

Yes, Virginia

The 1993 edition of Space News Roundup's trivia quiz will test your knowledge of esoteric information. Quiz on Page 3.



Next up

The first Russian to fly on an American shuttle is getting ready for launch on STS-60. Story on Page 4.

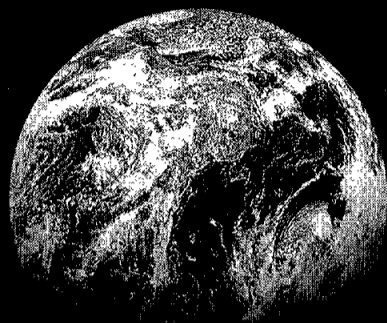
Space News Roundup

Vol. 32

December 20, 1993

No. 49

In the beginning. . .



Apollo 8

NASA 25th Anniversary



Frank Borman

Frank Borman

James A. Lovell, Jr.

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William A. Anders

William A. Anders

JSC

Ticket Window

The following discount tickets are available for purchase in the Bldg. 11 Exchange Store from 10 a.m.-2 p.m. Monday-Thursday and 9 a.m.-3 p.m. Friday. For more information, call x35350 or x30990.

New Year's Eve dinner dance — Tickets for the Dec. 31 dinner dance are on sale through Dec. 29. Cost is \$25 per person.

Moody Gardens — Discount tickets for two of three different attractions: \$9 Entertainment '94 Coupon Books — Bay Area/Galveston/Downtown or FM 1960/Downtown: \$30 each, \$1 off first book for civil servants. Gold C Books: \$8 Space Center Houston — Discount tickets: adult, \$7.50; child (3-11), \$4.50; commemorative, \$9.95.

Metro tickets — Passes, books and single tickets available.
Movie discounts — General Cinema, \$4.50; AMC Theater, \$3.75; Loew's Theater, \$4.

Stamps: Book of 20, \$5.80
New items for Christmas: 1994 calendars, jackets, shirts, tote and book bags, inflatable space shuttles, astronaut teddy bears, Christmas ornaments, mugs, koozies, gold shuttle charms and tie tacs, and posters

JSC

Gilruth Center News

Sign up policy — All classes and athletic activities are first come, first served. Sign up in person at the Gilruth Center and show a NASA badge or yellow EAA dependent badge. Classes tend to fill up two weeks in advance. Payment must be made in full, in exact change or by check, at the time of registration. No registration will be taken by telephone. For more information, call x30304.

EAA badges — Dependents and spouses may apply for photo identification badges from 6:30-9 p.m. Monday-Friday. Dependents must be between 16 and 23 years old.

Weight safety — Required course for employees wishing to use the weight room is offered from 8-9:30 p.m. Dec. 16. Pre-registration is required. Cost is \$5.

Defensive driving — Course is offered from 8:15 a.m.-3 p.m. Saturday. Next class is Jan. 8. Cost is \$19.

Aerobics — High/low-impact class meets from 5:15-6:15 p.m. Tuesdays and Thursdays. Cost is \$32 for eight weeks.

Exercise — Low-impact class meets from 5:15-6:15 p.m. Mondays and Wednesdays. Cost is \$24 for eight weeks.

Aikido — Martial arts class meets from 5-7:30 p.m. Tuesdays and 6:15-8:15 p.m. Wednesdays. Black Belt class from 6-8 p.m. Fridays, requires instructor permission. Cost is \$25 per month.

Western dance — Country and western dance classes begin Jan. 3. Beginner class meets from 7-8:30 p.m. Mondays and advanced class meets from 8:30-10 p.m. Mondays. Cost is \$20 per couple for six weeks.

Line dance — Classes meet from 7-8 p.m. Tuesday nights beginning Jan. 4. Cost is \$10 per person for six weeks.

Ballroom dance — Classes begin Jan. 6. Cost is \$60 per couple for eight weeks.

Fitness program — Health Related Fitness Program includes a medical examination screening and a 12-week individually prescribed exercise program. For more information, call Larry Weir at x30301.

JSC

Swap Shop

Swap Shop ads are accepted from current and retired NASA civil service employees and on-site contractor employees. Each ad must be submitted on a separate full-sized, revised JSC Form 1452. Deadline is 5 p.m. every Friday, two weeks before the desired date of publication. Ads may be run only once. Send ads to Roundup Swap Shop, Code AP3, or deliver them to the deposit box outside Rm. 147 in Bldg. 2. No phone or fax ads accepted.

Property

Sale: LC/Brittany Bay, 3-2-2, lg kitchen, DR, family room, and mast bath w/oval tub & shower, \$86.5k. David, 282-3827 or 554-5514.

Sale: Taylorcrest, 4-3-2.5D, southern colonial, 3200 + sq ft, pool/spa, cul-de-sac, island kitchen, balconies, art studio, \$290k, 4% co-op. Richard, x30271 or 326-4963.

Sale/Rent: Baywind II condo 1-1, W/D, refrig, w/ice maker, DW, FPL, grnd floor, avail immed, \$425/mo. Steve, 244-9625 or 486-8047.

Sale: Clear Lake Shores, waterfront duplex, 1-1 loft, W/D hook-ups, avail Jan, boat slip, \$450/mo. 486-2148 or 538-3627.

Sale: Shore Acres, 2/3+ ac prime bldg lots, \$23k. OBO. Ben, 480-8357 or 337-1289.

Sale: Pearland, Southwyck, 4-2.5-2, 2 story home, game rm, formal dining, upgraded carpet, ceil fans, oversized lot, security sys, mstr BR w/gdn, ex cond. 831-1791 or 997-1664.

