

Sandia Men Arm, Fuze Devices Used in Argus Shots

Lab Engineers With Navy Task Force 88 in Atlantic

When Task Force 88 set off several high altitude nuclear blasts above the South Atlantic last year three Sandia Corporation engineers were on the scene taking part in the tests. A host of other Sandia Corporation men back at Albuquerque who had played an important part in preparing for Project Argus were with Task Force 88 in spirit.

Sandia's part in the project was to mate the nuclear devices and

firing and fuzing systems with the Lockheed-designed and built experimental rockets and to provide technical services during the actual firings.

In April 1958, the Atomic Energy Commission from Washington inquired whether Sandia Corporation could provide these services to the Department of Defense. Despite the urgency of other projects related to the then forthcoming Operation Hardtack nuclear test series in the Pacific, it was agreed between the Commission's Albuquerque Operations and Sandia Corporation that Sandia's participation in Project Argus was feasible and could be provided. On May 9, 1958, Albuquerque Operations notified Sandia officially to proceed with its part of the program, and to serve in effect as a technical contractor to the Department of Defense so as to expedite its participation.

The project reached its climax last August. On Aug. 27 and 30 and on Sept. 6 the 57-foot X-17A three stage rockets with nuclear devices were successfully fired high into space and their nuclear devices detonated.

Sandia's representatives on the U.S.S. Norton Sound, from which the rockets were fired, were Oscar M. Fligner, Arthur W. Kellom and John A. Balaban, all of Project Division 1247 of Engineering Department 1240.

In a key spot in the Sandia portion of the tests was James A. Leonard, also of 1247, who was in charge of mechanical design work. Jim also worked with Lockheed Aircraft Co., the rocket manufacturer, and was responsible for assembly and resolution of problems encountered in adapting the nuclear system to the missile.

The entire program was executed. **Continued on Page 3)**



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Upper Winds Research Study Described in Technical Article

"Lag Correlations of Upper Winds," a technical paper by B. N. Charles (5121), appears in

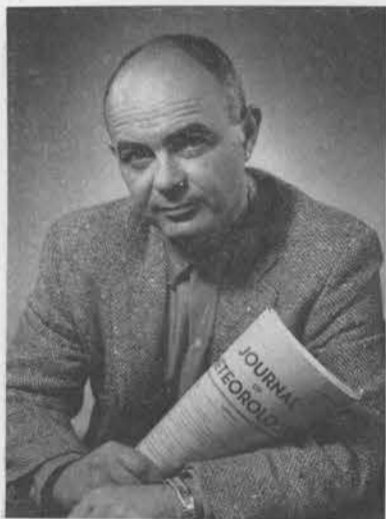
the February issue of *Journal of Meteorology*.

The article reports some of the results of a research project undertaken by Systems Analysis Division A 5121. The project was to reduce to statistical significance a great mass of data collected on upper winds over North America during 1957-58.

Application of the statistics presented in the article permits objective estimation of high altitude winds to about 80,000 feet for periods up to several days when it is not possible to measure the winds directly.

Mr. Charles has been at Sandia for six years. Prior he was an aircraft engineering officer and meteorologist in the Air Force.

He earned his BS degree in aero-engineering from New York University in 1941. In 1951 he was awarded his MS degree in Meteorology from the same school.



B. N. Charles (5121)
"Lag Correlations of Upper Winds"

Sandia's New 'Sphere of Science' To Show Lab's Technical Activities

Foundations have been laid immediately north of the Motor Pool for a geodesic dome, Sandia's "Sphere of Science." The semi-permanent structure, similar to the one used at the New Mexico State Fair last fall, will house exhibits of various scientific activities at Sandia Corporation.

Exhibits are being constructed for the formal opening of the building on Armed Forces Day, May 9. These exhibits will include piezoelectric devices, electro-magnetic equipment and displays illustrating the fields of aerodynamics, optics, mathematics, physics, radiation, environmental testing and manufacturing control.

John Leslie (4731-2), curator of the new exhibit hall, said that the displays will be regularly replaced from time to time with new and different exhibits.

Although the exhibit hall will be opened periodically for visits by Sandia Laboratory employees, the prime purpose of the "Sphere of Science" will be for educational demonstrations for university and high school students, employment candidates, scientific societies, engineering and technical conferences. Employees and the public will visit the dome on special days, such as Armed Forces Day.

Family Day Displays Being Readied for April 18 Visitors

With plans for Sandia Family Day, April 18, complete, activity throughout the Laboratory is underway to make the occasion something special for families of employees. Sandia Corporation and AEC employees at Sandia will play host to their families.

