

# ROUNDUP

Lyndon B. Johnson  
Space Center

NASA

December 22, 1978 Houston, Texas

Vol. 17, No. 25

## NASA's XMAS gift to world remembered

It was a dynamic period in American history. A proud nation, we had clear-cut goals to reach. A dignified leader had left us a motivating legacy—a goal to reach the Moon before the end of the decade. Much of the work took place at the space center.

Apollo 8 was to be the first manned launch of a Saturn 5 rocket, the second manned flight of an Apollo spaceship. There would be no Lunar Module, no means of returning to Earth if the Command Ship failed.

The bravery of the crew and support staff, and a determination to reach a goal made the difference.

George Low was Program Manager and Marilyn Bocking was his Administrative Assistant at the time. She recalls the daily events that led to man's first liberation from the gravity of Earth — the meetings in von Braun's office, the need-to-know list, the day Commander Frank Borman, walking out of the office, turned to say, "Now, George, you do a good selling job." She is proud. "It was tremendously daring.

"I'll always remember that period. Mr. Low was concerned. The Lunar Module was running behind schedule, but the Command Service Module looked good. While he was on vacation, it occurred to him we could go to the Moon out of sequence." And we did.

At 07:51 EST December 21, 1968,



liftoff took place from Kennedy Space Center, and eleven minutes later the spacecraft was in Earth orbit.

All systems were performing as programmed; all systems were "go." Three hours into the flight, the third stage engine fired for five minutes, increasing Apollo's velocity 7,000 miles an hour to 24,400—the speed required to leave low Earth orbit and enter the Lunar corridor.

On Christmas Eve that year America's

minds were with NASA and the Lunar mission. In theatres, restaurants, and living rooms around the country, the significance of the event was felt. A 4.5 pound television camera on board brought home the first broadcasts from space.

(From Apollo 8 transcripts:)

"The Sea of Crises is in front of us on the horizon. It is a very foreboding horizon, a rather dark and unappetizing looking place. We are now approaching

Lunar sunrise, and for all the people back on Earth the crew of Apollo 8 has a message that we would like to send to you."

Then as the Earth rose over the Moon horizon the crew read ten verses of Genesis, the story of creation, while America watched and listened. Commander Borman closed with, "Good

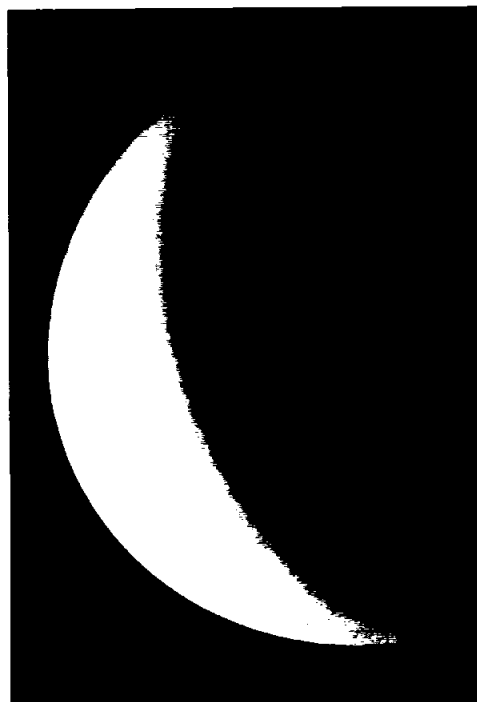
*Continued on page 3*



### Viewing Venus

At left are two of the first images sent to Earth by the Pioneer Venus spacecraft. The top photo is an infrared reading of Venus' northern hemisphere; the white cross at the center marks Venus' North Pole. Because the Infrared Radiometer measures thermal emission from the atmosphere, the image shows both the day and night sides. This polar view shows a dark, cool cloud band near the pole, with a temperature measured to be minus 30 degrees C.

The bottom photo is sunrise on Venus, the crescent planet illuminated by sunlight during early morning of the Venus day. This is the first picture taken by the Cloud Photopolarimeter on the Venus Orbiter. As the spacecraft continues to orbit the planet, making one revolution every 24 hours, the view of Venus' illuminated hemisphere will continually improve until February, when Ames scientists expect to be able to peer through the upper veil of bright haze and see more sharply defined cloud structure at greater depths in the Venus atmosphere.



