President Kennedy Getting Sandia Lab Briefing Today

President John F. Kennedy will North on Yale Blvd. to Central be a visitor at Sandia Laboratory today as part of a tour of atomic energy installations in Western United States.

The President arrives in New Mexico at Santa Fe Airport this afternoon. He is accompanied by an official party, including Vice President Lyndon Johnson, and a plane carrying the White House Press Corps which will arrive a few minutes ahead of the Presidential plane.

The President goes by helicopter to Los Alamos for briefings and will address a public gathering after the briefings. At 3:45 p.m. the President departs from Los Alamos to arrive at Albuquerque Municipal Airport at 4:30.

After a brief welcoming ceremony at the airport, Mr. Kennedy and his party will leave for Sandia Corporation, taking a route Saturday morning, will depart Ave. and East on Central to Wyoming Blvd. and then South on Wyoming into Sandia Base. He will enter the Sandia Technical Area through Gate 1 between 5 and 5:15

At Sandia, President Kennedy will receive a briefing by S. P. Schwartz, President, Sandia Corporation and will vlew the training area in Bldg. 892. A briefing for the press "pool" of 10 reporters and photographers will be held in Bldg. 892 by R. W. Henderson, Vice President, Weapon Programs. Other press representa-tives will be briefed in the lobby of Bldg. 800 by G. A. Fowler, Vice President, Development.

The President will spend the night at the Western Skies Hotel and, after attending church at Kirtland Air Force Base Chapel from Albuquerque at 9 a.m. for the Nevada Test Site.

FULL-SCALE REPLICA of the KIWI B-4-A reactor for Project Rover was viewed at Los Alamos Scientific Laboratory on Nov. 23 by (I to r) Sandia President S. P. Schwartz, and members of New Mexico's Congressional delegation, Rep. Thomas G. Morris, Sen. Clinton P. Anderson, and Rep. Joseph M. Montoya. President Kennedy will be briefed on developments in this nuclear rocket propulsion program at LASL today.

Laura Fermi, widow of Enrico Fermi, tells the following story of the event in her book "Atoms in The Family." It is reprinted here with her permission and that of the publisher, The University of Chicago Press.

Then, I wondered, why the congratulations? Leona Woods (now Mrs. Leona Woods Marshall) was the only woman physicist in Enrico's group.

Published every other Friday for the employees of Sandia Corporation, contractor to the Atomic Energy Commission

sandia corporation

labnews

DECEMBER 7, 1962

livermore

Sandia Corp.-Designed Re-entry Vehicle And Telemetry Package Undergoing Tests

A re-entry vehicle and telemetry package designed by Sandia Corporation to study the safety features of nuclear power sources for the aerospace program are now undergoing a series of environmental tests at Sandia

VOL. 14, NO. 25

albuquerque

Under the Atomic Energy Commission's Systems for Nuclear Auxiliary Power (SNAP) program, compact atomic power packages for converting self-sustained nuclear chain reaction or radioactive-decay heat to electricity are being developed by various AEC contractors for use in satellites and space vehicles.

Early this year the AEC assigned to Sandia the responsibility of obtaining data on the safety aspects of nuclear systems during launch, flight into outer space, and re-entry into the earth's atmosphere. Sandia's capabilities in ordnance engineering are directly applicable to the program.

The tests are part of Sandia's responsibilities in the SNAP 10A program which is scheduled to be the first reactor auxiliary power unit to be launched into space.

Models of the re-entry vehicle are undergoing a wide variety of tests to simulate the severe environmental conditions the vehicle may encounter from the time it is assembled until it re-enters the earth's atmosphere after flight into outer space.

The schedule includes thermal cycle, vibration, shock, acoustic, radiant heat, and drop tests. One of these tests, for example, involves rapidly heating the vehicle to white-hot temperatures and then suddenly dropping it into near-freezing water.

Along with studying the burnup of vehicles re-entering the earth's atmosphere and planning for flight tests, Sandia is conducting a ground test program of inert models of the SNAP 10A reactor. Ground tests of the simulated reactors are conducted to



RE-ENTRY VEHICLE, designed by Sandia Corporation for use in the aerospace nuclear safety program, is shown being subjected to a development vibration test at Sandia Laboratory. At right, Denny L. Krenz (7331) observes the vehicle as James A. Enlow (7324) relays information from the control console in another room. A mockup of the core vessel for the space-bound reactor is shown on top of the vehicle.

assess the hazards that may be encountered during handling prior to actual orbital flight.

The first phase of the series of ground tests on SNAP 10A has been completed at the Air Force Missile Development Center at Holloman Air Force Base under the direction of the Air Force Special Weapons Center at Kirtland Air Force Base.

Sandia is conducting the sec-

ond series of ground tests involving models of this same reactor. An inert reactor is undergoing a series of tests on Sandia's rocket sled track.

Sandia is also planning to conduct a sub-orbital re-entry flight test, which is scheduled for the early part of 1963. This test will subject an inert model of the SNAP 10A reactor to the heat of a simulated re-entry.

Christmas Tradition of Helping Needy Continuing at Sandia Laboratory

As in years past, Sandia Labora- parish and half by a Protestant tory employees are organizing prochurch. jects to help the needy at Christmas Sandia United Unions, IBEW time instead of exchanging Christ-#1988, Office Employes #251, and mas cards. Machinists #1689, will again spon-One novel approach for raising sor a Christmas party for the Rivmoney is being pursued by Sections er View Elementary School. Ten 3446-1 and 3441-1. Employees are large collection boxes will be contributing articles for a white elplaced in Bldgs. 840, 894, 892, ephant sale. All proceeds will be 880, 836, 806, and 802 where emused for charity. ployees may deposit wrapped "Plenty of merchandise will be on gifts to be given to the children. Willis Jobe (4511) and Ernie Lodisplay," Cora Beckes (3446-1) vato (4234) are coordinating arsays. "Anyone interested in buying rangements for the activity. articles of value and, at the same time, giving in a Christmas spirit, Other organizations are planning come to Rm. B-60, Bldg. 802, durmany Christmas projects. A fine ing the lunch hour Dec. 12-13-14." tradition is firmly established at For the fifth consecutive year, Sandia Lab. Next issue of the Lab News will tell about more of these employees in Department 4410 plan to provide Christmas baskets for activities.





was 3:25 in the afternoon, and a small group of men, headed by Dr. Enrico Fermi, had attained a sustained nuclear reaction. The first nuclear reactor "went critical." There was a war on. Fermi, who led the scientists to this accomplishment, was not yet a United States citizen. It was a race to see if the United States would develop the ultimate weapon before its enemies.

December 2, 1942, on a squash

court under the football stands at

the University of Chicago, a new

age of man started.

For 28 minutes Fermi and his companions watched recording instruments as the experiment went on. The adventure was a complete success

Professor A. H. Compton of the University of Chicago put in a telephone call for the Office of Scientific Research and Development at Harvard. There was a need for secrecy.

"The Italian navigator has reached the New World," he said. "And how did he find the natives?" his Harvard contact asked. "Very friendly," Compton reported. The good news had been passed

Everything was top secret at the Metallurgical Laboratory.

*

("Met. Lab." was the code name given by the Manhattan Engineer District of the Army, war-time predecessor of the U.S. Atomic Energy Commission, to its operations at Chicago, where, on Dec. 2, 1942, man's first controlled release of nuclear energy was achieved.)

Early in December 1942, I gave a large party for the "metallurgists," who worked with Enrico, and their wives. Walter Zinn and his wife were the first to arrive. It was subzero weather outside. After shaking the snow from his shoulders, Walter extended his hand to Enrico and said 'Congratulations."

Every man who came to the party congratulated Enrico. I was puzzled. My inquiries received either no an-swer or evasive replies such as "Ask your husband," "Nothing special, he's a smart guy," or "Don't get excited, you'll find out sometime."

l asked her.

Leona bent her head and whispered: "He has sunk a Japanese admiral."

No matter how firmly the logical part of my mind disbelieved, there still was another, way back almost in the subconscious, that was fighting for acceptance of Leona's words. To sink a ship in the Pacific from Chicago . . . perhaps power rays were discovered . . . I was doubtful and my doubt was to last a long time.

Two and a half years elapsed. One evening shortly after the end of the war in Japan, Enrico brought home an advance copy of the Smyth Report. ("Atomic Energy for Military Purposes" by Henry De Wolf Smyth, 1945). I worked my way through its technical language.

When I reached the middle of the book, I found the reason for the congratulations Enrico had received at our party. On the afternoon of that same day, Dec. 2, 1942, the first chain reaction was achieved and the first atomic pile operated successfully under Enrico's direction.

about 25 families. Heading the effort are A. L. Ouellette (4411-4), chairman, and Nancy Duhigg (4411), secretary, with a committee of 14 section representatives.

Money and toys will be collected on Dec. 3 and 18. Arrangements have been made to buy food at discount. The baskets will be packaged Dec. 20 for distribution Dec. 24.

Half of the names of needy families will be supplied by a Catholic

Brother Receives Medal

News about Cuba has taken on a new meaning for Berenice Schwarz (3446-2). Her brother, Capt. Gerald McIlmoyle, was one of 36 Air Force men to recently receive the Distinguished Flying Cross for missions over Cuba which revealed a military buildup.

Editorial Comment

Cowboys and Engines

Coming out of the Thanksgiving Holidays and preparing for the Christmas Holidays, we find highway traffic records bad. New Mexico's (and most other states') traffic toll goes higher and higher. At a recent reading, 395 traffic deaths had been recorded so far this year as compared to 310 at the same date in 1961.

LAB NEWS

This brings us to the subject mentioned in the caption of this short bit – "Cowboys and Engines."

The cowboy of today and his destructive four-wheeled steed are not held in the same fond regard as the American cowboy and his four-legged companion of yesterday. One evokes nostalgic memories; the other makes us sick.

In 1961, 3,094,600 highway casualties were recorded. This roughly is equivalent to the population of a dozen Albuquerques and several Livermores. Studies made over the years have shown that the overwhelming majority of vehicles involved in accidents were in good mechanical condition and that road and weather conditions were a negligible factor. Curves were no greater problem than straight roads and intersections could be free of accidents.

The dreary record of 60 years of motoring: 70 million casualties.

Better highways, seat belts, padded instrument panels, and speed governors are not the complete answer. Neither are higher licensing requirements, stiffer violation penalties, or even mechanical highways.

Neither science nor engineering, no matter how wisely ap-plied, can provide a permanent full solution. The problem has its roots in the minds of men and there the answer must be found.

IRE-AIEE Groups to Merge; Joint Dinner-Dance Set Dec. 13

With the merger of the Institute of Radio Engineers and the American Institute of Electrical Engineers imminent Jan. 1, the last local social function as separate organizations will be held Thursday, Dec. 13. A Christmas dinner-dance is scheduled for both groups at the Four Hills Country Club.

Social hour will begin at 7 p.m., dinner will be at 8 p.m., and dancing will start at 9 p.m. with the Vern Swingle orchestra playing. Tickets are \$1.75 and reservations must be made before Monday, Dec. 10. Call Charles Schmidt or Julia Harley at AL 6-0798.

Members of both national groups voted last summer to merge the two organizations into one technical society to be known as the Institute of Electrical and Electronic Engineers (IEEE). National membership is estimated to reach 160,-000.