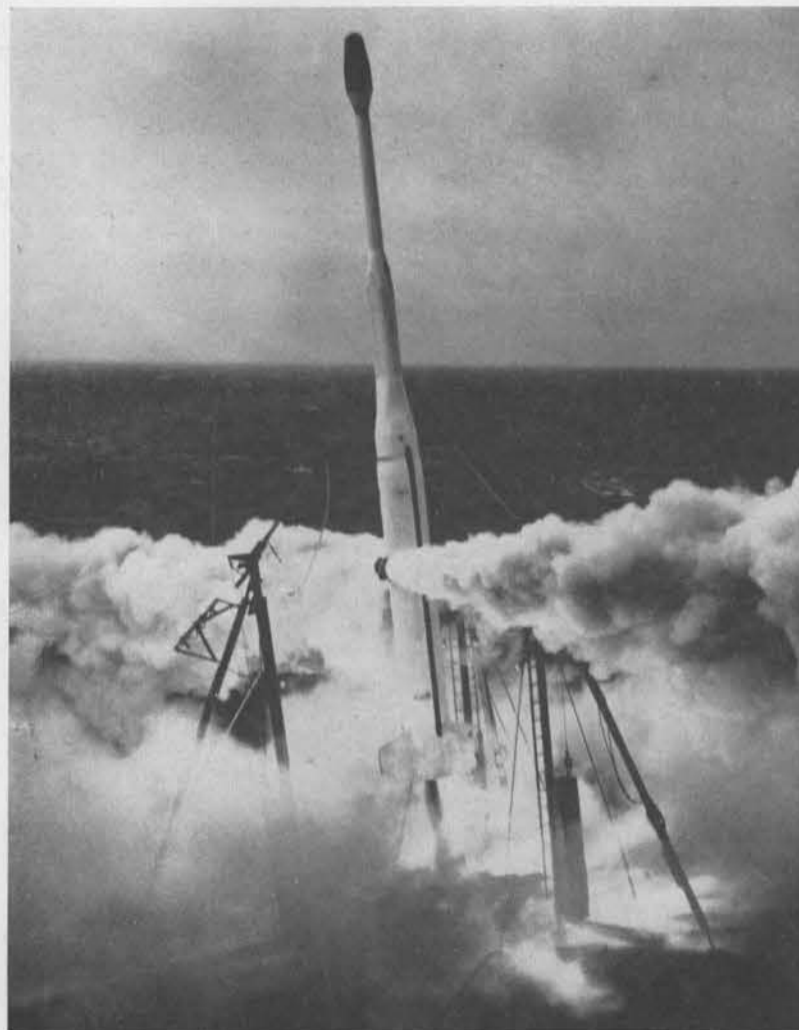
Most laboratory, office and shop areas will be open for families to see where father or mother works. In addition, work is progressing on exhibits and displays for the five major buildings that will be open to all visitors.

Model Shop facilities in Bldg. 840 will be open. Several large machines will be in operation and demonstrations of types of work performed will be presented. In addition, samples of unclassified products of the shops will be exhibited in a special display area. Samples of machines, plastics, electronic fabrication and sheet metal work will be shown.

The Foundry display will show metal casting processes.

L. L. Cole (4231) is chairman of the Bldg. 840 display committee. Members of the Committee are Lowell Stouder (4251) and A. E. Hall (4221).

Bldg. 860 Display
For the visitors Bldg. 860 will feature vibrating high and low frequency shake table demonstrations, shock machines in op-



"THIS IS THE X-17A ROCKET: A three stage, solid propellant missile. It has been used for research since its inception; this too was our use of it," said THE HORNED SHELLBACK, the publication of the Norton Sound for its South American Cruise of August to October, 1958. This publication further reported to its readers: "We can be proud of the highly successful sea-phase tests recently completed in the Atlantic area. They have contributed considerably to our as yet slight knowledge of the upper atmosphere."



H. I. ROMNES has been named President of The Western Electric Company. Prior to taking his new position, Mr. Romnes was Vice President—Operations and Engineering of The American Telephone and Telegraph Company. He has held positions with the Bell Telephone Laboratories, A. T. & T. and Illinois Bell Telephone Company.

eration, cold and heat chambers and a rain chamber demonstration.

The static jig area of Bldg. 864 will display various stress and strain analysis exhibits and a photo-elasticity display. This display is a machine that subjects various plastic materials to stress and strain and shows the forces acting upon the material as visible colored lights.

Exhibits in both Bldg. 864 and 860 are being directed by Don Williams, Jr. (1612) assisted by M. R. Madsen (1613-2) Carl Endres (1612-3), and Elmer White (1612-1).

Showpiece of Bldg. 865 on Family Day will be the transonic wind tunnel. Other supporting displays, including unclassified test models, will be shown.

A plasma jet demonstration is being arranged and display of parachutes, chaff rockets and test vehicles is planned.

Bldg. 865 displays are under the direction of Ted Botner (5142).

Cameras to be Shown

Field test equipment and computer facilities of Bldg. 880 will be shown to the visitors. Cameras of all types will be shown, a telemetry systems display and transducer exhibit is planned and two large Field Test instrumentation trailers will be exhibited on the south side of the building.

Playback facilities for magnetic data tape and data reduction equipment will be shown. All of Sandia's electronic computers will be open to the visitors with demonstrations planned. The IBM 704, 705, analog and digital computers with all auxiliary equipment will be shown.

In the Bldg. 880 cafeteria, the Plant Security Department (4840) will conduct a slide show telling of the organization's activities. In addition, security posters, guards' equipment, and communications equipment will be shown.

Coordination of the Bldg. 880 displays is being handled by J. J. Miller (5251).

Immediate Family

Employees are invited to bring members of their immediate family, defined as persons living in their household, to Sandia Family Day activities. Forms have already been distributed on which employees may request tickets which will admit them to the Tech Area. Three tour periods are planned—8 a.m. to 11 a.m., 12 noon to 3 p.m., and 4 p.m. to 7 p.m. Scheduling of employees as to tour periods is being handled by General Organizations. The three tour periods were established to better space the arrival of the 20,000 persons expected during the day.

Brandalise Article Printed in Journal of Experimental Psych.

An article by B. D. Brandalise (1592) appeared in the February issue of *Journal of Experimental Psychology*.