### Skylab mission draws to an end

Flight controllers will continue tracking Skylab at Mission Control Center, but efforts to reboost the space station or control its re-entry will be discontinued, John Yardley, associate administrator for STS, said in a December 19 press conference on the Skylab mission termination.

### Holiday message from the director

Ten years ago today, Apollo 8 was halfway to the Moon on the first of several expeditions that was to culminate that following summer with the first manned lunar landing.

Most of us who were at JSC during that time will not soon forget that Christmas Eve telecast from lunar orbit as Frank Borman, Jim Lovell and Bill Anders read those ancient words from *Genesis* across a quarter million miles of space. The wisdom and history of scripture merged with modern man's inventiveness there a few scant miles above another celestial body.

The next decade likely will find us using spaceflight as a tool with which to look back introspectively at our home planet and perhaps to help make it a better place to live.

During 1978, we have seen many of the squares filled that will lead to the first Space Shuttle orbital flights, and if all goes well in the remaining preparations, by next Christmas the Shuttle system will be well on its way to becoming operational.

On behalf of myself and the other



center managers, I wish to extend to all JSC employees best wishes for the Christmas, Hanukkah and New Year seasons.

*Christopher C. Kraft, Jr.  
Director, JSC*

The past months' effort has been "a rather spectacular technological melodrama," Yardley said, and he commended the people who have been able to "keep it operating as long as we have."

Skylab will re-enter the atmosphere between mid-1979 and mid-1980.

As a result of the termination, "we probably will move other Shuttle payloads up one notch," Yardley said. Skylab termination "will give us some relief in training and other Shuttle preparations."

The Skylab is running out of gas, half its batteries are dead, and even with last month's turn-around mission, one Control

Moment Gyro is acting up. Sunspots are thickening the atmosphere causing the space station to drag, and the Teleoperator Retrieval System may not be delivered by September. "When you put all the ifs together there is less than one chance in ten that Skylab can be retrieved," Yardley said.

He noted that there are no nuclear materials on board, and 75 percent of Skylab's flight path is over the ocean. Meteorites enter the atmosphere regularly, and in 1975 the second stage of Skylab's Saturn V rocket returned to Earth "and there were no reports of sightings."

## Employee Bulletin Board

A number of space center employees are in the top ten from nationwide results of the NASA Intercenter. They are:

### First Place (10 points for the center)

Claude Edmiston of men age 45-49 in the 2-mile run

Wes Kelly of men 30-34 in the 10,000 meter

Ruben Zavala of men 29 and under in the 10,000 meter

Herb Cottle of men 35-39 in the 10,000 meter

Chuck Michalic in men 40-44 in the 10,000 meter

### Other point earners are:

Bill Lenior, Don Cherry, Rex Martin, Beth Millimet, Janet Ross, Susan McCown, and Billie Gibson in the 2-mile runs; and Glenn Miller, Doug Blanchard, Jim Gilbert, Rick Barton, Paul Chaput, Harold Jackson, and Rosemary Killen, for the 10,000 meter.

### New Years Eve Eve at Dean Goss

It's time to plan again for the EAA's New Years Eve Eve (December 30) at Dean Goss Dinner Theatre. Doors open at 6 p.m., salad bar at 6:15, followed by buffet dinner. Then the play, *Janus*, starring Virginia Mayo, starts at 8:30. After the play, Tony Scanlin will provide dance music until 2 a.m. The cost is \$10 a person (drinks are extra), limit 400 people. Tickets are on sale at the Building 11 Exchange Store.

### Learn to Disco Dance

The JSC Dance Club again offers Disco Dance lessons at the Gilruth Recreation Center, Room 204, starting January 16. An advanced class, at 7:15, is forming and will perfect the footwork and body motion while teaching new steps to add to those already learned. Members of the previous Introductory Sessions are eligible to join the Advanced Class. Those new to disco dancing may join the Introductory Class which starts at 8:30 on January 16. Instructor for both classes is Candi Walker. Cost: \$21 per person. For further information and registration, contact Lyyle Jiongo, x-3445.

### On Sale at the Exchange Store

The Restaurant and Theatre Club and Entertainment '79 have combined into one new program. You can now purchase for \$15 a book containing 376 2-for-1 coupon offers, \$4,000 in savings. All of this for one full year. This offer starts December 11 in the Building 11 Exchange Store.

