand the sub-zero temperatures.

Legs raise the buildings above the surface so that snow, driven by the incessant winds, will not pile against the structure but pass beneath it. Close at hand several of the modules have been grouped to form one building which -- like the smaller units -- can be raised or lowered on its legs as wind and snow conditions demand.

Rockets, used to acquire weather data from the substratosphere, rise alongside their control station. Dotting the surface are unmanned weather units reporting automatically via radio and television. An ice excavator resembling a vertical boring mill is opening a sub-surface area for the installation of a new building.

Through shimmering, ice-reflected shafts of light the path dips beneath the surface.

The interior of a room appears and a man is seen scanning a dimensional radar screen.

Near him stands an animated map upon which is recorded the temperature, speed-of-flow and salinity of the water that surrounds the continent.

Another man, in visual contact via television with the space station which appeared earlier, is seen. Upon a map of the world the paths of space, land and sea weather reporting vehicles are traced in colored lights; other lights mark the locations of stationary weather reporting units. Additional control consoles enable the operator to contact reporting stations around the world.

The room is part of a global network of weather forecasting stations. Here are collected climatic reports from land, sea and air which are fed into computers. The computers, drawing upon memory banks containing millions of earlier reports for comparative data, instantly prepare weather forecasts that embrace areas as large as continents, as small as countries and states.

The headquarters is located in the Antarctic because it is here that most of the Southern Hemisphere weather originates. It in turn affects, to a marked degree, much of the weather of the Northern Hemisphere. Geographically the South Pole is the only land area on earth which a satellite, used to report and relay weather information, can overfly in every orbit.

The scene moves into an ice cavern, then -- as the light changes from glittering, white-washed blue to rippling, dappled green -- down into the sea at the edge of the ice shelf. The wreckage of a three-masted whaling ship comes into view. These waters are the home of the Blue, the Sperm, the Humpback and the other whales that man has hunted since antiquity. A school of cold water cod swims by.

An aquacopter, a two-man undersea personnel carrier fitted with claw-handed arms and capable of operating at depths up to 10,000 feet, appears as the occupants inspect an ocean-floor lode of manganese nodules. An atom-powered submarine train passes and heads for the all-weather port on the shore of Antarctica. Drills probe for oil in the midst of a field of capped wells. The sub-train is equipped to tap a well, fill its tank cars, deliver the crude to a seashore refinery and return without surfacing, without being affected by storms or other surface disturbances.

An undersea recreational area comes into view. Resort hotels, free-floating or secured to the ocean floor, are at depths from 50 to 200 feet. Through over-sized windows vacationers may be seen dancing, eating dinner. Others are renting underwater camera or fishing equipment before donning breathing-apparatus for an excursion into the surrounding waters.

Small vehicles, similar to the aquacopter and driven by sportsmen, pass through groups of open and closed diving bells used for photography and fishing. A swimmer is towed by an aquascooter past a port at which a number of undersea vehicles are docked. With some three-fourths of the earth's surface covered by water, vehicles of these and other types provide the mobility necessary to harvest the food and tap the natural resources that lie beneath the sea.

The light brightens from the chill, dark green of the ocean depths to the sun-warmed, lighter hues of the shallows. Coral and sand give way to seaweed, grasses and the roots of trees. The verdant, steaming jungle -- the "green hell" -- emerges. The sounds of birds and animals come through the otherwise impenetrable growth. A stagnant, insectladen pool holds shreds of roiling mist.

A "crack" sounds above the jungle noise. A towering hardwood is lowered to the ground in the arms of a tree cutter that uses a laser beam as a saw blade.

In the wake of the cutter comes a road-building vehicle as high as a five-story building and as long as three football fields. The head end of the road-builder partially levels the ground cleared by the cutter, the following section sets double rows of steel pilings. A third section casts rectangular slabs composed of cement, plastics and other materials. The slabs are placed end-to-end atop the pilings and secured. Thus, as the vehicle moves forward, a divided, multi-laned highway is laid in its path.

Trucks hauling the bulk mix for the slabs, railings, in-the-road electronics installations and other materials move up the newly-completed highway to feed the road builder. Within the surrounding jungle off-the-road personnel carriers and load haulers improve the right-of-way. Also visible are mobile homes designed for the tropical climate.

The completed highway is seen carrying cars and trucks through the jungle to a community which functions as a transportation center for products gleaned from jungle clearings -- lumber, chemicals, farm crops and other commodities. An elevated pavement installed to meet man's needs has replaced the meandering river as the highway of the jungle.

Beyond the jungle community the view climbs to a plateau, then scales sheer rock rises until a mountain, pierced by a tunnel carrying the highway up from the lowlands, is seen. On the leeward side of the mountain, as the prevailing winds blow, a vast, arid land appears. The expanse is broken, however, by a patchwork of colors formed by corn, wheat, soybeans, potatoes and other crops. They thrive in the mineral-rich desert soil of this farm through the grace of water raised from subterranean rivers or desalted sea water piped over the mountains.

The farmer employs highly sophisticated techniques and equipment which he controls from an elevated "farm house" at the edge of the fields. Here fertilizers are mixed with the life-giving water whose flow to the fields is automatically regulated by moisture-sensing devices planted midst the crops. Here also are the electronic controls which direct the vehicles that seed, cultivate and harvest the previously barren land. The highway, passing nearby, serves the farm as it did the jungle community by providing an outlet for its product and an access to a supply source for its needs.

The land rises beyond the farm and a suburban living area appears in the distance. The highway emerges from a mountain tunnel, bridges a gorge and disappears into a tunnel that pierces the neighboring bluff. Projecting from the bluff is a home. Circular in shape, it is built on four levels. A swimming pool is in the foreground while parked in the driveway are the family's shopper wagon, sport coupe and sedan. From the obvious affluence of its occupants and the advanced design of many of its architectural, service and recreational features, the home is representative of the prosperity that exists.

The highway reappears beyond the home and becomes a multi-laned landway as it nears a major metropolis. Some of its lanes, part of an intercontinental express highway, speed cars and trucks around all cities. Other lanes carry city-bound vehicles. Still other lanes are reserved for trucks headed for a highly-specialized freight center that serves an industrial complex which adjoins the city.

In the background is a bargeway which carries water-borne freight to the center.

Rising in the midst of the industrial area, the center is marked by special containers for the storage of liquids, bulk commodities and other materials. A VTO pad can be seen handling planes specially fitted to transport containerized shipments.

As the landway nears the city wheeled bus-trains speed along on specificallydesignated lanes. At non-peak commuter hours these lanes are used as express freightways. Additional lanes are color-coded according to their destination; traffic on other lanes is electronically routed, guided, speed-controlled and braked by control stations located on the perimeter of the city.