Entitled "The Difference Threshold of the Magnitude of Visual Velocity," the article explains the subject as the amount of difference in physical units that is required for a person to distinguish between two stimuli.

In general, Mr. Brandalise's study found that the difference in velocity necessary before a person can distinguish objects moving at different speeds is slightly below five per cent for the five velocities investigated.

Mr. Brandalise has been employed at Sandia for almost two years in the Statistics and Evaluation Division.

He attended the University of California at Santa Barbara earning his BA degree in experimental psychology in 1956 and the following year he was awarded his Master's degree also in experimental psychology.



B. D. Brandalise (1592)
"The Difference Threshold of the Magnitude of Visual Velocity"

Fiscal Soundness and Inflation

The saying goes that a little inflation is a good thing. But it is also an established fact that there is no such thing as a "little inflation" — inflation has never proven to be a controllable economic condition.

President Eisenhower had a few words to say on inflation and government spending before industrial leaders of the nation Feb. 25.

"When the government spends more money than it is getting in the form of taxes," the President said, "the Treasury must do just exactly what a family or business would have to do under similar circumstances: It must go out and borrow whatever is needed to finish paying the bills. When part of the borrowing it must undertake comes from commercial banks, the money supply is increased and the conditions are created for an inflationary price rise.

"Inflation weakens the economy. It brings serious hardship to those of our citizens who are living on pensions or other fixed incomes, and works against those who are unable to bargain effectively for higher wages.

"Most dangerous of all, inflation weakens the incentive to save. It gives rise to a fear that the dollar will continue to decline in value and that speculation will be the only way to keep ahead of the game."

The President read the following words with great emphasis: "... there is nothing which is more positive and more important to be for than fiscal soundness. . . ."

We, as taxpayers and U. S. Savings Bonds buyers, should agree.

Congratulations

Born to:

Mr. and Mrs. Edward J. Graeber, Jr., (1622) a son, Douglas Edward, on March 16.

Mr. and Mrs. H. A. Mackay (1625) a son, Brian Scott, on March 19.

Mr. and Mrs. John R. Woodworth (1622) a daughter, Katharine Lisa, on March 19.

Mr. and Mrs. J. B. Duran (1621) a son, Mark Andrew, on March 16.

Mr. and Mrs. C. D. McGinnis (1613-3) a son, Michael David, on March 23.

Mr. and Mrs. Chris Christensen (2541) a daughter, Linda Ann, on March 23.

Mr. and Mrs. Dick Zaluga (1461-1) a daughter, Jill Diane, on Feb. 2.

Mr. and Mrs. Charles C. Calhoun (8224-3) a son, Gary Dean, on Feb. 2.

Mr. and Mrs. Robert DesJardin (1473) a son, Michael Ray, on March 18.

Mr. and Mrs. Don Wilkes (1473) a son, Roger Alan, on March 19.

Mr. and Mrs. Lloyd Sutfin (1473) a son, Mark Phillip, on March 24. Sheila formerly worked in 1246.

Mr. and Mrs. Gordon Miller (5243) twins—a daughter, Tracey Lynn, and a son, Reilly Clark, on March 27.

Mr. and Mrs. Wayne Ellis (5243-1) a daughter, Paula Lea, on March 28.

Mr. and Mrs. Melquiades Sanchez (2243-3) a daughter, Melecita Marie, on March 13.

Mr. and Mrs. E. R. Barber (5216) a son, Robert, on March 13.



Barbara Rush (5323)

Take a Memo, Please

The prudent gardener, spring or fall, plants his safety first of all. Use safety sense on the job, at home and in the garden. Many safeguards apply in many situations.

R. E. Dove Dies After Long Illness

Funeral services were held last Monday for Raymond E. Dove, 39, who died March 28. He had been on sick leave for nearly three months.

Mr. Dove was a technical staff assistant in Division 1285 and had worked at Sandia since December 1950.

Survivors include his widow, Garnell, two children, and his mother and brother in Chicago.



Raymond Dove

Welcome Back

Organization 5140 is happy to welcome Bill Pumphrey (5143) back to work after his recovery from major surgery.

Notary Public Services

For the convenience of employees, services of a Notary Public are available at Services and Benefits Division (4622) in Bldg. 829 throughout the day.

Weddings and Engagements

Doris May Brothers (4623-2) was married March 6 in Albuquerque to S/Sgt. Ramond Orca of Yauco, Puerto Rico. Sergeant Orca is stationed at Manzano Base.

Doris has worked for the Corporation about eight years.

Mina Koym and Don Carnicom were married in Las Vegas, Nev., on March 19 and are now at home at 7516 Leah Dr. NE.

Mina works in 1461-2 and has been at Sandia two and a half years. Her husband is in organization 1463-1 and has worked here a year and a half.



JUNIOR RIFLEMAN Johnny Blair, son of Bill Blair (1652), receives from Lt. Col. B. H. Backstrom trophy for one of four first-places he won in recent New Mexico Jr. Matches.

Kittens Shanghaied In Packing Crate Are Now Doing Well

Three little kittens lost their way and ended up in Bldg. 880 at Sandia Laboratory. When members of Division 5522 opened up a crate from one of the sites recently, they found a mama cat and two newly-born kittens inside. The men at the site had unknowingly nailed up the box for shipping in which the mama cat had taken refuge. The three are doing fine now.

Get-Well Tree

Heralding in the spring season members of Org. 1626-1 presented their hospitalized supervisor, John Colp, with a nine-foot fruitless mulberry tree. The gift, bearing paper money, was given to John in his hospital room. Masterminding the novel idea were Roland Struss, R. M. Jefferson and Floyd Coppage. John left the hospital last week and was expected to be back at work Monday.

