

National Aeronautics and Space Administration • Ames Research Center, Moffett Field, California

Dr. Winter, Life Sciences Deputy

Dr. David L. Winter, M.D., has joined Ames as Deputy Director of Life Sciences. He comes to Ames from the Walter Reed Army Institute of Research, Washington, D.C. where he was chief of the department of Neurophysiology.



DR. DAVID L. WINTER

He succeeds Steven E. Belsley, who has been named Deputy Director of Development. This is a new post designed to give the Development Directorate added management capability in aeronautics, as well as space flight projects.

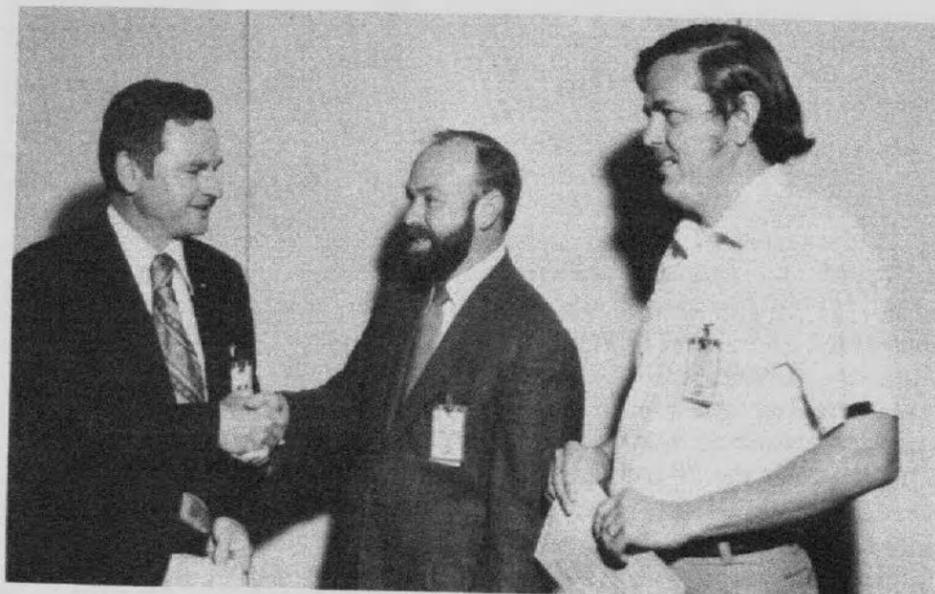
Dr. Winter was born on Novem-

ber 10, 1933, in New York City. He received his A.B. from Columbia College, New York, in 1955, and his M.D. from Washington University, St. Louis, Missouri, in 1959.

Following a Surgical Internship at Barnes Hospital, St. Louis, Missouri, he was a Neurosurgical Resident at Baylor University School of Medicine in Houston, Texas. In 1960 he left clinical medicine and became a Teaching Fellow in the Physiology Department at Baylor. In 1962 he entered the U.S. Public Health Service as a Research Medical Officer, stationed at the National Institute of Neurological Diseases and Blindness, Bethesda, Maryland. He joined the Walter Reed Institute in 1964.

Dr. Winter has conducted a personal research program in the neurophysiology of the autonomic nervous system and directed a program of interdisciplinary research directed towards understanding the mechanisms of human adaptation to stress.

He is married and has three children.



THE H. JULIAN ALLEN AWARD . . . given annually for the best scientific paper written by an Ames staff member, was presented to Verne R. Oberbeck and Dr. William L. Quaide (from right to left), Planetology Branch, for their paper entitled "Thickness Determination of the Lunar Surface Layer from Lunar Impact Craters". George A. Rathert (left), Chairman of the Allen Award Selection Committee, presented the award certificates and \$1000 honorarium at the ceremony which preceded a talk by Dr. Quaide.

SPARCS Launch

The Ames-developed SPARCS (Solar Pointing Aerobee Rocket Control System) unit successfully pointed a solar coronal study experiment at the sun during the launch recently of an Aerobee rocket from the White Sands Missile Range. This was the first launch of a SPARCS II system and followed 13 SPARCS I launches.

Initial examination of the experiment data indicates that SPARCS performed as programmed and demonstrated fine pointing stability, according to a report from Edward A. Gabris, SPARCS Project Manager.

SPARCS was programmed to acquire one limb of the sun at a preselected roll angle and then to traverse the sun at an angular rate of approximately .33 arc minutes per second until a point outside the opposite limb was reached. SPARCS then executed a roll maneuver to a second preselected roll angle and repeated the sun traverse. This scan maneuver caused the 1.7 arc minute field of view of the x-ray systems to collect data from the entire sun. Data available at present indicates pointing stability of approximately 1 arc second peak-to-peak for periods as long as 20 seconds as it performed these scan maneuvers.

(Continued on Page 4)

PRESENTATION

H. Julian Allen Award

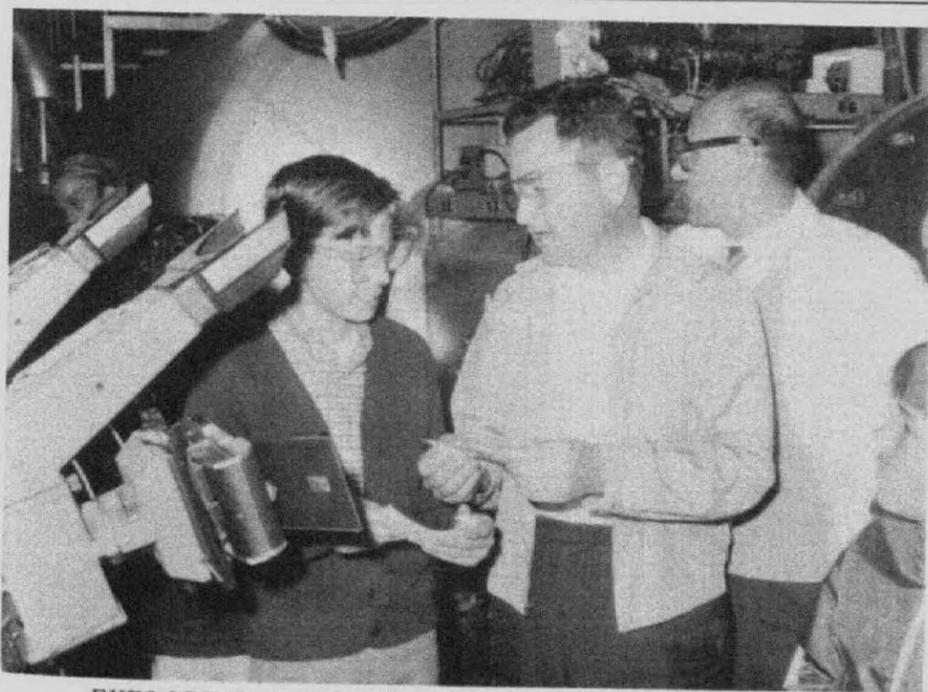
Ames research scientists Dr. William L. Quaide and Verne R. Oberbeck, Planetology Branch, received the H. Julian Allen Award for 1970 during a recent ceremony.

The award, given annually for the best scientific paper of the year by an Ames scientist, includes a certificate and an honorarium of up to \$1000.

George A. Rathert, Chief of the Simulation Sciences Division and Chairman of the Award Selection Committee, made the presentation at the ceremony which preceded a talk by Dr. Quaide on the paper.

