Engineer Evaluating South Pole's Hostile Environs

While attention is being focused on the North Pole these days a NASA engineer is at the South Pole to spend two weeks evaluating operations under inhospitable conditions — similar to those that astronauts might expect when they land on the Moon.

Paul J. deFries, a bespectacled, scholarly specialist in lunar operations, departed the Marshall Space Flight Center carrying only binoculars, a special camera and a good supply of notebooks.

In Antarctica, he will gather data on practical means and ways of exploiting the experience gained in the maintenance and logistics of small Antarctica bases and use it as a guide to supporting astronauts on the Moon.

DeFries hopes to visit McMurdo Sound and several satellite bases of the Byrd Station. He will also study one station for consideration as a point to conduct laboratory experiments on equipment characteristic of the lunar logistics program.

Astronauts on the moon, just like scientists in Antarctica, will need a mobile laboratory, a shelter and a means of "locomotion." DeFries plans to exploit these areas and make recommendations. He said the Moon is a "completely hostile and unsupporting environment" as far as the survival of man is concerned, something it has in common with the South Pole.

SPACEPORT NEWS

Volume 2, Number 50 | NASA Launch Operations Center, Cape Kennedy, Florida | December 12, 1963

Cape Opens For Sunday Drive-Thru

It's likely that many televised pro football games will be missed this Sunday, when the gates of Cape Kennedy will be opened to the public.

Air Force Missile Test Center Commander, Major General L. I. Davis, announced the Cape will be open for a drive through from 1 to 4 p.m. every Sunday, beginning this week.

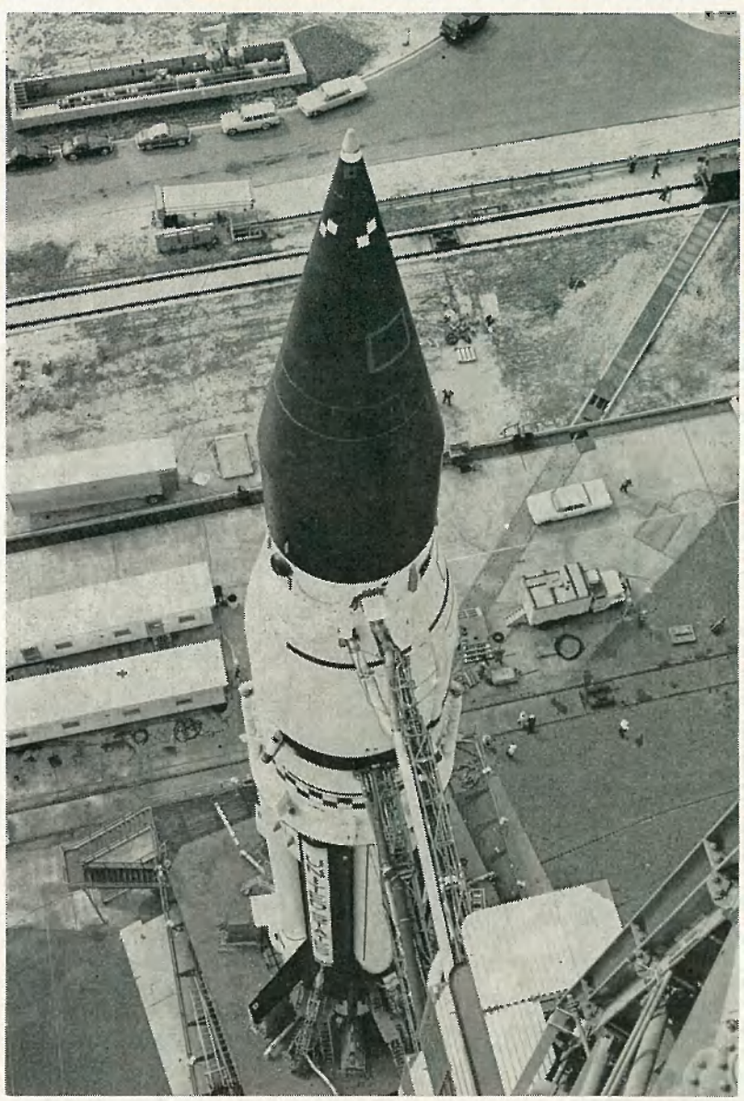
He emphasized this will be a trial effort at first, but if everything proves workable it will become a weekly event.

Motorists will both enter and depart from the south gate. Their route will take them down pier road past the Polaris sites, northward past the old Redstone and Jupiter pads and the present Delta launch area, to ICBM road, which winds past Centaur, Atlas and Titan complexes.