Sympathy

To Norman A. Smith (4611) for the death of his wife, Lorna, on March 19 in Albuquerque.

To Cecil W. Mewhorter (4221-1) for the death of his sister in Ohio on March 16.

To O. L. Howard (5254) for the death of his father near Kansas City, Mo., on March 19.

To Richard E. Burnam (4714) for the death of his mother-in-law on March 24 in Albuquerque.

To Grace Matuska (8212-3) for the death of her mother on March 20 in Hayward, Calif.

To Lorayne Carico (8212-3) for the death of her sister-in-law on March 22.

To Wilford Vandermolen (8123-1) for the death of his father on March 23 in Ojai, Calif.

To William B. Minser (4254-2) for the death of his mother March 15 in Chicago.

To Janet Davis (4423-1) for the death of her father in Albuquerque on March 10.

To Gunner Scholer (8142-1) for the death of his father in Denmark.

To Bob Whitlow (4516-1) for the death of his mother on March 24 in Albuquerque.

To John E. Anderson (4151) for the death of his mother March 27 in California.



SALTON SEA BASE employees held a cake-and-coffee party March 20 for A. L. Pearson (4581-1), who transferred to Livermore Laboratory, and Eileen Smith (4582), who will become a housewife full time soon.

Now Recuperating

Helen Lautner (4151) is convalescing following major surgery recently.

Friends of Joseph Murphy (4221-1) are sorry to learn of his illness and hope for a speedy recovery for him.

Also recuperating after recent hospitalization is Emma Mora (5321).

Get well wishes are passed along to David L. Brown (5532) who is convalescing from surgery.

Co-workers wish Geneva Erickson (8213-3) a speedy recovery. She has been ill for several weeks.

Organization 2722 is happy to report that Jerry Dusek is convalescing at home following a very successful ear operation.

Employees of Department 4360 extend "get well" wishes to C. D. "Blackie" Blackwell (4362) who is hospitalized.



EUROPE-BOUND is Pat Labadie (AEC-Sandia Area Office), who will leave this month for Brussels, Belgium, where she will be a secretary at the AEC Division of International Affairs.

Pat Labadie to Work In Brussels for AEC

Pat Labadie was giving advice last week on how to land a dream job.

Pat has accepted a position in Brussels, Belgium, for two years with the AEC Division of International Affairs. For the past five years she has been secretary to the Security Branch Chief of the AEC Sandia Area Office. Prior to coming to Albuquerque she worked nine months for the U.S. Department of Labor in Mexico.

Pat attributes part of her good fortune in landing the desirable secretarial job to having majored in French in college.

She left Albuquerque March 25 and will spend a few days in Washington and New York before sailing on the USS United States for LeHavre, France.

Want to Fly? Here's Your Chance

Interested Livermore Laboratory employees have been invited to join the Lawrence Radiation Laboratory Flying Club. The club is fully insured and is headquartered at the Livermore Sky Ranch.

Detailed information may be obtained from Dave King, LRL ext. 7291; Harold Miller, LRL ext. 634; or Jim Fisk, LRL ext. 685.

New Homes

Bea (4740) and Jim (4224) Kenagy are proud owners of a new home at 9625 Shoshone NE.

Settled in a new home in the North Valley is R. B. Hosley.

Mr. and Mrs. Allan P. Gruer (5210) have moved to their red cedar cottage near Tijeras which was copied from a chalet they photographed in the Austrian Tyrol. Their address is "Alpenblick"—Box 976.

Charley C. Bates (4224-4) and family have moved into their new home at 324 General Arnold NE.

There's also a new address for Barney Stiefeld (2542), who lives at 9605 Arvilla Court NE.

Enjoying their new home at 9529 Arvilla NE are Wheeler (2723) and Georgia (4623) Hahn.

At Livermore, Mr. and Mrs. Marvin Brieske (8151-2) moved recently into their new home at 2172 Rincon Drive. Another new home owner there is Helene Patlovich (8221-1), whose address is now 470 Hillcrest Ave.

Settled at 6001 Ponderosa NE are Mr. and Mrs. W. C. Austin (4741).

Mr. and Mrs. Chenault Davison (4361) recently moved into their new home at 3412 Westerfeld Dr. NE.



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Official Photograph of U. S. Navy
USS NORTON SOUND for 45 days was home to Argus. It was from the decks of this ship that the three Sandia Corporation representatives on Project three rockets carrying nuclear devices were launched.



SANDIA EMPLOYEES who accompanied Task Force 88 to the South Atlantic for firing of the high altitude rockets are (L to R): John Balaban, Art Kellom and Oscar Fligner. All work in Div. 1247.

Continued from Page One . . .

'Der Landlubbers' Essential to Success Of Argus Project Old Salts Quickly Admit

ed under the tightest of time schedules.

The first flight test of the rocket with a dummy payload was made from a Navy ship off the coast of California in early July and the final flight test was made late in the same month.

Between May 23 and July 5 Sandia had to complete detail design of its equipment, fabricate test units, complete the detailed logistics for the tests, adapt the device to the experimental missile and complete arrangements for telemetry work. The test units had to be assembled and shipped. Pre-flight check-outs were done on shore and aboard the ship.

"It was a time of great strain and many frustrations," John P. Ford, Division 1247 supervisor, reports. But the problems were overcome by the tremendous effort of many people and the cooperation between the Department of Defense agencies, Lockheed Aircraft Company and the AEC's Sandia Laboratory.

