

# Space News Roundup

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National Aeronautics and Space Administration

## Cohen to succeed Moore as JSC Director

Dr. James C. Fletcher, NASA Administrator, announced Oct. 2 that Jesse W. Moore, Director of JSC, will be reassigned in response to his request.

Also announced was the appointment of Aaron Cohen to succeed Moore as JSC director. Cohen is currently director of research and engineering at JSC.

Moore will be reassigned as special assistant to the General Manager, NASA Headquarters, effective Oct. 12, 1986. It is anticipated that Moore will subsequently apply for a Senior Executive Service sabbatical.

"NASA and the country owe special thanks to Jesse, who held

two very difficult jobs during the days following the Challenger accident — that of Associate Administrator for Space Flight and director of JSC. His skills and experience will be well utilized in whatever new assignment he ultimately undertakes," Dr. Fletcher said. Upon completion of the sabbatical, Moore is expected to be assigned to a key position within the Agency.

Moore came to NASA Headquarters in 1978 as Deputy Director of the Solar Terrestrial Division, Office of Space Science. In June 1979, he was appointed Director of the Space Flight Division. In Dec. 1981, he assumed the position of

Director, Earth and Planetary Exploration Division. He was appointed Deputy Associate Administrator for Space Flight in 1983. He served as Acting Associate Administrator for Space Flight from April 1984 until he was appointed Associate Administrator on Aug. 1, 1984. While at NASA Headquarters Moore was awarded the NASA Exceptional Service Medal, the NASA Outstanding Leadership Medal and the Presidential rank of meritorious executive. He was named the JSC Center Director on Jan. 23, 1986.



Jesse W. Moore



Aaron Cohen

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## Station Program poised to begin Phase C/D

With the work of the design task force now complete, NASA is poised to make the final decisions necessary to move into Phase C/D of the Space Station Program, Administrator James C. Fletcher said last week.

The design review, conducted by the Critical Evaluation Task Force (CETF) in August and September at the Langley Research Center, addressed overall design and assembly of the Station from a technical aspect. A second team addressed organization of work packages among the centers, and that plan was approved by the Directors of the NASA field centers.

Under the work package plan, JSC and Marshall would each be responsible for about 36 percent of the program tasks. The Lewis

Research Center and the Goddard Space Flight Center would manage the other 28 percent of the program.

Dr. Fletcher said the design review was "an absolutely outstanding job, done by 60 or 70 people, seven days a week, sometimes 18 hours a day, and backed up by hundreds of people at the Centers and by our contractor support and international partners."

That work, Fletcher said, needs to be supplemented by further studies in three areas before he will be ready to make a series of final decisions.

"The analysis so far has been thorough and technically sound," Fletcher told the House Subcommittee on Space Science and Applications. "I am not yet ready, however, to make any final decisions."

Additional information is required, he said, on the potential for use of expendable launch vehicles, on the costs of the design modifications, and on the relationship between Headquarters and the centers in management of the project.

Under the plan devised by the CETF, nodes connecting the habitable modules would increase in both size and importance, adding about 4,000 cubic feet to the overall habitable volume of the Station. These resource nodes would be outfitted with much of the equipment originally intended for placement on the trusswork of the Station, and would become the focal points for command and control of the Station functions.

Adopting an increased role for the nodes was a response to three

technical problems—EVA assembly, EVA maintenance and reduced lift capability of the Shuttle (about 7,500 pounds) mandated by changes in the STS in the wake of the *Challenger* accident—said Andrew J. Stofan, Associate Administrator for the Office of Space Station.

Prior to the design review, Stofan said, the nodes were seen as passageways with no equipment mounted inside. "What the team came up with was larger nodes, about 4,000 cubic feet of space provided for the astronauts. We are now able to put racks of equipment in these nodes and make them serve the command and control functions of the Station."

With much of the equipment moved from the trusswork to the

nodes, maintenance can be done in a shirt-sleeve environment, reducing EVA maintenance time by around 30 percent, Stofan said. CETF designers also moved some equipment from the lab and hab modules into the nodes, leaving more room for scientific gear in the lab and making the hab module less crowded by life systems.

Specific equipment has been designated for three of the four nodes, he added. The fourth node will be given its designated complement of equipment during Phase C/D.

The CETF also modified the assembly sequence so that the Station can be permanently manned

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## NSTS Engineering Office is established

An Engineering Office has been established in the National Space Transportation System Program.

Robert W. Moorehead has been appointed to the newly established position of Manager, National Space Transportation System (NSTS) Engineering Office, JSC Director Jesse W. Moore announced Sept. 26.

Moore said that Moorehead will report directly to Arnold Aldrich, NSTS Manager, and will be responsible for coordinating engineering

activities between the Shuttle Program and project organizations.

"This office has been created to bring renewed emphasis to the engineering activities across the NSTS program. A specific objective is to facilitate technical interchange between all program and project elements," Moore said.

Approximately 30 employees will be reassigned from other NSTS organizations to form the initial staff of the NSTS Engineering Office.

Specific functions of the NSTS Engineering Office include definition and control of program requirements; integration of flight systems and ground systems performance; management of integrated systems analyses and design data base; Program-wide integration of project technical reviews, anomaly close-outs, and performance improvement; NSTS software requirements management and control; and NSTS avionics integration.

Moorehead, who joined JSC in February 1964, has more than 14

years of direct NSTS experience in key management positions. His assignment prior to this new appointment was as Assistant Manager of the NSTS Program Office.

Moorehead has also served as Deputy Director of the Kennedy Space Center's Shuttle Engineering Directorate, Deputy Manager of the STS Orbiter and GFE Projects Office, Manager of the Shuttle Avionics Office, and several other management positions within the Shuttle Avionics Office.

Moorehead received a bachelor

of science degree in electrical engineering from Mississippi State University and a master of science degree in electrical engineering from the University of Southern California. He is married to the former Delores Carmen Saldana of Ft. Worth, TX, and they have three children, Marcus Kent, 17, Tracy Dawn, 16, and Kimberly Noel, 12.

Moorehead is the recipient of several NASA honors and awards, including the NASA Special Achievement Award and the NASA Exceptional Service Medal.

### Puddy assigned to Ames

Donald R. Puddy, assistant director for systems in the Mission Operations Directorate at Johnson Space Center has been temporarily assigned as acting deputy director of the Ames Research Center, Mountain View, California.

The three-month assignment runs through mid-December while the Ames deputy director attends a management school at Harvard University.

Puddy came to JSC in 1964 as a flight controller monitoring lunar module systems for the Apollo program. He later headed up organizations at the center with responsibility for the lunar module used during the moon landings.