For information contact Bea Brown at x4814.

- Dean Goss tickets - \$10 single \$20 couple (Reg. \$14.50 each)
- General Cinema tickets - \$2.40 each
- ABC Theatre tickets - \$2 each
- Magic Kingdom Cards - Free

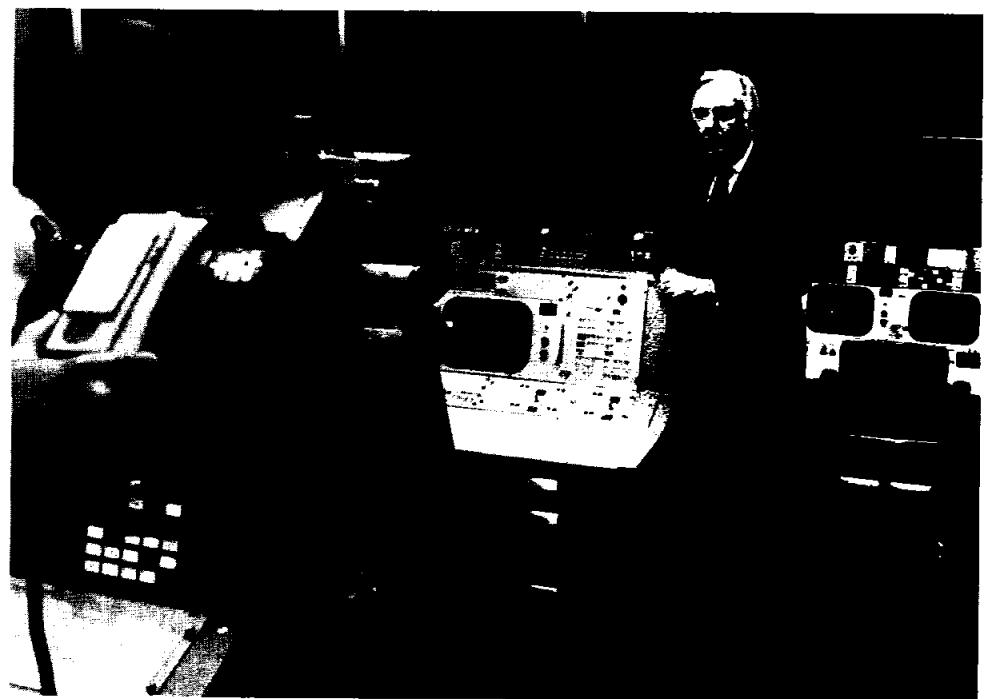
### First fifth grader on the Moon

## 'My name is Neil Legstrong I used to be an astronaut'

*Editor's Note: A lunar rock sample from Public Services shown to a fifth grade class at Adams Elementary School in Houston inspired the following piece:*

My name is Neil Legstrong and I used to be an astronaut. I blasted off from NASA and landed with a great big, huge bump! I called Houston and said "You just gotta get these brakes fixed." Well, they'd fix it right when I got back, but who can believe these guys?

I got my suit on and walked about ten miles, and what did I find, nothing. I was walking back but fell into a dern crater. I took off the heaviest things on me and I



Walter Cronkite (CBS News) was on site this month filming a news feature about Apollo 8 for his Christmas Eve program.

## Apollo Christmas

*Continued from page 1*

night, good luck, and a Merry Christmas—all of you on the good Earth."

"That's a Biblical and a geological lesson that none of us will forget," said the PAO in Mission Control.

Ten years later space center employees reflect on that night. "My ear was glued to the radio," says Percy Miglicco of Program Operations. "I

thought it was fantastic, unbelievable. I won't ever forget it."

"I was working support at Goddard," says Knut Bulow of Earth Observations. "I was very happy, thrilled. It was a big relief. But that was all I had time for, we had to get back to work."

"To me it was the most thrilling period of the space program," said Dr. Sam Pool, Flight Surgeon. "It was the first time man left the gravitation influence of Earth."

After ten circuits around the Moon, the service propulsion engine was to re-start while Apollo was over the back side of the Moon. Communications with Houston were blocked. When the spacecraft emerged, communications resumed, and employees in Mission Control cheered as the craft, again all systems "go", set out on its course back to Earth.

