# ROUNDU <br> Lyndon B. Johnson <br> Space Center <br> N/SA 

## Heart disease <br> top US killer

More than half the annual deaths in the United States are caused by cardiovascular disease - eight times more than caused by accident. Many of those in the 52 percent bracket might still be alive had they received regular medical screening to detect impaired cardiovascular systems.

Annual physical exams provided ederal employees by the JSC Clinic attempt to pinpoint those conditions that could lead to cardiovascular problems. Accumulated lipids clogging blood vessels - atherosclerosis - are the principal cause of heart attacks.

Consultation with a clinic physician after the first half of the exam steers the employee with a problem toward more exercise, losing weight, cutting back or quitting smoking, better nutrition, medication for hypertension - whatever is needed to head off a worsening of the employee's potential cardiovascuiar condition.

Additionally, the JSC Clinic takes part in a national hypertension campaign by taking blood pressure measurements at various locations around the center during May.


## Pioneer Venus 1 starts trip to Earth's cloudy sister planet

Pioneer Venus 1 lifted off May 20 for a 400 million-mile journey to cloud-covered Venus where it will go into orbit after arrival in December. Countdown, launch and post-launch spacecraft checkout went flawlessly, according to Ames Research Center project managers.

The second spacecraft, Pioneer Venus 2, will be launched August 7 toward Venus.

Pioneer Venus 1, an orbiter, will reach Venus on Dec. 4, 1978, and Pioneer

## MCC team turns balky battery on,

## pumps up Skylab with nitrogen

After more than 575 seconds of sending digital commands to space station Skylab, Bill Peters' team of flight controllers last week were successful in getting balky Skylab telescope mount battery 17 on charge. At Roundup press time, all eight batteries in the airlock and 14 of 18 in the telescope mount are charging.

The flight control team in Mission Con trol Monday were attempting to get battery 16 on charge while attempting to track down the source of spurious commands detected during earlier passes over Bermuda and Madrid tracking stations.

Skylab was pressurized with six-tenths of a pound of nitrogen last week to make the task easier for attitude reference gyros to operate continuously.

Mission Control will uplink procedures for space station attitude changes into Skylab's onboard computer beginning June 1. The computer load involved maneuvering the space station with gas attitude control thrusters, and then holding attitude with the torque supplied by 200 -pound flywheels in the control moment gyros. Uplinking of the computer program should be complete by midJune.

If Skylab attitude control can be regained by MCC, it is estimated that orbital lifetime of the space station can be extended by as much as six to 12 months-assuming attitude maneuvers are successful and the gyros keep on spinning. By placing Skylab in a local horizontal attitude, the spacecraft's reentry into the atmosphere can be delayed until sometime between late 1979 and mid-1980.

Once the desired attitude is reached and held, Skylab will be followed daily by MCC with no further maneuvers adjustments needed. A successful attitude change would buy time until an early Shuttle Orbiter test flight could haul up a reboost (or deboost, as the case may be) package.

\$30 MiLLION BRIGHT IDEA - Five years ago John Kiker of the JSC Spacecraft Design Division proposed ferrying Shuttle Orbiters from the factory to the launch sites piggyback on large aircraft proposed ferrying Shuttle Orbiters from the factory to the launcider instead of using the strap-on jet engine packs then under consideration. Kiker's idea persevered and saved NASA an estimated $\$ 30$ million, as well as providing a test bed for last year's approach and landing tests with Orbiter Enterprise. Shown here with JSC Director Christopher C. Kraft, Jr., left, and Director of Engineering and Development Maxime A. Faget, right, Kiker received a $\$ 5000$ cash award for his suggestion - the largest ever paid in the Center's history

# Test LOX tank wrinkles, engines pass 2nd burn 

Venus 2, a multiprobe spacecraft, will arrive five days later after splitting into a bus and four atmospheric entry probes, 13 million kilometers (8 million miles) and 20 days out from the planet.

Information gathered by the two instrument-laden Pioneers at Venus may also help us learn more about the forces that drive the weather on our planet.