The landway leads into an inner-city living area which is marked by high-rise apartment buildings with interior parking accommodations and modernistic, row-type houses constructed at varying levels. Shops and service centers situated on the lowest levels and strategically-located parks and recreation plazas make the living area a selfcontained unit whose functional beauty is in sharp contrast with most metropolitan residential areas existing today.

The landway leads into the city proper whose most dominant structure is the transportation center. It is located above the landway and utilizes -- as do many of the structures in the living area -- air rights which remain unused over most urban traffic arteries today.

The transportation center serves as a terminus for commuter bus trains, individual passenger vehicles and VTO airplanes. The center provides automatic, high-speed automobile parking for downtown visitors and for travelers bound out of the city by VTO link to airline terminals located on the periphery of the city. Moving sidewalks serve the transportation centers and adjacent buildings; below street level conveyor belts supplement trucks hauling goods from the freight center.

The transportation center, and other similar installations located about the city, are linked to the landway control system which directs motorists to areas where parking is available. The control system, which regulates all vehicles entering, leaving or bypassing the city, reduces traffic congestion to a minimum.

Past the city proper the land rises and darkness returns. Suddenly, far below, appear the lights that brighten a great modern metropolis at night -- "the mark of man on God's landscape."

The city, the climax and culmination of the Futurama ride, is the product of today's most advanced thinking. It embodies the New York World's Fair's hope of forwarding man's striving for peace; for the time when he can forget the threat of strife which he so vigorously guards against and can concentrate his vast energies and talents on improving the world for all.

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WORLD'S FAIR EDITOR ...

Here are five new illustrated feature type stories about the Futurama ride and its projections which encompass greater detail than previously published.



NEWS

IMMEDIATELY

NEW YORK WORLD'S FAIR for release

WORLD'S FAIR - Future generations may well wonder what Coleridge's Ancient Mariner was talking about when he lamented, "Water, water everywhere, nor any drop to drink" for - if current experiments are successful - people may someday drink purified sea water as they drink fresh water today.

The seas which cover almost three quarters of the earth's surface will be more than a worldwide water well, however. They'll be mines and farms and playgrounds and highways and powerhouses and a host of other things man has on the drawing boards today.

The General Motors Futurama at the New York World's Fair presents these and other visions of man's attempts to broach the world's last frontiers during a 15-minute "ride into tomorrow."

Visitors seated three abreast in sound-equipped lounge chairs travel through animated scenes depicting how the seas, deserts, jungles and polar regions can be made habitable and productive.

More than 12 million persons made the Futurama ride the most popular attraction at the fair during the first season and millions more are expected between April 21 and October 17 when the fair closes.

Designed by the General Motors Styling Staff, the scenes depict the world as it may be if man fulfills the needs of a growing population and strives for a better life for all.

The proposed innovations bear the agreement of expert consultants and can be attained with refinements of the technology developed to date.

Already in hand is the knowledge necessary to open the underwater world and tap its limitless resources. Experts no long ask "if?" but "when?".

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GM offers no timetable but when its designers began preliminary planning to determine the theme of the Futurama ride in October, 1960, their major concern was that ideas that seemed far-reaching then would be outdated when the fair opened in 1964.

Nowhere was this possibility more real than in the undersea portion of the ride. New developments in oceanic research had been appearing at such rapid pace that in some instances the future became the present before it was even predicted.

With few exceptions, man had not plumbed the ocean depths beyond several hundred feet until 1960 when Auguste and Jacques Piccard fabricated the bathyscaphe Trieste.

The first extreme depth vessel free to move about the ocean floor without a surface connection, the Trieste passed the ultimate test - a $6\frac{1}{2}$ -mile drop into the Marianas Trench of the Pacific Ocean.

The Piccards' invention more recently demonstrated its capabilities by discovering the final resting place of the ill-fated United States nuclear submarine Thresher.

With the launching of a new undersea craft - the Aluminaut - last year, another chapter of ocean emploration may be about to unfold. The world's first aluminum submarine, the Aluminaut is designed for salvage, research and possibly mining operations at depths up to 15,000 feet.

A host of other aquatic vehicles - Deepstar, Turtle, Dolphin and others - are being readied to join in an effort that may equal man's coming journey to the moon in excitement and surpass it in benefits.

Exploration of the ocean depths is one thing, but living within them is quite another. However, even here man is forging ahead with marked success.

Within the Futurama ride GM designers have visualized hotels and other structures beneath the seas.

The French oceanographer, Jacques-Yves Cousteau, and others are bearing them out.

The U. S. Navy's Sealab experiments off Bermuda and Cousteau's "Precontinent No. 2," a three building complex sunk about 80 feet into the Red Sea, have already tested the feasibility of man's living and working for extended periods in submerged dwellings without ill effects.

More elaborate projects - an underwater restaurant in Japan and a vacation complex beneath the Caribbean off Puerto Rico - are in the advanced planning stage.

Underwater construction is no longer a problem. Units can be fabricated on land, towed to a selected site, sunk and anchored onto prepared foundations in calm waters below the sometimes turbulent surface.

Variable height platforms floating above the waves would provide dock or landing facilities for boats, helicopters, seaplanes or other craft. Elevators would speed visitors to the underwater dwellings which would contain access facilities for passenger submarines.

Electrical power could be supplied via ocean bottom cable or, in the future, from fuel cell batteries, nuclear power plants or hydro-electric plants driven by the ocean currents or changing tides.

Man need not be restricted to the confines of his subsea abode. Pressurized water locks provide egress to the surrounding waters.

New developments have uncovered an unsuspected ability of unprotected man to free dive to depths far beyond the customary 250-foot limit. By replacing nitrogen with helium in his air tanks, he may be capable of descending nearly a mile with scuba gear alone.

Man may someday abandon artificial breathing gear entirely in favor of an ultra-thin rubber membrane which has worked successfully as a gill in laboratory experiments.

The Futurama designers envision a variety of vehicles for underwater sport, sight-seeing and exploration. Transparent diving bells and open shark-proof cages have been created for photography and fishing. "Wet" aqua-scooters (open vehicles in which passengers use artificial breathing apparatus) and, for the less adventure-come, enclosed family subs, will provide transportation through the depths.

Another scene from the Futurama ride shows a mobile oil rig drilling the ocean floor to tap petroleum reserves yet untouched by man. The drill table caps off each strike with storage tanks and moves on to the next location.

An atom-powered submarine freight train, equipped to tap the storage cylinders, fills its tank cars with crude and delivers it uninterrupted by weather disturbances to a seashore refinery on the surface.

Various underwater vehicles with extensive mobile capability aides the drilling operation. One such vehicle, a two-man "aqua-copter," would help geologists and other researchers study the ocean depths.