Sale: Meadow Green, 4-2.5-2, 2900 sq ft, lg cul-de-sac yard, lg deck, both formals, wet bar, game room, FPL, 8 ceil fans, \$133k. x36881 or 486-5246.

Sale: Friendswood, 3-2-2, 2400 sq ft, rustic country home, wooded 3.6 ac, pond, atrium, sep workshop, solar satellite, \$158k. Jim, x39229 or 482-7873.

Rent: Lake Tavis cabin, CAH, private boat dock, fully equip, accom 8, \$325/wkly. 474-4922.

Lease: Egret Bay condo, 1-1-2 cp, WD/FPL/micro, storage, boat ramp, avail immed, \$450/mo + dep. 488-5457.

Sale: Lake country 4-2.5-2.2-story, 2600 sq ft, appreciated at \$150k, owe \$115k, non assumable. 532-2129.

Sale: San Leon, mobile home, 3-2, parked on rental property, \$17k. OBO. Anna, 483-8138.

Sale: Piper's Meadow, 4-2.5-2, ex cond, new carpet & vinyl, fans, miniblinds, gar dr opr, immed occup. Wayne, x36617 or 291-9020.

Rent: Heritage Park, 3-2-2 converted gar, lg yard w/trees, cul-de-sac, ex cond, \$750/mo. Quan, x38304 or 998-8025.

Cars & Trucks

'88 Jeep Cherokee, 4-WD, 5-spd, sun roof, 50k mi, \$7k. Jerry Craig, 244-8116 or 420-2936.

'91 Mercedes 190E-2.3, 5 spd, rare, ex cond, 32k mi, alarm, wind tint, sheepskins, \$19.9k. Dave, 333-6818 or 486-6859.

'88 Isuzu Impulse SE, 5 spd, alloy wheels, A/C, AM/FM/cass, sun roof, ex cond, 63k mi, \$4,395. 532-1940.

'92 Mazda RX7, new tires, batt, 2 dr, clean, \$2k. 333-2335.

'83 F-250 Ford PU, AC, PS, PB, camper top, new tires, ext cab, \$3k. 483-9491.

'81 Ford E150 Econoline club wagon, runs good, \$1.6k. Roy, x34094 or 488-6326.

'87 Celica GT, 78k mi, new tires, red, orig owner,

\$4,550. 474-3438.

'89 Ford Aerostar minivan, Eddie Bauer, all power, digital pkg, dual AC, ex cond, \$9,995. 980-7481.

'84 Nissan 300ZX, 87k mi, 5 spd, T-tops, \$4.2k. x39045 or 488-2676.

'82 Dodge 12ft Statebed truck, DoT inspected, new sideboards/brakes/trans. 485-7274.

'88 Dodge Grand Caravan LE, gray, 57k mi, \$5.5k. 486-5826.

'86 Laser XT, red, 64k mi, blk/red inter, sun roof, AM/FM auto cass, 5 spd, ex cond, \$3,750. OBO. Ed 282-4091 or 996-1106.

'17 Starcraft pop-up camper, sleeps 6, awining, ex cond, \$1.8k. Mark, x38013 or 992-4132.

Toyota 1/2 ton PU, AC, PS, matching camper top, \$7,950. 334-3320.

'82 Trans Star 22.5' motorhome, new roof/AC/tires, all opt, ex cond, \$9.8k. 339-1152.

'66 Mustang, 40k mi on a 90% ground-up restoration, first 3.5k. 944-8717.

'86 Volkswagen Jetta GL, 4 dr, PS, auto, AC, AM/FM/cass, low mi, ex cond, \$4.5k. 481-2890.

'84 Toyota Tercel, manual, A/C, 163.5k mi, good car, \$1.5k. Sue, 480-5027.

'90 Ford Ranger PU, red, 4 cyl, 5 spd, AC, AM/FM, 46k mi, 100k mi warr, \$5.5k. OBO. 534-4667.

'78 Porsche 928, bm w/leather int, auto, ex cond, 75k mi, \$8.5k. Bill, 244-8889.

'87 Toyota Celica Coupe, 66k mi, ex cond, A/C, new tires/lights/clutch/belts, \$4.5k. Don, 282-6811.

'88 Honda Accord LX, ex cond, 67k mi, PW/locks, new brakes/tires, \$6,995. 483-2567 or 488-3314.

'86 F-150 XL supercab w/8 ft bed, 351 auto, 2 tone red, bed liner/caps, papers on all work, ex cond, 112k mi, \$5k. OBO. 488-8126.

'82 Chevy 3/4 ton, 4 ton towing cap, 71k mi, util bed, \$2k. Pepper, 488-4227.

'86 Chevy Spectrum, 4 dr, auto, AC, low mi, one owner, \$2.1k. 867-8820.

Boats & Planes

22.5' Sea Ray Cuddy cruiser, 228 hp mercruiser I/O, Color Furuno depth finder, VHF, ex cond, \$8.5k. Mark, x38013 or 992-4132.

U.S. Yachts 22' sloop w/4.5 hp eng, 2 sails, galley, sleeps 5, ex cond, \$5,399. Russ, x45979 or 332-1769.

14' Lido sailboat, w/trailer & access, ex cond, \$2.2k. 333-2335.

30' Hunter aux sloop, A/C, Roller Furline, digital knot/depth/wind, autopilot, ex cond, \$52.5k. 980-7481.