Turn around point will be near pad 34, which will afford a good view of SA-5, undergoing final tests at 37.

The Inside Story

See Page 3



EAGLE'S-EYE-VIEW of SA-5 was shot during a radio frequency test, when its giant service structure was rolled back. Launch of the 164-foot-tall vehicle is scheduled next week.

SA-5 READY FOR FLIGHT

SA-5, the most powerful and most heavily instrumented U.S. rocket ever prepared for launch, is undergoing final checkout tests today, readying for its epic flight next week.

The 164-foot-tall vehicle possibly will, if successful, give this nation the greatest space booster capability in the world.

SA-5 will be the first of the Saturn series to generate at liftoff a full 1.5 million pounds of thrust.

It will also be the first to carry a live second stage — the S-IV. It will thus be by far the most difficult Saturn test to date.

Four previous Saturns, each generating 1.3 million pounds thrust, were launched with unequalled success. These missions were principally to test the propulsion and control systems of the first stage, and overall structural integrity and aerodynamic design of the complete rocket.

Thin Edition Today

Spaceport News is a little thin today — four pages short to be exact. We cut this issue to soon bring you a special edition on the SA-5 launch.

SPOTLIGHT

GOMMUNTY SPIRIT

To All NASA/AMR Personnel:

It is fitting as we approach the holiday season that I once again can point with pride to the generosity of NASA personnel in the Cape area in making the United Fund campaign a success.

Obviously, without your contributions of both time and money, the goal we sought would not have been attained.

But the goal was attained and **exceeded** in a fine show of cooperation and community spirit.

My sincere appreciation for a job well done.

Dr. Kurt H. Debus

WHAT PRICE LIFE?

Are you inclined to yawn when someone mentions safety?

Are you getting a little fed up with all these plugs for seat belts and all these pleas for more common sense, caution and courtesy on the highway?

Then your attention is respectfully directed to a booklet called "Accident Facts" — an annual production of the National Safety Council.

The 1963 edition is just off the press. It isn't intended to be a best seller. But even the most hardened horror story fans will find it a real thriller. For the figures it contains are enough to curdle the blood of anyone who has even a slight regard for human life and limb.

Does it shock you to know that in 1962 in the civilized, humanitarian country of America, civilized Americans killed themselves and their victims at the incredible rate of 11 an hour, 265 a day, 97,000 a year — purely by accident?

Does it surprise you to learn that another 9,800,000 Americans were injured?

Are you concerned, Mr. Taxpayer, that this mass mayhem — as needless as it was horrible — cost 15½ billion dollars?

What do you think would have happened if a tornado, flood, famine or epidemic had taken this toll? Plenty!

What do you think happened this time?

The public gave out with a big fat yawn and said in effect, "How terrible! Why doesn't somebody do something about it?"

A good question, except that too often it comes from the very person who should be providing the answer — the private citizen, the man in the street.

Who can best prevent an accident? The person who can cause one — the driver, the pedestrian, the worker, the householder.

How? By getting excited over the accident toll. By demanding legislative action that will reduce it. By using more —and here it comes again—by using more common sense, caution and courtesy behind the wheel.

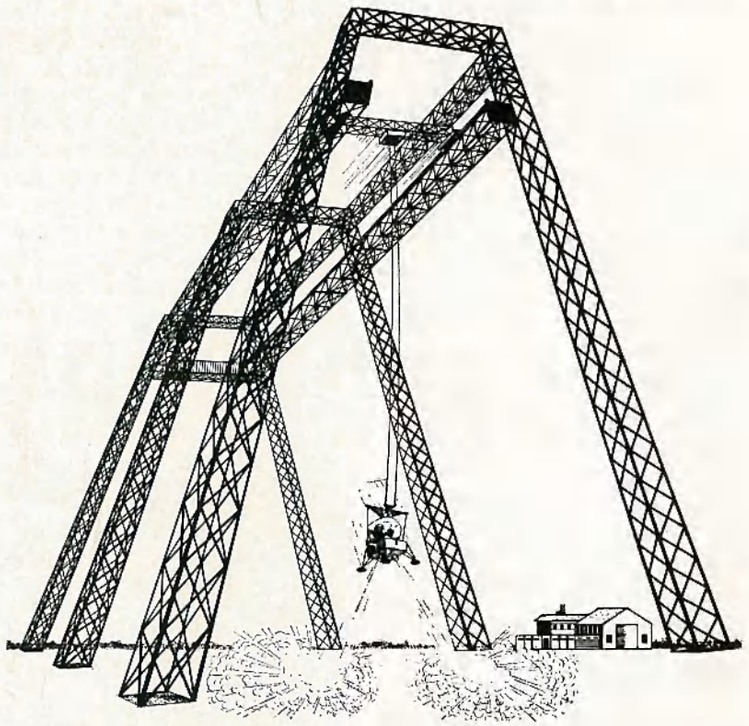
And we might well start with courtesy.