In their paper entitled "Thickness Determination of the Lunar Surface Layer from Lunar Impact Craters" the two scientists have shown that there are four classes of lunar crater and that by analyzing size-frequency distribution, it is possible to determine depth of the soil or gravel layer (the distance to bedrock) at virtually any point on the lunar maria.

The occasion marked the second annual presentation of the award named in honor of H. Julian Allen, former Ames director. Mr. Allen attended the ceremony and lecture and personally congratulated the recipients.



EXPLORERS TOUR AMES . . . as part of their bi-monthly activities, Ames Astronautics Explorer Post #12 visited the 42-inch Shock Tunnel recently. William A. Page (center), Post Advisor, Hypersonic Free-flight Branch, explains a polaroid print taken during a tunnel test, to Herb Dallas (left), student and Explorer Scout.

Members of the Ames staff, interested in joining the Center's Astronautics Explorer Post #12 Executive Committee which organizes the Post's activities, are urged to join in the planning and to participate in the program. The organizational meeting will be held in the Ames Cafeteria, May 18, 12:30 to 1 p.m. Mr. R.J. Horton, Scout Executive of Stanford Area Council will be present to explain how the post activities aid the scouting movement.

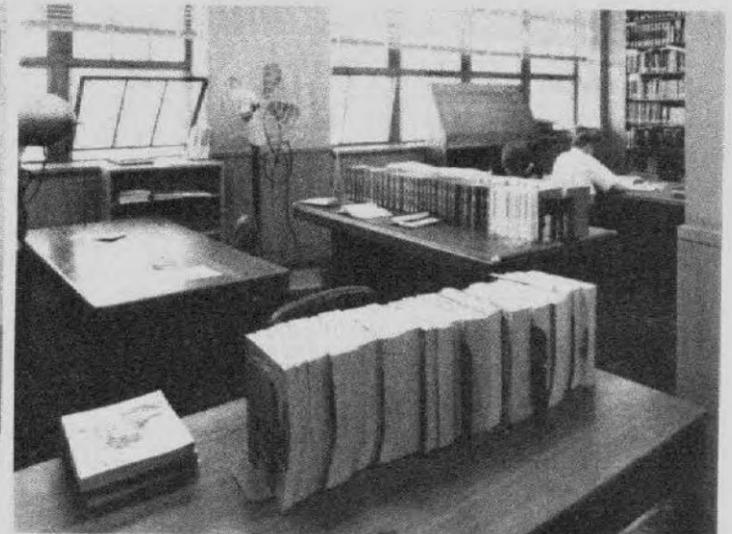
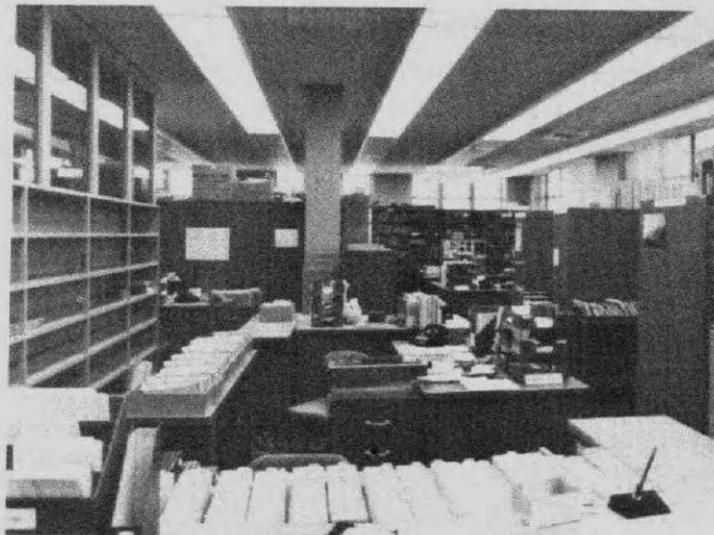
"Libraries Are Not Made; They Grow" - From a Humble Beginning...

"Libraries are not made; they grow." This quotation by a late nineteenth century author aptly describes the evolution of the Ames Main Library. From a humble beginning of a few hundred volumes, the library inventory has now reached close to 35,000, with the addition of subscriptions to more than 840 technical journals. There are 220,000 hard copies of technical reports on hand and some 450,000 on microfiche.

The enlarged facility and increased inventory are merely the tools for better service, according to Ralph W. Lewis, Chief of the Library Branch. Mr. Lewis is responsible for the organization and administration of both the Main Library and the Life Sciences Library and is quick to point out that service is the primary aim of both library staffs. With the physical change has come the complete re-vamping and redirection of this all-important element.

PROJECT ENGINEER

Project engineer for the renovation of the Ames library was Marshall L. Biggs of the Center's Research Facilities Engineering Branch. The architect and engineering firm was Simpson and Strata of San Francisco.



THE AMES MAIN LIBRARY . . . as it looked in January 1967 in these "before" photographs. The entire facility was located on the second floor of the Administration Annex -- and only one half of

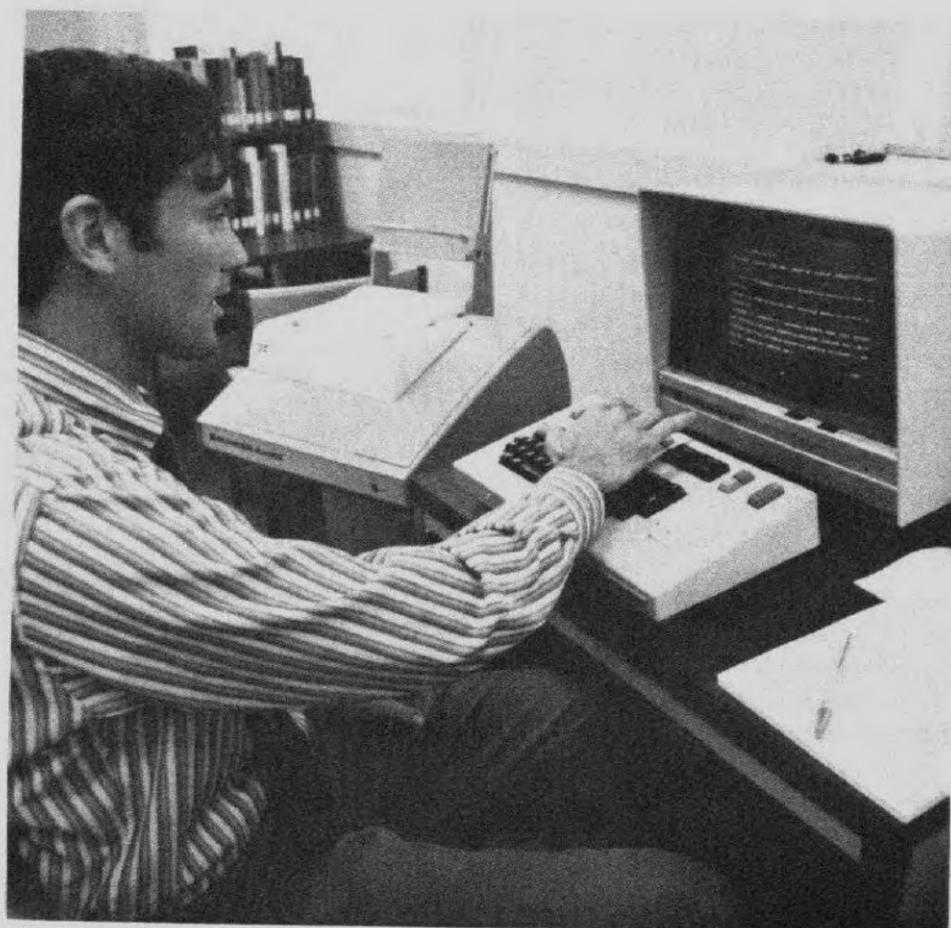
that area was for library use. Many months of renovation have transformed the clutter and dark corners to a library conducive to study and research.