He also was a flight director during the Skylab program and the Apollo-Soyuz Test Project, the joint U.S.-Soviet flight in 1975. He served as lead flight director for the first Space Shuttle mission in 1981 and was a flight director on the second Shuttle flight.

From 1982 to 1985, Puddy was chief of the Mission Operations Systems Division, overseeing the activity of more than 200 engineers specializing in Space Shuttle systems. In his current JSC assignment as Assistant Director for Systems within the Mission Operations Directorate, he supervises approximately 700 personnel dealing with Space Shuttle-related systems.

### Grumman unit to locate here

The Grumman Corporation will transfer a unit of its Space Systems Division from Long Island, New York, to Houston, Texas by the end of the year.

The civil space programs unit, which is responsible for work related to the Space Station and other non-military projects, will relocate by the end of this year.

John O'Brien, Grumman President, said, "In 1985, we restructured our operating management into divisions to align each division with the specific markets it serves and to reduce costs. We believe that Space Systems Division will improve service to its NASA customers by relocating this operating unit."

The transfer involves fewer than 100 employees who are principally engineers and highly skilled technicians. If plans now underway for new business development succeed, Space Systems Division's Houston work force could expand to more than 1,000.

Grumman Space Systems Division manages the company's military and civilian space programs. It holds several development contracts related to the Strategic Defense Initiative and for projects related to the NASA Space Station. Grumman is also a subcontractor to TRW on NASA's Orbital Maneuvering Vehicle program, a "tug" that will be used with the Shuttle and the Space Station to deliver and retrieve satellites to and from other orbits. Division

sales were \$20 million in 1985, Grumman said.

A separate operating unit, Grumman Technical Services Division, Titusville, Florida, is subcontractor to Lockheed on the shuttle processing contract at Kennedy Space Center, Florida, and Vandenberg AFB, California.

Grumman Corporation employs 32,000 people worldwide. On Long Island, where Grumman is the largest private employer, the company has 25,000 workers. This includes the 500 employees of Grumman Space Systems Division who represent two percent of Grumman's Long Island work force. Grumman's Texas work force already consists of nearly 700 in Houston and 250 at Sherman.

## Bulletin Board

### PSI to install officers at meeting

Officers elected for the 1986-87 year will be installed at a banquet meeting of the Clear Lake/NASA Area Chapter of Professional Secretaries International Oct. 22. The new officers are Jessie Gilmore, President; Beverly Anderson, Vice President; Katie Parr, Secretary; and Ethel Reed, Treasurer. The featured speaker for the evening will be Adella LaRue, CPS, International President of PSI. Membership in the PSI chapter is open to all secretaries in the NASA/Clear Lake area and surrounding communities. The installation meeting is not limited to members only, and all interested individuals are encouraged to attend, Anderson said. The installation ceremonies will begin with no-host cocktails at 6:15 p.m., followed by a banquet at 7 p.m. The banquet cost is \$12.50 per person, with reservations accepted through Friday, Oct. 17. For reservation information, call Carol Cribbs at 488-7070. For membership information, call Betty Cobb, x3811, or Jesse Gilmore, x2411.

### NASA Aerovan to visit JSC

NASA's Aerovan, a large traveling exhibit on the Agency's aeronautics programs, will be on display at JSC Oct. 14 and 15. The large, walk-through trailer features nine exhibits that focus on current research in safety, energy efficiency, environmental compatibility and on improvements in passenger comfort and convenience. Other exhibits highlight future directions in aeronautics and how this research benefits the nation. Aerovan lecturer Dale Christensen will be on hand to answer questions.

### Armand Bayou star party scheduled

A chance to see the new night sky of fall will be offered by the Armand Bayou Nature Center from 7:30 to 10 p.m. Saturday, Oct. 11. Telescopes for observing the night sky will be located in the parking lot, and a free program will be held in the auditorium. The Nature Center is located at 8600 Bay Area Blvd. near the intersection of Red Bluff Rd. For more information, call the Nature Center at 474-2551 or Bill Williams at x4711.

### JSCAS to meet Oct. 11 at Gilruth

The JSC Astronomical Society will hold its next meeting at 7:30 p.m. Oct. 10 at the Gilruth Recreation Center, Room 204. All persons interested in astronomy are welcome to attend. For more information, call Bill Williams at x4711.

### BAPCO to meet Oct. 21

BAPCO, The Bay Area PC Organization, will hold its next monthly meeting at 7:30 p.m. Oct. 21 at the Holiday Inn on NASA Road One. BAPCO is the local IBM PC users' group and is open to all persons with an interest in microcomputers. The group meets regularly on the third Tuesday of each month. For more information, call Earl Rubenstein, x3501 or Jack Calvin at 326-2983.

### Clinic schedules influenza vaccine

Again this year, the JSC Clinic will be giving influenza vaccine inoculations, according to Charles P. Bergholdt, Occupational Health Officer. The Center for Disease Control advocates vaccinations of identified risk groups, such as those with heart disease of any type or chronic bronchopulmonary diseases. Those who provide essential services or who merely want to reduce their chances of coming down with the flu this winter are encouraged to consider the inoculation. Adults will require only one dose, Bergholdt said. Those who receive the vaccine will be asked to sign a consent form and will be given the opportunity to ask questions prior to the inoculation. The vaccine is available in the Clinic, Bldg. 8, from 10 a.m. to noon and from 2 p.m. to 4 p.m.

### Large structures conference planned

The first conference on control/structures interaction technology for large, flexible spacecraft will be held Nov. 18 to 21 at the Omni International Hotel in Norfolk, VA. The conference, sponsored by NASA and the Department of Defense, will include discussions on large space structures technology, selected DOD program reviews and NASA control/structures interaction research topics. For more information, write or call Robert Wright, NASA Langley Research Center, Mail Stop 356, Hampton, VA 23665-5225. The telephone number is FTS 928-4990.

### Dickens on the Strand tickets available

Tickets to see the 13th annual Victorian Christmas celebration, Dickens on the Strand, are available from the Employees Activities Association. The tickets are \$3 for adults and \$1 for children and seniors and may be purchased in the Bldg. 11 Exchange Store from 10 a.m. to 2 p.m. The tickets are good for the Dec. 6 and 7 performances, to be held from 10 a.m. to 10 p.m. each day on Galveston's historic Strand between 20th and 25th Streets.

### JSC ST Users Group to hold first meeting

The JSC ST Users Group will hold its first meeting at 7 p.m. Oct. 22 at the Gilruth Recreation Center, Room 207. The group was formed to provide a forum for users of the Atari 520/1040 ST computer. The first meeting will be concerned with adopting bylaws and focusing on what directions members would like to see the group take. The users group plans to offer discounts on computer supplies and software. All interested persons are invited to attend.