18' VIP, 1.5 yrs old, I/O, 130 hp OMC, <100hrs, gar, trlr w/retract tongue, sundeck model, ex cond, \$9.9k. OBO. Jennifer, x38668 or 286-0507.

18' Prindle, new sails, dbl trapeze, ex cond, \$1.4k. OBO; 22'4" Gulf Coast sailboat, fixed keel, main jib & spinnakers, 6HS Johnson, \$2k. OBO. Greg, x35560 or 474-7634.

Cycles

Boy's 16" bike, \$20; boy's bike, \$25; girl's 18" bike, \$25. x34710 or 333-3501.

Audiovisual & Computers

Ringo Ranger antenna, for 2 meter FM, \$40; ICOM-1C-HM 9 speaker microphone, \$35; variable xfmr, auto xfmr 0-140 VAC 7.5A, \$50; Variac 0-130 VAC 2.25 A, \$10. 921-7212.

IBM PC, 640k, 2-51/4 FD, no HD, 13" monitor color, kybd, S/W, IBM Printer, paper, \$250. Michelle, x31109 or 474-7263.

Today

Holiday concerts — Space Center Houston will host a series of holiday choral concerts beginning at noon. For more information, contact 244-2100.

Cafeteria menu — Special: turkey and dressing. Total Health: herb flavored steamed pollock. Entrees: breaded veal cutlet, beef chop suey, steamed pollock, beef cannelloni, French dip sandwich. Soup: beef and barley. Vegetables: Brussels sprouts, mixed vegetables, egg plant casserole, winter blend vegetables.

Tuesday

Blood drive — Lockheed will host a blood drive from 8-11:30 a.m. Dec. 21 at Lockheed Plaza 4. For more information, contact Joe Victor, x34791.

Holiday concerts — Space Center Houston will host a series of holiday choral concerts beginning at 10 a.m. For information, contact 244-2100.

Cafeteria menu — Special: pepper steak. Total Health: barbecue chicken. Entrees: baked lasagna, pork chop and fried rice, turkey a la king, baked chicken, French dip sandwich. Soup: black bean and rice. Vegetables: breaded squash, steamed spinach, baby carrots, navy beans.

Wednesday

Astronomy seminar — The JSC Astronomy Seminar will meet at noon Dec. 22 in Bldg. 31, Rm. 129. For more information, call Al Jackson, 333-7679.

Russian speakers — Practice Russian language skills from 11 a.m.-1 p.m. Dec. 22 in the Bldg. 3 cafete-

ria. For more information, call Jack Bacon, x38725, or Amy Mendez, x38066.

Cafeteria menu — Special: Mexican dinner. Total Health: steamed pollock. Entrees: broccoli cheese quiche, catfish and hush puppies, spare ribs and sauerkraut, steamed fish, Reuben sandwich. Soup: seafood gumbo. Vegetables: Spanish rice, pinto beans, peas, broccoli.

Thursday

Holiday concerts — Space Center Houston will host a holiday choral concert at 10 a.m. For more information, contact 244-2100.

Cafeteria menu — Special: hamburger steak with onion gravy. Total Health: spicy new potatoes. Entrees: corned beef, cabbage and new potatoes, chicken and dumplings, meat ravioli, French dip sandwich. Soup: broccoli cheese and rice. Vegetables: navy beans, cabbage, cauliflower, green beans.

Friday

Christmas eve — Most JSC offices will be closed in observance of the Christmas holiday.

Monday

Cafeteria menu — Special: Italian cutlet. Total Health: herb flavored steamed pollock. Entrees: barbecue beef, spare ribs with kraut, steamed pollock, French dip sandwich. Soup: black bean and rice. Vegetables: California mix, okra and tomatoes, vegetable sticks, ranch style beans.

Dec. 29

Astronomy seminar — The JSC Astronomy Seminar will meet at noon Dec. 29 in Bldg. 31, Rm. 129. For

more information, call Al Jackson, 333-7679.

Dec. 31

New Year's Day — Most JSC offices will be closed in observance of the New Year's Day holiday.

Feb. 1

Technology transfer — A three-day conference on "Dual-Use Space Technology Transfer" begins Feb. 1 at Gilruth Center. For more information contact I-Net, at 286-2102.

Jan. 4

Crew briefing — The STS-61 crew will present its post-flight briefing to all employees beginning at 2:30 p.m. in Teague Auditorium.

Jan. 17

MLK Day — Most JSC offices will be closed in observance of the Martin Luther King Jr. holiday.

Feb. 21

Presidents' Day — Most JSC offices will be closed in observance of the Presidents Day holiday.

May 30

Memorial Day — Most JSC offices will be closed in observance of the Memorial Day holiday.

July 4

Independence Day — Most JSC offices will be closed in observance of the Independence Day holiday.

Sept. 5

Labor Day — Most JSC offices will be closed in observance of the Labor Day holiday.

Oct. 10

Columbus Day — Most JSC offices will be closed in observance of the Columbus Day holiday.

Hooked on Phonics, was \$200, now \$100. Shirley, x47205 or 484-1495.
Cannon copier, lg, high cap, w/stand, new toner cart, \$150. 919-1263.

Tandy daisy wheel printer 230, needs minor repair, \$50. 480-3211.

Vintage '65 GE console stereo w/turntable, AM/FM, speakers, elect problems, \$100, OBO; Mac Plus w/kybd, mouse, external FD, carrying case, ex cond, \$200. Tim, 486-2074.

Emerson 19' color TV, remote, electronic tuning, solid wood TV/VCR cabinet 16" x 31" x 28", both ex cond, \$150. OBO, will sell sep. 480-5060.