Art Exhibit at Main Library

The Ames Main Library has an exhibit of 45 works of art from the Los Gatos Art Association and the Group 21 Gallery, Los Gatos, which will be on display until June 1.



REFERENCE LIBRARIAN . . . Lesley Whitaker (left) assists Ramsey Melugin of the Systems Engineering Division in preparation for a RECON search in the Ames Main Library.



GETTING ACQUAINTED . . . with the NASA RECON (Remote Console) Information Storage Retrieval System in the Ames Library is John R. Cowley of the Vehicle Guidance and Control Branch. This on-line retrieval system is directly connected to the NASA Technical Information Facility in College Park, Maryland.



THE CIRCULATION DESK . . . serves as the central reception desk and information point of the Ames Main Library. From here detailed information may be obtained about library services and reference materials.



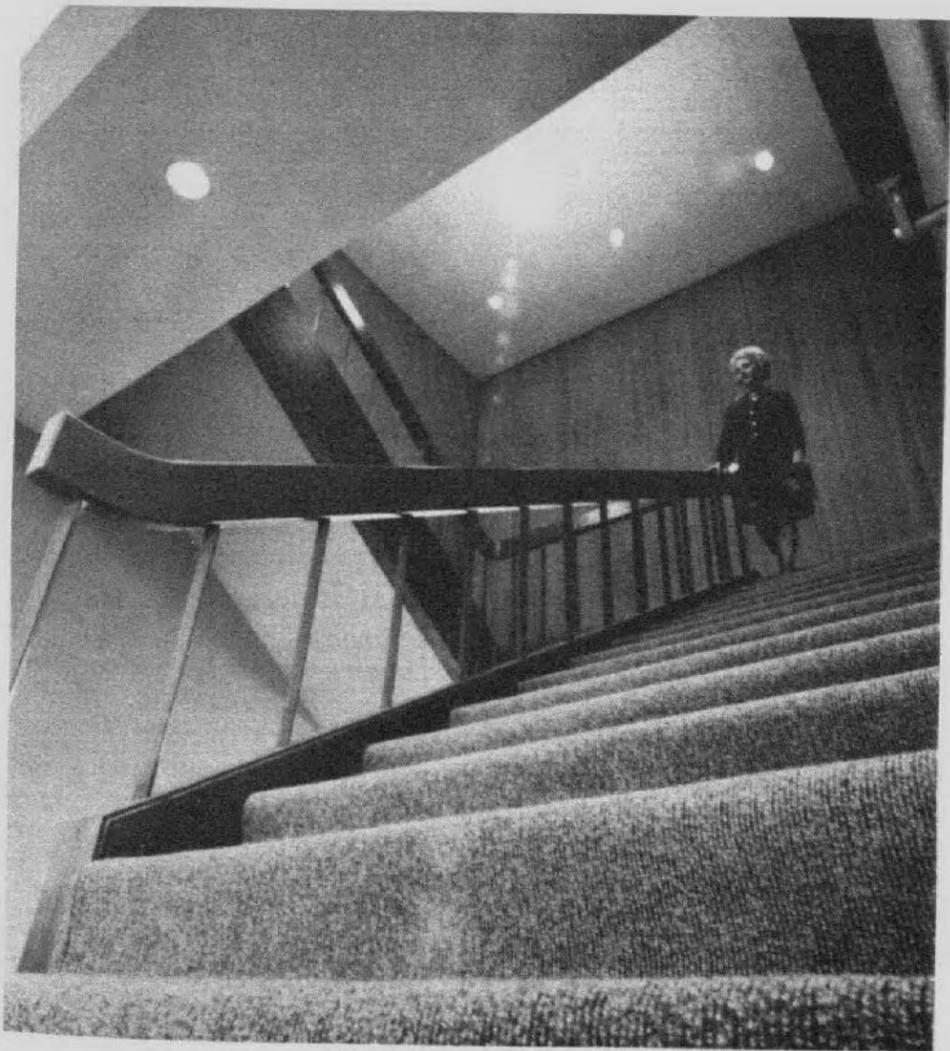
A QUIET CORNER . . . The study carrels on the second floor of the Main Library invites research and study. Shown here are Dr. Hans R. Aggarwal (left, rear), National Research Council Associate at Ames, George R. Evans, (foreground), Assistant Chief of the Library Branch, and Ames research scientists Dr. Robert F. Kubin of the Physics Branch.



WORK-STUDY STUDENT . . . Linda Ratcliffe of De Anza College checks a publisher's catalog in the Abstracts and Index Section of the Ames Main Library. The Moonscape Globe to the right in the photograph is one of the many visual aids in the newly renovated library.



THE PERIODICAL SECTION . . . with more than 800 technical journals and magazines displayed for easy reference forms a backdrop for this comfortable lounge area in the renovated library.



"STAIRWAY OF KNOWLEDGE" . . . The impressive staircase in the Main Library reflects the quiet and relaxed atmosphere of the facility. B. Jean North, a member of the Ames Library staff, paused on her way to the first floor for this picture.

"Open House" at Remodeled Library

Next week will mark a proud period in the history of the Main Library as the newly renovated facility is formally opened. Events begin on Monday, May 17, with a preview for the Director and his staff. On Tuesday, organizational directors and their division and branch chiefs, will review library developments and will view a demonstration of the NASA RECON (Remote Console) Information Storage and Retrieval System. On Friday the entire Ames staff is invited to an "Open House." This is an opportunity for all employees to tour the library, to meet the staff, and to become better acquainted with some of the new and improved services now being offered.

For those employees who will be unable to attend the opening the photographs on these two pages cover many of the highlights of the library as it looks now. When schedules permit, employees are welcome to call or visit the library from 8 a.m. to 4:40 p.m., except Monday, May 17, when it will be closed at 3:30 p.m.

ASTROGRAM Room 134
Admin. Mgt. Building
Phone 2385

The Astrogram is an official publication of the Ames Research Center, National Aeronautics and Space Administration, Moffett Field, California, and is published bi-weekly in the interest of Ames employees.

Editor Dot Evans
Reporters NASA Employees

Deadline for contributions:
Thursday between publication dates

Ames Airings

... by Jeanne Richardson

In the spring a young man's fancy lightly turns to thoughts of sports, at least at Ames it does. Beside the usual joggers running their lunch hour relays, we've gotten wind lately of a daily volleyball game by the 40 x 80. Also noted: some of Ames' more magnetic personalities out for a noon basketball game.

The ARA's first "Happy Hour" was a smashing success. With drinks going for 50¢, the cafeteria took on a glow it has never known before. Credit for the glow also goes to bartender, ANDY BOGART's (Materials Research) hat. Andy said his wife knit it for him, with his help. He picked out the colors.