The flights are the first ones devoted primarily to a study of the atmosphere and weather of another planet on a global scale. They will employ the largest number of vehicles ever used in such studies, and make measurements at the greatest number of locations.
The flights also will seek to learn more about the characteristics of Venus's upper atmosphere and ionosphere, as well as the lower atmosphere. They will study the interactions of these regions with the solar wind - the continuous stream of ions and electrons flowing outward from the Sun - and the solar magnetic and electric fields

Circling the planet for at least eight months, the Pioneer Venus Orbiter will make the longest observations yet of Venus. It will be the first U.S. spacecraft to orbit the planet.

Preparations for vibration tests of Orbiter Enterprise at MSFC were delayed when the upper dome of the test external tank liquid oxygen tank buckled inward May 12 as it was being filled with water. The wrinkle was later popped back out by pressurizing the tank to one pound
The tank implosion will delay the start of vibration testing on Enterprise, but any
delay to the overall Shuttle program is under program office review.

In other Shuttle testing, a 15 -second main engine burn at 70 percent thrust was successful at National Space Technology Laboratories at Bay St. Louis, Mississippi, May 19. The test was the second in a series of all-up three-engine burns over the next severai months leading up to a full-duration burn of more than eight minutes at 100 percent thrust. The next test is June 6,15 seconds at 90 percent.

While the main engines roared in Mississippi, the European Space Agency (ESA) named three candidates for Spacelab payload specialist jobs. Named were West German scientist Ulf Merbold, Swiss pilot/astronomer Claude Micollier and Dutch physicist Swuvvo Ockels.
Announcement of NASA payload specialists is expected in about six weeks after further review. It was planned that ESA and NASA candidates would be named simultaneously.
In a clarification of Shuttle orbital flight test schedules, NASA Associate Administrator for Space Transportation Systems John F. Yardley issued the following statement:
'Since 1973, the first manned orbital flight has been scheduled for the second quarter in 1979. An internal working schedule of March 1979 was set at the same time.
"Most of the major elements of the program are between two and three months later to the target schedule of March 1979 but are still able to meet the commitment schedule of June 1979. The one element of the system which could cause the June date to slip is the main engine.
"While the June date allows sufficient time to complete the engine hardware and necessary engine development and qualification tests, it does not allow any slack for additional major main engine test failures. The main engine tests scheduled between May and September 1978 should provide NASA with sufficient insight on potential engine problems to reschedule in September 1978, if a rescheduling is required.'

## UT, JSC hold bioscience meet

Ways to exploit the advantages of space flight in biomedical research were explored in a two-day conference sponsored by the University of Texas Health Science Center in Houston and by JSC.

The May 23 session of "Space: A Challenge for the Life Sciences," was in the Cabaret Room of the Shamrock Hilton Hotel, and the May 24 morning session was at the Gilruth Recreation Facility.
Speakers for the May 23 session were UT Health Science Center President Truman G. Blocker. MD; JSC Director Christopher C. Kraft, Jr.; NASA Director for Life Sciences David L. Winter, MD; JSC Director of Space and Life Sciences Richard S. Johnston, and University of California Oncology Professor Steven Armentrout, MD.

The Tuesday session ended with a panel discussion on spaceflight applications. The Wednesday session at JSC's Gilruth Center was mini-seminars in specific disciplines of space biosciences.

## NEBA group insurance sign-up takes little effort

All employees with appointments of to the attending physician for completion. twelve months or longer and all reimbursable detailees are eligible for NEBA group insurance plans.
Travel Accident Life Insurance membership requirements are only filling in the enrollment card, selection of coverage and paying the annual or prorata premium.

Group Life Insurance membership requires a completed enrollment card and a health statement.

The enrollment cards and health statement forms may be obtained by calling the Personnel Office, (Kathryn Autery), extension 2681, or the NEBA Office, extension 5410.