Center Director Chris Kraft calls it the most significant mission in NASA's 20-year history. It achieved many firsts: the first time man traveled 233,000 miles from Earth; the first time man navigated in translunar space, the first time man had been completely out of touch with his home planet; the first time man had travelled over 24,000 miles an hour.

Dr. Thomas Paine, then Administrator of NASA, described everyone's feeling at a post-mission press conference: "It is not the end but the beginning. We are at the onset of a program of space flight that will extend through many generations..."



### FROM YOU TO YOU VIA COST REDUCTION

BEE GEE THREE, BG-3  
COST REDUCTION OFFICE  
USE JSC FORM 1150

## Roundup Swap Shop

Ads should be under 20 words and include home phone number. Typed or printed ad copy, a separate sheet for each ad, must be in the Roundup office AP/3 by Wednesday the week prior to publication. Swap Shop advertising is open to JSC federal and on-site contractor employees for non-commercial personal ads. Goods or services must be offered as advertised, without regard to race, religion, sex or national origin.

### Cars & Trucks

'72 Duster, automatic, economic slant 6, PS, AM/FM-cassette stereo, good body. 483-3871. Larry.

'77 Corvette, white w/buckskin interior, 24,000 miles, AM/FM stereo, cruise control, power windows, mag wheels new tires. James. 661-4713.

'74 Porsche 914, 2.0 litre engine, air, AM/FM tape, Linda 488-3579 after 5 or weekends.

'66 VW Beetle, superior cond., radio, other extras. \$495. Zrubek. 333-2549 after 5:30.

'72 Buick Electra 225, 2 door hardtop, auto, A/C, tilt wheel, power, cruise control, exc cond. \$1425. Edwards. X2141.

'76 Malibu Classic, 4 dr., auto, A/C, P/S & B, AM/FM, mechanically perfect, showroom perfect, showroom clean. Outstanding value at \$3195. 488-2965. Maas.

'70 Chevy PU-truck, cio, with camper shell, AC, built in cabinets. \$1000. 947-9196.

'71 Impala 4-door hardtop, V-8 Power Steering and brakes, AC, automatic, one owner, clean 644-5927.

### Cycles

'73 Honda CB 450, Exc. cond. windshield, sissybar backrest, 2 helmets, shop manual, \$500. Robert Stanley. 488-5881.

Bicycle, girl's 26-in, 3-speed, hand and foot brakes, good cond. \$20. 333-2509.

Boy's 20-inch bike with XMV seat and handles. \$10. 946-4311. Lapko.

3 girls bicycles. Clean, good shape. 18-in: \$10, 20-in: \$40, 24-in: \$25. 333-2307.

### Misc.

Sony 7-inch b & w TV, operates on AC power or car/boat from 12V battery. Rick. 488-1550.

Exercise bicycle, good cond., \$40. Eubanks. 944-5019 after 5 or weekends.

25" Color console TV (1967) Airline, not working \$30. Two 20" girls bicycles, need tires & seats, \$8 each or \$15 both. Wally Stewart. 944-5896 after 5.

100,000 BTU Coleman Furnace. Attic type, central heating. Good cond. \$125 McCauley. 471-3298.

Side of beef (Approx. 225 lbs.) available Jan 2. Suzanne Miller. X3301.

12 Volt power supply for CB Ect up to 5 amps. \$10. RF signal generator, heathkit model IG-102, \$20, T. M. Ward. 488-5445.

4 Bluebonnet bowl tickets, exc. seats (upper box) \$10 each. W. Middleton. 482-1053 after 5.

For Sale: 2 tickets w/reserve parking to the Bluebonnet Bowl. Box on 45-yd. line Gold Section. \$22. Jim McBride. 534-2066.

### Musical Instruments

Ludwig Symphony Snare, exc. cond., asking \$125. Joseph Bouchard. 334-3346.

Piano, Kawai Console W/bench, fruitwood, exc. cond. \$1200. 946-7011.

### Wanted

Plastic model kit for X-15 rocket plane. Please call Tim Kreiter. 488-7942.

Carpool, 8:30 to 5 shift, Alvin-Manvel Area. 5834 or 331-5784.

Rider to join carpool leaving Meyerland at 7:20 a.m. for the 8:4:30 shift. Contact Russ X4871; Carl at X4871 or Cathey X6387.