BARBARA ALLEN, Computer Operations, would like to extend a big "Thank You" to all who helped with the San Simeon bus trip and to the understanding participants.

The second 1971 Chinese Banquet was held April 30 at the Golden Pavilion with 66 people from Ames attending. Each of the eight courses was delicious and accompanied by a description and background by the chef. GUY WONG, Research Facilities Engineering is planning a third banquet in August. Announcements will be made in "The Astrogram."

Technicians Meet

The South Bay Section of the California Chapter of Certified Engineering Technicians will meet on May 19, 7:30 p.m. at Stanford Linear Accelerator Center Auditorium off Sand Hill Road in Palo Alto.

All Certified Engineering Technicians and those interested in becoming certified are invited to attend.

For further information, contact Don Gotimer, work phone 966-5002 or home phone 263-4867.

ARA Ames Family Day

The Ames Recreation Association (ARA) is sponsoring a "NASA-Ames Family Day" at Roaring Camp in Felton on Saturday, June 5 from 10 a.m. to 6 p.m. A feature of the day's events is Roaring Camp's old-fashioned steam train excursion through the redwood forests of the Santa Cruz Mountains for \$2 - a savings of \$1 off the regular rate.

To attend the event Ames employees must have the 1971 Roaring Camp ALL ABOARD! CLUB membership card available now in "The Astrogram" office, Bldg. 241.

Job Openings in Travel Agency

The Campbell Travel Service has openings for outside salesmen on a commission basis, full or part time. This is an excellent opportunity for retired employees or those contemplating retirement, who are looking for an interesting occupation. For further information contact the owner of the agency, Evelyn Hohn, 389 East Campbell Avenue, Cambell, 95002.

FASTPITCH SOFTBALL

... by Bruce Ganzler

The Ames Fastpitch Softball Team schedule for the remainder of the first half of play is as follows:

Opposing Team	Date	Time	Place
Hewlett Packard	May 18	7 p.m.	M
Calvary Temple	May 20	7:45	F
Scuttlebutt	May 25	8:30	M
Signetics	May 27	9:15	F
Franciscan Glass	June 1	7 p.m.	M
El Camino Flamer	June 3	9:15	F
Fidel's Barber	June 10	7:45	F
Honda Peninsula	June 17	7:45	W
M	McKelvey Field, Mt. View		
W	Washington Park, Sunnyvale		
F	Fair Oaks Park, Sunnyvale		

Ames won its second game against the Hewlett-Packard Owls, Tuesday, May 4, by the score of 5-2. E. Lampkin and B. Ganzler led off the ballgame with line drive singles and later scored on a fielders choice and sacrifice. B. Scott scored in the second on a sacrifice by E. Lampkin. In the fifth E. Lampkin and B. Ganzler again led off with singles and scored on a single by M. Green and sacrifice by R. Hedlund.

BOX SCORES

Lampkin	2	2	2
Ganzler	2	2	2
Green	2	1	0
Hedlund	2	0	0
Martell	2	0	0
Myers	2	0	0
Bell	3	0	0
Scott	1	0	1
Corbett	1	0	0
Randle	1	0	0

VACANCY NOTICE

Merit Promotion

Merit Promotion, Technical Assistant.

Technical Assistant (AST Technical Management) GS-1301.1-11/14, Director of Astronautics.

Area of Consideration: Office of the Director of Astronautics.

How to Apply: Interested employees should telephone the Employment Branch, Extension 2021, by the closing date. Closing date: May 21, 1971.

WANT ADS

The Astrogram's ad section is provided as a personal, non-commercial service to Ames employees. Advertiser must be identified by name, extension and organization. The name may be left out of the ad but is needed for records. Ads must be submitted in legible writing to The Astrogram, N-241-4, by Thursday, a week before publication. The advertiser's home telephone number must be provided as a point of contact except in carpool notices.

AUTOMOBILES

For Sale-1969 Chevrolet Sportvan, 108" wheelbase, Auto Trans., Radio, 6 cylinder, extra seats, 50,000 miles warranty, 28,000 current. \$2495 or offer. 259-0687 after 5 p.m.

For Sale-1965 Corvair Monza, excellent condition. New tires, must see to appreciate. \$500, Ernie Medeiros - 275-9423.

For Sale-1964 Chevelle, 4-door sedan, exceptionally clean, \$425. Call 323-7070.

For Sale-1968 Oldsmobile Delta 88 4-door, 24,000 miles, new tires, excellent condition. Phone 252-3482 after 5:30 p.m.

For Sale-1967 model 23 Fireball travel trailer. Self-contained, Sleeps 4 (front bedroom with twin beds), 7 cu. ft. gas/elec. refrigerator, Oodles of storage. Clean, new condition. \$2,800. Call 408-734-4560 after 7 p.m.

For Sale-Ford camper special pickup with 8 ft. pass-through camper. 1966 model, custom cab, auto trans., radio. One owner, call 253-4434 after 7 p.m.

For Sale-1959 Oldsmobile 88, 2-door sedan, good condition, power steering, air conditioner, new tires, one owner, call 948-3848.

HOUSING

For Sale-3-bedroom, large master; 2-bath, 16-18 ft. living room, ranch style kitchen, AEK built ins, natural wood cabinets, large closets, hardwood floors, newly Kodel Shag carpeted, just landscaped 110 x 90 ft. lot, BONUS - Sauna Bath off master bedroom, 2-car garage. Near schools but in rural setting, Eastern foothills, San Jose. 259-0687 after 5 p.m.

For Rent-Sharp house, 3-bdrm., 2-bath, fam. room, prof. landscp. w/w carpets, drapes, walk to Cupertino schools. Near Walco-Sears, available now, \$250 per month call 259-9851.

For Rent-Cabin, Lake Tahoe, South Shore near State Line. Two story, all electric appliances, fire place, \$90 per week. Call E.A. Harris at 948-6200.

For Rent-Lakeside Cabin in the Sierras, by the week or month. Raymond R. Thamma, 243-7377.

For Rent-Tahoe City cottage near lake and private beach area. Sleeps 6. Spring rate \$70/wk or \$30/wknd. 328-4642.

MISCELLANEOUS

For Sale-1965 Ducati Monza 250 cc. Clean, runs well. \$250 or best offer. Call 377-0260.

Wanted-Used 10 or 15 speed bicycle, such as Ceilini, Paramount, Professional or comparable. Also need bike pannier bag and down sleeping bags. Call Joe Auby 961-3090.

Car Pool-Would like to form carpool (two people) from vicinity of Alton St. Milpitas, Mon. thru Thurs. Call Phil Payne 2096.

For Sale-Three formal dresses, brand new, never worn, for young ladies. Two for size 9, one size 11, colors: pink, white, and yellow and white. Cost \$40 each, available at 1/2 price. 253-9694.

For Sale-Red worms, 75 for 65¢. Call Don Lefforge 293-4010.

For Sale-1963 Honda 250 Scrambler, rebuilt engine. Custom parts, clean, \$200. Call Warren Jenkins, 255-3304.

For Sale-Samoyed pups, AKC. Evolutions ultimate canine companion, X-rays, shots, champion lines, pet or show; \$150. Available June 5. Call 408-335-7349.