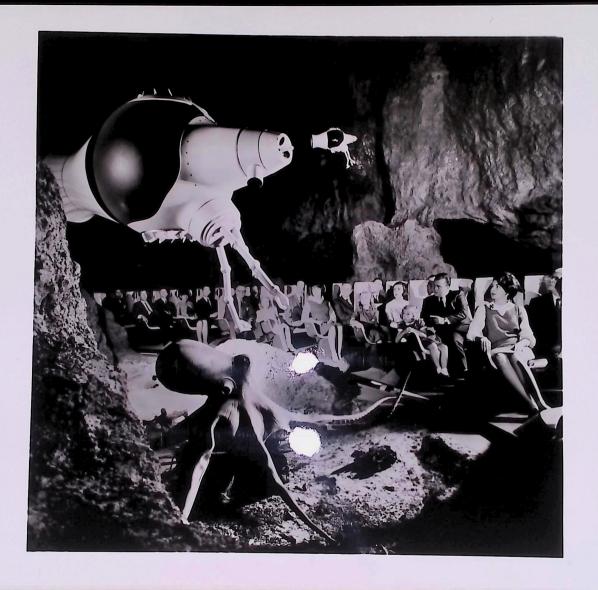
As rich in natural resources as the ocean bottom promises to be, even greater treasures abound within the water. Estimates of the tons of recoverable chemicals, minerals and precious metals in solution run to the billions; the existing food supply is conservatively estimated to be seven times the daily needs of the world's population.

The seas' eventual contribution to the well-being of man will be dependent upon his vision, ingenuity and determination. New processes, new techniques will have to be perfected to fully utilize the resources available.

However, the work is well underway. Sea water purification is progressing around the world; oil is being pumped from many coastal areas; diamonds are being recovered off the coast of Africa; chemicals and minerals are being extracted in a number of seashore plants; the first tests of "fish farming" and other seafood harvest schemes have begun.

Man has never known quite what to do with the sea. He has sailed it for centuries, but its latent hostility has always sent him hurrying anxiously home when the voyage was done. In the days to come home for the seafarer may be a bungalow on the ocean's floor.

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A FEW OF THE MORE THAN 12 MILLION PERSONS who took GM's famed Futurama ride at the New York World's Fair during 1964 are seen as they pass an underwater Aquacopter hovering above an octupus. The 15-minute adventure shows the frontiers of space, jungle, desert and undersea as they may be in the near future. Vehicles such as this may someday probe the ocean depths for the vast resources which await the coming of man.

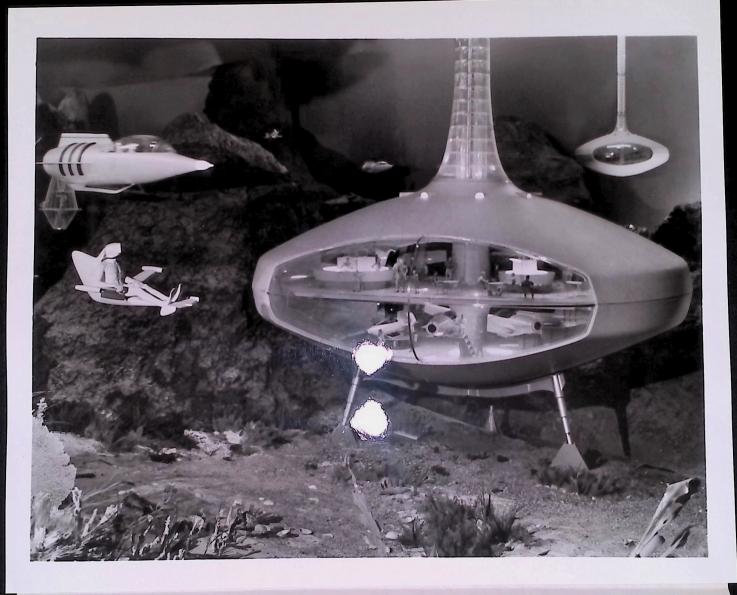


THE LIMITLESS TREASURES of the sea are being extracted in this scene from the General Motors

Futurama "ride into tomorrow" at the New York World's Fair. A drill (left) pierces the ocean floor near

a number of previously capped-off oil wells while an atomic-powered submarine train passes in the

background.



ABOARD AN aquascooter a sportsman circa 19?? sails past an underwater hotel in this scene from the General Motors Futurama ride at the New York World's Fair. The sea, now yielding its secrets to a small international army of determined explorers, holds limitless promise as a source of food, chemicals, minerals and other natural resources. GM designers who created the Futurama see the depths not only as a treasure chest but as a new world of recreation as well.



NEW YORK WORLD'S FAIR

IMMEDIATELY

for release

WORLD'S FAIR - Antarctica - vast, perilous, inscrutable - may someday become the weather eye of the world. From its never-ending winds, its frozen wastelands, its ice-sheathed mountains and surrounding seas man may someday wrest the means to forecast the great climatic changes which affect the lives of every living thing.

This is the forecast of General Motors designers who created Futurama '65, GM's exhibit at the New York World's Fair which will be host to millions of visitors this year.

An island continent almost twice the size of Australia, Antarctica is the most remote land mass on the face of the earth. Bleak, stark, uninhabited, its ice-rimmed shores offer no welcome; its cloud-capped heights no abode.

Treacherous ice fields, forbidding mountain ranges, cold that kills in seconds and tempestuous weather long frustrated man's attempts to penetrate its vast wastelands. Veteran explorers, successful in many other climes, perished in their attempts to unlock the secrets of the bottom of the world.

Yet man persisted and, in 1911, outfought the elements to reach the South

Pole. Subsequent expeditions have mapped the mountains and glaciers that march

down to the shore, surveyed the ice fields that in some areas are 4,000 feet thick,

charted the coastline, collected specimens of the scant plant, animal and bird

life.

One group found a volcano spouting steam from its 12,000-foot crest. Another came upon a range of mountains of solid marble polished to a high sheen by wind and snow. A third discovered a lake, coated with ice 12 feet thick, whose waters registered up to 80 degrees.

-more-

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Despite these disclosures, much of Antarctica remains a mystery today.

Although year-round scientific expeditions are finding answers to many questions and research has been expanded to such fields as geomagnetism and bird banding, the hostile elements and remote location make the work arduous and hazardous.

It was not until June of 1964, for example, that the first airplane managed to fly into and out of Antarctica during the winter season of that part of the world.

The exploration of Antarctica has long challenged man's bravery and ingenuity, but only within the past decade did he conceive that the ice-clad continent might help fill the needs of an ever-growing world population.

In 1959 a treaty was signed by 12 countries, including the United States, Russia, Great Britain and France, which set Antarctica aside as an international scientific preserve.

General Motors designers have forecast along the Futurama "ride into tomorrow"

- feature attraction of the exhibit - what Antartica's future as a source of
scientific information and natural resources may hold. Animated scenes along
the 15-minute adventure portray man turning the Antarctic and other waste areas
of the world into habitable, productive regions.

GM designers feel that improved mobility, which will enable man to enter and exist within these essentially hostile areas, is the key which will unlock them. This is the theme of Futurama.