Locally, the merger will affect about 1000 persons, many of them Sandians. Beginning Jan. 1, the two groups will combine executive committees and function with cochairmen. Allen B. Church (1431), IRE chairman, will be one of the co-chairmen, with Ray C. Cainski, Public Service Company, AIEE chairman.

Members of the merger-guiding committee include H. H. Patterson (7160), T. S. Church (1410), and R. G. Hamilton (7331). Next May, the IEEE constitution will be adopted and new by-laws for the local group written. A single slate of officers will be elected.

Service Awards

15 Year Pins



Horace J. Montoya 947



1414 Dec. 9, 1947



4224 Dec. 10, 1947

Several Sandians Spend Vacations Recently In Europe; Fewer Tourists, Good Weather

Fall in Europe, with its promise of fewer tourists and better weather, appealed to several Sandia Lab employees.

Those going abroad in recent months included the Joe Heastons (7254), the T. T. Robertsons (4400), the A. P. Gruers (7530), and D. B. Kennedy (4413).

The Heaston's first stop was Stuttgart, Germany, to pick up a foreign-made car for touring the back country of southern Germany, Holland, and Switzerland, "We particularly enjoyed this method of travel," Mr. Heaston said, "but found a language barrier once you're off the beaten path. We had to resort to charades and makeshift sign language more than once." After shipping their new car from Bremen, the Heastons continued on to Denmark for a week. "The weather was perfect, the scenery was beautiful, and the food was wonderful," they both agreed. Scottish-born T. T. Robertson and his wife naturally spent much of their time in Scotland, where

Mr. Robertson's mother still lives. A highlight of their trip was attending the Braemar gathering where, for the first time, they saw all the members of the Royal Family, including Queen Elizabeth II, Prince Phillip, and their two oldest children; Princess Margaret and the Earl of Snowdon; and the Queen Mother.

The last week of their trip was spent in Ireland at Ashford Castle, about 25 miles north of Galway Bay in Connemara. The original part of the castle dates back to about 1570 and has been added onto by the Guinness family through the years.

"Practically all the food, including vegetables and meat, is produced on the estate, and there is also a stream containing trout and salmon. The place was so wonderful we stayed much longer than we had originally planned," Mr. Robertson said.

The Gruers visited the British Isles and Scandinavia (they met the Heastons in Copenhagen). One of the most interesting experiences was spending several days on the Isle of Man with Douglas Gruer-"a very distant relative."

Although inhabitants of one of the British Isles, the local people have their own form of government which differs drastically in some instances. In summer, the island is a popular British tourist spot.

On the trip home, their ship, the Empress of Britain, was struck by a Force 12 hurricane, "and that's as high on the scale as a hurricane goes-75 mph and up," Mr. Gruer explained. The first big wind blast cleared the dining room tables of crockery. A number of passengers were injured and practically all were seasick. The storm lasted two days and the ship's course was altered radically to avoid the worst part. The ship was a day and a half late arriving in Montreal.

To D. B. Kennedy, the real thrill of his trip was the first sight of Scotland from the plane. He was born in Glasgow, and this was his first trip back to his native country. "Many of the streets, churches, and schools I was familiar with 50 years ago were still there unchanged," he recalled.

"After so many years, it was startling to find places, that to me had become almost dreams, there before me in reality. I even found my initials carved on a desk in one of my old schools. I sat at this desk, and seemingly the shades of my old associates were there with me." Mr. Kennedy brought back with him the cap and blazer insignias from two of the schools he attended.

He saw two big-league soccer games in Glasgow before traveling to Edinburgh, where he caught a glimpse of the Queen, Princess Margaret, and the Queen Mother as they welcomed the King of Norway. Mr. Kennedy saw many of the beautiful lakes and coastal resorts in Scotland before returnning to Albuquerque.



ROADRUNNER RHUBARB - Artist Don Radovich (3463) had no idea of the tempest he would arouse when he painted the above portrait of New Mexico's state bird. Roadrunner-tail lore experts are at odds.

Sandia Artist Lights Fire **Over Roadrunner Stabilizer**

Peggy Wheeler (3126/1313)

Take a Memo, Please

Hazards and accidents go together. Look for and eliminate any hazards you encounter.

Two Bands Planned For Coronado Club New Year's Party

The Coronado Club's New Year's

L. J. Paddison





Herbert J. Bowen 7214 Dec. 15, 1947



George W. Ison 2624 Dec. 15, 1947



G. C. McDonald 2530 Dec. 18, 1947

10 Year Pins Dec. 8-21

Pauline Y. Loomis 3321, Grafton W. Moses 7536, Richard O. Murdoch 1432, Gilbert Ra-mirez 4613, Mary Hazel Bailey 3126, Eugene J. Meyer 7132, Juan B. Gabaldon 4574.



James M. Allen, Jr. 7241 Dec. 19, 1947



David S. Tarbox 3200 Dec. 15, 1947

Irvin W. Lenz 7224 Dec. 19, 1947

Cecile B. McIntosh 8212, Irvin L. Moulton 3451, Howard T. Stump, Jr. 9100, William E. Tucker 7536, Luther F. Martinez 4622, James McMinn 8234, Joe S. Ochoa 4614. Robert F. Carleton 4231, Billy Max Gragg 7242, Dulin G. Westfall 7231, Claude C. Ed-wards 4518, Roy E. Hollenbach 1113, Floyd Lee Mastin 4631.

Eve Party, Monday, Dec. 31, will feature dancing from 9 to 1 a.m. to the music of two orchestras: The Lads of Knote in the ballroom, and Ernie Ricardo in La Cana Room.

The admission price includes one fifth of champagne for each couple, plus breakfast and a variety of noisemakers and hats. Prices are \$7.50 per couple for members and \$10 per couple for non-members. Reservations will be made at the time of ticket sale.

New Year's Day, color television will be set up to accommodate a crowd during the parade and football games.

Sympathy

To T. S. Trybul (7183) for the death of his father on Nov. 17. To Noble Johnson (3122) for the death of his father on Nov. 26. To R. K. Strome (3463-2) and T. W. Strome (1321-1) for the death of their mother on Nov. 27. To James A. Skidmore (4511-1) for the death of his father on Nov. 27 in Texas.

Don Radovich, illustrator in Technical Art Division 3463, is at the center of the recent controversy concerning the tail attitude of New Mexico's state bird. The rhubarb revolves about a painting which Don did on commission from the State Wildlife Magazine. The painting now hangs in the Governor's office as the official representation of the state bird.

By powers of observation born of long experience as a naturalist. Don noted that when a roadrunner comes to a halt he gives his tail a slight "pumping action" and then brings it to rest at about a 45° angle skyward. This is the attitude depicted in the painting.

Exception has been taken to this by those who see the bird as having a characteristically horizontal stabilizer. This group calls itself "TAIL FEATHERS" (The Amalgamated Illustrious Loyal Federation Engaged Actively To Halt Elevated Roadrunner Stance).

Don, who enjoys the support of the State Game Department and well established ornithological evidence, has remained aloof from the controversy.



Permission to reprint material contained herein for other than governmental use, may be obtained from the Editor, Lab News, Sandia Corporation.



INSIDE the 27-ft. diameter vacuum tank, Eugene A. Koenig (7132-2) examines the instrumentation column. SAND device will be mounted on a rotating shaft at

the top of the support column. A 40 hp air turbine can rotate the sampler at 600 rpm to check performance at a simulated altitude of 200,000 ft. to sea level.

Space Environments Attained by Conversion of Wind Tunnel Tank

An ingenious solution to a requirement for testing an aerospace sampling device resulted in Sandia Laboratory's new High Altitude Simulation Facility. Completed last month, the facility is located inside one of the 10,000-cu.-ft. vacuum tanks that are part of Sandia's hypersonic wind tunnel.

This unique location solved the problem of providing an environment equivalent to an altitude of 200,000 ft. A near-vacuum could already be produced inside these tanks. The addition of a two-stage 3000-CFM-high vacuum pump made possible conditions equaling 1/7600th of the earth's atmosphere.

The sampling device, called SAND (for Sampling Aerospace Nuclear Debris) is under development by Aerospace Physics Division 5414, and Aero and Thermodynamics Department 7130 for the AEC's Division of Biology and Medicine. The device will be launched to an altitude of 200,000 ft. by rockets. For the descent, 8-ft. "arms" will unfold and rotate at 600 rpm. "Filters" on the arms will collect samples for later laboratory study. The 27-ft. diameter steel tank proved ideal for the high altitude chamber. The addition of a test support column, floor, airlock, instrumentation, power, and control circuitry were all that was required to make a dual purpose test facility out of the tank. This tank still serves its orginal function of supplying an exhaust system for the hypersonic tunnel. The High Altitude Facility can simulate a trajectory from 200,000 ft. to sea level. Fourteen data channels are provided and the existing wind tunnel data system and control room can be used.

tank while revolving under its own small rocket system.

A porthole in the airlock door allows observation of tests including

TV and motion picture coverage. The idea for the new facility evolved during a meeting of R. C. Maydew, supervisor of Experimental Aerodynamics Division 7132; H. R. Vaughn, supervisor of Aerodynamic Research Division 7131; and J. D. Shreve, supervisor of Aerospace Physics Division 5414

Trisonic Wind Tunnel Section 7132-2 under J. F. Reed did preliminary planning for the facility and is responsible for its operation. Mechanical design was done by Aercdynamic Model Section 7133-2, headed by E. C. Rightley.

Plant Engineering Department 4540 was responsible for structural design, installation of the turbine air pump, and construction of the facility. J. C. Snowden (4543-3) was project engineer

DECEMBER 7, 1962

LAB NEWS

A. P. Gruer N. American Chairman **Of Int'l Telemetering Conference**

Allan P. Gruer, manager of Quality Assurance Operations Department 7530, recently returned from London, England, where he attended a planning meeting for the International Telemetering Conference 1963. Al is serving as North American Chairman for the conference. Al is also serving as publicity chairman for the National Telemetering Conference which will be held May 20-22 in Albuquerque.

The two activities are interrelated, Al says. After serving as program chairman for the 1959 National Telemetering Conference, Al was appointed by the Board of Directors of the conference to try to arrange a meeting of international scope.

Since that time, Al has made two trips to Europe while on vacation from Sandia to arrange the meeting. He has also initiated four looseleaf notebooks of correspondence. At the meeting held in London last month, plans for the international conference were completed.

The meeting will be held at the Institution of Electrical Engineers in London, Sept. 23-27, 1963. The British IEE will host the confer-

ence with the sponsorship of five American technical societies and several from Europe including the Advisory Group for Aeronautical Research and Development, NATO.

Twenty-five outstanding technical papers will be selected for the North American contribution to the international program. About the same number of telemetry equipment manufacturers plan to exhibit products during the conference.

Sandia Summer **Employee Subject Of Feature Article**

Clyde Northrup, Jr., frequent summer employee at Sandia Lab and son of Clyde Northrup (7215), was the subject of a feature story on married students in a recent issue of the Stillwater (Okla.), News-Press.

The 25-year-old former athlete is working on his Master's degree in physics and his wife is studying toward her Master's in biology. Both are doing lab or research work in addition to finding time to care for their infant son.