For Sale-Kemmore Washer, large tub, 3-fabric setting cycles. Excellent condition, \$75. General electric dryer, copper tone color, 3 cycle settings. Excellent condition. \$75. Moving to apartment. Must sell, call 732-2941 after 6 p.m.

For Sale-Boys Sting-ray bike, excellent condition. Includes generator light and sissy bar. Call 274-5703 after 5 p.m.

For Sale-Attractive, Leonard, upright piano. Recently reconditioned. \$300, call 738-2948.

For Sale-New skis, Northland Slalom, 190 cms, wood, Salomon Step-in bindings \$100, New Henke, 5 buckle boots, size 9 1/2 - \$40. 52" Stainless Poles, new \$10. Gloves, goggles, wax - \$15. Or Package deal All for \$150. Phone 259-0687 after 5 p.m.

SPARCS LAUNCH

(Continued from Page 1)

The payload, including SPARCS, is back and is now being tested. Eight more SPARCS will be launched by the first of August.

BOWLING

... by Dennis Riddle

A great season has drawn to a close! The final standings for the All-Ames '70-'71 season are:

Division I

1st Place: The Comets (Dale Frankel, Francis Genovia, Joe Marvin, Otto Meckler, and Jim Park)

2nd Place: The Rikkety Wrecks (Ann Teshima, Frank Cleary, Hank Cole, Bob Reed, and Al Silva)

Division II

1st Place: The Alley Katz (Dave Lozier, Charlie Hall, Norm Martin, Eva and Bernie Somer)

2nd Place: The Eight Balls (Nancy and Dennis Riddle, Jerry Dickson, Bob Merrick, and Jack Ratcliff)

JOGGERNEWS

... by Jim Woodruff

Joggers Bruce Castle, Paul Sebesta, and Jim Woodruff timed events at the Junior College Regional track meet held May 1 at De Anza College.

The times determined who would compete in the West Coast championship meet. The excitement and enthusiasm of the Junior College Athletes made the Joggers feel that their time was well spent.

SOFTBALL

The All-Ames intramural slow pitch softball league is now organizing for the 1971 season. Several teams need players. If you would like to play, either on a full or part time basis, you are wanted. The games are played on the Mountain View High School field between 5:15 and 6:30 p.m. on Tuesday, Wednesday, or Thursday. No team plays more than one game per week. For further information phone Bill Pitts ext. 2698.

For Sale-Cherokee 140, 1966 total time 1170 hours. Four seats, Mark-12 radio, perfect condition \$5450. Call Don Goodsell, 968-1200.

For Sale-Electric guitar, hollow body, tone and volume controls, tremelo, \$65. Sylvania portable stereo phonograph, new pickup, 4-speed, \$25 call Frank Thompson at 379-2385.

For Sale-Strolee infant car seat, White vinyl with wingliner headrest. New; fits any car. \$12, 257-0483.

For Sale-2 couches (black naugahyde, \$50 and wood with foam slab, bolsters and two covers, \$35); car carrier \$5; RCA TV console, needs new picture tube \$20; Maytag gas dryer (white) \$25; redwood picnic table and two benches \$20; 9 x 12 blue-green braided rug \$15; Sears push mower \$10; floor polisher \$10; and TV antenna \$10. Call Bob White 272-0878.

For Sale-100% human hair fall. Dark brown, double fullness, never worn, \$30. Call 968-7407.

For Sale-1964 Triumph (Spitfire), black, red interior, white top, low mileage. Call W.O. Peterson, 993-3057 after 5 p.m.

National Aeronautics and Space Administration • Ames Research Center, Moffett Field, California

Alan E. Faye to Participate in 1971-72 Stanford-Sloan Fellowship Program

Alan E. Faye, Jr., Technical Assistant to the Ames Director for Aeronautics and Flight Mechanics, has been selected to participate in the 1971-72 Stanford-Sloan Fellowship Program.



Mr. Faye is the fifth nominee from Ames to be named for this program which provides an opportunity for a limited number of government and business executives with senior management potential to study new concepts in management and to exchange management experiences.

The Program provides the Fellows with a diverse coverage of both business management and the humanities required to effectively cope with the challenge facing technical managers of the future. Added emphasis is being placed in the coming year upon decision theory and the management of research organizations. For those who have attended previous programs it has provided new management tools and broad management perspectives and the ability to make sophisticated analyses of problems and proposals.

In his position as Technical Assistant to the Director of Aeronautics and Flight Mechanics Mr. Faye is responsible for executing the technical and administrative staff work of the Directorate with its more than 450 employees. His technical management role also includes analysis of the proportion of resources to be devoted to various programs in the Directorate as well as preparing the technical justifications required to obtain funding for the programs.

Prior to his present assignment,

to which he was appointed in 1963, Mr. Faye was an aeronautical research engineer in the Flight and Systems Simulation Branch. He began his Federal civil service career at Ames in 1956.

Born in Waimea, Kauai, in the Hawaiian Islands, Mr. Faye was graduated from the University of Washington with a B.S. degree in Aeronautical Engineering in 1956, and has done post-graduate work in Electrical Engineering and Advanced Mathematics at San Jose State College. He also attended the management training course in "Administration of Public Policy" at the Civil Service Seminar Center in Berkeley.

In 1961 he attained commercial pilot status with a Flight Instructor rating; Instrument rating in 1962, a seaplane rating the same year, and in 1968 and 1969 he undertook helicopter training.

With his broad interest in the physical sciences, especially in aeronautics and avionics systems, and in the management sciences, and his participation in the Sloan Program, Mr. Faye will be able to contribute many years of creative technical management to NASA and Ames Research Center.

Mr. Faye has said of his forthcoming year at Stanford, "I feel fortunate to be involved in an exciting age of man where the proper management of modern technology can lead to developments that can be of utmost benefit to the individual."

Dryden Memorial Dedication

In commemoration of the late Dr. Hugh L. Dryden, Deputy Administrator of NASA and Director of the NACA, a new auditorium of the National Academy of Sciences was dedicated recently in Washington, D.C.

Dr. Dryden's many friends from Ames and throughout the country contributed generously to the funding of the Auditorium which has been constructed as an integral part of the Academy Building.

R.T. Jones Awarded Honorary Ph.D.

An honorary Doctor of Science degree has been conferred upon Robert T. Jones, Ames' Senior Staff Scientists, by the University of Colorado at Boulder. He received the degree at Commencement exercises held this week at the University.

Mr. Jones is an internationally recognized authority on aerodynamics and in the fields of optics and biomechanics.

His contributions to aerodynamics include the development of a theory for swept wings which was instrumental in advancing aircraft speeds into the transonic and supersonic range, now applied as a standard feature of the design of large transport aircraft such as the Boeing 707 and the 747; and the theory of slender "delta" wings applicable at both subsonic and supersonic speeds. These developments in wing theory by Mr. Jones appear in texts by the noted scientist Dr. Theodore von Karmen.

Mr. Jones began his NACA-NASA career at Langley Research Center in 1934, and in 1946 he joined the Ames staff as an aeronautical research scientist, continuing his research toward the development of supersonic aircraft.