"Though only three Sandia people were aboard the ship when the firing took place, the talents and cooperation of many Sandia employees contributed to the success of the tests," he says.

Telemetry and instrumentation on the early testing phases of the program were done by Test Project Division II, 5252, headed by William C. Myre. Working with him were Clayton Erickson, Edward E. Wood, Donald Argyle and Leon Day. Due to the extreme height of the test telemetered data was recorded at Salton Sea Test Base and at Sandia Laboratory in Albuquerque in addition to receiving stations on the Pacific Missile Range. These men were among other Sandians aboard a ship off the coast of California for the preliminary testing.

Preliminary system design studies of the Sandia responsibilities were done in the Fuzing Systems Division 1262. The Component Development Organization 1400 was responsible for providing the basic parts which were used in the special fuzing system.

All special "hardware" and parts required for Sandia supplied equipment were made by the Development Shops 4200. Test Laboratory Department 1610 was re-

sponsible for testing components in special environments designed to duplicate the acceleration, temperatures and other conditions which would be encountered in such a test.

Reliability Development Division 1593 conducted special studies to assure that the Sandia equipment met all reliability and safety criteria.

Personnel from the Nuclear Burst Studies Division 5111 served as consultants during planning of scientific instrumentation for the tests and have participated in evaluating of scientific data generated by the tests.

Division 1247's role in this program was the responsibility for the overall nuclear device installation, design, and coordination of the efforts of all the above groups. The result was production of a test nuclear system compatible with the Lockheed X-17 missile and the assigned mission.

Sandia's three participants aboard the Norton Sound, Oscar Fligner, Art Kellom and John Balaban, sailed with the ship Aug. 1 and were at sea 45 days. The ship rounded Cape Horn and joined Task Force 88 in the South Atlantic. It was there that the tests were conducted.

The Sandia men had the responsibility of assembly, test, pre-flight and launching check-outs of the devices and the arming and fuzing systems.

Called "der landlubbers" by the Navy men aboard ship, they earned the complete admiration of the "old salts" who wrote in their ship publication: "Contrary to popular opinion 'der landlubbers' were not along just for the ride. Most of us saw them, wandering about, appearing nautical, but few realized their importance. These men were honestly essential to the mission."

After the tests the Norton Sound put in at Rio de Janeiro and the three Sandians flew home from there.

Letters of commendation for the three have been received from Navy officials for their performance while on the Norton Sound. Rear Admiral L. M. Mustin, Commander of the Task Force; Capt. A. R. Gralla, Commanding Officer of the Norton Sound, and Rear Admiral Edward N. Parker, Chief,

Armed Special Project, wrote words of high praise for their accomplishments in the extremely short time. Their enthusiasm, plain hard work and loyalty to the project drew warm words of approval from these officers.

Assistant Secretary of Defense Donald A. Quarles and Dr. Herbert York, Director of Research and Engineering for the DOD, told reporters that the explosions took place at altitudes of about 300 miles and that there was no radioactive fallout on the surface of the earth.

Dr. York stated that one main objective of the blasts was to test important theories about the trapping of electrons by the earth's magnetic field.



POLLYWOGS — King Neptune prepared his welcome for those on board ship who were crossing the equator for the first time. Oscar Fligner, Art Kellom and John Balaban were initiated.



RIO BOUND—John Balaban, left, and Art Kellom prepare to leave ship in the beautiful Brazilian port. They flew home from there.



OSCAR FLIGNER aboard the Norton Sound braved the frigid weather as the ship rounded Cape Horn. Oscar was in charge of the Sandia Lab. contingent.

Solar Heating to be Discussed for Members Of ASME April 15

"Performance of a Solar Heated Office Building" will be discussed at a meeting of the New Mexico Section of the American Society of Mechanical Engineers April 15.

Speaker will be Roger W. Haines, chief engineer for Bridges and Paxton Consulting Engineers, who will describe the firm's solar heated structure located at 213 Truman NE.

The talk will be presented at 7:30 p.m. in Rm. 220, Mitchell Hall, University of New Mexico.

A dinner at the Triangle Restaurant at 6 p.m. will precede the technical session. For reservations contact Gene Gardner (2113), ext. 33156.



ROUNDING THE HORN, an experience not given to many in this modern day, was a great thrill to the Sandia Corporation men who were with Task Force 88. The memorable event occurred on Aug. 17.



GOOD HOUSEKEEPING is everywhere, even in crating. Nails are hammered down by Tony Garcia (2243) before the crate is sent on to the requesting organization. Here there is no hazard of extended nails and there is no packing materials loose on the floor.

Masters Require Dogs to 'Bone-up' For Finals in Dog Obedience School

Sandians who belong to the Sandia Dog Obedience Club are learning that it takes a lot of hard work and patience to train their dogs.

The group meets once a week for 10 weeks. At the end of that time, the dogs have their "finals" and must make at least 170 points out of a possible 200 to pass the course.

Each trainer works with his dog, starting with basic commands and gradually advancing into more complicated training.

Many of the trainers will be handling their dogs in the shows coming up at the Fairgrounds on May 8 and the Civic Auditorium on May 10.

Sandians belonging include R. A. Bice (5200), E. F. Barnicle

(6000), J. F. Buyers (5331), W. A. Davis (1262), J. A. Garcia (4224), Marge (4412-7) and Walter (4413) Parkhurst, L. W. Stouder (2151) and June Woodley (4623/4171).