Is it worth trying? Or is human life too cheap to bother with?

— Reprinted courtesy the Sanford (Florida) Herald

SPACEPORT NEWS

Published each week by the National Aeronautics and Space Administration's Launch Operations Center, Cape Kennedy, Florida.



DANGLING a 10-ton research moonship from a huge crane, this 250-foot high gantry is approaching completion at the Langley Research Center. It will help NASA pilots and scientists work out piloting and landing techniques for all types of landing vehicles.

EXTENSION COURSE REGISTRATIONS OPEN NEXT WEEK AT PAFB

Registration for the second trimester of University of Florida extension courses at Patrick Air Force Base, will be held next Tuesday through Thursday in the Post Office Building at Patrick.

Registration hours will be from 8 a.m. till 4 p.m. and on Wednesday and Thursday evenings from 5 to 7.

Undergraduate classes will meet one night per week from 5:30 to 8:30 p.m. at Patrick, and graduate classes will meet two days a week from 3:45 to 5:15 p.m.

Fees are $45 for undergraduate courses and $90 for graduate ones. Classes will begin January 6th and end April 10th.

Undergraduate courses open include Electric Circuits I, General Physics, Aerodynamics, Problems in Astronautics and Physical Chemistry.

Graduate courses include Higher Mathematics for Engineers and Physicists, Advanced Electrical Measurements, and Logic and Design of Digital Control Circuits.

All courses will be for three credits, except Aerodynamics, which will be a four credit one.

For further details on registration or courses, contact Jack Allen of LOC's Training Branch, at SU 3-9426.

SPACE ALMANAC

A CHRONOLOGY OF EVENTS IN SPACE EXPLORATION AND RESEARCH.

5 Years Ago

Dec. 13, 1958 — Squirrel monkey, Gordo, made 1,500 mile flight in nose cone of Army Jupiter with no known adverse effects, but float mechanism failed and nose cone was not recovered.

1 Year Ago

Dec. 16, 1962 — Relay satellite's 136-mc beacon was detected by tracking stations at Santiago, Johannesburg, and Woomera, indicating the beacon spontaneously turned itself on.

Armond Barfus

News Photo by Russ Hopkins

Bridge Tournament Champ Describes Winning Secrets

Armond Barfus, a bridge player for only six years, won the open pairs event of the American Contract Bridge League's winter national tournament last week in Miami Beach.

Barfus, Supervisor of the Propellant Systems Components Laboratory, teamed with Ronald Schoneau of the University of Florida, to top a field of 750 entrants.

To win, Barfus and his partner came out with top score after playing 104 hands of duplicate bridge, randomly selected by IBM machines.

Their winning margin was a scant six points—indicative of the keen competition of national-level play. They pulled it out by scoring 434 points on the final hand.

It was Barfus' second national victory.

"It's a highly competitive sport," he says, "and to win in tournament play, you have to have a killer instinct. To a certain extent it's a young man's game, because stamina is also involved. Sometimes you play for hours and it's fatiguing, but you can't let up."

Intense concentration is another championship pre-requisite, and Barfus can remember every card he played during every hand in an entire tournament. He can, in fact, recall in sequence hands he played years ago.

Although his playing has been cut to only once or twice a week lately, he keeps himself "bridge oriented" by reading as much as he can on the subject.

For his win at Miami, Barfus received 55 master points, bringing his career total to more than 600, or twice the amount needed to qualify as a life master.

Applied Ability

He believes it takes about three years of play in championship competition to become a proficient tournament player. Like other sports, he says, it's a matter of applying your ability under constant pressure, where a single mistake can make the difference between first place and several notches down in the pack.

"When you get to championship tournament play, there is such a fine line between the players, it's hard to say who is best," he says.

Barfus recommends beginners to try duplicate bridge—where all participants are scored on how they play identical hands—"because you can compare your results with others and see and learn from the mistakes you make."

He also recommends sitting in with better players.

All championship tournament play is duplicate bridge, incidentally, because there is no luck involved as far as card holding is concerned, and skill predominates.

Of all the hands Barfus has played over the years, one particularly stands out. In a tournament once an opponent mis-bid with a two club opening.

His partner, who held a strong hand, jumped immediately to seven no-trump, was doubled, and he re-doubled.