Supervisory Appointments

ROBERT J. GUERIN to supervisor of Systems Survey Division

Instrumentation Department 7230.

Four years ago he was promoted

Methods Section II, 4113-2.

supervisor of Accounting

Before coming to Sandia, Bob

worked two years in accounting

for the Zia Company at Los Ala-

mos, and a similar period as as-

sistant comptroller for Highlands

University in Las Vegas, N. M.

gree in business administration

from Highlands University.

nior Draftsmar

He received his Bachelor's de-

Bob served three years in the

to

Air Force.

partment.

10 and a half years ago in Cost Accountin Division 4152. He later transferred to Research and Development Budgeting Department, and for a short time was a TDSR for Aerospace

WAYNE D. OLSON to supervisor of Section 7162-1, Fuzing Systems During four

and a half years Sandia. at Wayne has worked the entire time in Systems Engineering Department except while on loan to Field Test during the

recent test series in the Pacific.

Previously he worked seven years in the aeronautical division of Minneapolis-Honeywell in Minneapolis, and one year in the electronics division of Sylvania in Boston.

Wayne graduated from the University of Washington with a BS degree in electrical engineering and is a member of Tau Beta Pi and Phi Beta Kappa, honorary societies.

During World War II, he served two years in the Navy.

E. E. IVES to supervisor of Section 7164-2, Warhead Electrical Systems Division.



"Gene" has worked in Systems Engineering Department 7160 since he came to Sandia in June 1956.

He has a BS degree in electrical engineering from Au-

burn University and a MS in EE from the University of New Mexico. Gene attended Auburn under a scholarship from the Ireland Foundation of Birmingham Slag Corporation. He also worked summers in that company's engineering department.



4114, Business Methods De-

Bob began work at Sandia



The center instrumentation column can rotate or the SAND device can be contained inside the NEW HIGH ALTITUDE Simulation Facility, located inside one of the 10,000 cu. ft. vacuum tanks of the hypersonic wind tunnel, was completed last month. J. F. Reed, supervisor of Trisonic Wind Tunnel Section 7132-2 which operated the new facility, stands at air-lock entrance.

Gaillord M. Cormany (8114) to Staff Assistant, Senior Draftsman

Senior Uratisman Gaillord M. Cormany (8114) to Staff Assistant, Senior Draftsman Tadao Hisaoka (8114) to Staff Assistant, Senior Draftsman James C. Sanchez (4574) to Janitor V. S. Gallagher (4574) to Janitor Johnnie Garcia (4624) to Layout Operator Jarry D. Tichenor (4224) to Technician W. J. Villanueva (4224) to Technician James R. Melton (4224) to Technician Frank M. Pena (3446) to Decument Clerk Julian C. Baca (4611) to Service Clerk Dana J. Drannon (3446) to Document Clerk Julian C. Baca (4611) to Service Clerk Dorothy S. Jones (453) to Accounting Clerk Kenneth L. Kluge (8232) to Photostat Operator Gary W. Konopka (8214) to Receiving Clerk Margaret W. Holzman (8212) to Receptionist Miriam D. Hall (8242) to 5tock Record Clerk J. B. Baskett (3446) to File Clerk Darlene B. Blaylock (3451) to Tabulating Equipment Operator Emma Jean Stuart (8214) to Record Clerk Shirley D. Kurth (3421) to Library Assistant L. Jim Connally (8214) to Calculating Machine Operator Galdys J. Harms (8234) to Calculating Machine Operator Galdys J. Harms (8234) to Calculating Machine Operator Gladys J. Harms (8234) to Calculating Machine Operator Carloy P. Andoza (3441) to Mesage Center Equipment Operator Carloy P. Andoza (3441) to Mesage Center Equipment Operator Carloy P. Andoza (3441) to Mesage Center Equipment Operator Carloy P. Anodza (3441) to Mesage Center Equipment Operator Carloy P. Anodza (3441) to Mesage Center Equipment Operator Carloy P. Anodza (3441) to Mesage Center Equipment Operator Carloy P. Mendoza (3441) to Mesage Center Equipment Operator Carloy P. Mendoza (3441) to Mesage Center Equipment Operator Carloy P. Mendoza (3441) to Mesage Center Equipment Operator Carloy P. Mendoza (3441) to Mesage Center Equipment Operator Carloy P. Mendoza (3441) to Mesage Center Equipment Operator Carloy P. Mendoza (3441) to Mesage Center Equipment Operator Machine Operator Machine Operator Ida Nelson (4152) to Accounting Clerk Adela Bowen (4314) to Stenographer Clerk James I. Morewood (2563) to Data Reduction Clerk

Clerk Ronald B. League (8214) to Receiving Clerk Josie C. Lundergan (1430) to Secretary Evelyn L. Stewart (7320) to Secretary Phyllis M. White (9000) to Secretary

Phyllis M. White (9000) to Secretary **Supervisory Lateral Transfers** Mrs. B. M. Metrill from 7241-1 to 7241-6 J. T. Risse from 7182-1 to 7181-1 W. E. Bosken from 7331-3 to 7323-2 E. White from 7323-2 to 7311-2 J. P. Cavanaugh from 4135-2 to 4131-3 T. F. Lonz from 4131-3 to 4135-2 C. E. Ingersoll from 7254-2 to 7233-1 R. E. Gott from 8115-2 to 8115-3 M. M. Newsom from 7164-2 to 7163-2

He is a member of Tau Beta Pi and Eta Kappa Nu, honorary societies, and the Institute of Radio Engineers.

Welcome Newcomers

Nov. 19-30

Albuquerque

Dominic Cianchetti	3446
Carole E. Fitzpatrick	3126
Eileen A. Fitzmorris	3451
Elsie D. Haaland	3126
Ralph L. Kemp	3444
Elisandro Romero	4574
California	
*Neilan B. Botsford, Palo Alto	1321
*Robert E. McDermott, Canoga Park	4411
llinois	
Lee W. TenHaken, Chicago	2544
Wisconsin	
James F. Kobs, Appleton	1314
Denotes rehired	
Returned from Leave	
Mary L. Ward	4413
Patricia R. Smith	3112

Sandia Laboratory Medical Organization Protects Employees' Health



RADIATION DETECTION DEVICE is used by Thomas Devlin (left) as Calvin Nash (right) uses remote handling tongs to transfer radioactive matter from the "buggy" to small container. Harold Rarrick (center) is supervisor of Health Physics Section 3311-2 to which others belong.

Medical organization (3300) is to improve and conserve the health of employees.

To accomplish this purpose, S. P. Bliss, M.D., who is the Medical Director, explains that it is necessary to control environments as well as to determine the state of employees' health through medical examinations. "We're constantly striving for refinements in preventive medicine," he says.

Environmental Health Department 3310 is responsible for both industrial hygiene control (toxicology and general sanitation) and health physics (radiation safeguards)

Industrial Medicine Department 3320 operates the medical stations located throughout Sandia Laboratory, Clinical Medicine Department 3330 conducts preplacement and periodic physical examinations

Workmen's Compensation and Medical Services Department 3340 is concerned with counseling and research on job-related injuries, absenteeism, and emotional health.

* * *

"In the work of Environmental Health Department 3310," Dr. Bliss says, "we use the premise that it is simpler to keep track of an environment rather than waiting for an employee's periodic physical exam to indicate exposure to an unhealthy condition."

With accurate instruments, immediate steps can be taken to reduce the danger before the permissible level of exposure is reached. When the symptoms of something like lead poisoning appear, it's already too late to reduce or eliminate the employee's exposure to the fumes.

The Environmental Health Division, headed by W. H. Kingsley, has grown rapidly the last several years. Industrial Hygiene Chemis-

erett, conducts chemical sampling and analyses. Water fountains and cafeterias are inspected regularly to assure sanitary conditions utilizing U.S. Public Health Standards.

Problems in toxicology are also handled by this section. A chamber is available in Bldg. 868 where employees may check the fit of respirators worn in the presence of poisonous fumes, and work hoods are checked regularly in areas where lead, zinc, cadmium, or organic vapors are present.

The organization serves Sandia's Development and Research organizations in determining possible hazards from unknown materials. Some of the exotic metals-such as borated organic compounds developed for use as rocket fuel-are quite toxic. One employee of this section is conducting extensive work on hazards of beryllium in connection with the aerospace nuclear safety program.

Health Physics Section 3311-2, headed by H. L. Rarrick, is concerned with radioactive material. Accountability logs are maintained for the control of all naturally radioactive and irradiated material in Sanda Laboratory custody This section provides six monitors for the Sandia pulsed reactor (SPRF) and engineering reactor (SERF) in Area V, and three or four monitors for assignments in Tech Areas I, II, and III. The men of 3311-2 maintain all radiation detection instrumentation at both reactors, and serve as a secondary radiation standards group. Under a recent AEC contract. D. J. Coleman (3311-2) developed a new portable detector for tritium.

This section is also responsible for dosimetery. About 3000 film badges per month are issued at Sandia Laboratory to employees who come in contact with radioactive materials while performing their jobs. After use, the data obtained from the exposed film is interpreted to determine individual radiation exposure, and also to assist monitors in detecting possible areas of exposure. Dosimetry assistance is also given R&D organizations for special jobs.

On occasion, members of Environmental Health Division are asked to assist at test sites when especially hot radioactive recov-

The prime purpose of Sandia's try Section 3311-1, under R. J. Ev- eries are to be made, when there is a special toxic problem, or when a co-ordinator is needed between on-site contractors and Sandia recovery people. The division is presently developing an emergency team for underground (tunnel) re-entry work to supplement its current capability for emergency response in case of nuclear accidents.

* * *

The work of Industrial Medicine Department 3320 and Clinical Medicine Department 3330 is handled by two physicians, F. A. Zack and S. B. Over, assisted by a staff of 10 nurses, which is supervised by Mrs. M. J. Ready. There is also an X-ray technician, and a lab technician. Half of the registered nurses are in Bldg. 831, the rest are located in medical stations in Bldgs. 840, 880, 887, 892, and Area doctor III.

Physical examinations given by these two departments include pre-employment exams, which may disclose limiting physical abilities; check-ups given supervisors at regular intervals based upon their age; annual exams for all employees over age 60; and health inventory examinations now being offered employees between ages 40 and 60 who have five years or more of service at Sandia. In addition, there are special examinations for employees working with hazardous or toxic materials, examinations required of employees before assignment overseas on field test operations, and exams given employees before transfer to other Sandia Corporation work locations (such as Livermore Laboratory, Tonopah Test Range, or a site).

Although the Medical organization was established to administer medical care for occupational injuries and diseases, first-aid and consultation are provided for employees for non-occupational illnesses and injuries. As Dr. Bliss explains, "It's not our intention to invade the province of the familv doctor, but in order to make an employee feel more comfortable, we will dispense medication (usually enough for not more than 24 or 36 hours) for minor conditions for which an individual would not ordinarily consult a physician.

Dr. Bliss stresses the importance of an employee seeking



in sampling and chemical analyses of toxic materials. Everett, supervisor of Industrial Hygiene Chemistry

INDUSTRIAL HYGIENE CHEMISTRY Laboratory is used of Environmental Health Division 3311, and R. J. (L to R) Tom Linn (3311-1), W. H. Kingsley, supervisor Section 3311-1. The laboratory is in Building 830.