Apple II C computer w/13" color monitor and imagewriter printer, \$150. 482-0765.

Game Boy portable video game w/case & access, 17 games, ex cond, \$150. OBO; Super NES game sys w/2 controllers, scope, & 12 games, ex cond \$250. OBO. Wally, x36440 or 328-2664.

Denon receiver, has audio/video inputs, DRA-35V, orig pkg, \$175. Don, 282-6811.

Photographic

Pentax ME w/M/D & 50mm, \$225; Pentax K-1000, \$75; 28mm, \$75; 100mm Macro, \$250; 80-200 Zoom \$100. Barb, x37197.

Pets & Livestock

Pot bellied pigs, \$75; horse stalls for rent, \$35/mo; bill board, \$160/mo. 713-452-6078.

Chihuahua's, AKC, one male, one female, 6 mo, shots, wormed, \$175 ea. 534-4667.

Free 10-yr old declawed, neutered male blk Himalayan longhair housecat. 554-6379.

Musical Instruments

Lowrey Spinnet organ, Holiday model, 2 keyboards & pedals, lt cherry wood. \$250. 333-2182.

Geinhardt flute, \$100; Boosey and Hawkes flute, \$100; Armstrong flute, \$150; Jupiter soprano saxophone, \$400; Armstrong/Keilworth soprano saxophone, \$600; Super 20 tenor saxophone, \$600; Bundy alto saxophone, \$200; and Boosey & Hawkes clarinet, \$200. Karl, 944-8717.

Household

Sm oval dinette table w/four chairs, \$50. Dena, x45122 or 332-6477.

Sleeper sofa, queen sz, blue/grey pattern earth tones w/wood trim, metal frame, \$160. OBO. 532-1940.

King sz motionless waterbed, mirror head board, \$300. 488-0345.

Rattan rocker, footstool, & Papasan chair, blue cush, \$100. OBO. 474-3438.

Mikasa Imperial Lapiz china, \$60/5 piece pl set, assort serv pieces. 480-2584.

Rattan love seat, \$125; 19" stereo TV, audio needs work, OB. Anita, x33341 or 559-1761.

Whirlpool W/D, heavy duty, good cond, \$250/set, can sep. 641-5315.

Kg sz mattress w/o box spring, \$75. 483-0185.

DR suit, bleached oak table & 6 chairs, lighted cabinet, \$1,750. 544-5261 or 544-6717.

Blk 3 piece sect w/inset stero and matching 7 piece solid glass dining table, \$925; marble coffee table, \$65. 483-8835 or 482-5531.

Wood kitchen table w/four swivel chairs, brwn leather cover, two chairs need slight repair, \$50/set. 244-8985.

Refrigerator, olive gm, side-by-side, good working cond, ice maker does not work, 8 yrs old, \$150. OBO. x37570 or 944-1886.

2 brass lamps, 28", \$60/ea or both for \$100

OBO; 37 gal fish aquarium, all access, \$150 OBO; 42" ceiling fan w/victorian style light fix, \$25. Steve, x32236 or 409-925-67449.

On sz sleeper sofa, beige/off-white/earth tone colors, ex cond, \$125. OBO; twin sz bed w/hdbd, \$75; nightstand, \$35; student desk, \$50, or all \$130. OBO; 4r pc BR set, full sz, \$150. 992-1117.

Stove, range & dishwasher, \$250/for all; refrig, \$200. Ted, 483-6894.

On sz hdbd, dark oak, Mediterranean/Oriental, \$50. OBO; custom glass coffee/cocktail table 24" x 60", 3/4" thick beveled glass, 17" wrought iron base, \$200. x34347 or 486-4916.

Maple BR set, 2 twin beds, night stand, dresser w/mirror, \$350. x36378 or 992-3752.

Two piece lighted china cabinet, ex cond, \$700. OBO. 554-7669.

Sleeper/love/seat sofa, new cushions, custom slipcover, \$50; Ivory southwest style 3-cushion sofa, \$50. 554-6379.

Wanted

Want to buy economy car '80-'87, good cond, reasonably priced. 488-2746.

Want small tractor and mower, or lg riding lawn mower. Tim, 483-8843 or 409-925-5011.

Child care needed for 5 mo old in my LC home start 1/3/94, must have transport, CPR cert, English speaking, ref, 5 days/wk, live in/live out. 334-1445.

Want neat, honest, nonsmoker to rent furn room in Seabrook, W/D & kitchen usage, avail Jan 1. 474-3581.

Want mulcher/spreader, prefer gas driven mobile unit, will consider any unit for the right price. x34804 or 333-3834.

Want used electric mower. Mac, x35086 or 480-1949.

Want considerate respon, nonsmoking housemate to share 3-2-2 in Bay Glen/CLC, \$300/mo + \$200 dep + 1/2 util. Larry, x33168 or 488-7460.

Dear Editor,

I am thirty-eight years old. Some of my little NASA friends say there will not be a Trivia Test this year, that the Roundup editors couldn't possibly come up with more useless facts.

My branch chief says, "If you see it in the Roundup it's so."

Please tell me the truth, is there a 1993 SNR Trivia Test?

Yes, Virginia, There is more Trivia



1. On Edwin White's Gemini 4 spacewalk, a glove floated out of the capsule. Was it a right glove or a left glove?

Your little friends are wrong. They have been affected by the skepticism of a skeptical age. They do not understand what is comprehensible by our devious little minds. And the mind of the person who writes this each year is devious. In this great universe of ours people are mere insects in their intellect, as compared with the boundless world of trivial facts around them.