In Antartica the designers have created an international community devoted to observation and research. They have also foreseen the day when many may win his way to the minerals, chemicals, metals and other deposits believed to lie beneath the continent's icy crust.

They believe, and the experts with whom they have consulted agree, that by improving the existing technology man can someday live and travel throughout the Antarctic while developing its resources and exploiting - instead of deploring - its geographical location.

Year-round access, survival and mobility are the Antarctic's principal problems for which the Futurama proposes solutions. GM offers no timetable, however, contending that development of the area will be contingent with the urgency of man's needs.

Futurama visitors, riding three abreast in sound-equipped lounge chairs, see an all-weather harbor open the year round. The harbor is a hole, several hundred feet in diameter, cut through the ice shelf to the unfrozen waters below.

A translucent, plastic hood partially covers the harbor to help keep the open water from freezing.

The port, located just offshore the land mass which forms the continent, serves atomic-powered submarine trains which sail beneath the ice shelf and surface within the protected port.

During the savage Antarctic winter, when temperatures as low as 127 degrees below zero extend the ice shelf far into the sea, the sub-trains can unload directly onto the land mass and save heavy-laden transporters long and sometimes dangerous trips over the shelf.

The transporter proposed by GM designers would be a multi-purpose, double-deck vehicle some 80 feet in length. It would be powered by a fuel cell, electric drive engine and would travel on spherical, ribbed tires.

Fitted as a freight hauler, it would contain compartments for standardized freight containers, its own cranes and conveyors to handle the containers and quarters for a four-man crew.

The same basic vehicle could be used to transport a nuclear reactor power plant, laboratories, barracks or other structures. Several of the transporters could be joined to form a train.

Fuel cell, electric drive motors - used to reduce the problem of supplying conventional fuels - power another vehicle which cuts roadways through the ice.

The United States Army Cold Regions Research Laboratories recently took delivery of a similar vehicle equipped with an internal combustion engine for use in the Antarctic.

A subsurface excavator which bores holes in the ice for the installation of various facilities is also shown in operation. Run by a three-man crew, the excavator draws electric power from hydrocarbon fuel cells. A lightweight gas turbine propels a two-man personnel carrier.

All the vehicles are fitted with devices which warn the drivers of snow-filled crevasses in the ice.

Jet-powered, vertical take-off airplanes which need no prepared airstrip provide transportation to otherwise inaccessible sectors of the interior. The VTO's are designed to carry freight containers or pressurized passenger gondolas beneath each wing.

Modular structures which can be set up singly or grouped to form larger buildings house the scientific community. The units stand on legs and can be raised or lowered so that the snow, driven by incessant winds, will pass beneath - not pile against - the buildings.

Though temperatures in the upper 50's have been recorded in Antarctica, the prevailing cold imperils every operation. To protect men and machines, the Futurama designers proposed new combinations of styrofoam and other plastics to insulate buildings and vehicles.

New fibres, many with plastic ingredients, were suggested for weaving into material from which insulated clothing, so essential for human survival, could be fashioned.

Weather is one of the natural forces man has not learned to control. But, forewarned, he is forearmed against the havor it can cause. Alerted in time, man can use the weather to further his farming, his shipping, his construction and hundreds of other pursuits.

The turbulent winds, the extreme cold, the rapidly shifting barometric pressure across the southern ice cap of the world give birth to much of the weather of the Southern Hemisphere. It, in turn, affects to marked degree the weather of the Northern Hemisphere.

Weather forecasts - prompt and accurate - have a premium value. To provide them a weather center, focal point of a worldwide network of stations, is located within the Futurama's Antarctic scene.

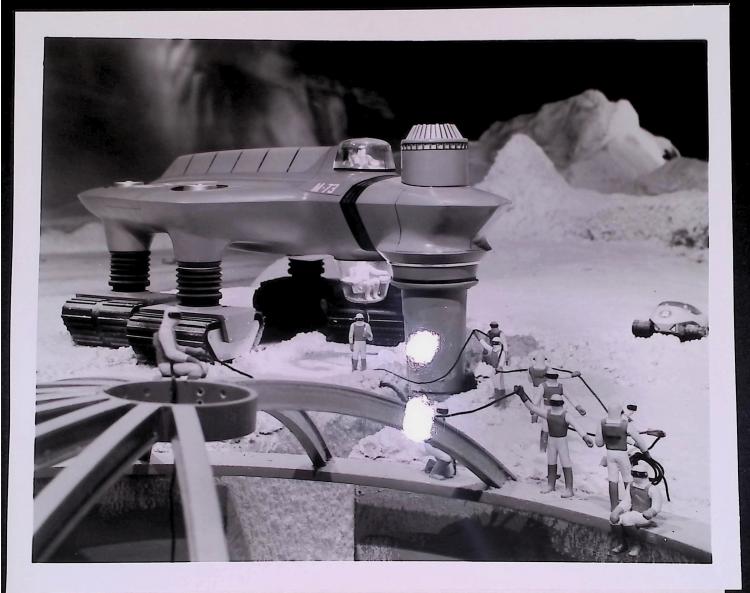
Climatic conditions reports from land, sea, air and space are fed into computers. The computers draw upon memory banks for millions of earlier reports. Using this comparative data, the computers can prepare forecasts in micro-seconds for areas as large as continents, as small as states.

An Antarctic forecasting center would give man crucial time to prepare for the explosive weather forces which breed there. The continent also has the unique advantage of being the only land mass over which a weather satellite in polar orbit will pass on each trip around the earth. Although its potential contribution to the progress of mankind is believed to be substantial, remote location, deadly climate and hazardous terrain all rule against any early development of Antarctica. Yet, man has surmounted similar obstacles in every uncharted area into which he has ever ventured. The Futurama points the way across the last frontiers still challenging man today.

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ANTARCTICA, whose bitter cold and biting winds affect much of the weather of the Southern Hemisphere, is the location of this scene in the Futurama ride of the General Motors exhibit at the New York World's Fair. Here, beneath the polar ice, meteorologists receive weather information instantaneously from land, sea, air and outer space. GM designers, who created the Futurama, say climatic reports will someday be collected at a center such as this and run through computers which will prepare weather forecasts for the rest of the world.



WORKMEN, clad in specially-designed clothing to protect them from the shattering Antarctic cold, install an under-ice laboratory along the General Motors Futurama ride at the New York World's Fair.

An excavating machine, powered by fuel cells, carves a passageway to the next installation after holding out the laboratory site. The Futurama attracted almost half of those who visited the fair.



AN ATOMIC-POWERED SUBMARINE surfaces within an all-weather port to supply scientists turning Antarctic into a world-wide weather eye. The port, kept free of ice the year-round, is cut through the ice shelf which extends from the shore into the ocean. Domed warehouses handling containerized freight shipments stand in the background of this scene from the General Motors Futurama ride at the New York World's Fair.