HAY FEVER SUFFERERS like the time-saving advantage of having injections of their own physician-prescribed serum given at one of Sandia's medical stations. Nurse Pat Scroggins' main interest, of course, is in administering first aid for occupational injuries incurred here.

DECEMBER 7, 1962

LAB NEWS

PAGE FIVE

family physician immediately for nonoccupational illnesses and injuries. In order to avoid embarrassment to both the Corporation doctor and the employee, the employee should take the initiative in seeing his own personal physician for nonoccupational medical problems.

Hay fever sufferers frequently have injections given at one of the medical stations to avoid several hours off the job needed for a visit to a doctor's office. The serum is provided by the indiplicit instructions from his own physician. Such injections average about 350 a month on a year 'round basis. Occasionally the nurses may also give an insulin shot to a diabetic, vitamin B12 injection, or other type of medication prescribed by an employee's

Workmen's Compensation and Medical Services Division 3341 supervised by E. K. Baker and assisted by his Section Supervisor Sam Mancuso, works closely with Industrial Medicine and Clinical Medicine Departments. A great deal of time in this division is devoted to workmen's compensation cases, however, it is also responsible for the many administrative functions of the medical departments, which include maintaining extensive employee medical records, and scheduling all medical examinations.

. . .

Since Sandia Corporation is self-insured for workmen's compensation in New Mexico and California, Division 3341 handles all of the details from the initial investigation at the time of the injury until the case is closed. The administration work is handled here no matter if the accident occurs within the continental United States or over-

However, in the case of Livermore employees, the investigative work is handled by Personnel Division 8212 at Livermore Laboratory. "This self-insured feature -which is usual for a large company-helps us to maintain a closer employer-employee relationship in compensation cases instead of having to bring in a third party," Mr. Baker explains.

Mr. Baker also serves as secretary of the Employee Benefits Committee, which, as one of its functions, approves settlements in workmen's compensation cases.

Since compensation laws vary with each state, and the employee's residence or usual work location determines state jurisdic-

proper medical care from his members of Sandia's legal office (6000).

> This division is presently putting employee medical statistics into an international code, issued by the World Health Organization, for use in determining any trends in sickness absence, abnormal number of specific illnesses, or other needs for special study.

Employee medical folders, for which this division is responsible contain a record of every visit an employee has made to the medical organization along with mention of treatment given. Information vidual employee along with ex- in this folder is available to personal physicians upon employee request.

> Clinical Psychology Division 3342, headed by J. H. Gibson, was created last March to provide psychological counseling for employees and supervisors, and to develop a preventive mental health program for the Corporation

. . .

This service was established in order to help deal with existing and to forestall the development of future serious emotional problems among Sandia employees. "Through a lifetime, everyone develops his own way of reacting to tension-producing situations," Mr. Gibson explains. "Often these ways involve inadequate, if not pathological, patterns of behavior. These become progressively more severe and may result in emotional problems related to home life, social life, or job performance Ultimately a degree of stress or strain may be experienced which may precipitate a nervous breakdown.'

Although Sandia's incidence of such problems is not serious, the average age of Sandia employees is approaching 40. This age has been found to be a time of crisis in most men's lives, and the introduction of such a service is most timely.

"Most people don't understand the causes or nature of emotional problems," Mr. Gibson says. "Often early identification and recognition of an employee's emotional problem makes possible help before the problem becomes serious. The division's job is to provide professional, confidential counseling service to assist the employee in his problem or to recommend other available resources." Employees may go direct to Mr. Gibson, or they may be referred by their supervisor or personnel representative (Division 3121) or the Medical staff.

Eventual plans call for research in the area of preventive mental the group.' health, which is a relatively new industrial function. Effective aption, members of Division 3341 proaches to many aspects of such frequently must work closely with programs remain to be discovered.



R. W. HENDERSON, Vice President, Weapon Programs, Processes conference. Discussion centered on the job conducted the last session of Technical Management of the Sandia Laboratory technical project manager.

Electronic Computer Used to 'Officiate' In Sandia Management Simulation Exercise

at exploring the processes of tech- but not indicate an early contact last session of the pilot conference. nical management has been with possible suppliers. The team This was an interchange of ideas. launched by Personnel Research. Training and Education Department 3130. Two pilot conferences have been held in recent weeks a statement such as, "Team 2 has mission and the results evaluated by the participants, management, and the training organization. The course will now become a part of Sandia's formal management development program.

"This was the first time such a course had been presented anywhere," James A. Smith, supervisor of Staff Training and Education Division 3131, said, "and in the beginning we were experimenting. Our goal was to help the Sandia project manager better understand himself and the impact his habitual methods of thinking and decision-making have on his organization and on his managerial performance.

Seminar Climate

In the pilot conferences, the course ran four days and a "seminar" climate prevailed. Discussions ranged over the traditional management functions of analysis of problems, formulation of plans, organization of efforts, delegation of authority, establishment of control, and the use of feedback in accomplishing control.

"It was a redefining of the job of being a project manager," Albert L. Wyer (3131-1), who conducted the pilot sessions, said. "The group examined such things as individual orientation toward action, types of problem analysis, decisiveness of judgment and action, and communication practices. In these discussions, individuals could compare their performances with others in

A unique feature of the conference was "management simulation." Participants were organized into four-man teams and given a development project based on past Sandia experience

Sandia's IBM 7090 computer, connected by a special line to the conference rooms, tallied the progress of the teams and monitored the simulation. The computer program was designed by Dr. Leonard J. Garret of the Wharton School of Finance and Commerce and a Sandia consultant. He also helped Al Wyer with the content development of the course.

Projects Assigned

In performing the simulated task, the teams were assigned a project, a staff, and a schedule to meet. The team decisions, the way the staff was assigned to the tasks, and organization of the work had numerical values in the computer. The program made possible quick computing of the values and issuing progressive steps for the simulation.

Stress situations based on problems of quality, quantity, difficulty, and priority of projects were a part of the simulation to challenge the administrative ability of the teams.

For instance, a team might make high-value decisions in assigning

A new training program aimed the staff and organizing the work Weapon Programs, conducted the might rank high on the first part, discussion of problems, managelower on the second. The computer ment philosophies, and a projecwould score the decisions and issue tion of the company's technical progressed four weeks, issue change order number 1." This would be a new development which would affect the team's project and call for more decisions and a new step in the simulation.

"The simulation itself was not important," Al said, "It served to condense months of management decision-making into a short time and bring these activities into a laboratory situation for analysis by the group."

Idea Interchange R. W. Henderson, Vice President,

"Participants valued this firsthand account of top management's

view of the company's performance, problems, and plans," Jim Smith said. "Many also felt that the concentrated course clarified the manager's problems. No list of skills to be memorized was presented, but they felt that the conference provided a deeper insight into the concepts of management skills - valuable learning experience of benefit to both individuals and to the company."

(7214), left, and R. R. Beach (2532) intent in management simulation activity of a recent pilot course, Processes of Technical Management.



READOUT from Sandia's IBM 7090 computer is received by Al Wyer, left, and Ken Krogh of Staff Training and Education Division 3131. The computer monitored a management simulation, generating material for discussion during Technical Management Processes conference recently.



EMPLOYEE MEDICAL STATISTICS receive a going over by Dr. S. P. Bliss, Sandia's Medical Director, E. K. Baker and J. H. Gibson. Coded statistics can indicate trends in sickness absence or specific illnesses.



As the U.N. finishes its 17th year of life, it faces recriminations more severe than at any time during its short history. Our Ambassador to the U.N. examines the criticisms and explains why they are unjust.

Four out of five Americans, according to public opinion polls, think the United Nations is doing a reasonably good job, that we should continue to participate in it.

At the same time, however, a nagging note of doubt and hostility runs through much recent comment about the organization. Some of it is strident, almost fanatic, permeated with distrust of everything that is not 100 per cent American. (After all that has happened since 1914, it is assumed, we can still live alone and like it.) Some critics regard the United Nations as an entangling alliance: It drags us into support of dubious regimes and equally dubious causes. (Our voice is no weightier than that of the smallest U.N. member.) Some think of the United Nations system as a gigantic international handout, spending American funds and resources exclusively for the benefit of others. And some even believe that the U.N. is an instrument for bringing about Communist domination.

But then, in a curiously contradictory approach, there are those who object to the United Nations as useless because it is inconsequential. (It is just a debating society, all pointless talk and no action, quite incapable of righting wrongs and safeguarding the peace.)

All these criticisms have one thing in common: They are all unjustified.

Voluntary Association

The truth is rather less melodramatic and much more reassuring. For the United Nations is a voluntary association of sovereign states, no more and no less, with no power to make laws for its members. It is in a sense the trade association of the modern government. It operates through recommendation, request and exhortation rather than by decree.

And yet it is clearly a repository of power and influence. For power assumes many forms, not least of which is the power of world opinion, over time, to shape the actions of nations and men.

Today, a rifle shot on a critical frontier could conceivably trigger

ities; stabilized the dispute between India and Pakistan over Kashmir; and began to patrol the chronically disturbed armistice lines around Israel.

In Korea the U.N. exposed and branded flagrant Communist military aggression, and provided a framework within which 15 nations could help the United States and the Republic of Korea to thwart the attack.

Emergency Force

In the Middle East a United Nations emergency force of 5,000 stands guard to prevent recurrence of the 1956 Sinai war. The U.N. has also been involved in the handling of crises in Lebanon, Jordan and Kuwait. And this is far from a complete catalogue of the trouble spots with which the United Nations has in some way been concerned.

U.N. agencies are prominently engaged in combating disease, helping to preserve monetary stability, wiping out illiteracy, training skilled personnel, protecting children, facilitating transportation and communications, encouraging better social services, and fostering human rights. The entire effort should be vastly stimulated as the U.N. Decade of Development proposed by President Kennedy last September gets under way.

It is an impressive roster of activities. And, as it happens, it is carried on predominantly with the personnel and resources of the free-world countries. Currency and personnel restrictions in the Soviet bloc countries have sharply limited Communist participation.

What we are witnessing in the underdeveloped areas is an exceedingly rapid transition into the modern world. The U.N. did not create the deep-seated driving forces that underlie this movement. It may be able to influence and channel and stimulate them to some degree, but they would inevitably have made themselves felt in any case.

In fairness it must be admitted that the U.N. has sometimes had to limit itself to words rather than deeds in coping with aggressive acts. For years on end, the United Nations can keep the spotlight of free world condemnation turned upon the brutal repression of the Hungarian uprising, and on the conquest of Tibet, but it cannot rectify the evil acts committed. Nor, let us add, is any organization or any state able and willing to do so. Even though the U.N. has not fully secured the peace, it has done much to prevent conflict. But peace and tranquillity are not dependent on political and military disposition alone. They rest equally on sound economic and social foundations. Ignorant, teeming populations living at the subsistence level are not the stuff of which a stable international society can be compounded. This is the basis for the extensive United Nations effort in the economic and social field. Quietly, steadily, the U.N. and its family of specialized agencies have embarked on a whole series of services to less developed countries.

For this the United Nations must be given a fair share of credit. The Charter established and sanctioned the objective; U.N. membership sets the seal on national independence; participation in the U. N. gives voice to each new nation's personality; and aid mechanisms help to meet essential needs.