Yes, Virginia, there is a 1993 SNR Trivia Test. It exists as certainly as mission patches and launch delays and comp time exist, and you know that they abound and give to your life the highest level of complexity. Alas, how dreary would be the world if there were no Trivia Test. There would be no reason to call the Roundup staff and complain about the answers.

Not have a trivia test! You might as well believe that the Roundup editors can come up with a better idea. You might as well get your branch chief to hire someone to write another Page Three feature, but what would that prove? Nobody can conceive or imagine the numbness of the mind that occurs among the Roundup Staff at this time of year.

No Trivia Test! Thankfully it lives and lives until the author refuses to do it again. A thousand issues from now, Virginia, nay ten times ten thousand issues from now, we will continue to puzzle, challenge and entertain you.

Note: See photos for questions 1 and 75.

2. Who has spent more time in space, STS-60 Russian Mission Specialist Sergei Krikalev or alternate Vladimir Titov?

3. Which of the following are NOT emergency landing sites for the shuttle: Orlando International Airport, Orlando, Fla.; Lincoln Municipal Airport, Lincoln Neb.; or Los Angeles International Airport, Los Angeles, Calif.?

4. How many people share the record for walking in space four times? 8

5. What is the world record for the most time spent in space on a single mission? 366

6. What organization resides at Mail Code ZS8?

7. Who was the 300th person in space?

8. Who is the "Goddess of the Universe"?

9. Whose space suit had the solid red stripes during the STS-61 EVAs?

10. What is the name of the 1969 movie in which Gregory Peck and David Jansen attempted to rescue the crew of Iron Man I?

11. Who are the primary beat reporters for JSC from the Houston Post and Houston Chronicle?

12. How many payloads were released from the space shuttles in 1993?

13. In Franklin Planner-ese, what is the symbol for a delegated task on the prioritized task list?

14. How many rats flew on Spacelab Life Sciences 2?

15. What is the name of the Yucatan Peninsula crater that is believed to be the impact point of the meteor that resulted in the demise of dinosaurs on Earth?

16. What is JSC's official street address?

17. Astronaut Susan Helms took a keyboard to space on STS-54. What instrument did Ellen Ochoa play on orbit?

18. Who were Anita and Arabella?

19. Who holds the all-time record for the most extravehicular activity time in the U.S. space program?

20. With whom or what did Endeavour shake hands?

21. The two TDRSS terminals at White Sands were named Cacique and Danzante this year. The names are words from the language of the Tortugas Indians meaning what?

22. On what flight did "Ace Tool Testers" fly?

23. What was the maximum height limit for the Mercury astronauts?

24. What astronaut had the longest wait before flying?

25. "Gemini VII, this is Gemini VI. We have an object, looks like a satellite going from north to south,

probably going in a polar orbit.

He's in a very low trajectory traveling from north to south and has a very high climbing ratio. It looks like to might even be a ... very low. Looks like he might be going to reenter soon. Stand by one ... You might just let me try to pick up that thing." To what or whom were Wally Shirra and Tom Stafford referring.

26. What mission let the world "see" itself completely for the first time?

27. What is the name of the restaurant in Space Center Houston?

28. How many current female astronauts have "space walked"?

29. How many manned launches has NASA made?

30. The Astronaut Class of 1984 is called "the maggots." What is the nickname of the Class of 1992?

31. What is armalcolite?

32. Which was the only U.S. manned space program that did not have to get formal approval from Congress prior to becoming official?

33. With what crime did local officials in Esperance, Australia, charge NASA after the Skylab crash?

34. On what flight was Tang introduced to the space program?

35. What was the official designation of Alan Shepard's Project Mercury flight?

36. There is one day that has had four shuttle launches on it. What is that day? (Hint: One of the four occurred this year.)

37. What apparently are NASA's two favorite months to launch in? (More than one-quarter of all NASA's manned flights were launched in these months.)

38. What is NASA's least favorite month to launch in?

39. How much is a piece of Oreo cheesecake at the JSC cafeteria?

40. Who was the first female lead flight director?

41. What does SPARTAN stand for?

42. What version of the Bible was used for the Genesis reading on Apollo 8?

43. What is the name of the new IMAX movie that will have scenes recorded from space shuttle mission's this year?

44. Who wrote "Steel Albatross," a fictional account about water breathing Russians?

45. What was the first payload deployed from a space shuttle?

46. Is the shuttle more likely to launch on an even day or an odd day?

47. What is the phone number for the JSC Federal Credit Union?

48. What NASA center is responsible for the Advanced Communication Technology

Satellite?

49. Where is the Logistics Division housed?

50. What is the Employee News Service phone number?

51. How many baseball teams can be playing games at the Gilruth Center at the same time?

52. What is the historical significance of the podium in Space Center Houston's "Destiny Theater"?

53. How many of the 1993 shuttle mission crew members were not born in the United States?

54. What orbiter has flown the most missions?

55. What orbiter has the most mileage?

56. What mission is celebrating its 25th Anniversary tomorrow (Dec. 21.)?

57. When is the President's Day holiday in 1994?

58. This feature is on every shuttle patch but five. What is it?

59. What is the total per diem — lodging and food — for Huntsville, Ala.?

60. Sid Gutierrez, Kevin Chilton, Linda Godwin, Jay Apt, Michael Clifford and Thomas Jones. On what mission are these astronauts crew members?

61. Which of the following is not acceptable for recycling — white and green bar computer paper, the Space News Roundup, index cards and envelopes?

62. Who played the female astronaut that was accidentally launched into space with a cargo of kids in the movie Space Camp?