The adult health statement has eighteen questions for member and/or spouse; the child health statement has eleven questions. Each question can be answered "yes" or "no". Some questions if answered "yes" require an explanation.
The enrollment card and completed health statements should be sent or delivered to the NEBA Office, Room 152, Building 1.
NEBA forwards the health statements to Home Life Insurance Company for review. If additional information is required. Home Life will send the applicant an Attending Physician Statement (APS) form. The applicant should take this form

NEBA recommends that the applicant ar range to (1) wait for the completed APS; or (2) return at a specific time to pick up the completed APS. in some instances applicants have experienced delay in submission of the completed APS by the physician. The NEBA Office will be glad to mail the completed APS to Home Life for the applicant.
Home Life reviews the applicant's health statement, with the APS when required, and either "approves" or "declines" the application. NEBA is notified and in turn notifies the applicant. During a recent period, sixty-one employee and forty-five dependent applications were submitted. As of this date, Home Life has approved forty-one employees and twenty-eight dependent applications. Seventeen employee and fourteen dependent applications are pending (in most instances waiting for the APS from the applicant's physician) Home Life has acted on forty-four employee and thirty-one dependent applications. Only three of the employee and three of the dependent applications were declined. This indicates that ninety percent or more of the applications submitted are approved

For additional information regarding low cost life insurance call the extensions mentioned above.


Filched from the National Space Institute Newsletter


MARINES BACK TO THE BARRACKS! - Cancel the alert, for our extraterrestrial turns out to be a JSC groundskeeper wearing a protective garment and helmet while spraying the quadrangle ponds
with algaecide. May the Force be with him! with algaecide. May the Force be with him!

## ROUNDUP

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Skiers plan summer therapy
A number of activities are planned to help the "snow bunnies" make it through the summer; sailing trip, rafting on the Guadalupe, hiking trip, canoe trip, etc.

And to start the off season right, a barbecue on Sunday, June 11. There will be food, beer, games and lot's of fun. Time: 3 p.m. until ? Place: behind Hanssen's Travel Agency on NASA Rd. 1 in El Lago. Cost \$4.50. All members and interested people are invited. For additional information call Ann Pischner 334-1548.

## Take stock in America. <br> Join the Payroll Savings Plan.

## What's cookin' in the JSC cafeteria

## WEEK OF MAY 29 - JUNE 2

WEEK OF JUNE 5-JUNE 9

MONDAY: HOLIDAY

TUESDAY: Beef \& Barley Soup; Turkey \& Dressing: Country Style Steak; Beef Ravioli; Stuffed Cabbage (Special); Corn Cobette; Okra \& Tomatoes; French Beans.

WEDNESDAY: Seafood Gumbo; Catfish w/hush puppies; Roast Pork w/dressing; 8 oz. T-Bone Steak; BBQ Plate; Chinese Pepper Steak (Special); Broccoli; Macaroni w/cheese Stewed Tomatoes.

THURSDAY: Cream of Tomato Soup; Bee Tacos; BBQ Ham Slice; Hungarian Goulash Chicken Fried Steak (Special); Spinach, Pinto Beans; Beets.

FRIDAY: Seafood Gumbo; Liver w/onions; Deviled Crabs; Roast Beef w/dressing Seafood Platter; Tuna \& Noodle Casserole (Special); Whipped Potatoes; Peas; Cauliflower.

Jones takes first in speech contest


STAFFORD JONES
Dickinson high school senior Stafford Jones works half days at the Center operating facsimile machines in the Space Shuttle Program Office, but recently had a change of pace when he placed first in a national vocational business student speech competition.
Jones won first place in Prepared Verbal Communications-Level II at the 12th Annual National Office Education Association Leadership Conference in Detroit. His speech topic dealt with qualifications for bank cashiers, and he was up against 51 students from 17 states in his category. Jones had moved up through local and regional competitions against 130 opponents before competing in the nationals. Elaine Adams, daughter of JSC Reliability Division deputy chief Jeff Adams, placed second with her speech in the Job Interview-Level II category. She is also a senior at Dickinson high.


BRAINSTORMERS LINEUP - Suggestion, Tech Brief and Invention awards were handed out April 26 by JSC Suggestion Committee chairman Bill Bland, standing left, to this group. Suggestion (S) and Invention (I) awards were made to, seated left to right: Reuben Taylor (three inventions; Jack Kinzler/I, Kent Castle/S, and Richard Perkins/S. Standing: Chairman Bland, Frederic Dawn/I, Dennis Wells/S, James Akkerman/I, Dale Sauers/I, Bonnie Smith/S, Don Nelson/S, Jerry Poradek/I, and
Robert Lewis/S.