The abrupt departure of the Belgians from the Congo in 1960 subjected the United Nations to what may prove its most stringent test to date. The oucome still hangs in the balance, but heartening progress has certainly been made through U.N. executive action in the last two years. We tend to forget that two thirds of the Congo was once on the brink of chaos, with a strong Communist-backed regime in one province poised to profit from incipient racial and tribal conflicts and burgeoning secession movements. We forget that when the Congo in its extremity called upon the United Nations to restore peace and unity it was the Soviet Union that poured oil on the flames of war, sent agents, arms and aid, promoted the Gizenga regime's secession and did everything it could to harass and cripple the U.N. Today, the central government controls all but one province (Katanga), and, as I write, the struggle for its integration is still underway. It is fair to say that the United Nations. with the support of the bulk of its members, has kept the Communists out of control in the Congo. This is a major contribution to the creation of a new Africa composed of independent states.

Action Costs Money

It goes without saying that United Nations executive action, including the maintenance of thousands of armed men in the field, is bound to cost money. But for us at least the burden is minimal.

Consider the basic facts. The United States is the biggest single U.N. contributor, both in our assessments for the basic budget (32 per cent of the total) and in our voluntary contributions to other programs of the U.N. family (roughly 50 per cent). But measured against our national wealth. or even our military budget, all these expenditures are tiny. In 1962, United States payments for all U.N. programs (peace-keeping, economic, technical, specialized agencies—everything) come to just under \$1.11 per American. Our defense budget this year comes to \$280 per American, 252 times as much! This is not disproportionate when one considers that our national income is about two fifths of total world income. There is a financial crisis in the United Nations today. It exists purely and simply because the Soviet bloc and a number of other countries have refused to pay their share of the peace-keeping costs in the Congo and the Middle East. The United Nations sought and obtained an International Court opinion to confirm the legal obligation of all members to support such operations. This obligation has now been affirmed, and if the Soviet bloc continues to refuse payment, it could lose its voting rights in the General Assembly. Meanwhile, the United Nations is floating a \$200 million bond issue to meet its immediate expenses. This is a loan, not a gift. Like the \$65 million loan the United States made to the U.N. for the construction of the headquarters buildings, it will be repaid with interest. While we expect that the United States will take up half of the bond issue, repayment will come from the regular U.N. budget in which the United States' share is only 32 per cent. Thus, in the end, the expenses financed by the bonds will be on the scale of the regular assessed budget.

Opposition Defeats Purpose

Opposition to bond purchases by this country seems to me to defeat its own declared purpose-American security. It could crown with success years of Soviet effort to sabotage U.N. peace-keeping operations and to reduce the U.N. to a simple arena for debate and propaganda. It would diminish the great influence of the United States in the U.N., and proportionately increase that of the USSR. If U.N. executive action has its shortcomings-and it does -the remedy is surely to make it serve its purpose more effectively, not to starve it to death financially.

Any other course could be explained only by a basic lack of confidence in the United Nations. There are, as I have indicated, signs of such a development. Basically, I suppose, they grow out of an immature response to the entire range of our foreign problems. They seem to be part and parcel of the attacks on what is called our "no win" policy—another way of crying out in frustration because we can't have our way immediately on every issue we touch.

It is in this context that we should assess charges that the U. N. is dominated by the irresponsible acts of the Asian-African bloc now comprising half the U.N. membership of 104 states, or that the U.N. serves Soviet purposes, or that support of the U.N. is somehow inconsistent with our NATO allegiance. None of these contentions has any real substance.

For example, the specter of Afro-Asian bloc predominance vanishes with a study of the U.N. voting record. These countries do not vote consistently as a unit: only the Soviet bloc does that. They differ freely among themselves on a wide variety of key issues. Their representatives may act rashly on occasion, but they are learning both the possibilities and the limitations on effective U.N. action. They spurned the Soviet proposal to gut the office of the Secretary-General by the installation of a veto-ridden troika. They preferred moderate to extreme resolutions on colonialism. They did not force the U.N. out of the established pattern of its attitudes on basic East-West issues.

tions in some way conflict with our good citizenship in the NATO community. On the contrary, the North Atlantic Treaty was drafted to fit precisely into the Charter provisions for collective defense within the U.N. system. What we do to fortify the NATO area against aggression and strengthen the Atlantic partnership could not be accomplished in any other agency. And what the U.N. can do to bring about a peaceful change from colonialism to independence is similarly unique. Neither we nor other NATO members could be expected blindly to support every individual NATO ally on every colonial matter. Differences on this score have arisen, but they have not required and should not require an artificial and unnecessary choice between two essential instruments of policy.

As I see it, then, the United Nations deserves our support because it is good for this country, good for all free peoples, and ultimately good for all men. To make it still more useful, let me suggest some specific lines of action.

Mature Participation

First, we must continue to counsel moderation and good sense in completing the task of decolonization, so that the transformation of underdeveloped areas to modern life can be completed with a minimum of disruption. In particular, we must resist the pernicious doctrine that new nations may use force to achieve their ambitions in the name of anticolonialism, while at the same time these nations expect the U.N. to protect them against the use of force by other, stronger states.

Second, we must impart among the new nations the realization that the new imperialism of Communist domination is just as great a threat to human freedom as the old colonialism ever was.

Third, profiting from experience, we need to strengthen still further the capacity of the United Nations to settle disputes and keep the peace.

Fourth, we must find a sounder long-term basis for financing equitably and dependably the great operational tasks of the U.N.—military, economic and social.

Fifth, we must continue to espouse a sober, realistic and unremitting examination of the frustrating but vital problems of disarmament in the United Nations forum, so that the organization's influence may be thrown on the side of effective measures under satisfactory controls. A similar approach will be needed for dealing with other U.N. activities in the fields of space and the peaceful uses of atomic energy.

Finally, we must prepare the ground for a re-examination of the organizational provisions of the U N. Charter as it was drafted in 1945, to see where and how United Nations practices might usefully be modified in the light of experience. We must ask ourselves, for instance, whether the procedures of the organization do not need to be streamlined; they were, after all, designed for an organization of 51 members rather than the present total of 104. Similarly, we must scrutinize the existing organs and committees of the U.N. to determine whether they should not be enlarged to restore their original representative capacity. And we should explore possibilities for adjustments in U.N. voting formulae. These are only a few of the ways in which we can continue to exert our leadership. There are very few instances in which the General Assembly has failed to adopt important measures we support, or in which it has adopted important measures we oppose. I do not believe this situation will change. A strong United Nations enjoying steadfast and mature American participation will never seriously impair our national interests. Rather, it will provide us with an unparalleled opportunity to make our interest felt in every corner of the globe. We would be foolhardy to renounce this opportunity. We should exploit it, not only in our own interest but also-let us not hesitate to say it-in order to make our proper contribution to the advancement of freedom and the general welfare.

a thermonuclear war; a new discovery or a crop failure or a tariff can bring prosperity or disaster to the most widely separated areas. But emerging from the welter of political, national and racial rivalries there are deeper forces. These make for cooperation in the interest of survival and of a better world. And that is why, fundamentally, the United Nations has absorbed the shocks of the postwar era and has increased the scope of its operations from year to year. Peace-keeping is its primary business. And in spite of the use, and abuse, of the Soviet veto in the Security Council, the U.N. has built up an impressive record of accomplishment.

The ink was hardly dry on the Charter when the Security Council was plunged into a historic debate that ended with the withdrawal of Soviet troops from northern Iran. In quick succession, United Nations observers, negotiators and truce supervisors helped to counteract outside Communist support of insurrection in Greece; brought into being the new nation of Indonesia, among the world's largest, without large-scale hostil-

U.N. Credit

This is the vantage point from which we must view the passing of the colonial system in Asia and Africa since 1945. In that period, a billion people have been swept into independence, in over forty new states, and the process is continuing apace. Few would have predicted the speed of this development; fewer still that it could be accomplished with so little violence.

Small Comfort

It is the Soviet Union, not the United States, which has most cause to look askance at the Asian-African performance. Despite persistent Soviet efforts, the U.N. still offers small comfort to Communist pretensions. The organization has found ways to circumvent the Security Council veto. It is farther away from voting the Chinese Communists into the U.N. than it was in 1960. Over sharp Communist objection, it has reaffirmed the free world position on such issues as Korea, Hungary and Tibet. Shoe-pounding has captured the headlines, but it hasn't installed the troika, stampeded the new members into demanding immediate independence for all colonies, or mobilized any non-Communist support for Castro's Cuba. No one can guarantee that the Soviets will never make any progress in attaining any of their goals in the U.N., but surely they have little reason for encouragement thus far.

There is no greater substance to the argument that our U.N. obliga-

Meet Your Reporter

Sports-Minded Ann Huddleston Is Lab News Reporter for Tech Art

Ann Huddleston has worked in for a course in drafting. Technical Art Division 3463 nearly seven years and has served as that organization's volunteer Lab News reporter for the past three. Her spare time is crowded with



activities. She enjoys sports, particularly golf, and is active in local drama groups. For several seasons she was wardrobe mistress for the Albuquerque Little Theatre and currently is helping with make-up for the Albuquerque Light Opera Co.

Ann also manages to make time

SHOPPING CENTER

CLASSIFIED **ADVERTISING**

Deadline: Friday noon prior to week of publication unless changed by holiday.

- RULES
- 1. Limit: 20 words
- 2. One ad per issue per person 3. Must be submitted in writing
- Use home telephone numbers
- For Sandia Corporation and 5.
- AEC employees only
- No commercial ads, please 6. Include name and organiaztion 7.

FOR SALE

BOY'S 20" bicycle, thorn-proof tubes, \$10. Heath, AL 5-5418. NEW UMBRELLA TENT, 9x12, \$38; 28" Rollfast bicycle, \$12. Pitti, AL 6-1629.

- FREE KITTENS, weaned, housebroken, free delivery. Tatum, TR 7-0997.
 ISETTA 300, '58 model, \$150; Encyclopedia Americana, \$50; girl's 20" bicycle, \$7; Kenmore hair dryer, \$13. Hoffert, 345-0177 after 6 p.m.
- GARAGE DOOR, overhead, metal, 8'x7', complete w/hardware, \$35. Wilson, AX 9-1721.
- 9-1721.
 SURF-BOARD TYPE sailboat, never used, \$50 or best offer; 2 sheets Philippine mahagany finished paneling, both for \$15. Montoya, DI 4-6222.
 STEREO preamplifier, Eico model HF-85; two 20-watt power amplifiers; Grundig model TK.819 tape deck, including rec-ord-playback preamplifier. Sinnott, 1718 Utah NE, AX 9-1300.
- PUREBRED ARABIAN STALLION, 4 mo. old, chestnut w/4 white stockings, \$700; half Arabian registered filly, 5 mo. old, \$275. Redlinger, 299-8421 after 6 p.m. TWO WHITEWALL Firestone tires, 6.50x13, used, \$5 each. Young, AM 8-0489 after 5:30 p.m.
- MM CAMERA w/strong light bar and 500 projector, large screen, \$80. Ta-vasei, TR 7-3416.
- vaset, TK 7-3410. TWO BICYCLES, man's and woman's 3-speed English type, \$30 each; rotisserie, Sears, never used, \$27.50. Merrell, AX 9-0348.
- 9-0348.
 22 GALLON butane tank; 2 VW 15" wheels, Wilson, BU 2-3225.
 VW SEDAN LUGGAGE RACK w/canvas cover, \$15; child's maple rolltop desk, \$15; twin Hollywood beds, \$15; 5-drawer chest, \$10. Stuckey, AL 5-2442.
 DINETTE SET, 4 upholstered chairs, extra board, seats 6 perfectly, 8 comfortably, \$40. Sadler, 242-4659 after 5 p.m.
 DINETTE AUL HAND CAP (tay) \$750 one

Her goal-to be able to visit Ha-

waii at least once every 10 years and eventually live there.