63. Name seven ground stations the shuttle can use for communications.

64. How many reaction control jets are on each orbiter?

65. How long is the Hubble Space Telescope's mission to explore the cosmos?

66. A family in Bedford, Texas, sends a bouquet to the mission control center made of a single white rose and several red roses. How many red roses are there?

67. Where did Aaron Cohen go?

68. One nautical mile equals how many statute miles? (Round to the nearest two decimal places.)

69. How many countries are members of the European Space Agency?

70. What is the more common name for facility No. 90?

71. Who was the first astronaut to leave the space program?

72. Name all the astronauts flew on Enterprise.

73. Everyone knows that Tom Stafford, Vance Brand and Deke Slayton were the Apollo-Soyuz Test Project astronauts. Who were the cosmonauts?

74. Who was the first M.D. in space?



75. Where in the world is this?

Wake Shield, Russian to fly on *Discovery*

By James Hartsfield

Discovery is being readied for STS-60, the first flight of the Wake Shield Facility and the first flight of a Russian astronaut on a space shuttle.

Commander Charlie Bolden, Pilot Ken Reightler and Mission Specialists Jan Davis, Franklin Chang-Diaz, Sergei Krikalev and Ron Sega will deploy and retrieve WSF-1, which is designed to develop an ultravacuum for material processing experiments.

STS-60 also will mark the second flight of the Spacehab middeck augmentation module and the ejection of six spheres that will be observed, tracked and recorded by

ground-based radar and optical telescopes in an effort to calibrate orbital debris tracking techniques.

Shuttle managers have decided not to roll *Discovery* out of the Bay 3 processing hangar until after the Christmas holidays to allow further inspections of the spacecraft's 44 steering jets following the discovery of a tiny leak in one jet. The jet has been replaced.

Discovery is now expected to be moved to Kennedy Space Center's Vehicle Assembly Bldg. around the first week of 1994 to be attached to the fuel tank and

solid rockets for STS-60.

In addition to the thruster tests, work on *Discovery* this week included weighing the spacecraft, closing the payload bay doors and installing the orbiter on the transport device.

Meanwhile, *Columbia* is being prepared for the second flight of 1994, STS-62, carrying the second United States Microgravity Payload in March. Work on the maiden shuttle in the Bay 2 processing hangar this week included leak checks of the main propulsion system, installation of the left

orbital maneuvering system pod and checks of the forward reaction control system steering jets.

Following 11 days in the orbital limelight, *Endeavour* was rolled into KSC's shuttle hangar in the pre-dawn hours Monday.

Early assessments showed *Endeavour* in above-average condition after its work with the Hubble Space Telescope, sustaining only 13 nicks in its heat-protection tiles that were one inch or larger in size. Following its 11:25 p.m. CST touchdown Sunday, *Endeavour* was towed from the Shuttle Landing Facility at about 2:30 a.m. Monday to KSC's Bay 1 processing hangar.



AIDS awareness

Teens need AIDS facts

By Kathy Parker

December is "AIDS Awareness Month" and the JSC Total Health program encourages employees and their families, especially those with teenagers, to become better informed about AIDS and its causes.

Thirty-four percent of all Americans who have AIDS were infected while teenagers. Most contracted AIDS through sexual contact or shared drug needles.

The teen years are a time of exploration. Many young people will experiment with alcohol, drugs and sex. All of these increase the risk of exposure to HIV, the virus that causes AIDS.

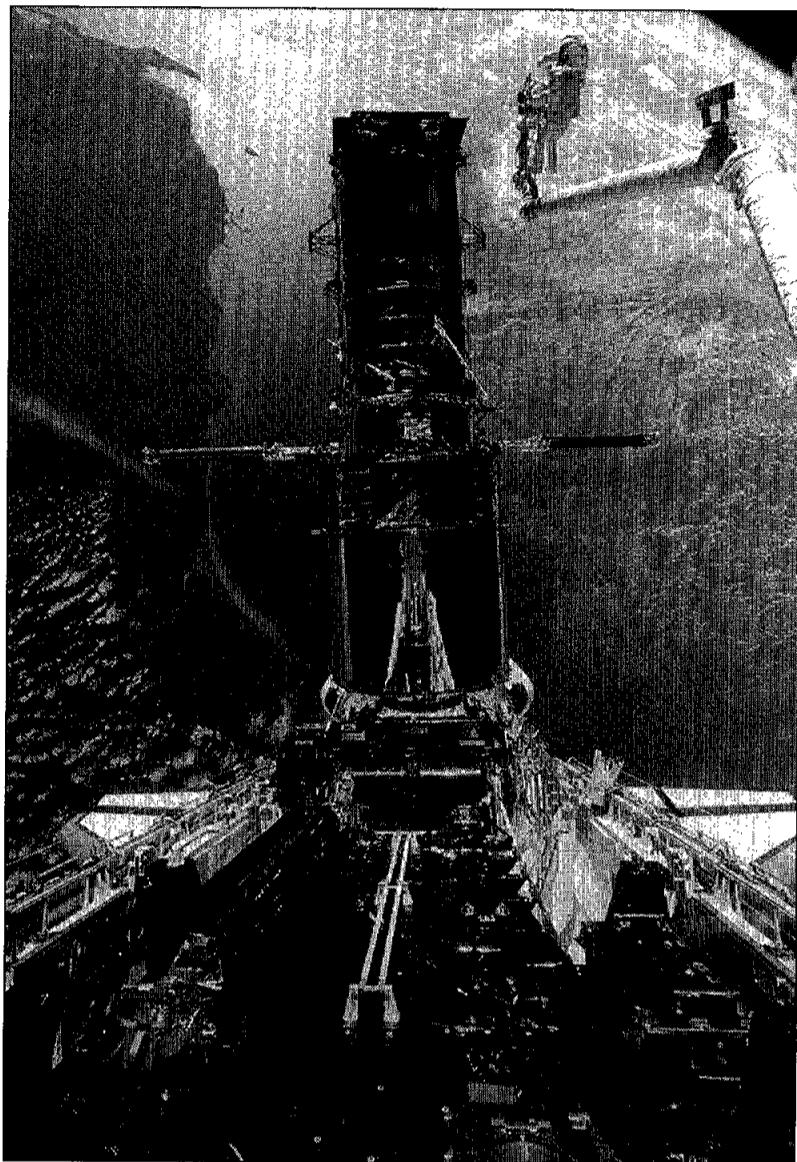
Teens usually don't see people their age who have AIDS, thus have the mistaken belief that they are not at risk—a mistake that can be fatal. One poor decision about a sexual partner or experimenting with drugs can change a person's life forever.