Barfus and his partner wound up setting them by 11 tricks to score an unheard of 6,400 points on the hand.

VETERAN SECRETARY RETIRES FROM NASA

Miss Catherine Wheeler, who came to Washington from her native Pennsylvania to take a "temporary" job with a small new Government Agency pioneering in the problems of research for the dawning age of flight, retired from NASA Headquarters staff on November 30 after 45 years of continuous service.

She has reached the mandatory retirement age of 70 years.

She completed a civil service examination in 1918 and became the eighth employee hired by the then three-year-old National Advisory Committee for Aeronautics, predecessor of NASA.

Miss Wheeler's career spans most of the years of significant progress in the age of flight which saw the flimsy, low-powered airplane of World War I make great progress through the research efforts conducted and coordinated by NACA, and become the backbone of the powerful commercial and military aviation forces of modern times. She remained to see an even greater event, the emergence of the age of flight into the age of space exploration.

Miss Wheeler's associations in NACA included such prominent figures as James H. Doolittle, Orville Wright, Charles A. Lindbergh, Gen. Nathan Twining, Gen. Henry Arnold, and Eddie Rickenbacker.

Mrs. Catherine Wheeler

Clipping Service

If you've a yen for space research, LOC's Presentations section is the place to go. They have compiled a comprehensive newspaper clipping file on all aspects of space activity during the past year, and the service is available to anyone interested. Just dial UL 3-6575.

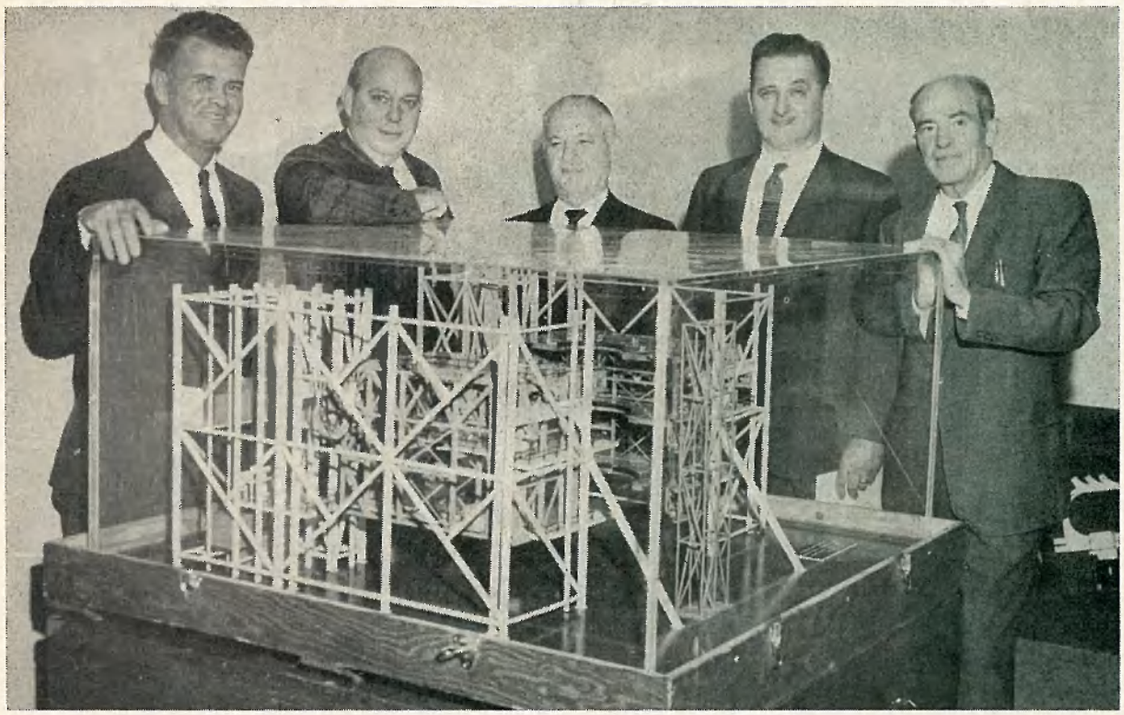
First MILA Building To Open Tomorrow

The first of more than 40 buildings in the industrial complex of the Merritt Island Launch Area will officially open for business tomorrow when the Canaveral District of the Army Corps of Engineers dedicates its new $200,000 field office.

The one-story, concrete block building will be the home of the Canaveral District's Resident Office. It is the first building to be occupied in the MILA industrial area.

On hand for the dedication will be representatives of Bucon Construction Co. of Cape Kennedy, general contractor. Also expected to attend are Col. A. H. Bagnulo, Director of Facilities Engineering and Construction for LOC, and Arthur G. Porcher, Chief of NASA's Facilities Construction Branch.