SHOPPING CENTER

HOFFMAN BRICK, 3-bdr., 13/2 baths, car-peting, drapes, a/c, attached garage, walled, financing available, by owner. Garst, AX 9-5870.

ROLLEIFLEX, F3.5 w-Hartley field lens, Kalart focuspot, lens hood, 6 filters; 8 mm movie projector w/case. Osterby, AX 9-4606.

AX 9-4000.
LIGHT GRAY English wool suit, worn three times, size 36-37 regular, trousers 31-32x29, \$15. McMaster, AM 8-8062.
GO IMPALA HT, PS, PB, R&H, Turboglide, \$1750. Bell, 298-4608 evenings or week-order

ends. 21" PHILCO TABLE MODEL TV, \$25; 30" gas range, \$45. Gasser, 255-4562. FORMICA TABLE and 4 chairs. Upchurch, AX 9-5062 after 5:30 p.m.

ARGUS C3 camera w/case, flash, light me-ter self-timer, \$20; crib w/mattress, \$10; mangle ironer, \$5; enlarger, \$8. Rychnovsky, AX 9-2850. 3 PAIR cafe drapes, 60"x42", \$3; 2 pair draw drapes, 48"x53", \$2. Nix, 2813 Virginia NE, 298-4282.

0 BSA Starfire Scrambler motorcycle, \$425; Model 71, 348 Cal. Winchester, \$90; 2 15" wheels for Chevrolet, \$8. Wilson, AX 8-0049.

HALF PRICE: patio blocks; screen doors; umbrella clothesline; girl's ice skates, size 8; 8' redwood picket gate. Chavez, AL 5-6155.

AL 5-6155.
 3-BDR, fully carpeted, all brick Trend home w/extra large den, ultra modern throughout, sacrifice. Buchanan, 2949 Wisconsin, NE, AX 9-5039.
 HOFFMAN, 3-speed turntable, automatic changer and shut off, complete w/fin-ished wooden frame, \$30. Bridegam, 268-1973.
 CRANDEATHER CLOCK WOOMS

GRANDFATHER CLOCK WORKS, w/wire gong chimes, pendulum and weights need refinishing, \$35; 34 board feet odd sizes mahogany lumber, \$10. Hill, CH 3-3493.

3-3493.
40" FRIGIDAIRE electric stove, \$50; Frig-idaire refrigerator, \$30, or both for \$75. Lawrence, 256-0848.
EMERSON table model 21" TV, new pic-ture tube. Fortman, 256-2105.
3-BDR. SNOW HOME, 13/4 both, hw/floors throughout, newly redecorated, \$14,900, \$1500 down, by owner. Hedberg, AX 9-6359.

3-BDR., den, fireplace, carpeted, drapes, corner lot, 2-yrs.-old, 8500 Roma NE, near schools, shopping, \$2000 for equi-ty. Sanchez, AM 8-5432.

sanchez, AM 8-5432.
 BEIGE RUG, 12x16, 3 months old, looped wool on foam rubber, needs no mat, \$55. Newcomer, 255-9728.
 SNOW, 3-BDR, separate den, attached garage, 1600 sq. ft., \$999 down, will re-finance balance of \$15,000. Ray, 11017 Phoenix NE, AX 8-0408.
 HOLLYWOOD RED, activate formation

HOLLYWOOD BED, castered frame, 88-coil

0

Blood Donors Needed

Blood donors are being sought by Gerald A. Nigg (7221) to replace a deficit at the local blood bank caused by transfusions required by his daughter, who has been hospitalized for six weeks.

Employees interested in making a donation at the Southwest Blood Bank, 318 Elm, S.E., are asked to credit the blood to Mr. Nigg and St. Joseph's Hospital.

Mr. Nigg is a newcomer to Albuquerque, having joined Sandia Laboratory last summer under the Technical Development Program.

LAB NEWS Page Seven Dec. 7, 1962

Wedding

Eunice Johnson (4423) was married Nov. 10 to Jim Savage of Albuquerque. The bride has worked for Sandia more than five vears.



SHOPPING CENTER

NEXT

1 FORD 6-cyl, std. transmission, 2-dr., new tires. Bourne, 299-0788 after 5:30 p.m.

SHOPPING CENTER

- p.m. BLOND BOOMERANG cocktail table, \$10. Hicks, AM 8-8640. TWIN SIZE maple bed w/mattress and box springs; rollaway bed, 48" wide. Irwin, AL 5-8180.
- WASHER, Kenmore automatic, \$25; gas range, \$30; will trade two 5-lug 16" wheels for two 6-lug 16" wheels. Scalf, AX 8-3908.
- AX 8-3908. WONDER HORSE, large size spring type, original price, \$28, sell for \$12. Meril-lat, CH 2-4873. '60 FORD, 6-pass. station wagon, V8, PS, auto. trans., \$1375. Lilly, 298-2560. SILVERTONE 17" TV w/stand and antenna, \$50. Brake, 268-8320. TD2 SEAP DE PEAPE MANUAL and wind

- D. Brake, 268-8320.
 TR3 SHOP REPAIR MANUAL and wind wings, both new, \$20 or best offer.
 Davis, 2607 Stevens, Dr., AX 9-4971.
 TRIPOD, crank-type bumper jaack, \$5; tire chains, 15 or 16 inch tires, \$5; 24-volt dynamotor, \$4. Wemple, 256-3701.

- ROPER gas built-in oven and range, paid \$390, sell for \$160. Gurule, DI 4-0130. after 5:30 p.m.
- arter 5:30 p.m. V/M RECORD CHANGER, \$7.50; portable record player, \$8; living room couch and chair, \$15. Wurray, DI 4-5289. 18-WATT HI-FI amplifier, \$25; limed oak enclosure w/12" triaxial speaker, \$50; limed oak corner table, \$20. Goen, ext. 55172.
- ELECTRIC LUMINARIAS; 8 mm movie out-fit, complete. Nelson, AL 6-6300. TWO 8'x7' Berry overhead garage doors w/hardware. Williams, 298-4602.
- SKIS w/bindings and poles, \$15; Thor electric ironer complete, \$25. Glass, 298-0842.
- POMERANIAN-CHIHUAHUA puppies, \$15 ea, 2 female, 1 male, will be 4 ½ weeks old Christmas. Davis, 9406 Claremont NE, AX 8-1957.
 BICYCLE, boy's 20" \$15. Lynes, 268-0144.
- BC221M FREQUENCY METER w/case, cali-bration book and power supply, \$65; cross-cut saw, one or two-man, used twice, \$7.50. Bassett, 299-5685.
- '51 PLYMOUTH WAGON, \$150. Pardo, AX 9-7214.
- 26" GIRL'S deluxe bicycle 26"x1 3/8" tires, coliper brakes, 3-speed shift, extras, \$30. Stoever, AL 6-2439.
- 36" KENMORE electric range w/grill, large oven w/full-view door, storage drawer, \$50. Chapman, AL 6-6632 after 5:30
- p.m.
 MANKIN 3 bdr, 1³/₄ baths, pitched roof, central heat, enclosed corner lot, land-scaped. Newton, 298-0785.
 OLD CARTRIDGE BOARD, composed of collection of early Winchester rifle car-tridges, \$65, trade for old guns. Smitha,

SET of 4 w/w tires, 750x14. Pinkerton, AL 5-2505 after 5:30 p.m. 2-SPEED Exercycle. Keyser, AL 6-1285 ofter 5:30 p.m.

SHOPPING CENTER

- REGISTERED Beagle puppies, six weeks old. Mead, AL 5-3403.
- NEW '62 Emerson portable TV, 19", cost \$189.95, sell for \$125. Brown, AL 5-0566 after 5:30 p.m.

- 0566 after 5:30 p.m.
 WRECKING OUT 1955 Dodge 4-dr., motor, transmission, doors, glass, heater. Garcia, CH 2-9144.
 EXA 35 MM single lens reflex camera; 50 mm f.2.9 lens, \$35; adjustable wire dress form, \$15. Mattox, 268-5554.
 '55 4-dr. Plymouth sedan, \$300; '57, 4-dr., Plymouth HT Belvedere, R&H, auto. trans., \$575. Vinovich, AX 9-1979 after 5 p.m.
 '59 EORD Ranchwacon A cut 5005; 0
- '59 FORD Ranchwagon, 6 cyl., \$995; 2 pr. antique satin unlined drapes, 1 pr.-133" wide, 94" long, 1 pr. 137" wide, 94" long, \$75. Kennedy, AX 9-7126.
- FLUORESCENT FIXTURES four lamp 40 watt office type fixtures, guaranteed, \$7.50, w/bulbs and starters, \$12.50. Elliott, AL 6-7909.
- ALTO Saxophone and clarinet. Williams, AX 9-5967.
- CRIB MATTRESS; baby car bed; ski boots. Spray, AX 9-0412.
- Spray, AX 9-0412.
 '50 MERCURY SEDAN, has new ring job. Miera, CH 3-1826.
 '56 RAMBLER WAGON, SS, R&H, 6-cyl-inder, leather upholstery. Adent, AX 9-1905 after 5 p.m.
 SPORTS LINER for pickup, 13"x57"x 81", all aluminum, made by Wards, \$75; Peralta Service Station, Highway 47, So at Peralta. Davis, TO 5-9800.
 '60 CUSHMAN SCOOTER. Sandy, AX 9-0980.

WANTED

- COVER for Chevrolet pickup bed, 4' wide, 8' long. Stuart, AX 9-9190. SHOP MANUAL for 1951 Cadillac. Ezell,
- SHOP MANUAL for 1951 Cadillac. Ezell, 268-4845.
 '55, '56, '57 CHEVY 2-dr. sedan, V-8, standard transmission. Will pay cash. Carberry, ext. 33219.
 DRAFTING BOARD with or without legs, in good condition, minimum size 24"x 36". Wynant, DI 4-3328.
 RIDE to Base from 6700 block North Edith Blvd. Billings, DI 4-6934.
 TRICYCLE for 4-year-old, must be in good

- RICYCLE for 4-year-old, must be in good condition. Smith, AM 8-3578.
 RIDERS to join car pool from vicinity 10324 Paseo Del Norte NW (Rio Vista) to vicinity bldg. 802. Dehon, 898-2219.
- TO CARE for young child in my home, near Bases, working hours. Burger, AL 5-0265 offer 5:30 p.m.
- RIDERS, destination Philadelphia and sur-

DEADLINE FOR SHOPPING CENTER ADS Friday Noon, Dec. 14

LIGHT BAR w/four watt lamps; old stan-dard typewriter. Chadwick, AX 8-1298.
 MANKIN 3-BDR, completely furnished if desired, sprinklers, wire fence, lawn 13301 Chico NE, possession 30 days, \$14,750. Swartz, 298-3359.
 FISHER DYNAMIC audio Spacexpander complete w/amplifier, Hammond unit and instruction manual, cost \$70, sell for \$38. Browning, AX 9-6384.
 3-BDR, 1 ½ bath, walled yards, garden area, fruit trees, bedrooms carpeted, near park, schools, central heat, a/c, \$11,500. Bentz, 8815 Cordova NE, AX 9-2961.
 STEREO AMPLIFIER, Scott LK72, 80 watts

STEREO AMPLIFIER, Scott LK72, 80 watts output, used 5 months, \$140. Hurley, 256-0746.