An average of 10 years passes before a person infected with the HIV virus develops AIDS. During this symptomless period, a teenager or any person who contracted the HIV virus usually is unaware of the infection unless a blood test is taken. Unfortunately, no one else recognizes the infection is present either. That's why timely education about AIDS is critical.

Parents play a vital role in stopping the spread of HIV among teens. Parents can provide a comfortable, nurturing and supportive environment in which to teach children about sexual values and ways to protect themselves against HIV and other sexually transmitted diseases in the context of the family's moral and religious beliefs.

Stopping the spread of AIDS means talking about its causes openly and honestly. For their own protection, teens must be given the information they need to make rational choices both they and their parents can live with. To give optimal guidance, parents need to be educated about AIDS prevention.

For more information or confidential referrals for education, counseling or testing, contact the JSC Employee Assistance Program at x36130 or the JSC Clinic at x34111.



STS-61 Mission Specialists Story Musgrave and Jeff Hoffman return to the top of the Hubble Space Telescope as *Endeavour* orbits 320 nautical miles above the coast of Australia. The pair installed protective covers over the telescope's magnetometers on a fifth and final space walk.

NASA Photo

Glowing shuttle landing wraps flight's success

By Kelly Humphries

With the tiles on its nose glowing, *Endeavour* glided to a triumphant landing at Kennedy Space Center shortly before midnight Sunday.

The crew—Commander Dick Covey, Pilot Ken Bowersox and Mission Specialists Tom Akers, Jeff Hoffman, Claude Nicollier and Kathy Thornton—praised the teamwork and dedication of everyone involved at a Monday morning homecoming celebration at Ellington Field.

"The foundation of success is good equipment, good people and good preparation," Covey said. "The building blocks are meticulous execution, and I think that was probably the keynote of this mission."

The landing capped an 11-day mission that accomplished all of its lofty objectives in five back-to-back space walks that totaled 35 hours, 28 minutes. The final 7 hour, 21 minute "space work" by Hoffman and Musgrave brought their total for the flight to 22 hours, 2 minutes. Akers and Thornton spent 13 hours, 26 minutes in their extravehicular mobility units on two space walks.

Landing was at 11:26 p.m. CST, bumped up an orbit earlier than originally planned to accommodate deteriorating weather conditions at KSC.

Jeremiah Pearson, NASA assistant administrator for space flight, said the lessons learned on STS-61 can be applied to the assembly and operation of the U.S.-led international space station. "We've learned by experience that if you plan, train, replan, retrain, you come out with success," Pearson said. "We've proved again we can work in space."

Hoffman called the mission "exploration at its best," saying that it took the human dimension of space flight where it has never been before and that HST is now ready to take people's minds where they've never been.

"People made a promise many years ago when Hubble was conceived that we could do something that had never been done before," Hoffman said. "We had to make a promise here at JSC that we could hold up our part of this agreement and keep Hubble working as an observatory. We kept the promise and it's something we can all be proud of."

Musgrave was a bit more cautious in his optimism.

"We got it all done, yes, but we've got to wait six weeks or two months to find out what we really did," he said. "A home run doesn't win the ball game. We're getting fantastic reports out of HST, but we came to make it work. We need to see that all the systems we replaced work."

Dr. Daniel Weedman, NASA director of astrophysics, said that if HST's instruments check out, the telescope will be 10 times more powerful and able to perform the job envisioned for it 20 years ago.

"We want to see as far as it is possible to see," Weedman said.

"This was a great time for astronomy, for human space flight, for the shuttle program, for the United States, for the European Space Agency, for Switzerland," Nicollier said.

Thornton said the crew took special delight in watching HST after separation and began calling it a Christmas star when they finally had a moment to break out some holiday music.

"It seemed very appropriate that this is the season of miracles and we had a miracle or two of our own to get us through this mission as easily as we did," she said.

"We had a fantastic team and the reason we got the job done was teamwork. It was a team that believes in space and the space business," Musgrave said. "The team was able to transcend politics, power and bureaucracy. Maybe there is a lesson in that for all of us."



AIAA plans job workshop

The Houston Section of the American Institute of Aeronautics and Astronautics plans a series of workshops in January to help aerospace workers displaced by recent layoffs.

Sessions will be held from 5:30-8:30 p.m. Jan. 10, 12, 17 and 19 at the Gilruth Center.

An introductory meeting will be held on Jan. 5 at the Gilruth Center, Rm. 206, to explain the program, answer questions and register participants.