### IEEE/ISA to hold monthly meeting

The Institute of Electrical and Electronic Engineers and the Instrument Society of America will jointly hold their next monthly meeting at 11:30 a.m. Oct. 9 at the Gilruth Recreation Center. The speaker will be Tim Haney of Hewlett Packard's Information Technology Group, who will discuss Reduced Instruction Set Computer Architecture. A luncheon will be served beginning at 11:30 a.m., with the program to follow at noon. Reservations should be made by noon Oct. 6 by calling Joan at x4119. For more information, call Ray Baker at x4509.

## Moore assesses the challenges ahead

Following is the text of the farewell address Center Director Jesse Moore delivered Oct. 2.

I want to speak to you this afternoon because of the rumors and public speculation about my position as Director of the Johnson Space Center.

Effective October 12, I will step down as your center director to accept a reassignment — at my request — as a special assistant to the General Manager of NASA. I have just returned from Washington where I worked out the final details of my reassignment with the NASA Administrator and I am pleased with the outcome.

This year has been an especially difficult year for me and it is beginning to have an adverse effect and take its toll on my family. After reflecting over the past several weeks on the events during the year, including the *Challenger* tragedy, the Space Station situation, and the strain imposed on my family, I have come to the conclusion that a change is in order. Therefore, I have asked the NASA Administrator to be reassigned in order to apply for a Senior Executive Service sabbatical. I will be spending the next several weeks working out the details of my sabbatical program.

Just as I am facing many tough issues at this juncture of my life and my career, so is NASA. During my eight plus years with NASA, I can confidently say that never were the challenges so great. JSC, as the Agency's leader for manned space flight, must be the unquestioned leader in restoring and rebuilding to a stronger level than ever this nation's manned space flight program. Strong and knowledgeable leadership will be required to accomplish this restoration.

Given my knowledge of the Center, the pressures I have felt recently, and the circumstances facing NASA, I believe it is best for

NASA, best for JSC and most importantly best for me to step aside at this time.

I would like to share with you my thoughts on the challenges facing NASA and JSC in the future. By far our biggest challenge is to get America back in space — safely and reliably. During the past 9 months, I believe we have all found out the hard way — through a national tragedy — that this nation's future is increasingly dependent on maintaining its leadership in space.

The American people, I believe, understand that our ability to remain the leader in high technology is based on developments in the space program. We must not let our lead slip away.

You at JSC must play a very strong and pivotal leadership role in meeting the following prime challenges as I see them:

- *Return the Shuttle back to a safe flight status.* The Space Shuttle is a national resource and it must be treated as such. This must be our number one priority.

- *Build a replacement Orbiter.* The President has announced that we will initiate the building of a replacement Orbiter in FY 87. A fourth Orbiter will enable our Shuttles to accomplish the mission for which they were originally intended and to permit the United States to move forward with new, exciting endeavors such as the building of a permanently manned space station.
- *Get the Space Station Program formally approved by Congress in the Fiscal Year 1987 budget.* Much progress has been made in the recent past in this area and I am really optimistic about the final outcome as far as the Johnson role and the overall NASA program structure for the Space Station.

- *Strengthen the NASA family.* I believe we need to work to strengthen the NASA family, which includes our NASA contractors. We have to build teamwork, capitalizing on our individual strengths.

We also must have a strong NASA team to return the Shuttle to safe flight and to develop and operate the permanently manned Space Station.

To meet these formidable challenges, NASA needs your enthusiastic support and leadership. It is not only important to your future, but it is essential to our nation's future.

To meet the challenges that I see ahead for JSC and NASA, I am very pleased that Dr. Fletcher has named Dr. Aaron Cohen to succeed me as Center Director. With Aaron's experience and knowledge of the Center, I am sure he will be a very strong leader for this pivotal Center for many years to come.

Aaron Cohen has my full and enthusiastic support. He represents the best traditions of NASA management and has demonstrated his abilities to lead and manage our most challenging and difficult programs beginning with the Apollo and culminating in the most difficult of tasks we now face.

I am confident that Aaron and the thoroughly experienced and professional people here at JSC and on our contractor team are poised to undertake the task of building a replacement Orbiter and to resolve all the issues that remain in order to resume safe, efficient Shuttle operations in the first quarter of 1988.

Let me say in closing that I have met many fine people here at JSC during my tenure as Associate Administrator for Space Flight and, more recently, as Center Director. I certainly believe that I have received from you much more than I have been able to give. You are doing some incredible work in very high technology areas. You must continue. I certainly will miss the interaction with the people here, for you represent the single most important resource the Agency has.

Best of luck to you in the future. I will be watching with great interest and pride in the accomplishments of JSC in the years ahead.

## Cohen

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In prior assignments, Moore was employed at NASA's Jet Propulsion Laboratory, Pasadena, Calif., starting in 1966 and worked in a variety of areas. His last assignment was Science and Mission Design Manager for Project Galileo.

"Aaron Cohen has had a distinguished career in NASA which makes him especially fit for his new post as director of the center that supervises the Space Shuttle program," Dr. Fletcher said. "From 1972 to 1982 he served as the Space Shuttle Orbiter project manager. Perhaps no person in the country knows more about this unique vehicle than Aaron. He has earned the trust and admiration of his associates for his keen mind and exceptional management skills."

JSC is NASA's prime center for manned space flight activities. It is the focal point for development of manned spacecraft and space systems, and the training center for the astronaut corps. Manned

missions are planned at JSC and controlled from JSC's mission control center.

Cohen came to NASA in 1962 in the Apollo Spacecraft Program Office at the Manned Spacecraft Center (now the Johnson Space Center). From 1970 to 1972, he served as Manager for the Command and Service Module (CSM), Apollo Spacecraft Program.

From 1972 to 1982, Cohen was Manager of the Space Shuttle Orbiter Project. In this assignment, he was responsible for directing the design, development, production and test flights of the Space Shuttle orbiter.

From 1982-1983, he was Director of the Engineering and Development Directorate with responsibilities for providing engineering development and test support for manned space flight programs assigned to the Johnson Space Center, such as the Space Shuttle and other advanced spacecraft.

In his present position, Cohen is responsible for the overall direction

and management of all engineering and space and life science research and development in support of the major manned space flight programs assigned to JSC.

Cohen holds a bachelor of science degree in mechanical engineering from Texas A&M University (1952) and a master of science degree in applied mathematics from Stevens Institute of Technology (1958). He also has completed advanced graduate studies in mathematical physics at New York University and University of California at Los Angeles and was awarded an honorary doctor of engineering in 1982 from the Stevens Institute of Technology.