NASA liaison personnel for Merritt Island construction also will have offices in the new building, which will have 9,000 square feet of floor space.



POSING BEHIND a part of a Vertical Assembly Building model are, left to right, suggestion award winners James E. Finn and William O. Chandler, 30-year employee Hyman Rosenstein, Sustained Superior Performance winner George Hawkins and Winston Kielkopf, another 30 year Civil Service veteran. All were presented awards by LOC Director, Dr. Kurt H. Debus, Monday.

Dear Sir:

I am nine years old and I would like to go to the moon. Please put me on your list of volunteers, but I would like to be fairly near the bottom, because I don't want to go just yet.

Ann B.
Red Lion, Pa.

WORKSHOP ATTENDED

G. A. Michaud, Chief, Procurement & Contracts Office, and Thomas M. Davis, Industry Assistance Advisor, attended a Workshop Seminar for Small Business and its Advisors in Miami Friday.

The Seminar was sponsored by the Federal Bar Association (South Florida Chapter) with the assistance of the Small Business Administration and NASA.

Michaud was a panel member on a discussion of "How to Compete for NASA Prime and Sub-Contracts."

EMPLOYEES CITED FOR SERVICE, IDEAS

Two employees with 60 years of Civil Service between them, a sustained superior performance winner and two prize-winning suggestion authors were presented awards by LOC Director Dr. Kurt Debus in formal ceremonies Monday.

The two veteran employees were Winston L. Kielkopf of LOC's Procurement and Contracts Office and Hyman Rosenstein of Personnel.

George Hawkins, Chief of the Technical Information Office's Publications Branch, won the Sustained Superior Performance rating. Other SSP winners, who were not present at the award ceremony, included James D. Phillips. Owen L. Sparks, David C. Cramblit and Ronald L. Crain.

William O. Chandler, Jr., and James E. Finn were the two suggestion winners. Chandler, Assistant Director for LVO's Electrical Engineering, Guidance and Control Systems, won $500 for a method by which the duplication of electrical ground equipment for S-I, S-IV and instrument unit was deleted at Launch Control Center 37.

Finn, who has the same title as Chandler, won $400 for utilization at Complex 34, of cables originally installed at 37 which did not meet specifications there.

Ben W. Hursey, Bradley L. Baker and Robert E. Johnson all received honorary suggestion awards.

Dollar Donations For Needy Counted

More than $120 was collected on the first day of the drive to forego employee exchange of Christmas cards in order to buy baskets of food for needy families.

All donations will be turned over to the Salvation Army office in Cocoa, for equal distribution.

Money should be sent to LOC's Community Development Office for forwarding. If checks are submitted, they should be made payable to the Salvation Army. Deadline for contributions is December 20.

NASA NEWCOMERS

Four new employees have joined NASA LOC in the past week. They are: Donald Peck, Roy Tharpe, Thomas Wells, and Janice Winzinek.

A glance through the latest edition of the Federal Supply Service's stores stock catalog, reveals some interesting facts. Among the thousands of items listed are, alphabetically:

Acetylsalicylic acid tablets (aspirin), airsick pills, applesauce with raspberry puree, a back pack pump and 28 types of bags, from glassine ones to desert water types.

Also: beeswax, birdseye cloth, about 50 types of brushes — everything from calcimine to whitewash varieties— a toilet seat bumper, celery seed, dental shears, and three types of deodorants.

Flea powder, eight different forks, garlic salt, kingpin pullers, machetes, manhole cover hooks, meringue powder, obstretrical pads, court marshal paper, peanut butter, pickaroon hooks and pipes, pinch bars and bedside drinking pitchers.

Plumb bobs, posthole augers, prune juice, railroad tongs, forest fire rakes, rattrap springs, rodenticidal bait, rubbed sage, eastern pattern scoops, sidewalk scrapers, sheetrock, snake bite kits, snow pushers and sodium bicarbonate mixture.

Sour and blue solvent, kitchen spatulas, spike pullers and splice conductors, squeegee blades, beverage stirring sticks, stone sharpeners, stovepipe dampers, blacksmith's swage blocks and toothpicks.

Trouser guards and wheel puller sets, vise jaw caps, vulcanizing stitchers, waffle-weave cloth, water closet lever assemblies, wind meters, woodworking butt chisels, and Worcestershire sauce.

Solar Pressure

Solar radiation pressure against NASA's Echo satellite amounts only to about one-fiftieth of an ounce but is enough to change its perigee (point nearest the earth) by 310 miles per year.