The AIAA workshop series is free and open to all Clear Lake area aerospace professionals. Participants need not be AIAA members to attend.

While attendance at all workshop sessions is recommended, participants are encouraged to attend as many programs as their schedules permit.

The AIAA workshop is a supplement to the displaced worker program sponsored by the University of Houston-Clear Lake.

Okay, Virginia, here are the 1993 trivia quiz answers

1. Right.
2. Segei Krikalev has spent 464 days in orbit on two flights and Vladimir Titov has spent 368 days in orbit on two flights.
3. Los Angeles International Airport.
4. Eight. David Scott, Eugene Cernan, Charles "Pete" Conrad, James van Hoften, Jerry Ross, Story Musgrave, Jeff Hoffman and Tom Akers.
5. 366 days set by Vladimir Titov and Musa Manarov.
6. The Spaceflight Meteorology Group.
7. Carl Walz.
8. Shannon Lucid. It was a nickname given to her by STS-58 Commander John Blaha when Lucid set a new record for the most time in space by a woman.
9. Jeff Hoffman.
10. Marooned.
11. Dan Feldstein and Marc Carreau.
12. Five — Spartan, TDRS-F, ACTS, ORFEUS and the Hubble Space Telescope.
13. A circle with a check and the first initial of the person to whom it was delegated.
14. 48.
15. Chicxulub.
16. 2101 NASA Road One.
17. The flute.
18. The spiders on Skylab 3.

19. Tom Akers with 29 hours, 40 minutes.
20. The Hubble Space Telescope. When the grapple of the telescope was complete, STS-61 Comander Dick Covey said "Houston, *Endeavour* has a firm handshake with Mr. Hubble's telescope."
21. Cacique means leader and Danzante means dancer.
22. STS-51.
23. 5 feet, 11 inches.
24. Don Lind. He was selected in 1966 but didn't fly until 1985 on STS-51B.
25. Santa Claus. After the completion of the first transmission, the Gemini VI crew serenaded the world with "Jingle Bells."
26. Apollo 10.
27. The Silver Moon Cafe.
28. One, Kathy Thornton.
29. 90.
30. The Hogs.
31. A new mineral found at Tranquility Bass by the Apollo 11 crew. The mineral is named for Armstrong, Aldrin and Collins.
32. Gemini, because it had been originally included in appropriations for Project Mercury under the name Mercury Mark II.
33. Littering.
34. Gemini 5.
35. Test No. 108. (We'll also accept MR-3.)
36. December 2. STS-27, 1988; STS-35, 1990; STS-53, 1992; and STS-61, 1993.

37. April and November.
38. February.
39. \$1.90.
40. Linda Ham.
41. Shuttle Pointed Autonomous Research Tool for Astronomy.
42. The King James Version.
43. Destiny in Space.
44. Scott Carpenter.
45. SBS-3.
46. Even days. Of the 59 shuttle launches, 39 have been launched on even days.
47. 488-7070.
48. The Lewis Research Center.
49. Bldg. 419.
50. Ext. 36765.
51. Eight teams on four fields.
52. It is the podium used by President John F. Kennedy at Rice University when he committed the nation to landing a man on the Moon within a decade.
53. Five. Mike Foale, England; Ulrich Walter and Hans Schlegel, Germany; Shannon Lucid, China; and Claude Nicollier, Switzerland.
54. *Discovery*.
55. *Columbia*.
56. Apollo 8.
57. February 21.
58. The shuttle.
59. \$85.

60. STS-59, Space Radar Laboratory-1.
61. Envelopes.
62. Kate Capshaw.
63. Guam; Hawaii; Vandenberg Air Force Base; Dryden Flight Research Center, Calif.; Wallops; Colorado; Ponce De Leon, Fla.; Madrid, Spain; Goldstone, Calif.; Merritt Island, Fla.; Bermuda; Dakar, Senegal; Indian Ocean; Diego Garcia; Oak Hangar, England; New Hampshire; Thule, Greenland; and Canberra, Australia.
64. 44 total. 35 primary and six verniers.
65. 15 years.
66. It depends on the number of crew members on the mission. There one red rose for each.
67. Texas A&M University (Whoop!).
68. 1.15 miles.
69. Fourteen.
70. Rocket Park, also known as the Manned Space Flight Exhibit Complex.
71. John Glenn.
72. Fred Haise, Gordon Fullerton, Joe Engle and Richard Truly.
73. Alexei Leonov and Valeriy Kubasov.
74. Joe Kerwin.
75. Northeast Africa. This view of the Nile River, the Nile River valley, the Red Sea and the Saudi Arabian peninsula was taken on STS-56 earlier this year.

Cafeteria holiday hours

The JSC cafeterias will be open for business as usual today, but reduced hours and services for the holidays begin Tuesday.

Bldg. 3 will be open from 11a.m.-2 p.m. Dec. 21-22, and Dec. 27-30, but no breakfast will be served and lunch will be limited to sandwiches and items on the food circle.

Bldg. 11 will be open from 7 a.m.-2 p.m. Dec. 21-23 and Dec. 27-30. Breakfast will be served, and the lunch line and sandwich bank will be open.

Just a reminder

The Space News Roundup will wish employees a Happy New Year on Jan. 7, 1994, when it resumes regular distribution on Fridays.

The Roundup will not be published Dec. 27 or Jan. 3.

Dates and Data calendar items for Jan. 7 are due 5 p.m. Dec. 29.

Swap Shop ads for Jan. 7 are due 5 p.m. Dec. 24, and will be published on a first-come, first-served basis.