PUPS, part Beagle, show promise of being good hunters. Fife, BU 2-3206.
BABY CRIB and mattress, \$15; ivory plastic headboard and legs for twin size Hollywood bed, \$3. Clark, AX 9-4819.

9-4819.
GE AUTOMATIC WASHER, \$50. Erne, 1128 Westerfield Dr., NE, AX 9-0565.
FORMICA CABINET TOP and bar top, 8' x 4', \$30. Barber, 299-4287.
TWIN BED, includes box springs, inner-spring mattress, separate iron frame w/casters, \$25. Butler, AL 5-8503 after 6 p.m.

- MINIATURE POODLES, champion bred, AKC, all shots, \$100, terms. Hipsher, AX 9-0673.
- 3-BDR, 1 34 bath, fireplace, fully carpeted, pitched roof. Landrum, DI 4-3940 after 5:45 p.m. and weekends.
- '61 BUICK LeSabre convertible, low milage, PS, PB, extras, \$2475. Betche, 298-5281. HARDWICK GAS RANGE, 36", separate broiler, lighted oven, \$50. Asselin, AX 9-9270.

'61 CHEVROLET IMPALA sports coupe, V8, automatic transmission, a/c, seat belts, white w/red interior. Kuidis, ext. 29261,

'53 DODGE V8, gyro-torque, 4-dr., R&H, air, red and white, new battery, seat covers, tires, \$250. Hurley, AX 8-5250.

'58 FORD PICKUP V8, new paint, tinted windshield, canvas top and bows. Pharris, AX 8-0124 after 5:30 p.m.

'60 BONNEVILLE convertible, air, Cooper, 255-2822 after 5 p.m. tridges, \$65 AX 9-1096. return Jan. 6-7. Loeper, 255-3138. spring, mattress, double size, no board, \$20. Clemons, AX 9-6004. ' BENCH SAW w/motor; 1 pr. 6 $\frac{1}{2}$ ' hickory skis, bindings, and size 10 boots; tire chains, unused, size 760x16. Reed, AX 9-1684. NEW reversible black ski jacket, size 36. Hole, AL 5-5925. WILL baby sit at my home. Aragon, 1111 David Cts., TR 7-3398. DEEP FREEZE, 19 cu. ft., upright, Mani-tawoc (Amana), \$150. Christy, AL 6-0711 after 6 p.m. 8" IRISH MAIL HAND-CAR (toy), \$7.50, one year old, original cost, \$22. Lemmon, AL 5-2028. SHOTGUN, 12 gauge, Model 870 Wing-master, \$80. Everett AX 9-6057. RIDE from Aztec and San Pedro to gate 6. Matlock, AL 5-0109. 20" GIRL'S bicycle, light blue, \$15. Stephenson, 255-8326. GIANT SPLIT LEAF Philodendron, new urn, \$20; science project mice 25c; hand vibrator, 4 heads, \$4. Mitcham, AX 9-8425. SEARS type shop vacuum sweeper w/tank, \$20; 2-man Alpine tent, lightweight, \$10. Mattox, 268-5554. PICKUP TRUCK; swap or sell '53 Plymouth 4-dr, and several shop work tables. LaPoint, AM 8-2290. BOY'S 26" bicycle, J. C. Higgins made in Austria, 3 speeds, generator, lights, Kieffer, 299–1494. ROPER GAS built-in oven and range, spe-cial automatic burner and broiler, paid \$390, sell for \$160. Gurule, DI 4-0130 after 5:30 p.m. LIONEL TRAIN SET, "O" gauge, twin en-gines, freight cars, accessories, \$45; children's ice skates, sizes 12 and 1, \$4/pr. Ronan, AX 9-9168. BELL 20 watt Hi-Fi amplifier, preamp, and 12" GE speaker, \$35; fully enclosed one-wheel utility trailer, \$55. Ernst, 268-9414. CANOE, 13-15', good condition. Pardee, AL 5-1998. WEAVER variable power scope w/dual-range reticle, lens caps, mounts, \$58; Ruger .22 automatic pistol, \$28. Klett, DI 4-9021. TWO SNOW TIRES, 670-15, mounted on late model Ford wheels, \$25 takes all. Yarbrough, AL 5-4087. AQUARIUM with or without fish. Shunny, AX 9-2787. GOLF CLUBS including bag and "Bag Boy" cart, or will trade for E-flat alto sax. Fisher, 265-0626. TRIPOD crank-type bumper jack, \$5; 1 pair tire chains, 15 or 16 inch tires, \$5; 24-volt dynamotor, \$4. Wemple, 256-3701. S&W REVOLVER K22, \$45; tank type weed burner, \$5; will trade for old guns or old U. S. coins. Zaluga, 1321 Van Cleave Rd., NW., DI 4-1564. MOUTON COAT, size 12, \$35; blond con-sole combination w/new Collaro stereo changer, \$35; gold Krohler base rocker, \$10. Hunter, AX 9-1089. LOST AND FOUND LOST—Safety sunglasses w/brown rims, linked bracelet w/multicolor pearlized jewels and rhinestones, brown fold-over glass case, ladies' elongated sardony and birthstone ring in old style mounting, books—"Old Ugly Face" and "Job of Living," safety glasses in SC case, green tinted glasses w/black frames, technical manual on transistors, grey Paper-mate pen, keys in Converse Motor case, keys w/license tag 2-58822. LOST AND FOUND, ext. 29157. BOY'S 26" balloon tire bike, \$10; child's 51/2' skis w/binding, steel edges, \$10. Winter, 299-4746. HALLICRAFTERS FM police receiver 30-50 mc; tape recorder; finished 12" speaker enclosure; Johnson 10 meter transceiver. Laskar, AX 9-1024. AKC registered Weimaraner pups. Jacobs, 4920 Hilton, NE, DI 4-2534. HAWTHORNE-Hercules 3-speed racing bi-cycle w/horn, tool kit, tire pump, \$35. Steck, ext. 43168. UNDERWOOD upright typewriter, \$30; 3" scope and case, \$20; Mobile Whip an-tenna 96" and bumper mount, \$6. Kanode, 4081/2 Cornell Dr. SE, CH 3-0493. SELL OR TRADE motor scooter, 1960 Super Eagle, \$185 or trade for small car. Padilla, AL 6-0701. 57 FORD Fr. 500, 4-dr., PS, automatic R&H, \$695. Raybon, 299-2135. '52 NASH Ambassador, \$75. Bleakney, AL 5-8222. 0 IMPALA 2-dr. convertible, white w/black top, 28,000 miles, PB, PS, Burns, AL 5-3737 after 5 p.m. '60 TRAINS, American Flyer, wall mounting, two sets of trains, remote switches, 7-ROOM HOUSE, 2 baths, 1½ car garage, patio, walled yard, Paradise Hills, \$16,-500, \$1800 down. Wright, 10213 Alder Dr., NW, 898-2298. GERMAN SHEPHERD PUPS, registered fa-ther, weaned in time for Christmas, fe-males \$15, males \$20. Stronach, 1135 Sunset SW, 242-6543. action cars, etc., complete and ready to roll. Caldes, BU 2-3272. 4-BDR BRICK, den w/fireplace, double garage, carpet, drapes, near Sandia High, \$25,900. Syme, AX 9-4100. FOUND, ext. 29157. FOUND—Buckskin glass case marked Jones Opticians, clip-on sunglasses in tan case, homework paper of Sedlock, steel frame safety glasses, gold clip earring, ladies white gloves. LOST AND FOUND, ext. 29157. GELDING, 1/2 Palomino, 16 months, gen-tled but not broken, include hackamore and saddle, blind in off eye, \$135. Poe, ext. 24149, or Box 234, Tijeras. LAMBRETTA motor scooter, engine over hauled, new paint. Mackay, 268-7408. AUTOMATIC WASHER, Kenmore, \$49. Treon, AX 8-1066 evenings. ELECTRIC TRAIN, American Flyer, 2 com-plete sets, value \$225, will sell for \$40 cash. Causey, 299-2992 after 5 p.m. SKIS, child's, used, 4'9" wood w/steel bindings and bamboo poles, \$10. Dyckes, AX 9-7280. LIMED OAK DINING room table, 6 chairs, and buffet; bathroom lavatory; limed oak coffee table. Minter, AL 6-9225 after 5:30 p.m. DUAL-PICKUP electric cutaway guitar, case, large amplifier; Johnson 275 watt Matchbox, cash or trade for gun. Rae, 268-9633. MAGNUS CHORD ORGAN, table, music, \$80. Thornton, AX 9-5747. FOR RENT CAMP TRAILER, gas stove, light, and heater, running water, 8x10'. Overton, 298-3017 after 5:30 p.m. MOTORCYCLE, '62 Suzuki Model 50MC, 4-speed, electric starter, turn lights, horn, loadrack, just broke-in, 500 ac-tual miles, \$250. Offill, AL 6-2733. SELL OR TRADE '49 Studebaker converti-ble. Papineau, 243-2036 after 6 p.m. NEW DUPLEX unfurnished apartments, \$95, 2-bdr., a/c, electric kitchens. Mat-son, 210 Charleston NE, Apt. #4, 268-4814. DESK, coffee table, small overstuffed chair—\$15 takes all. Burns, CH 2-2407 evenings or Saturday. 16 MM MAGAZINE CAMERA, \$45; dual laundry tubs, \$8. Heuter, CH 2-1620. '58 CHEV. 4-dr., must sell. Cordova, TR 7-2027. BABY CRIB, 6-year-size. O'Dell, AX 9-7483. KELVINATOR electric range w/deep well. Eslinger, AM 8-1209. ATTRACTIVE APARTMENTS for rent near Base, 1 efficiency, \$50; 1 4-room, \$80, all utilities paid. Risk, 256-7871. 3/4 SIZE VIOLIN w/case and bow, \$30. Mason, AX 9-2836. BOLT-ACTION rifle, Remington Model 722, .300 Savage calibre, complete w/sling, cleaning kit, cartridge belt and ammo, \$65. Hoke, AX 8-2384. '62 RAMBLER Classic station wagon, OD, declining seats, twin-grip differential, consider trade. Massey, 298-4650. OSCILLOSCOPE, Heathkit Model 0-12, only \$60. James 255-8429. PHILCO REFRIGERATOR, \$25. Cowham, 298-4249. NEWLY redecorated duplex, 2-bdr, \$90. Miller, 1916 Lead SE, 265-0029.

Local Youngsters Need Families Which Can Find Love for One More

LAB NEWS

gift?

Here is one that will be a joy to the recipient, but will be even more gratifying to the giver.