## EAA Attractions

## EAA PICNIC

The EAA picnic at Camp Manison May 6 was a huge ( 1903 attendees) success, thanks to the efforts of the picnic committee, the EAA reps, the people at Camp Manison, and our own weather prognosticator/Allan "Sandy" Sanderson. Al predicted good weather from Tuesday on, despite rain forecasts from all his TV colleagues. Top ticket sellers among EAA reps were Ruby Summers 104, Liz Pieverhoff 74, Larry Davis 67, Charlie Ober 63, and Mike Slack 51. The back page of this Roundup is a picnic photomelange.

## BLDG 11 TICKET COUNTER

Astroworld - $\$ 7$ (reg. \$8.50) available all season.

Six Flags Over Texas - 56.75 (reg. 58.50) available all season.

Disney Magic Kingdom Cards - Free; good for discounts on rides at Disneyland and Disneyworld, and lodging at selected hotels and motels.

Funseekers cards - Free, good for discounts on entrance to Astroworld and all Six Flags and lodging at selected hotels and motels.
EAA Nostalgia Dance - June 24 Gilruth Center, $\$ 5$ each.

## CAPITOL TIRES

Capitol Tires sales brochures and membership cards were distributed recently to all EAA reps. This program has been attractive to JSC employees over the past five years. This year free mounting is included for most cars, except for specialty wheels such as mags and truck split rims. Capitol offers road hazard and mileage warranties not offered by other tire firms.

## JSC DANCE CLUB OFFICERS

The new JSC Dance Club officers fo 1978 are president Boyd Easterly, vice president Sam Palazzola, and secretarytreasurer Lyle Jiongo. The officers invite all EAA members, JSC employees and guests to join the ballroom dance classes. Call Lyle Jiongo at 3258 for details.

## CLOCK TURN-BACK

Leather jackets, bobbysox, saddle shoes and ducktail hairdos should be dredged out of the attic for the June 24 nostalgia dance planned at the Gilruth Center. Dancing will be disco-nostalgia by local disc jockey Ed Green. Tickets at \$5/person will go on sale in mid-June and will include a Chinese peppersteak dinner. Doors open at 7 , dinner from 8 to 9 , and dancing from 9 to 1 a.m.

## DEAN GOSS DINNER THEATER

Tickets for the Dean Goss Dinner Theater are available from Jim McBride, Bldg. 4, Rm. 211. Couples are \$16, singles $\$ 8$, good any night except Saturday.

## COMING EVENTS

Soul Dance Sept. 16 and NASA Night at Dean Goss Dinner Theater.

## CLASSES

Oil Painting - 6 week class starting June 15, price $\$ 34.50$ /person. Sign-up deadline is June 12. Maximum of 15 students. Contact Tim Kinkaid $\times 3594$ or Ted MacDonald $x 4921$ at the Gilruth Center. Instructor is Lois Miller x3216. Classes meet 6-8 p.m. Thursdays, in Room 209 at the Rec Center.

## RUNNING

The next NASA/BARC jointly sponsored event will be held on Sat. June 10 , 1978 at 9 a.m. at the Gilruth Recreation Center. A $\$ 2.00$ entry fee must be received by Thursday June 8 - no late entries will be accepted. Entry forms are available at the recreation facility. There will be a 4 mile fun run and a 1 mile novice run. Refreshments are supplied. Ribbons to all entrants and medals to division winners. Contact Tim Kincaid x3594 at the recreation Center or Rick Barton $\times 5181$, for further information.

## RESULTS OF PAST EVENTS

Intercenter running competition, April 1978. As indicated in previous Round-Up issues, the participation level here at JSC fell drastically in the last intercenter race. It was felt at that time that this would adversely affect the JSC showing in the overall standings. Unfortunately this is exactly what happened. Final results have now arrived from the host, Lewis Research Center. Team standings are as follows:

2 mile 4 mile
Center Pt. Score Center Pt. Score

| ARC | 97 | ARC | 86 |
| :--- | :--- | :--- | :--- |
| JPL | 90 | JSC | 86 |
| JSC | 72 | LeRC | 76 |
| LeRC | 69 | HQ | 68 |
| HQ | 51 | JPL | 62 |
| GSFC | 42 | LaRC | 39 |
| LaRC | 38 | GSFC | 30 |
| DFRC | 14 | DFRC | 15 |
| MSFC | 13 | MSFC | 9 |

Participation bonus points had the most affect to JSC in the four mile results. In this event our actual score was 83 pts. with only 3 bonus points added for participation to bring the score to 86 . Prior to the bonus pt. computation Ames was in second place with 80 actual points, but their participation was so much better than JSC's that they got 6 extra points. This brought them into a 1 st place tie with JSC. With just a little better participation, JSC could have held onto sole possession of 1 st place. The bonus points in the 2 mile event didn't affect JSC's position but did drop us farther out of 1 st place. Actual
scores in the 2 mile were: JPL 87, ARC 86 and JSC 68. After bonus points the standings were: ARC 97, JPL 90 and JSC 72.