Mr. Buyers and Mr. Stouder act as judges at many of the dog shows, according to June Woodley, publicity chairman of the club. Anyone interested in further details may contact June at Ext. 32240.

Head of EE at U. of Illinois to Speak Here Apr. 8

"Microwave Studies of Gaseous Plasmas" will be discussed at a meeting of the Sandia Research Colloquium Wednesday, April 8, according to Craig Hudson (5111), Colloquium chairman.

Speaker will be Professor L. Goldstein, head of the Electrical Engineering Department, University of Illinois.

The meeting will begin at 9:30 a.m. in the basement conference room of Bldg. 802. Tickets will not be required.

Technical Writing Courses Presented At Livermore Lab

A two-week short course in technical writing ended recently at the Livermore Laboratory. It was the first time the course had been taught at Livermore.

The classes, aimed at improving techniques in report writing, were taught by William F. Carstens (4723) and James L. Fife (4723-1). Each instructed for a week and total of 30 employees took the each taught two classes daily. A course.

Speaks to Members Of IRE on April 10

Albuquerque-Los Alamos Section of the Institute of Radio Engineers will meet in Los Alamos Friday, April 10.

Speaker will be Dr. Marvin Van Dilla of the Los Alamos Scientific Laboratory Bio-Physical Health Research Laboratory. He is currently working in the field of radiological measurements of people and food.

Dr. Van Dilla's topic will be "Scintillation Detectors: Their Physics and Application."

The dinner meeting will begin at 7:30 p.m. at the Lodge. Reservations are available from Nick Bourgeois (1413), ext. 35145.

Horse Show

The South Valley Rebel Riders will hold the second of their four annual horse shows on Sunday, April 12, at their arena off U.S. Highway 85 across from Adobe Acres. Further information may be obtained from Betty Tatum (4961), CH 2-9021.



CHARTER FOR 4200's Good Housekeeping Committee is displayed by current members (L to R) Harold Meidal, E. J. Allen, Jim Bell and M. D. Bolton. Committee safety-checks 15 work locations.

'Make Every Day Visitor's Day'

Good Housekeepers Have Both Prevention, Control Functions

Good housekeeping is a serious matter at Sandia Corporation. It goes hand in hand with safety as well as providing pleasant working conditions. But, no matter if it is a question of control or prevention of untidiness, good housekeeping is still up to the individual.

A wooden crate, with nails protruding and metal banding straps hanging loose, temporarily stored in a passageway represents an accident hazard.

Rags saturated with flammable materials carelessly kicked into a corner represent a fire hazard.

Avoidance of such conditions even before they occur is the purpose of Good Housekeeping Committees, already in operation in numerous organizations.

The committee for the 4200 organization has been in existence three years and covers operations in 15 different buildings. The present committee includes E. J. Allen (4211-3), chairman, M. D. Bolton (4224-2), H. M. Meidal (4232-4), and Jim Bell (4254-1).

Weekly Job

As Mr. Allen explained the operation, "Each week we inspect

certain divisions or sections looking for safety hazards and examples of poor housekeeping. Each tour takes us at least an hour and it takes eight weeks to make the rounds. I've been on the committee the longest and can notice a definite improvement. The men are doing a real good job."

When the going gets rough and they feel a need for humor committee members can always refer to the charter hanging above Mr. Allen's desk which gives the Good Housekeeping Committee the "Authority, ability, autocracy and audacity to: 1. Investigate (or di-investigate) and otherwise snoop; 2. Inspect, prospect or ignore; 3. Criticize (without carping); 4. Peer into corners — suspicious, dark, or otherwise investigable; 5. Look under carpets, plush or threadbare; 6. Check for dust on shelves (high or low); 7. Subpoena experts or just plain blowhards—all for the purpose of cleaning house." The group's motto, "Show Us Your Dirt."

In a less amusing vein, the committee's reports are sent to 4200 supervisors in duplicate. The second copy must be returned to the

committee with an explanation of measures taken to better the situation.

Use Rating Factor

Another successful Good Housekeeping Committee is in organization 4400. Ray Pogue (4431) is chairman and other members are Carter Gibbs (4424), Bill Yates (4413) and Tom Glauner (4411).

"We make a monthly tour," Mr. Pogue explained, "and look for cluttered drafting tables, dirty ash trays, chairs in aisles and anything else hazardous or untidy."

The committee uses a rating factor starting at 100 per cent for "clean" and ranging downward. The cleanest and dirtiest groups receive public recognition. About 170 draftsmen are located in Bldg. 836 but the committee also checks the organization's work locations in Bldgs. 802, 894, 838 and 813.

Mr. Pogue added, "When we were located in Bldg. 880 the housekeeping was not the best. So when we moved to our clean new quarters in 836 it was the committee's responsibility to impress on every employee his responsibility in keeping the place clean. Good housekeeping and safety practices have followed."

Formal Report

Still another well-established Housekeeping Committee covers areas in the 2000 organization. Chairman is R. F. Masak (2722), and members are R. C. Gauerke (2552), W. A. Otero (2233) and J. Babb (5531). Ed L. Jolly (2220) has served as secretary to the group for three years.

The committee makes regular inspections of storage and office areas used by the organization, with special attention to storage of materials or parts in other than regular storage areas. The findings are formally reported after each inspection.