For many years Mr. Jones served on the Editorial Board of



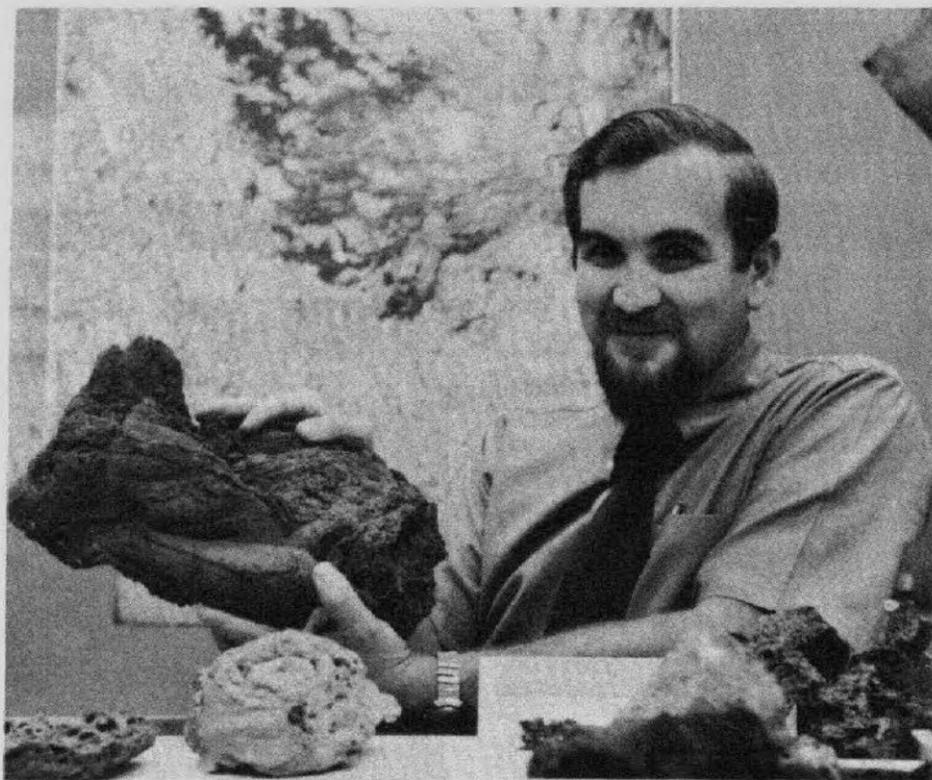
the Journal of the Aeronautical Sciences and is a former editor of Annual Reviews of Fluid Mechanics.

For the past seven years Mr. Jones was with the Avco Everett Research Laboratory as chairman of the AERL Medical Research Committee. In this capacity he directed efforts in the development of Cardiac assist devices - a development which has involved the application of fluid dynamics to problems of blood flow, the design and fabrication of blood pumps as well

(Continued on Page 2)



PAET . . . the Ames-managed Planetary Atmosphere Experiments Test spacecraft was loaded aboard an aircraft last week for shipment to NASA's Wallops Station in Virginia. PAET was conceived, designed, developed and built at Ames and is scheduled for launch from Wallops on June 14. Project manager is David E. Reese, Jr., Assistant Chief of the Vehicle Environment Division.



RONALD GREELEY . . . of the Planetology Branch is pictured above with a sample of basalt collected during his three year study of lava structures. Mr. Greeley, with Verne R. Oberbeck and William L. Quaide also of the Planetology Branch, has studied the progress of basaltic lava flows in five Western states. Mr. Greeley has postulated that the Moon's Hadley Rille, landing site for the Apollo 15, and other lunar sinuous rilles are formed by lava channels. His research of the lava channels on Earth have been of interest to the Forest Service, Zoologists, Botanists and Anthropologists.

Hadley Rille Center of Controversy

The Moon's Hadley Rille, landing site for the Apollo 15 mission scheduled for launch in July, has recently been the subject of scientific controversy. The dispute centers on the question of how the Hadley Rille and other such lunar rilles are formed.

APOLLO 15

The Apollo 15 mission, commanded by Astronaut David R. Scott, with Alfred M. Worden, Jr. as Command Module pilot and James B. Irwin as Lunar Module pilot, will photograph the rille, take samples and collect data that may, when interpreted, indicate the answer to this question.

There are presently several theories concerning lunar sinuous rilles. It has been proposed, for instance, that they were formed through erosion, either by ash or by water, as were the Earth's river valleys. Judging from recent photographs of the Moon's surface, the lunar sinuous rilles outwardly resemble the Earth's river valleys. However, the lunar rock samples brought back from the Apollo missions indicate that water has not been present during the Moon's recent history.

Another theory, postulated by Ronald Greeley of the Planetology

Branch, contends that some sinuous rilles on the Moon's surface, including the Hadley Rille, are formed by lava flows. For the past three years a study has been in progress of the basaltic lava flows of Hawaii, California, Washington, Oregon and Idaho to determine how structures form and are modified with time. They have found that lava, as it flows, develops channels within the flow. As the lava begins to cool, it may form a roof of hardened lava over itself, thus making a tube.

OPEN CHANNELS

Later, sections of the roof will collapse, leaving open channels and caves exposed. The resultant channels are very similar in appearance to lunar sinuous rilles, with one exception. The channels formed on Earth are smaller than the Moon's meandering rilles. The Hadley Rille for instance is about a half mile wide and 1,200 feet deep.

One explanation for this discrepancy, offered by the Ames scientists, is the Moon's environment. The lunar basalt is more fluid and retains heat much better than terrestrial lava, allowing much longer, larger flows and channels on the moon.

NASA Policy on Trial Retirement

NASA has an established policy on trial retirement with provisions which may be of interest to eligible employees at Ames. To participate, an employee must be eligible for optional retirement. Employees who are eligible for disability, discontinued service, or mandatory retirement are not eligible to participate.

The trial retirement program enables an employee to "try" retirement for a period of up to a year; at the end of the year, the employee has the option of returning to work at a comparable position.

In preparing for trial retirement there are certain steps to be performed, they include proper and timely notification of intent, a signed agreement, the approval of the Center Director, and related items. Interested employees are encouraged to contact Mrs. Betty Thomsen, ext. 2411 for specific details.

Tau Beta Pi to Meet

The second general meeting of the San Francisco Peninsula Alumnus Chapter of Tau Beta Phi will be held Friday, June 4 at the Velvet Turtle Restaurant in Menlo Park. Social hour, 6 p.m.; Dinner, 7 p.m.; Program, 8:15 p.m.

Robert M. Powell of Lockheed will speak on Industry and the Environment.

Wives and friends are welcome. Please send check for reservations at \$5.50/person (payable to Peninsula Alumnus Chapter) to Gus Pappas, 580 Arastradero Rd., #802, Palo Alto, CA. 94306, by May 28, or call 321-9868.

Finance Class

The television seminar in Personal Financial Development will begin its fifth consecutive quarters of classes on June 21 in the Ames closed-circuit TV classroom. Classes are Mondays, Wednesdays and Fridays, from noon till 1 p.m., and will run for eight weeks.

The seminar offered by the Association for Continuing Education via the Instructional Television Network, will cover insurance (auto, health, property, and life), the handling of taxes (income, gift, and estate), credit, and home financing; and investments in savings accounts, annuities, securities, and real estate. The tuition is \$75.

F.R.C.'s Paul Bickle to Retire

Paul F. Bickle, Director of the NASA Flight Research Center has announced his retirement effective May 31. Mr. Bickle has been the Director of Flight Research Center since September 1959, after a 20-year civilian career in aeronautical engineering with the USAF. Mr. De E. Beeler, Deputy Director of the Center, has been named Acting Director.