Cohen has received numerous NASA awards including two distinguished service medals and NASA Engineer of the Year (1982). He was honored with the Presidential rank of meritorious executive in 1981 and the Presidential rank of distinguished executive in 1982.

## Station Program

(Continued from page 1)

after the eighth assembly flight. Seventeen assembly missions, beginning in 1993, would be required to achieve the fully assembled dual keel design of the Station, and another 14 logistics flights, including assembly of the co-orbiting scientific platform and the polar orbiting platform, are envisioned.

Stofan said the first two or three missions would be the most technically challenging. The flights would be undertaken by seven

member crews with three astronauts flying the ship and four available for EVA. On the first flight, one half of the transverse boom would be assembled, and would have a power supply, propulsion elements and a resource node attached. The node would contain all of the guidance, navigation and control equipment necessary to fly the assembly autonomously for nine months, or to be controlled from the ground.

The second assembly mission would be a mirror image of the

first, Stofan said. The second half of the transverse boom, also outfitted with a resource node and power and propulsion equipment, would be built and then connected to the existing platform.

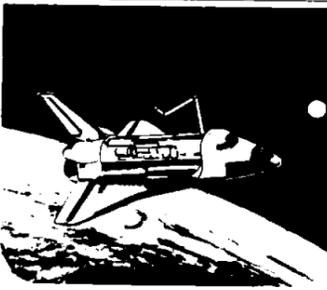
The details of the interactions between the JSC and MSFC work packages were defined by a team led by the heads of engineering at JSC and Marshall, Aaron Cohen and James Kingsbury, before going on to Stofan, the center directors and Fletcher for approval.

NASA  
Lyndon B. Johnson Space Center

## Space News Roundup

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Editor: Brian Welch



# The adventures of Sara Beck

*It was a summer on the high seas for one JSC employee*

By Barbara Schwartz

Sara Beck's coworkers greeted her return from a summer on the high seas with a wall full of clippings heralding the voyage of *Elissa*, the tall ship on which she lived and crewed for several weeks.

The employees in the Control Propulsion Section, where Beck works, saved every news clipping they could find on *Elissa's* trip to New York City for the Fourth of July Statue of Liberty celebration.

Beck came to work in the Control Propulsion Section when she graduated from Smith College in May 1980. Her volunteer work on *Elissa* began shortly thereafter in the fall of the same year.

"There was an article in the newspaper asking for volunteers to come work on the ship, and I responded to that and went to the first meeting, Beck said. Growing up in Massachusetts, she saw the tall ships in Boston in 1976 and "fell in love with them." She never thought she would have the opportunity, however, to work or crew on one.

*Elissa* was just a hull in 1980, and one of Beck's first jobs as a volunteer was shoveling sand out of the bilge after the inside had been sandblasted. The restoration was done by about 60 staff members, who hammered bungs, the little wooden pegs that cover the bolts, in the deck and worked on the rigging. After the restoration was complete in 1982, the staff was laid off and maintenance has been a volunteer job since.

*Elissa* was opened to the public as a museum in 1982. Beginning about Labor Day that year and every Autumn since, *Elissa* has been scheduled for a series of day sails, leaving port in the morning and returning in the evening for four or five days in a row. Beck has sailed on *Elissa* since the beginning and was onboard for a four-day trip to Corpus Christi last November.

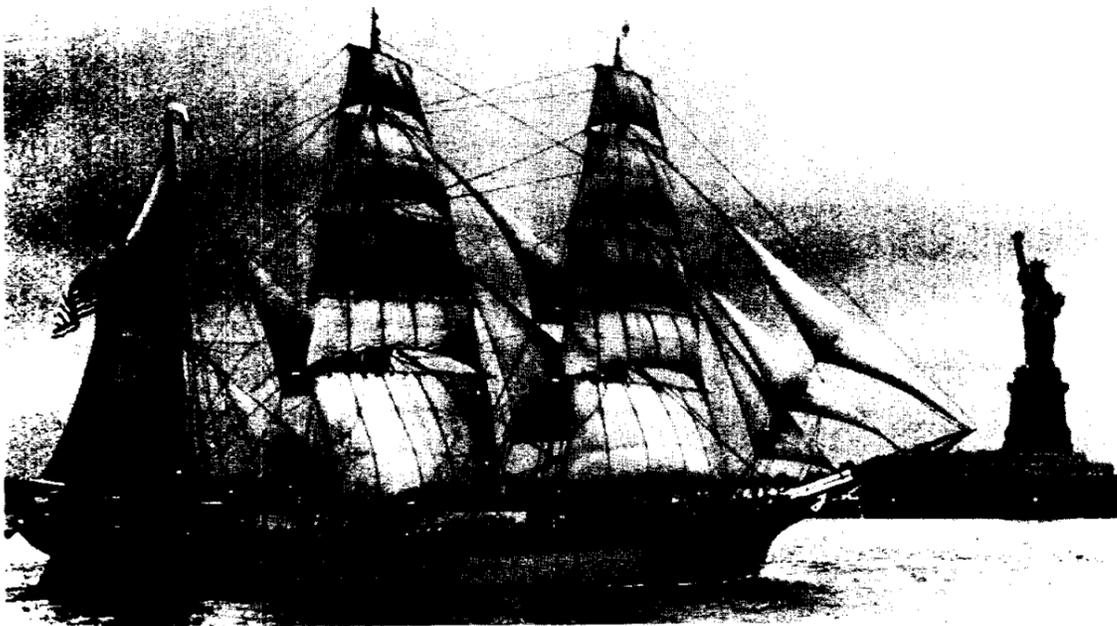
Currently there are about 100 volunteers, about an equal number of men and women, and nearly all the volunteers were able to sail on a leg of the trip to New York. A Crew Selection Board of staff members and volunteers planned the volunteer crew assignments based on number of hours the individual had worked and how good he or she was at sail training.

Beck was scheduled for the whole trip, except one short leg, because of her seniority as one of the original volunteers and the amount of time she has worked. Beck's boss, Ron Epps, supported her request for three months leave for the trip.

On the first leg of the trip from Galveston to Annapolis, Maryland, Beck was assigned the 4 a.m. to 8 a.m. watch, doing lookout, taking turns steering or helping with navigation. "Then at eight we'd eat breakfast. After that, they wouldn't let you go to bed, it was time to do day work," Beck said. "The whole trip up consisted of long days because we had ship maintenance work to do. We were varnishing and painting everything so she would be in tip top shape for New York."