Savage 250-3000 rifle. With/without scope. X4768. Bill Roberts.

### Boats & Planes

16-foot Sailboat. 95 Sq. ft. sail, w/trailer. \$375. 483-3871. Larry.

### Cameras/Stereos

Kowa/six 2-1/4X2-1/4 single lens reflex camera, excellent condition, in orig. carton, \$150. Braun F900NC Professional flash, rechargeable Nicad batteries, 155 W sec., 10,700 BCPS, exc. cond., in original carton, \$160. Buchanan. X4231.

### Pets

Needed: home for black, female cat, one year old, called "TARA", housebroken. Exc. manners, will have spayed if desired. FREE. Dornback. 334-3459.

FREE. Adorable puppies. Call Brenda - 925-3439.

### Household Articles

For Sale: 2 beds (mattress, boxspring) fair cond. \$50 each set (negotiable). Joseph Bouchard. 334-3346.

Large Freezer, \$300. 482-5877.  
King Size mattress and 2 box springs. Sears 920 coil. Good cond. Very firm. \$150. Hamilton. 472-2118.

Drexel Briarwood dining table and 8 chairs. Almost new, half price. 471-2523.

### Property & Rentals

Lease: New CLC Baywind II Condo, 1 br., f.p.l., \$250/mo. plus elec. 782-7495.

Lease: Home, new 3-2-2, all brick atrium-type for lease Jan. 1 488-6412.

Wanted: a conscientious person to share a furnished three bedr. house in Friendswood, 6 mi. from NASA. \$150 month. 482-5393.

Rent: 2 luxury 12 floor apts. Sharpstown. 2-2 and 1-1. Owner. 471-2523.

# Retirement can be a full time job

"Take this stack of cards. Go ahead. Count them out."

She counts eight.

"Now take those and hold them in your hands, please. You notice at no time do I ever touch the cards. Now add this one." He pantomimes handing out a card. "You think I'm crazy; you're the one taking invisible cards. How many does that make, twelve? See if you've got them."

She counts 12. "How did you do that?"

"Very cleverly," he says.

Ed Campagna retired three years ago. He was Deputy Chief of Facilities, "responsible for design and construction of this center," he says. "I was on the site survey team, the first facility guy hired."

Today he has returned to his first love—show business. He worked his way through college doing magic shows, then entered a career in engineering.

"Now," he says, "I'm in show business full time," doing hypnosis shows, magic demonstrations at trade shows, cruise shows, and teaching self-hypnosis at College of the Mainland. His wife, Terry, a former dancer, is his assistant.

"I taught him everything he knows," she jokes.

Actually, Campagna has been a magician since he was a child. "I had an uncle when I was about 8, 9 years old who was a practical joker. He used to buy mechanical tricks, and every time he bought one for himself he'd buy one for me."

Retirement has not slowed down his life; he describes the 10-hour days involved in trade shows. But he is reluctant to give away any secrets to his tricks.

"You see, it's slight of hand," Campagna says as he demonstrates a "gambler's peak." Stealthily, he turns the deck and bends the top card just enough to reveal its identity, all this blocked from view by the back of his wrist.



Ed Campagna, above, shows a trick. Top right, Mary Wilmarth at the shop. Bottom right, Paul Sturtevant.

Close-up work in magic is the most difficult, he says.

\*\*\*

Mary Wilmarth lets you in the front door of her brick house in Clear Lake City. The warmth of central heat and antique decor contrast with the winter chill outside. Christmas tree lights glow.

She doesn't look old enough to be retired. "Well, I worked for 27 years," she says, "and that's all it takes." Her eyes sparkle as she pours coffee and describes her life today.

"It's been a year and a half," she says. Wilmarth was a Personnel Management Specialist at the space center, "and now I'm operating and managing antiques."

"It's a business and I love it," she says. "If you can see there's going to come a time in your life when you should change



things, or that you should retire, you need to plan for something else in your life.

"I'd always liked antiques; I like the buying and selling of them," she says. She laid the groundwork for the business a few years ago, as "something to do when I retired."

Turn-of-the-century oak furniture and what she calls "good glass," are her specialties. She has scouts in different areas of the country, buys some merchandise over the phone, and takes buying trips throughout the year.

"Around April or so, hopefully, we're going to go East," she says, "on up to Maine."