As Director of the NASA facility, he has been responsible for the flight operation of many major aeronautical research programs, including the highly successful rocket-powered X-15, the supersonic XB-70, the Lunar Landing Research Vehicle, and the wingless lifting bodies, forerunners of the space shuttle and reusable boosters.

ALL ABOARD! CLUB

ARA Ames Family Day

The Ames Recreation Association (ARA) is sponsoring a "NASA-Ames Family Day" at Roaring Camp in Felton on Saturday, June 5 from 10 a.m. to 6 p.m. A feature of the day's events is Roaring Camp's old-fashioned steam train excursion through the redwood forests of the Santa Cruz Mountains for \$2 - a savings of \$1 off the regular rate.

To attend the event Ames employees must have the 1971 Roaring Camp ALL ABOARD! CLUB membership card available now in "The Astrogram" office, Bldg. 241.

R. T. JONES
(Continued from Page 1)

as the development of electronic and pneumatic control systems. He returned to work at Ames in October of last year.

He has a distinguished list of invited papers which he presented both here and abroad. His honors include the Sylvanus Albert Reed Award of the American Institute of Aeronautics and Astronautics (AIAA), and he is a Fellow of the AIAA.

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Thursday between publication dates



AN EXCEPTIONAL REPORT . . . from the General Accounting Office as a result of an Ames payroll records audit, has earned a NASA Group Achievement Award for the Payroll employees. During the very extensive investigation, the first since 1963, between 300 and 400 individual records of retirees and those of employees presently on the rolls were reviewed. Each record reflected every status or pay change of an individual during federal employment. Upon completion of the GAO audit the payroll group was commended by the auditor for high quality performance. Shown receiving a letter of commendation signed by the Ames Director, Dr. Hans Mark, and a monetary award from Raymond J. Steffen (right), Chief of the Accounting Branch, are (from l to r) Helen P. Bolt, Shirley E. Pearson, and Rhea M. Wattles. Not present for the ceremony was Bernice S. Martin.



MODELING . . . a lounging robe presented at a retirement luncheon in her honor is Evelyn K. Olson (left), Flight and Systems Research Branch. Friends and business associates in the Full-Scale and Systems Research Division got together recently to extend best wishes to Evelyn before she left the Center after working here for 15 years. She has been referred to as "the last of the computer girls" - a close-knit group of math technicians notable for their efficient and accurate reduction of flight test data. Nine years ago Evelyn developed a method for solving cubic and higher order equations which was later adopted for general use in the FSR computing section. For this contribution she received a NASA performance award. At the farewell party Seth Anderson (right), Research Assistant for Interagency Programs in the Division, made the gift presentation and is pictured taking in the modeling action.



RETIREMENT MEANS HARD WORK . . . Alberta Alksne, Theoretical Studies Branch, has decided to retire after thirty years at Ames. Retirement for Alberta, however, is going to require more work than did the job from which she retired. She is leaving soon after her farewell party for East Africa. There she will be trained for three months by the Peace Corps as one of their teachers. After training she will spend two years in Kenya teaching Math and Physics at the intermediate level.

Alberta Alksne Retires to Peace Corps

Alberta Alksne, a research scientist from the Theoretical Studies Branch, will retire this month after thirty years of service at Ames. Like many retirees, she hopes to spend some time in a slow rural area. Unlike most retirees, the slow rural area she has in mind is in Kenya, on the coast of East Africa.

Alberta's idea of retirement is a little unusual, it allows no time for leisure. After her last farewell to Ames, she will leave for Nairobi to begin a rigorous three-month training program with the Peace Corps. After training she will spend two years in Kenya teaching Math and Physics at the intermediate level to Bantu, Somali and Masai students.

The Peace Corps and Kenya were natural retirement choices for Alberta. She has been actively interested in social work for the past several years. Until retiring she served as an Equal Employment Opportunity Committee member and Counselor here at Ames. In East Palo Alto, she helped to organize the Opportunity Industrialization Center West, an organization to train the unskilled.

During an interview she explained that she had chosen to work in Kenya because of a desire to get away from suburban America and to live in a foreign, and slower-moving society. The inland regions of Kenya, rather than the fast-paced Nairobi is her first choice, but

that decision will be made by the Peace Corps.

Kenya also had an added attraction for Alberta; the 1973 solar eclipse. She has photographed solar eclipses in Canada, Peru and Mexico and said "I would hate to miss this opportunity to photograph such a fantastic eclipse."

Alberta admits to being apprehensive about only two aspects of her stay in Kenya, that is, learning Swahili and teaching. It will be her responsibility to prepare students for college entrance exams in Math and Physics. "This is a great responsibility for someone who has never before taught", she said. However, she has confidence in her mastery of the subjects and confidence in the Peace Corps training program.

Housing Needed for Forensic League Finalist

Free housing is needed, preferably in the Palo Alto area, June 16 through 19 for three teenage boys and a couple (who will be their chaperones). The boys are representing the State of Virginia for the National Forensic League Finals that are being held at Stanford University. They are coming here on a very limited budget and cannot afford the Stanford Dormitory prices. Please contact Lea Dodge, ext. 2129.

Ames Airings

... by Jeanne Richardson

NEWS OF THE WEEK: EDWARD KELLEY, Machine Branch, got a hole-in-one on the 7th hole at Los Gatos Golf Course - 195 yards! And the best part of it was all those other duffers from the Machine Branch standing there watching. No wonder he's been wearing those Arnie Palmer shirts to work.

Did you hear the latest about those Nitzberg girls, MARTHA and KATIE? Their father, GERALD NITZBERG, Office of the Deputy Director, doesn't deny it either. They're so well-known that the Palo Alto Times ran a story on them. According to the Times, Martha, 11, and Katie, 14, spend their Friday afternoons collecting cans and bottles from their neighbors. Then, Saturday morning they take the load to the Ecology Action Collection Center at 2660 Park Blvd. in Palo Alto. There the bottles and cans are prepared for recycling.

The girls have been collecting since September to improve our environment. Isn't it nice to know there are such great people around.

MARSHALL BIGGS, Research Facilities Engineering, spent two weeks in Mexico recently. He said he called MARTHA KESSLER (formerly of the Travel section) on his way through Taxco and had a long chat with her. She says hello to all her old friends in Travel. She also said she is loving retirement. Who wouldn't - in a lovely big villa overlooking the town of Taxco?

Back to Marshall - He loved Mexico City; the pyramids and the folklore ballet. His favorite, though, was parachuting behind a boat across the bay at Acapulco.

The former MIDGE SHOEMAKER, Programs and Resources was married May 1 to Gene Firpo in the Mount Carmel Church in Redwood City. CAROLYN ANDERSON, Procurement Division was an attendant for Midge. A lovely reception followed at the Officers Club at Moffett Field.

The new Mr. and Mrs. Firpo honeymooned in Southern California; visiting Disneyland, the San Diego Zoo, Sea World (Midge's favorite) and the desert.

Midge, being the typical bride, wanted to remember every detail of the trip. So, when her husband was stopped and ticketed by a policeman in Bakersfield, Midge got out her camera and took a picture of the policeman. The whole world is beautiful when you're in love.