Since Beck was not scheduled for a short part of the trip between Annapolis and New York, *Elissa's* captain told her about another ship in the area that needed crewmembers. Coincidentally, Beck knew the other ship's captain, who had been first mate on *Elissa* for the trip to Corpus Christi. Beck left *Elissa* in Annapolis and travelled to New Bedford, Massachusetts, to join the crew of *Ernestina*, a Gloucester fishing schooner built in 1894, that has a rich history as an Arctic explorer and a Cape Verde packet ship.

"I thought when I got to Annapolis I'd get a break. I'd get to go on



The *Elissa* sails into New York harbor and glides past Miss Liberty. Below, Sara Beck is second from right, with fellow workers (left to right) Chuck Lewis, Debbie Wager, J. P. Poffinbarger and Jim Newman.



another boat and get to sail," Beck said. However, when Beck arrived in New Bedford, she found *Ernestina* dry docked in a shipyard with no mast, no rigging, no ballast, and no engine. Instead of the rest she had contemplated, Beck helped get *Ernestina* seaworthy, living in the shipyard and working from sunrise until late at night for two weeks.

On the way to New York, *Ernestina* stopped briefly in Newport and participated in a parade of sails. After getting to New York, passengers were invited onboard for trips up the Hudson River to view the Statue of Liberty. On one of those trips July 3, the upper part of the mainsail broke during heavy winds. "It didn't come crashing down on the deck because it was hung up on the halyard blocks, so we lowered it down and got back to the pier and unloaded our passengers. We were at the South Street Seaport Museum," Beck said.

The Captain "appropriated" a spar he found and the crew began making a new gaff. "By the next morning we were putting the sail back on. Our guests didn't know the difference, so on the Fourth of July we went out with a new one we had gotten from the Seaport. I later talked to the Museum Director. He put on a little show about how mad he was, but later he said he was happy that the Seaport could contribute something to a living ship," Beck said.

In New York, Beck returned to *Elissa* and continued her voyage, stopping in Bridgeport, New Haven, New London, Connecticut, and Mystic, Massachusetts. In Mystic, the captain demonstrated his skill by navigating between the sides of a narrow drawbridge to arrive in the small seaport, where the townspeople had a reception since a ship that size had not visited in a very long time. Beck was impressed by other famous ships such as the *Charles W. Morgan* and the *Bounty* that she saw on her trips to the various ports.

*Elissa* stopped in New York again for a few hours before sailing to Bermuda. Beck had an opportunity to send a "verbal postcard" to her friends back at JSC when she ran into a friend who happened to be

there at the same time.

"Just outside Bermuda we had another little adventure. We were about one day out and hit a squall. The end of the jib boom broke off—about 15 feet. It's wood about eight to ten inches in diameter. There's a very large sail at the end of it, and the force of the wind was so strong that it broke. It was like a scene from a movie with the wind and pouring rain, and we're pulling the sail and pieces of wood and the parts in," Beck said. *Elissa* stayed an extra day in Bermuda so the jib boom could be repaired, but playing tourist was difficult. "Unfortunately, like in any port when you're sailing, they don't give you a lot of time off. You have watch systems, and they continue when you're in port so some people always have to stay onboard. You don't really get to see as much of a place as you'd like," Beck said.

In addition to the 30 to 35 crew members onboard *Elissa*, there were VIP visitors and media onboard for short legs of the journey—Hugh Downs, Charleton Heston, and Senate aides were a few of the prominent visitors. "You meet a lot of different people from all walks of life. When you work with them all day, everyone is treated equally—we all had to do galley duty, do dishes, clean the heads, hose the deck, and we all had to do the chores that happen everyday. And you stand watches with everyone, so you get to talk to people and find out about them," Beck said, adding that the people contact was one of her favorite parts of the trip.

After Bermuda, *Elissa* sailed to Miami and returned to Galveston in early August, where she and her crew were welcomed by about 2,000 people on the pier and seawall. The next day there were numerous welcoming parties, but the following day Beck said was the most depressing because the crew had to take *Elissa* apart and turn her back into the museum she is 99% of the time.

"Now there are questions about what her future will be, whether she's going to do anymore offshore sailing or whether she's just going to do day sails and stay at the dock more. It has to do with the Historical Foundation's attitude toward the

project. When they first got her, they thought she was going to be a museum ship, but the people who restored her did too good a job. So, there's a dichotomy there, and it hasn't been resolved yet," Beck said.

Beck only stayed here two days before travelling back to New Bedford for a month-long trip to various ports in Massachusetts and Maine on the *Ernestina*. One of those two days she spent in the office visiting her coworkers and seeing the wall of clippings for the first time.

*Ernestina*, owned by the state of Massachusetts, is being restored to be a sail training vessel. The trip on *Ernestina* was to show her off and say thank you for her renaissance—Massachusetts mayors and the Kennedy family were among invited guests who were taken sailing.

After visiting Gloucester, *Ernestina* was sailed to Bath, Maine, where she received a terrific reception because many of the people there were interested in historic preservation and *Ernestina* is a living example. There was a day, not so glorious, when *Ernestina* ran aground in the Kennebec River at high tide.

Beck said the crew unsuccessfully tried all the usual maneuvers, such as running the engine in full reverse and kedging the anchor (dropping the anchor from a rowboat as far away from the ship as possible and trying to pull the ship to the anchor). While waiting 12 hours for the next high tide, the crew was subjected to good-natured harassment from the locals in rowboats. The boat was keeled over 29 degrees which made it easy to step off the rail onto the ground. "We made the most of a bad situation and went clamming and had chowder for dinner," Beck said.

*Ernestina* sailed back to Gloucester for Labor Day for the first old-fashioned schooner race since 1938. "There were five or six schooners in it. We were at a disadvantage because *Ernestina* isn't quite finished. She doesn't have the top masts, so she had a few less sails than the *Spirit of Massachusetts* or *Pilot*, which is from Boston.

Everyone was excited about the race, and there was a big buildup. The day came and there was no wind. We all sat there, and it was a drifting contest," Beck said. "They claimed that *Pilot* won the race, but that was sort of questionable. There was a lot of song singing. Everyone was writing songs about their boat, and we did the same."

Beck said it's remarkable how much similarity there is between the Shuttle and the *Elissa*. One of the likenesses is the habitability, living in a confined space with a lot of people. There were originally 13 crew members on *Elissa*, and for the trip to New York there were 30-35. There are eight bunks in the forecabin, and they were occupied by people that didn't have to stand watch at night. Other than the officers, who have plush quarters outfitted in birdseye maple and teak, the rest of the crew slept on cots in the hold where the cargo was originally carried. Beck slept in the hold on the way to New York, but on the way home she was fortunate enough to get a bunk in the forecabin.