She does shows at malls around Houston, and many of her finds are displayed for sale at Sherri's Floral and Gifts on NASA 1.

"We both (she and husband Dick) are

very pleased with retirement. Like I said, it's something you have to plan for. We say a lot of times, 'how in the world would we ever have time to go to work with all the things we're doing?'"

\*\*\*

Three years ago December 22 Paul Sturtevant retired. Sporting a beard and sunglasses and looking a little like James Mason, the former Public Affairs employee is "flat retired," he says. "I'm on the board of the Credit Union, and I help out with the city. And I travel and surf fish when I get a chance."

He pulls out a book, copies of New England antiques he's built, "a hobby that threatens to grow into a business." He makes replicas out of knotty pine and sells them in three Texas galleries.

"I've been doing this for 30 years. But now I have a lot more time for it."

Sturtevant describes the baby cradle in the picture. "It's modeled after one my grandfather made," he says. "My name is Number 3 on one of those in New England."

An employee at NACA and the Space Task Group, Sturtevant still keeps track of progress on the space program, but he doesn't see himself ever riding in a Space Shuttle. "I wouldn't get in that thing for love or money," he says. "You'd just be bored till your ears are off when you came back. Now when we get to go to another planet, sure I want to ride."

Sturtevant picks up his briefcase, rushing off to a Credit Union board meeting, and he leaves one last word on retirement. "I love it. If I'd known it, I'd have done it earlier."

Jakey Wood directs little theatre and sells real estate; Gordon Hughton builds boats. Retirement can turn out to be a full time job.

## What's cookin' in the JSC cafeteria

### Week of January 1 - 5

MONDAY: Holiday

TUESDAY: Tomato Soup; Potato Baked Chicken, BBQ Spare Ribs; Mexican Dinner (Special); Squash; Ranch Beans; Spanish Rice; Broccoli.

WEDNESDAY: Navy Bean Soup; Baked Turbot; Liver w/Onions; BBQ Ham Steak; Baked Meatloaf w/Creole Sauce (Special); Beets; Brussels Sprouts; Green Beans; Whipped Potatoes.

THURSDAY: Beef & Barley Soup; Chicken & Dumplings; Corned Beef w/Cabbage; Smothered Steak w/Cornbread Dressing (Special); Peas; Cabbage; Cauliflower Au Gratin; Parsley Potato.

FRIDAY: Seafood Gumbo; Pork Chops; Creole Baked Cod; Yam Rosette; Tuna Croquette (Special); Brussels Sprouts; Green Beans; Buttered Corn; Whipped Potatoes

### Week of January 8-12

MONDAY: Celery Soup; Braised Beef Rib; Chicken a la King; Enchiladas w/Chili;

Chopped Sirloin; Italian Cutlet w/Cheese (Special); Green Beans; Carrots; Navy Beans; Whipped Potatoes. Standard Daily Items: Roast Beef; Baked Ham; Fried Chicken; Fried Fish; Chopped Sirloin. Selection of Salads, Sandwiches and Pies.

TUESDAY: Beef & Barley Soup; Turkey & Dressing; Meatloaf w/Creole Sauce; Baked Whiting; Chopped Sirloin; Chicken Fried Steak (Special); Peas; Corn Cobette; Okra & Tomatoes; Whipped Potatoes.

WEDNESDAY: Seafood Gumbo; Catfish w/Hush puppies; Roast Pork w/Dressing; 8 oz T-Bone Steak; Chopped Sirloin; Chinese Pepper Steak (Special); Sliced Carrots; Macaroni and Cheese; Chopped Broccoli; Rice.