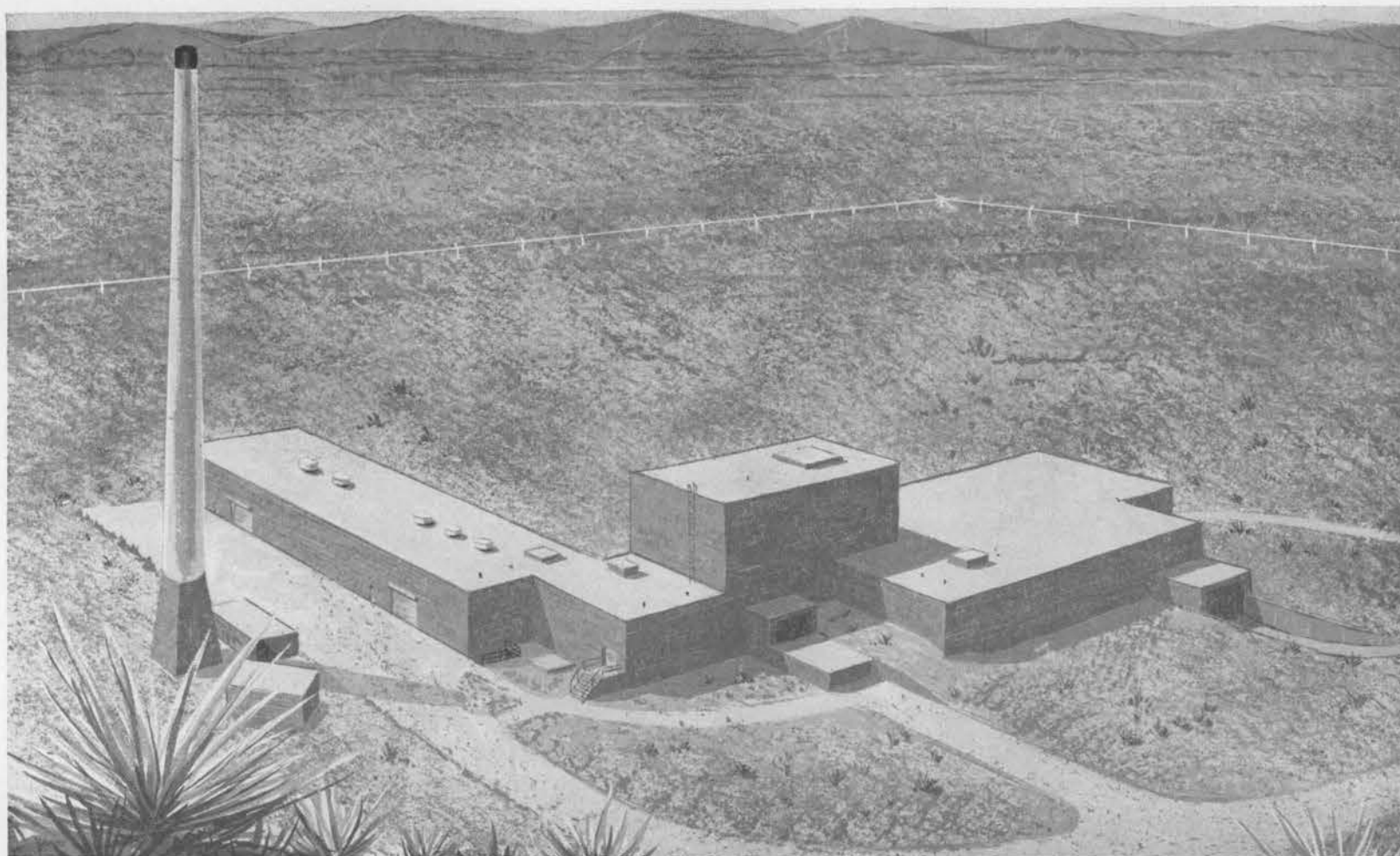
Mr. Jolly's minutes report all types of safety hazards or examples of poor housekeeping ranging from "dead crickets under work tables" to "bailing wire attached to hand rail at top of emergency stairway, apparently used to hold the door open."

Regular inspections have also disclosed needed repairs, such as a leaky sprinkler and asbestos packing broken away from steam pipes.

The 2000 organization's Good Housekeeping Committee has as its motto "Let's Make Every Day Visitor's Day."



NEATNESS PAYS OFF in this Stockroom in keeping supplies clean and making it easier for Arturo Jimenez (2252) to quickly check items on hand. Packages in proper bins prevent safety hazards.



ARTIST'S CONCEPT of the Sandia Engineering Reactor Facility looking southeast in Area III is reproduced above. Bids were received recently with Petroleum Combustion and Engineering Company of Los Angeles submitting the apparent low bid of \$1,808,643. Construction should start soon and the completion date has been

estimated as July 1960. At left is the 125 ft. stack which will exhaust filtered ventilating air from inside the building. The reactor will be located in the tall center section. Adjoining structure at left is an equipment building and, at right, is the laboratory building. Stearns-Roger Manufacturing Co. engineers prepared the drawing.

ASM Members to Meet for Dinner, Technical Session

Members of the Albuquerque Section of the American Society for Metals will meet for dinner and a technical session April 16, C. A. Scott (1285), publicity chairman, reports.

The meeting will be held at Baxter's Steak House beginning at 6 p.m.

Speaker will be Richard E. Harburger, senior research physicist, Physics Department, General Motors Research Laboratories, Warren, Mich. He will discuss "X-ray Diffraction Studies of Residual Macro and Micro Stresses in Hardened Steel."

For reservations contact Don Adolphson (1621), ext. 42250.