VISITOR FROM JAPAN . . . Ken Tashino (center), a United Nations Fellow for the Japanese Government, is spending four months in the United States studying the operations of local governments. His itinerary included a week with the staff of the U.S. Civil Service Commission (CSC) in San Francisco and a visit to Ames Research Center where he discussed areas of mutual interest with the Personnel Officer, W.L. Williams (left), and members of the Personnel Division. Mrs. Kathryn Kunkel (right), Public Service Careers Regional Coordinator for the CSC in San Francisco, accompanied Mr. Tashino on his Bay Area tour.

JOGGERNEWS

... by Jim Woodruff

On Thursday June 3 Dr. Sevelius will speak to the Joggernews on how to increase the size and strength of the heart, safely with exercise. All Ames employees are invited. This is practical not only for athletes who wish to increase their endurance, but for anyone who wishes to increase the reliability of his cardiovascular system.

The meeting will begin with some business at 11:30 - election of new officers and a decision about dues. Those wishing only to hear Dr. Sevelius are welcome to come at 12:00 noon. The meeting will be in the conference room, 261, of the Instrument building, N 213.

FASTPITCH SOFTBALL

... by Jim Myers

In the Mt. View Fast-Pitch 'B' League, NASA shut out Hewlitt Packard Warriors by a score of 3-0. This brought our record to 4-0 and sole possession of first place.

Bob Corbett pitched a beautiful game in which he one hit the Warriors. When the chips were down, our Sandy Koufax of the Mt. View league, Bob, came up with the strike out pitch. Emmitt Lampkin and Bruce Ganzler scored the needed runs, 1 and 2 respectively. The runs batted in were furnished by Mike Green and Jim Myers, one a piece.

SOFTBALL

... by Grantland Wheat

The Fighting Pumas are off to a Roaring start in the 1971 Ames softball pennant race. On May 12 the defending champs squeaked by Metals Fabrication (MFB) 11 to 10, scoring the tying and winning runs in the last inning on a double by Stan Fortenberry. Then May 20, they bopped the Fumbling Instrumentals with a 9-run third inning and went on to win 14 to 8.

And it looks like a new year for Space Science, 1970 cellar-dwellers. The Spacemen scored a fantastic comeback with 8 big runs in the last inning to zap RFB 12 to 11. Standings through May 21:

	W	L
Fighting Pumas	2	0
Space Science	1	0
TGD	0	0
MFB	0	1
RFE	0	1
Instrumentals	0	1

For Sale-Somebody turned off the bubble machine! Remember Lawrence Welk with your own Close-Out priced Accordion, only \$149.99. (with case) Call 227-8587.

For Sale-RIF Sale! Must cut our Golden Retriever complement by five. All candidates 6 weeks old, and have their "credentials" from AKC. Able to hunt, be shown, or just be pet. Call now, 227-8587.

Found-On Arnold Avenue by N221, a ring. Give description. Ext. 2337.

For Sale-Eico Amp Model ST-70, \$75, call 969-3243.

Leaving-Must sell all electrical appliances, desk, stroller, barbeque, girl's bike, babygrand piano. Call 325-8370.

WANT ADS

The Astrogram's ad section is provided as a personal, non-commercial service to Ames employees. Advertiser must be identified by name, extension and organization. The name may be left out of the ad but is needed for records. Ads must be submitted in legible writing to The Astrogram, N-241-4, by Thursday, a week before publication. The advertiser's home telephone number must be provided as a point of contact except in carpool notices.

AUTOMOBILES
For Sale-1966 J-200, Jeep, 4-wheel drive, pickup. OHC-6 engine, 3-spd trans, 4-pos. trans, case, stop rear bumper, 760-15 tires, shell camper. 967-6188 eves.

For Sale-1969 Ford F-100 Pick up Custom Cab, AT, RH, low mileage, excellent cond., SportLiner Insulated Camper Top included, \$2295, phone 941-4148.

For Sale-1959 Oldsmobile, 4-door sedan, power brakes, power steering, good condition - 245-7013.

For Sale-1965 MGB with new light blue paint job, wire wheels, less than 60,000 miles - car in excellent condition - \$795. Also, "classic" 1954 Packard Clipper - performance and appearance in excellent shape - make offer. Call Del at 377-8371.

For Sale-1968 Dodge Sportsman Custom Window Van. Call Reid-Selth at 377-5539.

For Sale-1967 Pontiac Firebird 400. Good Condition, Low Mileage, call 246-3445.

For Sale-V.W. Bug, 1967, \$300 - 245-2165.

HOUSING
For Rent-Cheerful cabin in Historic Donner Pass area. Circular fireplace, spacious deck, stone barbeque. All modern conveniences. Canoe. Near lakes, streams, river. Surrounded by National Forest. Leo Poppoff, 323-2375.

For Sale-Elchler, 4-bedrooms, study (5th bedroom or family room), separate dining room, AEK, 2 baths. Excellent condition. Quiet street, walk to school, parks, swim and tennis club. Owner, 327-8759.

For Sale-2000 square feet, 4-bedroom, 2-bath, family room, dining room, AEK, covered patio (750 square feet) on 1/3 acre, cul de sac lot in choice Sunnyvale area. Within walking distance to grade, junior high and high schools. Save real estate commission \$42,500. Call 245-2165.

For Rent-Tahoe City cottage near lake and private beach area. Sleeps 6. Spring rate \$70/wk or \$30/wknd. 328-4642.

For Rent-Neat 3-bdrm, 2-bath, new carpets, drapes, dishwasher, ref, stove, disposal, fireplace. Patio, 2-car garage, walk to shopping ctr, and all schools. 2 or 3 children ok. \$235/mo., 1st and last, plus \$100 deposit. Available immed. 738-3477.

For Rent-Sunnyvale, 1-bedroom, 1-bath apartment in 4-plex. AEK, carpets, drapes, swimming pool. No lease required. Call 245-2796 after 5 p.m.

MISCELLANEOUS
Free-Four-month-old male kitten. Short white hair with gray star on forehead, very lovable. He has a temporary home at the Audio Visual Facility in Santa Clara but can't stay there. If interested, call Jill, ext. 3308.

PLEASE-I need a ride from Ames at 4:30 daily to some point on El Camino Real, Sunnyvale, near Hollenbeck. Margaret Hines, ext. 2278.

For Sale-Model Train, Americal Flyer, 5 x 9, table with lots of track, cars and accessories. Needs some work. Best offer, 325-0279.

For Sale-One Sears Supertred Fibreglass tire, 6.50 x 13; less than 3000 miles, \$12. Call 321-2380.

Wanted-Leica Telephoto lens, ELMAR f4, 135 mm or what have you in the Leica line? Max Strauss, 739-7042.

Wanted-A high quality 10-speed bicycle with Alpine gear and sew-up tires preferably Raleigh, Mercier, Pugeot etc. 867-3335.

Free-Help the innocent born out of wedlock: Adopt a puppy. Doberman/Shepard mix. 328-1675.

For Sale-Small desk, carved, antique, \$150. Other things. 493-1638 after 5 p.m.

For Sale-Corner lamp table (2 tone) by Lane - excellent condition; \$20. 252-9213.

For Sale-O'Keefe and Merrit gas range, good cond. light and clock, everything in good condition, \$60. call 295-8293.

For Sale-Prop. will fit Johnson, Evenrude or Gale, 60, 65, 75, 80, 85, or 90 HP engine. Six gal gas tank (Johnson). Call Reid-Selth at 377-5539.