## LEAGUE SPORTS

Men's, Women's and Mixed Softball The second 1978 softball season will run from June 19 through August 25. Sign-up will run from May 25 th through June 8. All leagues will play a 10 week season. Entry fees are as follows:

|  | Men's <br> A League | All Other <br> Leagues |
| :--- | :---: | :---: |
|  | $\$ 60.00$ | $\$ 45.00$ |
| EAA Teams | $\$ 115.00$ | $\$ 90.00$ |

Team captains must turn in rosters and entry fees no later than 5 p.m. June 8th.

## JSC GOLF

Battling high winds across dry fairways, Group I of the JSC Golf Association played the Texas City Bayou course on May 13. Our winners, who allowed for wind drift and were able to stand steadily over their putts, were Joe Nick Villarreal, net 68; Jim Poindexter, 69; Tom Jennings, 69; and Bill Shropshire, 70 . Group II will play Texas City next week.

## External relations head resigns

NASA Associate Administrator for External Relations Kenneth R. Chapman (MajGen-USAF, Ret) has resigned effective June 3 to become Vought Corporation's vice president for market research and analysis.

Since January Chapman headed legislative affairs, university affairs, community affairs, international affairs, interagency affairs and public affairs functions at headquarters. He formerly headed nuclear material safety and safeguards at the Nuclear Regulatory Agency before becoming NASA assistant administrator for DOD and interagency affairs last year. He retired from the USAF in 1975 after 29 years.

## Roundup Swap Shop

## CARS \& TRUCKS

74 LeMans spt coupe 2-dr, vinyl top, air, PS\&B. AM, one owner, \$2300. 938-4650 after 5.

71 Pontiac Ventura II, 307 V8 4-dr, auto, air PS, xint cond. Gandy, Baytown 422-6929 74 Olds Toronado, good cond, \$1850. 554-6242.

67 Mustang, runs well, needs body work. frntend rebuilt, xmission rebuilt, $\$ 650$. Donna 488-6797.

74 Fiat sedan, 4 -spd, good cond, $\$ 1250$. Lena, 733-3504

Cadillac, 45 K miles, all xtras, leather trim CB wired. Hughes, 333-2287

68 Corvette Stingray 1.2-liter V', pwrglide, never raced, nice body, minor
seat, good price. Slack, $x 4393$
seat, good price. Slack, $\times 4393$.
66 Cadillac Fleetwood 60 well, good tires. $\$ 300$. Morris, 334 special, runs well, good tires, $\$ 300$. Morris, 334-1407, PS, 2-dr. 475-1422 after 5.
71 Chrysler Newport Royal 4-dr sedan clean in \& out, \$800. Bragg, 337-2777. 76 Chevette, air, blue w/white vinyl int, AM, 26 K miles, $\$ 2300$. Sory, 482-5968.

27 Bugati Type 35B replica, 77 Autorama trophy winner, compl \& xceptional, $\$ 5995$. McNeely, 482-1549.
71 VW-411 sta wgn, auto trans, new tires/brakes, 53 K miles, $\$ 1100$. 944-3795. 75 Chevy Luv pickup w/camp shell, $\$ 2400$ 427-3922 after 5 .
hookup, good cond, $\$ 2500$ 334-1423.

## CyCLES

Huffy boy's 10 -spd bike, 24 -in wheels, 20 -in frame, rear carrier, reflectors, xtra tube, 1 yr old, cost \$110, ask \$70. 488-0621.
Penton MC-250 Hare Scrambler, xint cond, never raced, \$850. 482-1022 after 6

2 Yamaha 100 trail/street in good cond Reina, 488-1326.

Swap Shop advertising is open to JSC federal and on-site contractor employees. Goods or services must be offered as advertised, without regard to race, religion, sex or national origin. Nonprinted ad copy must be received by AP3/Roundup by Wednesday of the week prior to publication.