In order to make the trip to New York as comfortable as possible, a shower, washer and dryer, and two heads were added to the oarlock deck (middeck) on *Elissa*. *Ernestina*, on the other hand, is more like she was originally—no running water, no electricity, no heads (camping-type equipment was available), and no refrigeration. The water was stored in large bourbon barrels and charcoal was often found in the drinking water.

Although the accommodations were rather spartan, the food was excellent on both ships Beck said. On *Elissa*, there were three cooks and all kinds of food. On *Ernestina*, there was one cook, an Irish woman, and the food was "fantastic," Beck said. "We never had the same meal twice. We had turkey dinner with dressing one night, and you must remember she was cooking on a wood stove with no refrigeration and having to live out of ice chests. She never wasted anything and was very good at purchasing food. I never ate so well as I did this summer."

The summer's experience provided insight into other sailing ships and programs, and Beck said *Elissa's* provides a unique opportunity. There are no specific requirements for participation—anyone who wants to volunteer is welcome. The volunteers range in age from teens to 70s, and all types of occupations are represented. There are other JSC and contractor employees, a ballet instructor, a marine archeologist, a housewife, a yacht broker, an orthopedic surgeon, lawyers, and nurses.

Beck said volunteers are always needed and if anyone would like to join the group, the volunteers work Saturdays and Sundays beginning at 10 a.m.—just show up in Galveston.

"You'll be taught what to do, and you can attend sail training classes which are just starting up for this year. You work as much or little as you want—it's up to you how much time you want to put in. The more time you put in, the better you do in sail training, the better chances you have of going sailing more. We are going day sailing in November," Beck said.

One of the first things Beck plans to do now that she is back is to put all the news clippings her office mates saved for her in a scrapbook. She was especially grateful for their efforts since her travels prevented her from seeing the news articles or saving them, and they are a perfect accompaniment to her memories of the Summer of '86.

Photo courtesy The Houston Post. Copyright © 1986, The Houston Post.

# Roundup Swap Shop

All Swap Shop ads must be submitted on a JSC Form 1452. The forms may be obtained from the Forms Office. Deadline for submitting ads is 5 p.m. the first Wednesday after the date of publication. Send ads to Roundup, AP3, or deliver them to the Newsroom, Bldg. 2 Annex, Room 147. No phone in ads will be taken.

## Property & Rentals

Sale: 2 lakeview lots in Cedar Point on Lake Livingston, utilities installed, paved streets, 24-hr. security, 110 ft. frontage, 65 feet deep. 474-5741.

Lease: 3-2.5-2 two-story townhouse, fenced, quiet neighborhood with pool, tennis, etc., \$495/mo. 486-4466.

Lease: 1 BR condo on Tranquility Lake. 486-4466.

Rent: West Galveston Island beach house, 3-2, AC, furnished, by day, week or month. Ed Shumilak, x6575 or 482-7723.

Lease: Lake Livingston waterfront 3-2, fully furnished, pier, excel. fishing, skiing, swimming, weekend and weekly rates. 482-1582.

Lease: CLC 1 BR condo, appliances, FPL, fans, W/D connections, tennis, exercise room, 2 weeks free, rent applies to purchase option. Briley, 488-7901 or 282-1958.

Sale: 100 acre ranch, Marlin area, improvements, fenced, frontage, trees, tanks, \$700/acre. 488-8105.

Lease: Baywind II condo, 1-1, FPL, all appliances, pool, game room, tennis. Jim Wiltz, x5437 or 944-0451.

Sale: Forest Bend townhouse, 3-2.5, LR, den, quiet, corner, lots of storage space, pool, park, \$46,500. 333-2322.

Lease: University Trace townhome, 2-2.5-2, all appliances, FPL, security system, 2 pools, sauna, gym, \$500/mo. 333-4044.

Rent: Furnished guest house, 650 sq. ft. in quiet Galveston Bay community, large yard, access to pier and beach, no util. deposits, no lease required, \$350/mo. includes util., prefer a single. 474-2906.

Lease: Univ. Green 2-2.5-2 townhouse, refrig., W/D, FPL, mini blinds, microwave, fans, small yard w/deck, \$650/mo. Cindy, x2924 or 486-8266.

Sale: Shoreacres 3-2-2 country home, 1/2 acre wooded lot, fenced, knotty pine kitchen and dining, wood beam ceiling in master, short walk to bay, boat ramp, pier, \$84,900. Jon, x4927 or 470-9267.

Lease: Webster 3-2-2, FPL, carpet, fenced, 9.5 EER AC, fans, near schools, pets OK, \$525/mo. plus deposit. 480-5583.

Lease: 14 x 70 mobile home, 3/2, new carpet, central AC/heat, in Friendswood park, 9 x 9 attached room, detached shed, \$200 deposit, \$375/mo. Nixa, x5081 or 996-1429.

Rent: Room with bath, single mother OK, close to NASA. Lynn, x2586.

Lease: El Dorado Trace 2-1 condo, W/D, clubhouse, exercise room, pool, no deposit, \$425/mo. 937-7606.

Lease: Heritage Park/Friendswood 3-2-2, new section, FPL, large kitchen, fenced, fan, refrig., \$550/mo. 482-6609.

Lease: South Bend 3-2.5-2, FPL, fenced, large kitchen, good location, clean, \$550/mo. 482-6609.

Sale/lease: Nassau Bay 4-2-2, 2,200 sq. ft., new carpet/paint, large garage, deck, atrium, 20 ft. FPL, \$895/mo. or \$109,900. Jerry, x3561 or 474-4310.

Rent: Room near NASA, good size, reasonably priced. Mary, x2586 or 538-3319.

Lease: Camino South 3-2-2, \$600/mo., 1st plus deposit, avail. Jan. 1 Betty, 471-5550 or 471-5599.

Rent: Mobile home space in Bacliff, \$85/mo., \$50 deposit. Bates, x6333 or 488-1758.

## Cars & Trucks

'67 Pontiac GTO, new tires/brakes/exhaust/interior/paint, front end and trans. overhaul, recent motor overhaul, looks and runs good, \$4,000 OBO. 474-2906.

'79 GMC Starcraft custom van, very clean, ex. cond., \$6,000 OBO. Elaine, x4605 or 482-9682.

'77 Mercedes 350 SE, Silver/blue leather, cruise, sunroof, auto, alloy wheels, alarm system. Marvin, 484-6928.

'76 280Z, good mech. cond., new tires, \$2,300. Rodney, x4393 or 480-1340.

'74 Thunderbird, 1 owner, 54K mi., see to appreciate, \$1,500 firm. 741-6836.