NEW YORK WORLD'S FAIR

for release

IMMEDIATELY

WORLD'S FAIR - The city is civilization's materpiece, but it is no work of art. Beauty is blended with blight, culture is cowed by commerce, transportation is trampled by traffic, people are penned in - and pulling out.

The city, in short, is in trouble. The difficulties of urban life have begun to surpass its benefits. The city, which long strove for growth, is imperiled by its own excesses. The suburbs are emerging as the centers of communal living.

What, then, does the future hold for the city? Will it become a municipal graveyard surrounded by composite communities? Will it be stripped of its assets and condemned to eventual abandonment?

Such a harsh fate is unlikely for the principal cities of today. There is no question, however, that many must modernize to reverse the trend toward oblivion which has already set in.

Metropolitan modernization which gives a city a new face, a new purpose, a new means of coping with the problems which threaten its existence will be displayed for millions of visitors expected to visit the General Motors Futurama at the New York World's Fair this year.

Here, within the most popular attraction at the fair, is the city of the future. Designed by GM's Styling Staff, it stands as the climax of a 15-minute global adventure through the world of tomorrow. It is not a revolutionary "dream city," but a recognizable evolution of St. Louis, perhaps, or Montreal. It is possible with the technology that is foreseen today; its creators believe it to be a potential reality for tomorrow.

-more-

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It is not a city from which to escape, as are many of today's, but a city of beauty and harmony in which to live, to work, to rest and to grow. It is an environment where one can still hear the rustle of leaves, the laughter of children at play - where leisure is as important as labor.

As many as 75,000 Futurama visitors a day, riding three abreast in soundequipped lounge chairs through futuristic scenes depicting the moon, the antarctic, the ocean, the jungle and the desert, get their first view of the city from its suburbs.

A four-level, circular suburban dwelling designed for airy, outdoor living jutts from a towering cliff and overlooks the city below. Its location attests that terrain or distance will not restrict the home sites of tomorrow.

In the "service port" are parked the family's shopper wagon, sport coupe and sedan. Each can be connected to an electronic sensing device which will repair the auto's sophisticated control and communication systems.

Maintenance of vehicles designed to operate upon the automatic highways of the future cannot be left to chance. Service must be performed unfailingly at periodic intervals much as aircraft are maintained today. In the home of the future an electronic mechanic performs the task automatically while the family sleeps.

Beyond the home a multi-lane landway leads to the city. Some of its lanes, part of an intercontinental express highway, speed cars and trucks around all cities. With five lanes in each direction, the inside one is for the exclusive use of rapid transit, commuter bus-trains which give way to freight haulers during off-peak commuter hours.

The vehicles in the two center lanes, traveling train-like in a system called "autoline," are under automatic speed, brake and steering control. One lane serves as the transition route for moving to and from the two normal traffic lanes located on the outside of the landway.

A high-speed radar scanner moves constantly along the landway median to detect malfunctions in the highway control system or the vehicles using it.

Notified by the scanner of any disabled vehicle impeding normal traffic flow a service unit, operating from the shoulder guard rail on each side of the roadway, moves into position.

Capable of extracting the stalled vehicle from the landway, the service unit keeps the artery clear and traffic moving. Minor repairs can be made on the spot or the service unit can transport the disabled vehicle to a major repair station. Remarkably safe and swift, the highway system registers vehicles by speed, route and destination to eliminate congestion and bottlenecks.

Along this landway move vehicles of new and exciting design. Inter-city commuter trains, whose entire sides open at station stops for mass entry and exit, are powered by linear electric drive motors and supported by a combination wheeled and air-cushion system.

Family vehicles, equipped with television, stereo, game table and refrigerator for passenger enjoyment, speed to their destination without manual control when operating in the "autoline" lane.

Easily maneuverable, three-wheeled "Runabouts," especially designed for housewives, appear throughout the shopping areas. The Runabout features a built-in, removable, shopping cart.

Inter-continental transporters, carrying standard size freight vans, skirt the city on exclusive lanes. Below the landway containerized pod-trains travel on conveyors from an outlying industrial, freight and warehousing complex to the city center and back.

Pipelines also carry quantities of bulk commodities from this storage area to the heart of the commercial district. In the city's core at a level below pedestrian traffic, small, self-unloading trucks and conveyor belts deliver goods to shops and stores.

Goods and raw materials are warehoused in a containerized freight center that serves a park-like industrial complex on the perimeter of the city. The center is marked by special containers for the storage of liquids, bulk commodities and other materials.

Freight moves to and from the center via all modes of transportation: rail, barge, pipeline, vertical take-off-landing (VTOL) aircraft, local and inter-city trucks.

Weather-tight, standard-size containers, stored in multi-level, open warehouses served by external elevators, outmode today's shipping methods. Computers, used to maintain inventory, regulate routing within terminals and provide shipping schedules, are an integral part of the freight handling system of the future.

"Walking on air" will be more than a love song lyric as "living decks" straddle the highways and interchanges leading to the metropolis of tomorrow. These air spaces, which today are unused over most urban traffic arteries, have added new real estate to the city without expanding its boundaries.

The high and low-rise living plazas are self-sufficient units providing parking, shopping and recreational facilities for residents. The shops and service centers situated on the lowest levels with strategically located parks give the living area a functional beauty in sharp contrast to most inner-city residential areas existing today.

-more-

Rising to greet tomorrow's motorist as he approaches the city center are the transportation terminals which are the heart of the metropolitan traffic system.

Part of a network of similar terminals surrounding the city, they serve as a terminus for individual passenger vehicles, commuter bus trains and VTOL aircraft.

The centers provide automatic, high-speed automobile parking for motorists headed downtown as well as for air travelers bound for other cities by VTOL link to local airfields. Covered, moving walks radiate from the transportation centers to the city's buildings of commerce, culture and recreation.

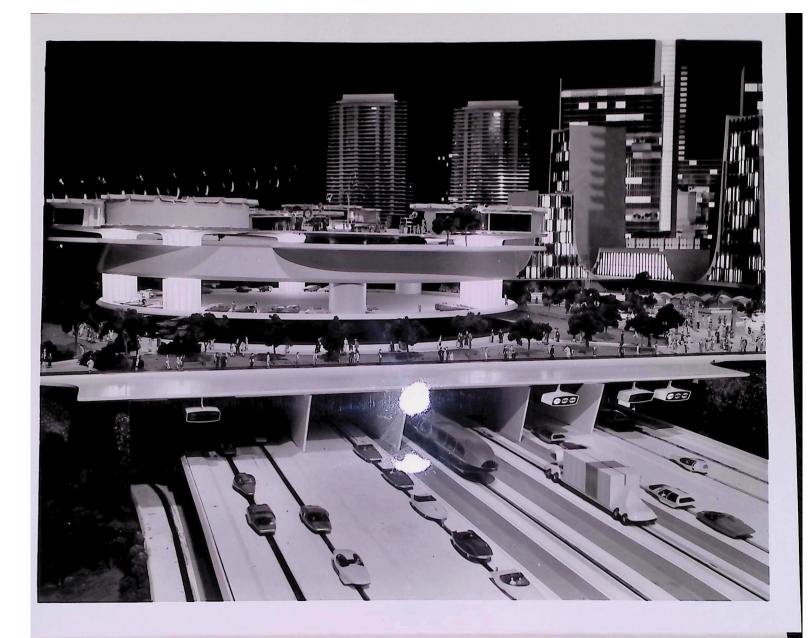
Today roughly 70% of America lives in urban or suburban areas. In the future this percentage will be even higher. Not only will there be more non-farm families, but more cars per family.