## PROPERTY \& RENTALS

Cottage by the sea at Bolivar Beach, families only, \$35/day, \$60/weekend \$150/week. Horton, x3734.

Split cost of rented Cape Royale house on Lake Livingston

Brown, 488-0754.
Lease Friendswood 3-2-2, den w/frplc, form lvng/dining rm, carpeted, drapes, game rm w/pool table, trees, $\$ 475 /$ mo plus util, deposit
$482-7763$ or $482-7854$ 2-7763 or 482-7854.
Two beautiful adjacent quarter-acre waterfront lots on Lake Livingston, 354 feet road frontage, Bay Haven section near Blanchard, $\$ 6000$ each. Sauers, $\times 3251$ or 1-744-9692 evgs, wknds.

Lease Middlebrook 3-2-2, fenced, drapes gas grill, patio, wet bar, avail June $1, \$ 450 / \mathrm{mo}$ 488-0658. Rent lakeside vacation retreat at Cape
Royale on Lake Livingston, new 3 -BR waterfront compl furn, near tennis, pool, golf boat launch, by wk or mo. 488-3746.

Lease Middlebrook II 4-2-2 drapes, indscpd, frplc, wet bar, patio, avail June 5 \$475/mo. 488-4487.

Rent Lake Livingston Cape Royale, comp furn home, 3-2-1, fishing, hunting, tennis, golf etc. reserve early, wk/mo/yr rates, 488-4487.

Galveston West End 2-BR By-the-Sea condo, full furn, $\$ 180 / \mathrm{wk}$ off season, $\$ 260 / \mathrm{wk}$ in season. Clements, 474-2622.

Rent new Galveston Jamaica Beach cottage $\$ 175 / \mathrm{wk}$ or $\$ 30 /$ day weekends. 334-1640 after 6.
$7614 \times 80$ 3-BR 2-bath mobile home on $60 \times 160$ LgCty lot, $\$ 26,000$. 554-6601 after 5

Lease 3-2-2 brick, frplc, cent heat/air, 2000 sq ft, carpets, drapes, $1 / 2$-acre lot less than year old. 488-1966 or 376-3810.

## WANTED

Set VW mag wheels. 482-7643
One 15 -in wheel for F78 tire, late GM (76 Buick). Jones, 471-3303.

Paint sprayer/compressor in good cond. 474-2081.

Carpool from Fondren/S.Braeswood start June 12 8-4:30. Liebergot, x5841.
Members for Bacliff Bass Club, singles, couples welcome; meetings, toumaments, prizes. Parker $\times 4242$ or Mobley $\times 4428$.

Adult men \& women for CLC Volunteer Fire Dept, rewarding community service, will train and equip you. 488-0023 anytime.

## MISCELLANEOUS

3-hp rotary lawnmower 20-in. 482-7968. Trlr hitch Class I, fits all mods Blazer /GMC. 25. Alexander, 333-3972. after 5

Hvy-duty trlr hitch for 65-72 Ford, Chevy, Merc \& Pontiac, \$20. Mansfield, 944-5473.

Child's Strolee 2-pos auto safe carseat, xint ond, \$10. 488-2735.
4 Sears steel-belt radials $175 \times 13$, mtd on E$T$ mags, fit Toyota, but adapt to other 4-bolt wheels, less than 6K miles, $\$ 175$. 332-2287.
House painting for summer, spray or brush, xprncd hi-school boys, call for estimates. Joe 488-0658 or Bill, Jr. 488-0597.
Senior Falcon R/C trimmed ready to fly, Fox $40 \mathrm{w} /$ tuned pipe, $\$ 100.534-2248$ after 5.

Trlr hitch for Chevy, attch to frame \& bumper, Reina, 488-1326.
Jim Turnisa golfclubs, 4 woods, 8 irons. Reina, 488-1326.

## LOST \& FOUND

Lost pr mil-type aviator sunglasses at JSC picnic Camp Manison. Martin, 488-9080

## "Time goes fast when you're havin' fun ..