'80 Pontiac Bonneville, V-6, 4 dr., 78K mi., \$3,700. Rick, x5341 or 480-3017.

'76 Ford Chateau window van, tinted glass, auto, PS, PB, AC, low miles, ex. cond., \$2,300. 532-3408.

'71 Datsun 240Z, one owner, ex. cond., \$3,000. 232-3408.

'81 Ford Courier, 4 cyl., 5 spd., AC, AM/FM/cassette, good cond., \$1,500 OBO. Betty, x3226 or 332-3724.

'78 Cadillac Fleetwood Brougham, 4 dr. sedan, loaded, leather, CB, garage kept, very good cond., see to appreciate, \$2,500 OBO. Betty, x3226 or 332-3724.

'85 Mustang convertible, loaded, 5-spd., 22K mi., \$12,500. 871-1208.

'61 Pontiac Tempest, an antique classic, 4 cyl., superb running rebuilt

engine, auto trans-axle, all original equip. in working order, including vacuum tube radio. Alan, x2541.

'76 Triumph TR-7, white w/black top, great running cond., AM/FM, black cloth interior, \$2,000. 484-5066.

'63 MGB Roadster, restoration 90% complete, many spare parts, wire wheels, \$2,750. Dave Dunn, 488-0808.

'70 Corvette, 80% restored, new blue lacquer, \$7,500. Donna, x4478.

'79 VW Scirocco, 34K mi., ex. cond., loaded, 1 owner, \$3,000 OBO. Karl, x4326 or 339-2025.

'74 Cougar XR7, 72K mi., AC, PB, PS, new tires/batt., 1 owner, runs well, good work car, \$850 OBO. Karl, x4326 or 339-2025.

'78 BMW 320i, see and make offer. Richard, 538-1854.

'84 Toyota 4-Runner, 4WD, 45K mi., ex. cond., red & white, \$8,500. Mike, 480-5132 or 480-3853.

'77 Mercedes 300D, 4 dr., white, ex. cond., sunroof, \$8,500 OBO. 488-5155.

'78 Ford Granada, PS, PB, 4 dr., ex. cond., \$1,800. 488-3208.

'80 Pontiac Gran Prix LJ, V-6, PS, PB, AC, velour, 1 owner, \$2,000. Marty, x4857 or 486-7500.

'85 Mazda RX-7, GSL-SE, 5 spd., cruise, AM/FM/cassette/equalizer, power windows, \$12,700. 280-7156.

'80 VW Scirocco, bronze, PB, AC, AM/FM/cassette, \$3,500; '60 Corvair, 4 dr., front body damage, engine needs work, new tires/batt. Mark, x5425 or 486-5581.

'72 Buick Electra, creampuff, 455 CID, loaded, ex. cond., everything works, new tires/brakes/battery, orig. paint, immaculate, \$2,000 OBO. Jack, x4726 or 438-1308.

'81 Ford Ranger F150 pickup, PS, PB, AC, AM/FM, new tires, tool box, very good cond., \$2,900. Lee, 225-0005 or 486-5331.

'75 Plymouth Duster, 318 V-8, 4 on floor, orig. owner, 538-3434.

'84 Pontiac Fiero, red, 4 spd., 17K mi., loaded, extended warranty, \$6,900. Marie, x3905 or 996-8334.

'85 Honda Accord LX, auto trans., AM/FM/cassette, AC, ex. cond., low miles, \$9,950. Ricardo, x4691 or 333-9777.

'84 Toyota Camry LE, 58K mi., auto, power, AC, AM/FM w/equalizer, sunroof, extras, nice car. 331-0971.

'86 Nissan pickup, longbed, 5-spd., AC, AM/FM, good mileage. 331-0971.

'76 Plymouth Valiant for parts, good 225/6 motor, 3-spd. trans., new ignition parts, burns no oil, 110K mi., \$195. Ruth, x4757 or 480-4553.

'75 Volvo 242LD, 4-spd., very clean, \$2,000. Frank, 280-3800 or 335-1889.

'78 Toyota Corolla, runs great, good car, \$1,100. Garcia, x6230 or 480-7550.

'72 Ford Pinto, 2 ltr. engine, AC, bucket seats, some body damage but no rust, \$250. Keith, x3486 or 280-9793.

## Recreational Vehicles

'73 Dodge Roadliner motorhome, self contained, project vehicle, needs work, \$2,500. Boyd, x2051 or 335-1029.

## Boats & Planes

'81 Mirage 20' sloop, swing-keel, 2 sails, lights, battery, 5 HP OB, lots of extras, trailer, \$6,000. Mark, x5425 or 486-5581.

18 ft. AMF Trac catamaran, w/trailer and extras, like new, \$3,850. 333-3056.

'16' Hobie Cat, galv. trailer, like new, kept inside, 1980 edition, fully rigged, vest, manuals, must go, \$1,995 OBO. Charlie, x3421 or 480-3260.

Glastron 14.5 ft. ski boat, totally rebuilt 80 HP Mercury motor, new direct drive steering system, new trailer. Alan, 282-3968 or 334-7814.

'79 Venture sailboat, 25 ft., pop-top, sleeps 5, seagull motor. Ralph, x5234 or 488-0143.

16 ft. fiberglass canoe and 3 HP Sears OB motor, very good cond. C. O. Nash, 488-9005.

14 ft. fiberglass ski boat, 40 HP Merc & trailer, \$950. Bates, x6337 or 488-1758.

8 ft. fiberglass dinghy with oars and cover, ex. cond. 334-4639.

'81 16-ft. runabout, 100 HP outboard, like new, \$3,800 OBO. Bud Chatterly, x3686 or 480-9363.

15 ft. Ebbtide, walk thru windshield, 70 HP Merc., galv. trailer, all in good cond., \$2,500. Ray, x3548 or 280-8563.

## Audiovisual & Computers

Commodore +4, MPS 801 printer, 1531 Datasette, Magnavox 80 monitor, manual storage, \$290. Dee, 474-3906.

Sears 25" color console TV, good picture but needs some work, make offer. 331-0133.

RCA 19" TV, ex. cond., \$100; teakwood TV stand, \$25. Teresa, x6461 or 487-1883.

Victor 1800 electronic calculator, manual, \$6.50. Charles, x6421 or 487-2202.

Zenith B&W TV, works, \$15; Commodore/Centronics parallel printer interface, \$30. Jeff Hanely, x6465 or 480-6839.

## Cycles

Honda 250 Elite, \$1,000;

racing bike, \$400. Irene, 996-6785.

'81 Kawasaki GPZ 550, 8,665 mi., good cond., new chain & sprockets, Kerker header, K&N air filter, accel. coil and wires, recalibrated carbs, \$1,000. John Shimp, x2541.