The highways in the Futurama city are ready to handle them. The transportation towers which operate as the city's nerve center monitor all traffic entering, leaving or by-passing the metropolis. Computers inventory destination, speed, best routes and parking as motorists check-in electronically with the transportation control centers.

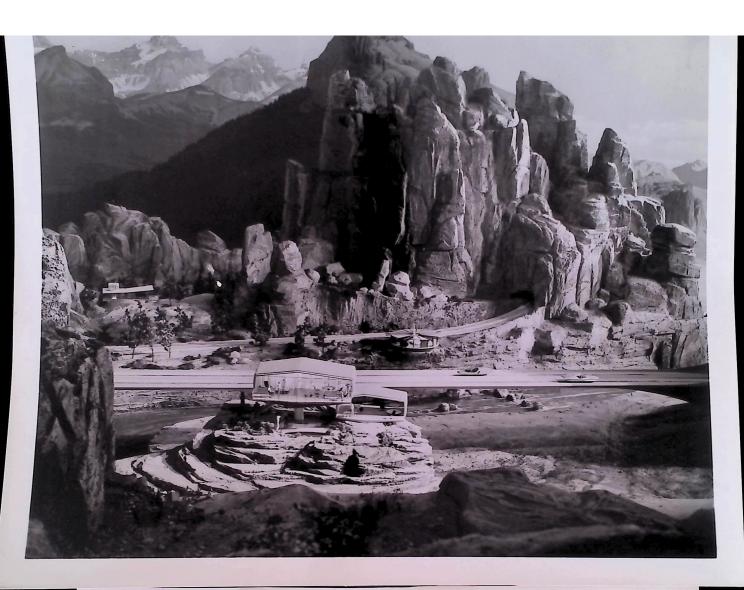
The result, as seen by the Futurama visitor, is an exciting metropolis architectually pleasing and functionally efficient. Extending more than the length of a football field, the city is the largest and most dramatic of the six Futurama ride sets. Included are 1,600 moving vehicles; 8,580 miniature figures; more than 100 buildings.

When will "tomorrow" become "today?" Some of the innovations proposed by the Futurama may become realities within years; others may have to await adoption by future generations; still others may never come to pass at all.

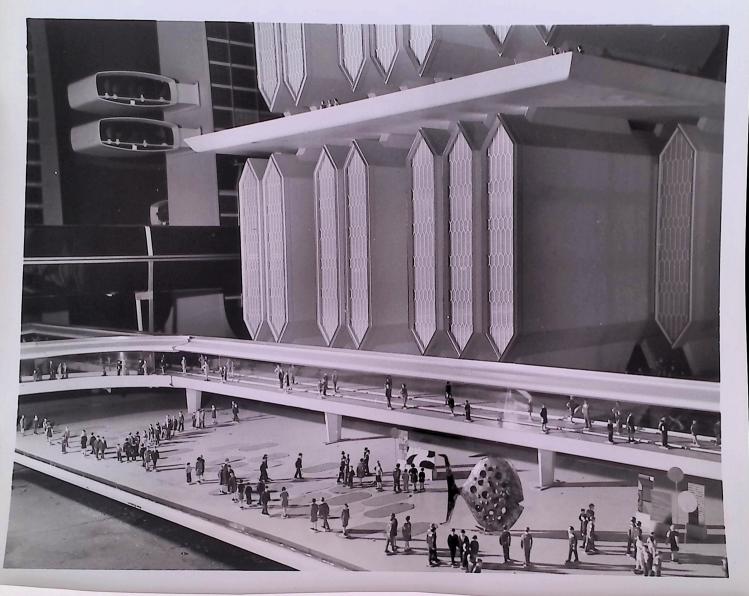
Each proposal is, however, a realistic guideline for the city which is striving to keep pace with a changing world, renew for its people the convenience and pleasure of urban living and merit its role as the masterpiece of civilization.



AIR SPACE over most metropolitan roadways is empty today, but in the future it will be used to increase the available building area without expanding the city limits. Here, an urban residential area complete with parks and shopping centers stands above a multi-lane landway in the "city of tomorrow" scene of the General Motors Futurama ride at the New York World's Fair.



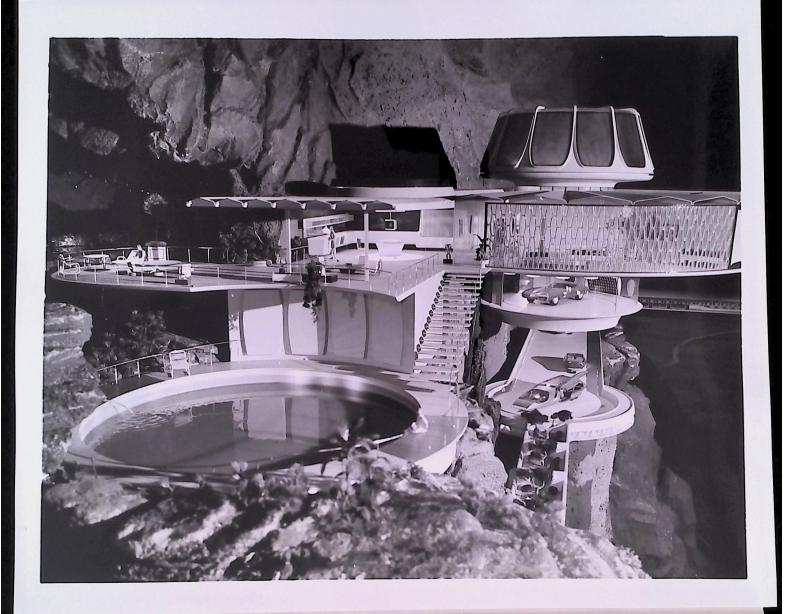
IN A HIGH MOUNTAIN VALLEY, ringed by towering peaks, a family relaxes in tomorrow's vacation cottage within the General Motors Futurama ride at the New York World's Fair. Electronic highways surmount the heights and pierce the bluffs opening the area to resort, commercial and industrial development. The highway also serves the desert which stretches away from the leeward side of the mountains where GM designers who created the Futurama show a highly-sophisticated farm irrigated with desalted sea water.