One of the more pressing needs being experienced by persons working in the mental health area is securing foster homes for children and adolescents with emotional problems. Youngsters who have experienced lack of love and care in their homes are badly in need of new homes where they will receive the benefits of a devoted family.

Today these children have no homes and are being held in a sanatorium. Often they are helped remarkably by living in foster homes where they receive understanding, love, and intelligent discipline.

Efforts to locate foster homes through several channels have met with little success in Albuquerque.

A plea has come to Sandia Corporation employees through S. P. Bliss, M.D., Sandia Corporation's Medical Director, to help find homes for four adolescents. This is from one psychiatrist only. The city's needs are multiple.

Can you help?

Any Sandia Corporation employee who wishes to work with a psychiatrist in the rehabilitation of one of these youngsters should

K. B. Schikowski **Died November 24**

Kurt B. Schikowski, a Sandia employee for more than 11 years, died Nov. 24 at the age of 63.

He was a Staff Associate, Technical, in

Mechanical Design Section 7224-2. Survivors in-

Congratulations Born to:

Mr. and Mrs. S. F. Duliere (5132) a daughter, Ann, on Nov. 24. Marilyn formerly worked in Division 1332.

Mr. and Mrs. B. K. Laskar (3432) a son, Charles Kenley, on Nov. 23.

Mr. and Mrs. K. W. Shrock (7312-2) a son, Keith Andrew, on Nov. 25.

Mr. and Mrs. Frank A. Ross (2452-1) a son, Charles Joseph, on Nov. 16.

Mr. and Mrs. W. R. Atkins (2541) a daughter, Mary Barbara, on Nov. 19.

Mr. and Mrs. Roger Abbott (7215) a son, David, on Nov. 10.

Looking for the ideal Christmas contact Dr. Bliss. The foster home is fully reimbursed for any financial investment in the foster child.

The real investment required of the foster family is one of love, devotion, understanding, and whole-hearted care.

"This emotional investment is repaid many times," Dr. Bliss reports. "All we have to do is find in our hearts enough love for one more person."

222 Employees **Taking First** Aid Course

"Enrollments in the Family First Aid Training courses have so far exceeded all of our expectations," M. A. McCutchan, supervisor of Technical and Trades Training Division 3132, commented recently. Some 222 applications for the course have so far been received.

The course, which began Dec. 3, is offered on an out-of-hours basis, and treats such subjects as accident prevention, early medical care, treatment of common injuries, and lifesaving skills.

It is open to employees and members of their immediate families at no charge. Family members should be at least 16 years of age

"Due to the unusually numerous applications, present classes are filled, but the course will be repeated in six weeks," Mr. Mc-Cutchan explained. Application forms are available from Division 3132, Bldg. 813.

Santiago Otero

Santiago Otero retired Nov. 30 Sandia. He was a stockkeeper in

several months in Truth or Conse-

butcher, and maybe a hog and some

Sandia Authors

Current or forthcoming articles authored by Sandia Corporation employees include the following:

E. S. Roth (2564), "Design and Inspection Factors That Affect Sensible Manufacturing," January 1963 issue, The Tool and Manufacturing Engineer.

R. L. Schellenbaum (5413), "Rotating Mirror Camera Synchronizing Unit," October issue, Review of Scientific Instruments.

Albert Narath (5151), D. C. Barham (5151), H. E. Ungnade, and L. W. Kissinger, both of Los Alamos Scientific Laboratory, "The Structure of Amidoximes. II Oxamidoxime," December issue, Journal of Organic Chemistry.

A. T. Fromhold, Jr. (5151), "Space Charge in Growing Oxide Films," Jan. 1, 1963, issue, The Journal of Chemical Physics.

F. K. Truby (5153), C. J. Mac-Callum (5411), and J. E. Hesse (5132), "ESR Studies of Gammairradiated n-Octadecyl Disulfide," Dec. 15 issue, The Journal of **Chemical Physics.**

E. H. Beckner (5153), "An Ignition-Switched 0.6 to 90 kv Impulse Generator," September issue, Review of Scientfic Instruments.

R. L. O'Nan (1423), "Super-Regenerative Microwave Receivers," August-September issue, Microwaves.

N. J. DeLollis (1112), "Structural Metal Bonding," July issue, Assembly and Fasteners Engineering.

I. I. Kolodner, University of New Mexico (for 5420), "Phase Shift of Solutions of Second Order Linear Ordinary Differential Equations and Related Problems," June issue, Journal of Mathematical Analysis and Applications.

D. L. Hanson (5425) and J. R. Blum, "On a Problem in Hilbert Space with Applications," May issue, Journal of Mathematics and Mechanics.

Ralph Morrison Heads National ISA Conference

Ralph Morrison (8155-2) has been appointed chairman of the Committee on Shock and Vibration Measurement Instrumentation for the Instrument Society of America.

As chairman, Ralph will select session chairmen and determine the number of sessions to be held at the 18th Annual Instrumentation-Automation Conference of the ISA Sept. 9-12, 1963, in Chicago. He will also coordinate the session agenda and select papers for presentation.

Last October, Ralph served as a session chairman for the Society's 17th annual conference in New York City.



SLICK TRICK - "skiing" on candy canes - is demonstrated by Brenda Redenbaugh (8233-1) in this photo montage. Candy canes are safer on Christmas trees, but some decorations can cause a downfall. Use extra caution during the holiday season with Christmas trees and decorations.

Some Safety Rules Suggested To Assure A Merry Christmas

Are you heading for a fall this Christmas?

Many families will not have a Merry Christmas this season because they tripped up on some relatively unknown safety hazards.

For instance, did you know that if you mix angel hair decorations with canned snow-spray, you're inviting the fire department? Although both of these products are nonflammable when used separately, combined they can be disastrous. If they're used on a Christmas tree, a spark could turn the tree into a funeral pyre.

Another way to have the fire department over for Chirstmas dinner is to use certain imported lighting sets. Many of these do not bear the Underwriter Laboratory's seal of approval and should not be used. A case in point occurred last Christmas when a nine-year-old girl plugged in a new set of lights. Instead of getting a pretty twinkle of lights, the bulbs exploded. The tree went up in flames and so did most of the house.

Metallic Christmas trees introduced a few years ago have drastically reduced tree fires, but have introduced a new hazard-electrocution. Putting electric lights on these trees could send current charging through anyone touching them. Manufacturers recommend colored spot lights placed away from the trees, not on them.

Another seemingly harmless decoration popular at Christmas time is plastic foam. This material is flammable and can be ignited by

3. When you put the tree up, place it in the coolest part of the room. It should be as far as possible from heaters and the fire place. This will reduce the chances of fire, and keep the tree from drying.

4. Use a tree stand which has a water container in which the trunk can rest. Most trees "drink" water fairly fast, so fill the container daily.

5. Check the tree for dryness from time to time. If the needles near lights have started to brown, change the position of the lights. 6. When the needles start fall-

ing, take the tree down immediately and discard it out of doors.

7. Even if the tree is still fresh, it should be dismantled by the day after New Year's.

8. Christmas tree decorations should be flame-proofed. Use only approved decorations made of glass, metal or fire-resistant material.

9. Use electric lights approved by the Underwriter's Laboratory (UL) to decorate the tree. Be sure and check and lighting sets before placing them on the tree. Those with frayed wires should be discarded.

10. The lights on Christmas trees should not be left on when no one is home.

11. Make sure your decorative lighting does not overload electrical circuits.

12. Wiring and electrical equipment used out of doors should be designed for the purpose.

13. Electric trains should be set p away from the tree

of weeks in "Then I'll go back to the farm,"

The Otero's three sons all work at Sandia: Jimmie (4514), Odelio (4231), and Conrado (4234). They also have two daughters and 17 grandchildren.





Stock and Material Control Division 4212. Mr. and Mrs. Otero plan to spend a couple

Mexico City and, upon their return, will stay

quences.

Mr. Otero said, "I'll buy a good milk cow and raise several calves to chickens." The farm is two miles east of Los Lunas. The Otero's city address is 1509 Williams SE.

Twenty Years Later . . .

500 Reactors Located in 46 Countries

first nuclear reactor was operated successfully on Dec. 2, 1942, in Chicago, there are more than 500 research, test, power and special purpose reactors in use or being built in 46 countries.

More than half of the estimated total of 518 reactors are in the United States. Thousands are seeing some of the U.S. "atomic furnaces" and other nuclear energy facilities this weekend. The U.S. Atomic Energy Commission and some of its major contractors are marking the 20th anniversary of the first reactor with "open house" at a number of research centers and plants.

Earlier in the week, members of the group that the late Enrico Fermi led to success in achieving the first controlled release of nuclear energy 20 years ago were honored in Washington. They were presented commemorative medallions at the annual dinner of the American Nuclear Society and the Atomic Industrial Forum.

President Kennedy, in a special message read at the dinner, praised the progress made by nuclear scientists and engineers and said nessed during the past 20 years have stemmed directly from the kind of enthusiasm for scientific adventure inspired by Fermi."

Twenty years after the world's that "The advances we have wit- end of 1963, there will be 55 nu-

The President added that the record to date, and particularly the cooperation between science and industry, "gives confidence of continued success in developing atomic energy for the benefit of free men everywhere."

Last Sunday, at the University of Chicago, where the historic event occurred 20 years ago, these "alumni" held a meeting of their own to discuss plans for a permanent memorial to Fermi.

Chairman Glenn T. Seaborg of the AEC has summarized the 20 year interval since December 1942 as one "in which more progress has been made in science than in all previous history of science."

The 500 nuclear reactors that dot the world today are tangible evidence of this progress. Only a few watts of heat energy were produced in the first controlled selfsustaining nuclear reaction achieved by Fermi and his group in 1942. The International Atomic Energy Agency has forecast that by the clear power plants with a total caacity of 4,500 mwe operating in 10 countries. Deputy Director Pierre Balligand of the IAEA told the recent world power conference in Australia that a slow but steady decrease in the cost of nuclear power is clearly discernible.

Comparable progress has been made in the past two decades in other major segments of nuclear science and technology. Much new fundamental knowledge has been added in the life and physical sciences; new materials unknown a generation ago are being developed; some 40 civilian reactors in use or under construction are providing electric power for home, farm and factory and many more for naval propulsion and army use; radioisotopes - made available in large quantities by nuclear reactors — find new uses almost daily in agriculture, medicine, research and industry.

Finally, nuclear energy already has provided power for transmitting equipment in two earth satellites. Nuclear systems are being developed for use in probing deeper into the still largely unknown world of space.

Here are some simple rules designed to assure a merry Christmas.

1. When you choose your tree this year, select one which appears freshly cut. Feel the needles to make sure they are firmly attached.

2. Keep the tree out of doors until just before Christmas, and keep it standing in a pail of water so it will remain fresh.

from the train could ignite dry pine needles.

14. When you open presents on Christmas morning, put away the gift wrappings you intend to keep. Gather up the old wrappings and throw them away immediately after presents are opened.

One last word of advice-when you pin up your stocking this Christmas, remember to use a safety pin.

Sandia's Safety Record		
Sandia	Livermore	
Laboratory	Laboratory	
HAS WORKED	HAS WORKED	
2,310,000 MAN HOURS	491,500 MAN HOURS	
OR 66 DAYS	OR 96 DAYS	
WITHOUT A	WITHOUT A	
DISABLING INJURY	DISABLING INJURY	