'84 Honda Goldwing Interstate, some extras; '77 Honda 750 F, 482-9773.

## Lost & Found

Found: Young female dog, white with brown spots, short hair, at El Camino and Hercules. Gloria, 480-8357 or 486-0454.

Lost: Gold heart shaped pendant with 3 small diamonds on gold chain, at Rec Center or Bldg. 44 area, 9-17-86, great sentimental value. Desiree, x2871.

## Personal

Helen Spatz Rapachek writes: "I wish to thank all my friends at JSC for their cards, flowers and kind thoughts during my recent surgery. It helps to know that so many people are thinking about me back at JSC."

## Household

Newly upholstered chaise lounge, \$150. Claire, 474-4310.

Sleeper sofa, vinyl, \$40. Rodney, x4393 or 480-1340.

20 cu. ft. Montgomery Ward freezer, upright, frostless, with key, \$200. 474-3839.

Hide-a-bed sofa, \$100; Sealy queen bed and frame, \$400; rattan swinging chair w/stand, \$75; ladies golf clubs w/bag, \$100; '85 World Books, unused, \$250. Irene, 996-6785.

Mahogany 5-drawer student's desk with chair, good condition, \$40. 331-0133.

Dinette w/4 chairs, \$475; Murray 3-spd. bicycle, \$70; twin bed, Sealy Posturepedic, \$250; Mitsubishi 20" TV w/table, \$330. 280-9721.

Day bed w/bookshelf end, mattress and covers, \$40; AKAI 286DX reel-to-reel tape deck, \$100; cane back rocking chair, \$15; boys 20" dirt bike, \$50 OBO. Randy, x5425 or 532-2674.

Fireplace glass doors, new antique brass finish, 24" x 48", \$100; Compton's Encyclopedia, '84 edition, master index finder, 26 vol., \$425 OBO. Cindy, x4031.

Wards heavy duty electric dryer, 20 lb. capacity, harvest gold, 6 yrs. old, runs well, \$125. Charles, x6421 or 487-2202.

Navy blue flip chair, \$20; new full size reversible comforter, navy solid/flowered print chintz, was \$70, now \$25. Jeff Hanley, x6465 or 480-6839.

Two Sears twin beds, frames & headboards, brand new, \$150 for all. Lee, 480-8357 or 538-4483.

Executive style desk with pedestal for computer or typewriter, dark brown, good cond., 3 yrs. old, 5' x 2.5', was \$175, now \$85. Janet, x5111 or 554-5968.

Pine Tester double bed with arched canopy, box springs and mattress, ex. cond., 326-2461.

Kenmore gas dryer, avocado, runs great, 6 yrs. old, \$100 OBO. David, 280-1500, x3314 or 338-2368.

Antiques: Oak buffet, \$395; cabinet with barley twist legs, \$250; oak rocker, reupholstered, \$150; French window bench, \$250. 488-5564.

Cut cedar quartz electric wall clock, \$45; 8-track/AM/FM/player w/tapes, \$40; Olympia electric typewriter, \$120; TV stand on rollers, \$15. 488-5564.

Sealy Posturepedic box spring, full size, still in plastic, \$125; Hoover floor polisher/rug shampooer, \$30. 482-8729.

Early American maple headboard, twin size, \$10. John, x3905 or 482-1501.

48" round white table pedestal dining table from Shop-in-Denmark, \$55; Taos Indian 9" aspen/leather drum, \$15. John, x4393 or 488-0559.

Kimball solid oak bedroom suite: queen headboard, box springs, mattress, night table, chest, dresser and mirror, \$950; 52" round solid oak dining table, 4 pressed back chairs, \$600; ARKLA dual burner gas grill, like new, \$100. Frank, 280-3800 or 335-1889.

6-drawer metal desk, swivel chair, office chair, \$125; dinette with 4 chairs, \$125. 481-1382.

Large solid wood cabinet, use for stereo or other storage, \$400. 326-6782.

15 gal. hot water heater, \$50; 15' formica bar top, \$50; 24" x 30" x 2"

maple cutting board, \$40; new wooden chairs, \$25 ea.; 4 ton AC, used 1 season, \$400. Ray, 554-2908.

Contemporary desk w/4 drawers, almond with teak trim, 51" x 36" x 19", ex. cond., was \$350, now \$125 OBO; Selig wide-wale cord lounge chair, rust, w/ottoman, ex. cond., was \$450, now \$150 OBO. Doug, x5573 before 4 p.m.

Baby changing table, wicker, off-white, \$15. Ann, x2868.

King size Sealy Posturepedic bed, ex. cond., \$350. Chris, x5933.

## Wanted

Want Minolta 201 camera, with or without lens. Thompson, x2638 or 332-2229.

Want Kodak carousel projector in good working condition. Doug, x5573 before 4 p.m.

Want Commodore 64 CPU and/or peripherals, Shuler, x6459.

Want to buy electric trains. Don, x2449.

Want lead trumpet player and aux. percussionist for Contraband 18-piece volunteer big band. Ray, x6327 or 554-5434.

Want baby clothes, 12 to 18 month sizes for baby boy. Ann, x2868.

Want female roommate to share apartment, nonsmoker, \$200/mo. 480-4862.

Want HAMS interested in emergency service work in the Clear Lake area. Dick, KH6FHS, or 486-9786.

Want automatic pool vacuum. Karen, x3511.

Want roommate to share 3 BR house with 1 male and 1 female, \$250/mo. Sheila, 484-3221.

Need ride from corner of Egret Bay (270) and Barger to Bldg. 1. Chris, x5933.

## Musical Instruments

Electra 6-string electric guitar, hard case, \$85; Yamaha 6-string acoustic guitar, hard case, \$125. 486-4883.

Trombone with carrying case, like new, \$200. Bob, x2141 or 573-1839.

CB700 drum set, nearly new, pearl white, need to sell. 486-1089.

Baldwin Acrosonic piano and bench, ebony/black, contemp., mid. 1967, orig. owner, \$800. Mike Lake, 523-2137.

Baldwin Orgasonic spinet. 946-4752.

Silver Bach Stradavarius trumpet, w/trigger, mute and case, used one school season, was \$1,035, now \$800; Bundy cornet, excel. for beginner, \$100. Linda Scott, x2846, x6171 or 332-2469.

Free: Young female white dog, short hair, gentle, housebroken. Gloria, 480-8357 or 486-0454.

Registered Paint mare, 3 yrs. old, gentle, ready for pleasure riding or to be trained for show, will hold for Christmas, will deliver. Linda Scott,

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