COVERED MOVING WALKWAYS transport pedestrians past buildings of strikingly new design within the "city of tomorrow," the climax of the General Motors Futurama ride at the New York World's Fair. Other highlights of the reborn city are high-speed, automatic vehicular parking; underground freight transportation; air shuttle service to satellite communities; rejuvenated urban living areas.



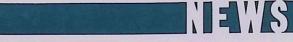
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A CIRCULAR SWIMMING POOL becomes an integral part of this futuristic home displayed in the General Motors Futurama ride at the New York World's Fair. The garage at right contains an electronic auto repair center; household service facilities are located in the tower; moving walls enclose the openair kitchen in inclement weather.



NEW YORK WORLD'S FAIR



IMMEDIATELY

for release

WORLD'S FAIR - Dawn! The first rays of sunlight wash the nearby mountaintops, sweep the slopes and brush the shadows from the rolling desert.

The sun, inching higher into a cloudless sky, warms the night-chilled air.

Tiny wind rivulets tease the desert sand which, in the growing light, stretches drab brown and gray to the distant horizon.

The heat rises with the sun and is reflected in shimmering waves which at times obscure a patch of color formed by fields of crops blooming miraculously amidst the otherwise barren expanse.

Within a circular, glass-walled room atop a tower near the fields a technician touches a series of buttons. Far below the desert stillness is broken as a machine begins to move along tracks which border a field of corn.

The machines, straddling the arrow-straight rows of cornstalks, picks and husks the ripened ears. The plump corn kernels are sheared, cleaned, processed and packaged as the collector moves along.

At the end of the field the packages of corn are transferred to refrigerated freight containers which are loaded onto conveyors serving a processed products center. Some of the containers leave the center immediately by express truck or train for the metropolitan markets; others are stored for later delivery.

In the meantime the tower operator has set other machines to work; machines which uproot and convert the cornstalks to fodder, plow and harrow the empty field and plant it with soybeans.

This is the farm of the future as foreseen by General Motors designers and depicted in GM's Futurama '65 exhibit at the New York World's Fair.

-more-

General Motors Futurama

New York World's Fair
Flushing, New York 11380

Phone 888-4000 Area Code 212

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It also conforms to the requirements laid down when the Futurama "ride into tomorrow" was conceived - that the designers' proposals had to be practical, necessary and attainable with the technology that could be developed.

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Futurama visitors, riding in sound-equipped lounge chairs, see a highlysophisticated form of farming, yet many of its processes and techniques are
essentially refinements of agricultural practices in use today.

Moreover, with the world population increasing some 60 million persons each year, farming of this type - and on this scale - will become more and more necessary.

For centuries man has dreamed of farming the deserts. The great tracts of arid land surrounding the earth experience few seasonal weather changes and provide consistently good growing conditions.

Where the deserts are farmed today two or three crops each year are not uncommon. With the controls available Futurama farm fields would provide an even greater yield.

In many parts of the world's deserts the soil is rich in minerals and other plant foods and needs little more than water to become highly productive farmland.

GM's designers set about to provide that water for an integrated farm complex that could grow, process, package and ship food to the market place with the greatest possible economy and dispatch.

"Our objective," said a GM executive, "was to show that it is possible to deliver a truckload of green beans - for example - anywhere on earth in the middle of winter and do this at mid-summer prices and quality. The Futurama farm could do it."

In many desert areas, where bordering mountains block the rains, the oft-distant sea is frequently the greatest potential source of water. The problem, of course, is the relatively high salt content of sea water, the cost of purifying it and transporting it to the desert farm.

However, man today is desalting sea water. As the purifying equipment improves, the cost-per-gallon promises to fall and make desalted sea water economically practicable for irrigation.

There still remains the problem of inexpensively delivering the water to the desert fields. Pumps - driven by atomic-generated electricity - move the water through pipelines to the Futurama farm. Solar power, while limited by weather factors, augments the atomic-powered generator.

Soil deficiencies are corrected by tower operators who add the needed nutrients to the incoming water. Its flow is regulated by moisture-sensing devices planted midst the crops.

Special atmospheric conditions - humidity, light, soil or air temperature - are also artificially maintained in order to speed or inhibit growth or maturation as the market dictates.

Computers keep a constant eye on the market to forecast foodstuff demands and program current shipments. This information enables tower operators to achieve maximum farm efficiency through crop rotation, harvest schedules, processing and other operational techniques.

Though great distances may separate the desert farm from its metropolitan markets, delivery time is sharply reduced by improved freight handling techniques and transportation.

An automatically-controlled, intercontinental highway and a high-speed rail line serve the Futurama farm. Processed and packaged, the farm crops are loaded into standard-size containers easily accommodated by truck or train and handled by a fully-automated loading system.

Minutes after it leaves the vine a cantaloupe may be speeding in a turbine-powered truck toward a breakfast table hundreds of miles away or a field of wheat, already converted to flour, may be aboard a freight car hurrying to a distant bakery,

Futurama previews what may be the farm of tomorrow, but it sets no date when the housewife may ask for Sahara squash or Gobi grapes.

GM designers feel the deserts will be farmed, the jungles opened, the seas harvested and mined when man's need to utilize the now unused resources of the world surpass the difficulties of their development.

The first steps have already been taken in Israel, on the Caribbean island of Aruba, at the South Pole, in Ethiopia, in Houston, Texas and Long Island, New York. Now it is only a matter of time.

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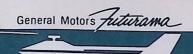


THE ARID DESERT is made to bloom in a scene from the General Motors Futurama ride at the New York World's Fair. Irrigated by desalted sea water, the mineral-rich desert sands nourish a myriad of crops and produce several harvests each year. Remotely controlled machines plant, harvest, process and package the crops for express shipment to metropolitan markets that same day. The 15 minute Futurama ride was the most popular attraction during the Fair's first season, carrying more than 12 million persons through the world of tomorrow.



FROM THIS FARMHOUSE in the General Motors Futurama "ride into tomorrow" at the New York World's Fair technicians farm hundreds of acres reclaimed from the once-barren desert and irrigated by desalted sea water brought to the fields by atomic-powered pumps. Via remote control the technicians direct machines which seed, cultivate, harvest, process and package the crops and program their shipment to market.





NEW YORK WORLD'S FAIR

NEWS

for release IMMEDIATELY

WORLD'S FAIR - There is a road which leads from the Red Sea port of Assab some 550 miles to Addis Ababa. The roadway - paved in some places, graveled in others - arrows across the black lava floor of the Great Rift Depression, then rises through the fertile midlands to twist over mountains 8,000 feet high until it ends at the Ethiopian capital.

The road was once a caravan route over which pack animals struggled with a few thousand pounds of freight. Now graded, widened and surfaced, the road is traveled by trailer trucks which each year transport more than a million tons of cargo.