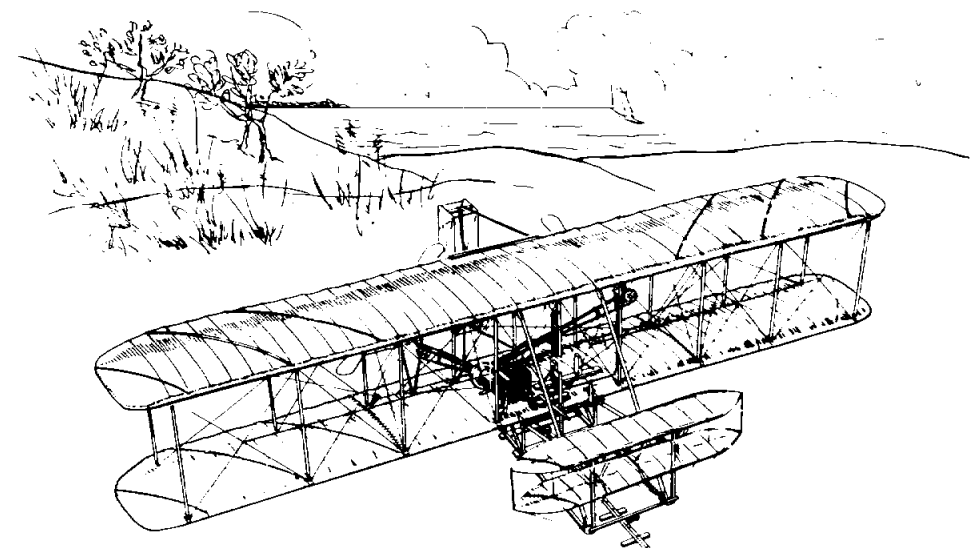
THURSDAY: Cream of Tomato Soup; Beef Tacos; Hungarian Goulash; Roast Chicken; Chopped Sirloin; BBQ Links (Special); Squash; Buttered Spinach; Pinto Beans; Whipped Potato.

FRIDAY: Seafood Gumbo; Liver w/Onions; Deviled Crabs; Roast Beef w/Dressing; Chopped Sirloin; Tuna & Noodle Casserole (Special); Green Peas; Cauliflower au gratin; Whipped Potatoes.

Method #2. A third method, used by one person, is not shown here.

Method Number 1: (Submitted by **Lloyd Erickson** and **Ralph Schomburg**) Observe that the number of paths from any letter to the end is the sum of the paths from the letter below it to the end, plus those from the letter at its right to the end. Therefore, you can begin adding at the lower right corner and advance toward the upper left to find the answer.

Method Number 2: (submitted by **Jim Oberg**) Each path can be represented by a string of ten R's (representing rightward moves) interspersed with four D's (representing downward moves). The answer



## It all started 75 years ago

"The soaring problem" said Wilbur Wright in June 1903, "is apparently not so much one of better wings as of better operators."

The Wright Brothers watched the way birds used their wings. The two inten-

tionally built an aircraft that was unstable, that could be kept flying only by a pilot's skill.

Others in the nascent field of aerodynamics saw the airplane as a winged automobile, driven in the air by force of engine and steered as if it were a car.

On December 17, 1903, Orville wired his father: "Success four flights Thursday morning all against 20 mile wind. Started from level with engine power alone. Average speed through air 31 miles. Longest 57 seconds. Inform press. Home Christmas."

then is the number of ways the R's and D's can be arranged, which combination theory gives as:

$$\frac{14!}{10! 4!}$$

Honorable mention goes to **Japhet S. Law, R. Gadbois, Leonard D. Frost, Arthur Reubens, Dennis Janda, and Lee Pearson.**

We've decided to give everyone's head a Christmas rest. Next Think Tank puzzle will appear in the next *Roundup*, January 12.

## Employees dive into the 'Think Tank'

Our first Think Tank puzzle (*Roundup*, December 8) proved a perplexing problem. Twelve persons turned in the correct answer: 1001 paths. Seven used method Number 1 described below, and four used

The *Roundup* is an official publication of the National Aeronautics and Space Administration Lyndon B. Johnson Space Center, Houston, Texas, and is published every other Friday by the Public Affairs Office for JSC employees.

Editor: Kay Ebeling  
Photographer: A. "Pat" Patnesky

# 1978



Crews trained



Tour guides explained



An astronauts' reunion



Everybody ran

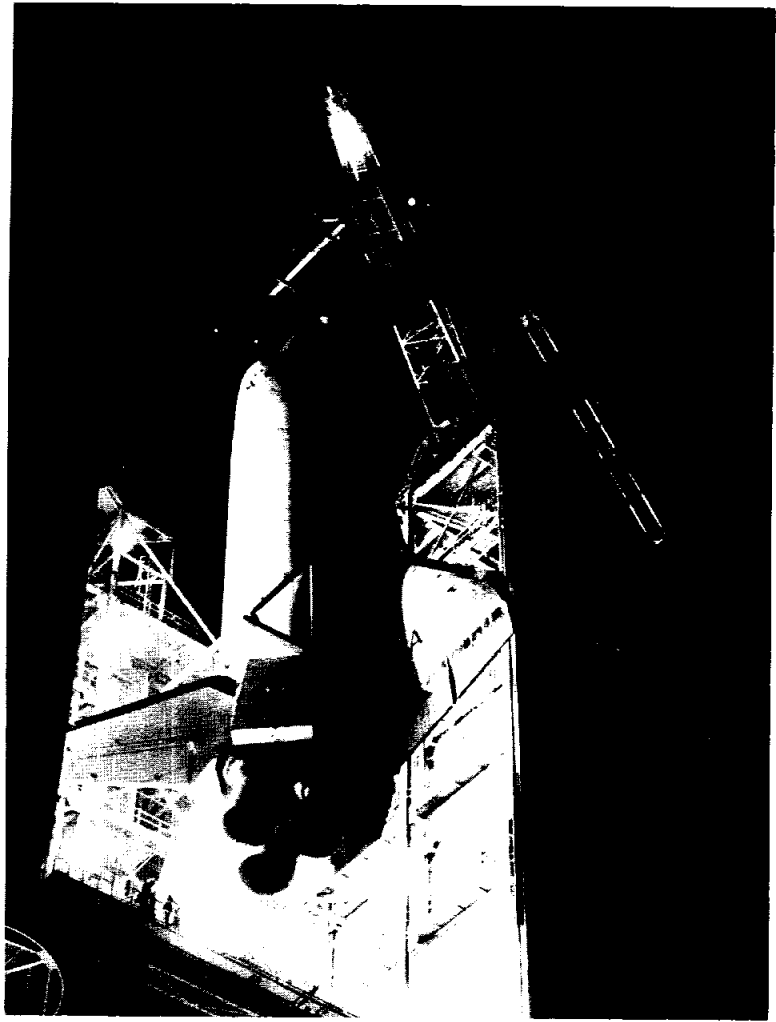


Crews kept on training

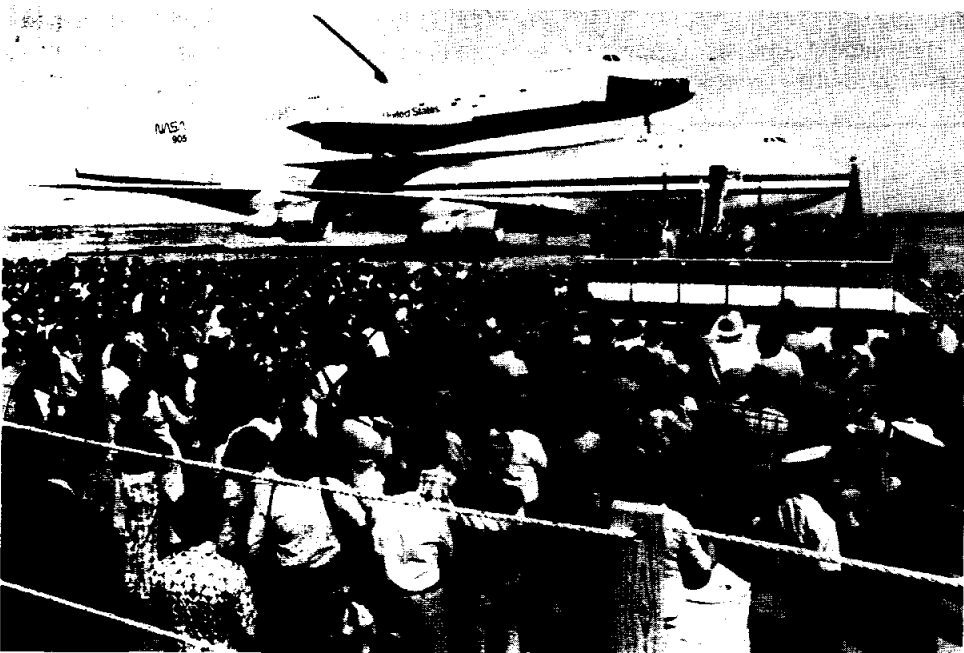
## THE YEAR IN REVIEW



Controllers reined Skylab



Shuttle's getting ready



Enterprise came to call



New candidates came on board