The roadway is a commercial lifeline for Ethiopia providing an inlet for the goods the country needs and an outlet for the goods it produces. It is one of the factors speeding Ethiopia's emergence as one of the most progressive nations in Africa.

The benefits of modern transportation are clearly apparent in Addis Ababa. A city of some 500,000 population, the Ethiopian capital lies deep within the mountains. Yet, despite its remote location, it is becoming one of the most modern cities on the continent.

Narrow paths bordered by grass-roofed huts are giving way to broad, paved avenues with traffic lights. An opera house, modern banks and office buildings, cocktail lounges and neon signs typify the fast-growing "New Flower."

The remainder of the country is also profiting from improved transportation. Ethiopia's highly-prized coffee and its other exports - agricultural products, minerals, precious metals, etc. - move to market over 15,200 miles of roadway.

-more-

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Ethiopia - and a multitude of other countries now engaged in extensive road-building - exemplify the main point of the General Motors Futurama "ride into tomorrow" at the New York World's Fair: that world development and the progress of mankind will proceed just as fast as man clears away the transportation problems now inhibiting his progress.

In six scenes along the Futurama ride GM shows how improvements in current technology may clear the way for man to enter, exist within and develop lands which lie unused today.

The GM Styling Staff, which created the Futurama, has designed a number of futuristic vehicles, highway concepts and other transportation innovations to give man a greater mobility.

Seated three abreast in sound-equipped lounge chairs, millions of Futurama visitors will see men probing the moon, exploring Antarctica, working and playing beneath the sea, farming the desert, modernizing the city and opening the jungle.

The aimlessly wandering river is the principal highway of the jungle today.

Unable to penetrate the verdant forest growth, man reverts to water transportation for the movement of people and goods. As a result the commercial life of the jungle - such as it is - is limited to the riverbanks while the interior remains relatively untouched.

In order to tap the jungle's natural resources and open the area to an expanding world population, the Futurama proposes that paved roads replace the rivers. To lay the roads GM's designers exhibit a self-propelled roadbuilder which leaves an elevated superhighway in its wake. It would work like this:

The highway path is cleared of standing timber by a tree-clipper which uses a laser beam as a saw blade. The trees, cut at ground level by the high-energy light rays, are moved aside. The clipper sprays the cleared areas with chemicals

to retard the subsequent underbrush growth.

The vehicle has a three-man crew, is powered by two turbo-compound diesel engines and travels on 12 wheels each driven by an electrohydrostatic motor.

The tree-clipper, which in actual size would be 100 feet long, is dwarfed by the road-builder which follows. Planned to be 385 feet in length, 80 feet high and operated by 30 men, the builder is a fully-integrated unit capable of producing from within itself one mile of four-lane, elevated superhighway every hour.

The road-builder travels on 32 rubber bag-type floatation tires each 10 feet high and 15 feet wide. Electric drive motors power each wheel which, through a telescoping arm suspension system, seeks its own ground contour level to keep the entire machine on an even keel.

Beneath the prow of the velicle are two rotating diggers which remove stumps and underbrush. Also in the lead section are the computers which control the entire operation and - because the machine would operate 24 hours each day - crew's quarters, sleeping area, cafeteria and lounge.

Two pile drilling tables which sink prefabricated columns into the ground to elevate the highway are located within the next section of the builder.

The rear section contains the highway manufacturing, processing and installation facilities. Here six molds cast a mixture of various paving materials into 20-foot sections complete with drainage and wiring conduits.

The sections, designed to be interlocking, are lifted from the molds and installed atop the columns. Follow-up crews complete the wiring for lighting and traffic control and install railings. Auxiliary vehicles, shuttling over the completed highway between a storage depot and the builder, supply the columns and other construction materials.

The road-builder, a highly sophisticated version of some equipment available today, utilizes construction principles not now generally in use. There is little filling or grading; support columns compensate for terrain irregularity. Within swamps or other unstable ground the columns would be sunk until they reached a firm foundation.

Use of the unit far from existing utility services presupposes an independent electrical supply. GM's designers feel mobile atomic reactors or a number of other electric-generating devices now under development would be more than adequate.

The Futurama designers produced a number of vehicles for use with the road-builder. Personnel carriers for two to six men are gas turbine powered and can operate on land or water. A fuel cell powered log train hauls the fallen trees to a lumber mill. Similar haulers carry dirt and rock.

A diesel-electric transporter has a driver's cab that travels the length of the vehicle, making it operable from either end. Other haulers have their own cranes to handle containerized freight. Construction personnel are housed in self-propelled mobile homes which open like a fan.

The economic impact of the highway is demonstrated by the presence of a new community. Within a jungle clearing a glass-walled container warehouse and supporting installations rise alongside the roadway.

From the jungle trucks deliver minerals, chemicals, wood derivatives, lumber and other cargoes. From more distant points trucks bring the manufactured goods and other products needed by the people who are beginning to develop and populate the jungle.

The highway, the jungle community, the busy movement of men and goods and equipment foretell a new era for a once-idle region within the imaginative world of the Futurama. The same is true of the world at large.

Road building is proceeding on an international scale at an ever-increasing pace. Highways and motor vehicles are modernizing the economic and social life of areas that have remained unchanged for hundreds of years.

Some projects, such as the nearly-completed Asian Highway which will cover 30,000 miles and link 15 nations, are massive in scope and cost. But in other areas men, eager to benefit from better transportation, have undertaken the work themselves.

For example, a group of villages in the highlands of Australian New Guinea banded together to hack a highroad 150 miles long through the mountainous jungles to transport coffee to ships waiting to take it to Australia. Individual growers got together to build feeder roads from their farms to the highroad.

The emerging road system benefits everyone - the farmers, the villages, even Australian coffee lovers - and serves as a showcase today for the Futurama's forecasts for tomorrow.

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A FINISHED HIGHWAY stretches in the wake of a jungle-road builder on the "ride into tomorrow" at the General Motors Futurama exhibit at the New York World's Fair. The factory-on-wheels sets the foundation, forms the surface slabs and lays them in place in one continuous operation. The machine is the largest working model created by the GM Styling Staff for the 15-minute, admission-free ride.



THE LUMBERJACK OF THE FUTURE may fell forests with a beam of light according to General Motors designers who created GM's Futurama ride at the New York World's Fair. Here a tree-clipper armed with a laser "saw" clears a path through age-old jungles for a road-builder (rear) opening the area to progress and prosperity. The "ride into tomorrow" and other exhibits in Futurama have made the GM pavilion the most popular attraction at the fair.



DEEP WITHIN the jungle a freight depot lies athwart an electronically-controlled highway. Inside the depot are containerized shipments of lumber, chemicals, minerals and other raw materials which trucks will carry to processing centers and return with finished goods. In this scene from the General Motors Futurama "ride into tomorrow" at the New York World's Fair the highway takes the place of the river as the new jungle thoroughfare.