AWS Members Will See Demonstration of New Type Equipment

A demonstration-type meeting is scheduled for the American Welding Society April 16, according to Vince Nelson (1621), vice chairman.

Bob Scott, Linde Air Products Corporation, Denver, Colo., will demonstrate and discuss latest developments in inert gas shielding and arc welding equipment.

The meeting will be held at Alpha Engineering, Inc., 245 Woodward Road SE, at 7 p.m.

Sandia Delegates at Library Conference

The annual joint meeting of the New Mexico Library Association and the Rio Grande Chapter of the Special Library Association will be held in Alamogordo April 10-11 with several delegates from the Sandia Corporation library (4721-1) in attendance.

Those planning to attend the meeting include Mrs. Bertha M. Allen, president of the local Special Library Association, Lee F. Parman, Charles W. Sargent, Dorothy Vass, Mary McClure and Florence McPherson.

Sandia Reactor Construction Starts Soon

A giant stride has been accomplished in making the Sandia Engineering Reactor Facility (SERF) a reality. Construction bids were opened recently by the Atomic Energy Commission. Apparent low bid of \$1,808,643 was submitted by the Petroleum Combustion and Engineering Company of Los Angeles.

Planning for the reactor started three years ago when the long term planning of the Material and Standards Development Organization 1600 called for radiation environmental testing of materials. The initial study by the Ad Hoc Committee on Radiation Damages to Materials determined the need and recommended the construction of a reactor facility. From this study evolved a radiation effects section and subsequently in 1956 the Radiation Effects Division 1626 was formed. The division was organized to plan the Sandia Engineering Reactor

Facility and to pursue the study of radiation effects on materials.

Nuclear, electrical and mechanical aspects of the design of the reactor core and its associated cooling and control systems were determined jointly by Sandia Radiation Special Studies Section 1626-3 and scientists of the Los Alamos Scientific Laboratory.

Design of the reactor pressure vessel, preliminary layout of the reactor facility, and the remote materials handling systems were done by Section 1626-1 and 1626-3 of the Radiation Effects Division, Plant Engineering Department 4540 prepared design criteria for use by the architect-engineer.

A & E Contract Let

In January 1958, Stearns-Roger Manufacturing Company, Denver, Colo., was awarded the contract for architect-engineering of the SERF by the AEC. The contract included preparation of detailed design of the facility, specifications and estimates of cost.

The design work was completed in December 1958. Construction bids were requested in January 1959, to be submitted March 19, 1959. The successful bidder will have 450 calendar days to complete the facility after notification to proceed.

D. M. Ellett, Supervisor of Radiation Effects Division, estimates that SERF will be in operation early in 1961. At that time SERF will be used as a radiation environmental test facility for the study of the effects of radiation upon materials. Materials and Standards Development Organization 5100 will share the facility.

The construction contract calls for building a two-story concrete masonry structure containing approximately 25,000 square feet of floor space. Included in the construction are the reactor cooling system, an environmental equipment building, standby electrical facilities, an electrical distribution system, water storage and treatment facilities, security fences and lighting. Under separate contract a water well is now being drilled for the reactor and Area III supply.

Sandia Provides Core

Sandia Corporation will provide the reactor vessel, and associated controls and cooling equipment. Procurement of this equipment has been in process for some time. The huge stainless steel pressure vessel which will contain the reactor

core is being fabricated and will be delivered about MAY 1, 1959. The reactor of the SERF will be a tank-type uranium-fueled heterogeneous reactor, patterned after several reactors having long operating histories and perfect nuclear safety records.

A radiation cell (30 x 22 x 9 feet high) is formed by massive concrete shielding and encloses a portion of the reactor pressure vessel and the core. Two walls of the irradiation cell can be lowered hydraulically to allow access to the irradiation cell.

Safety Measures

The layout of the SERF and the design of the ventilation and the radioactive waste systems prevent the dispersion of hazardous gases and materials into inhabited areas. The inhabited areas of the building are offices, laboratories and control rooms.

Constant monitoring will assure ample warning should there be any increase in background radioactivity.

Uninhabited areas of the facility include the irradiation cell and the radioactive handling areas. Handling of the radioactive ma-

terials will be accomplished by remotely operated bridge cranes, master-slave manipulators and mobile remote handling devices. Viewing of remote handling operations will be through lead glass windows supplemented by closed-circuit television.

It is anticipated that the SERF will operate on a round-the-clock basis with a duty cycle of 80 percent with only short periods of inactivity for reactor maintenance and fuel changes.

Walter Mooney Two-Time Winner by His Faithful Use of Safety Glasses

It doesn't take any prodding to get Walter C. Mooney to wear his safety glasses. He figures they have saved his eyes from injury twice now.

Recently Walter, an apprentice machinist in Project Section C (4254-1), was working with a drill to free a set screw which had frozen. Without warning the cutting edge of the drill chipped and a fragment of metal struck the right lens of his safety glasses.

A similar accident occurred

more than two years ago with a chip of metal again hitting his glasses. "I kept those damaged glasses around the house until just recently as a reminder," Walter said. "My brother works in a factory in the East that doesn't require safety glasses. A few months ago one of his eyes was injured in an industrial accident. I sent my damaged glasses to him to show how safety glasses can prevent injury in many cases."

D. D. Hurley to Give Graduation Talk in Spokane

David D. Hurley (8231) will deliver the graduation address on May 30 at Gonzaga Preparatory School for Boys in Spokane, Washington.

Dave graduated from the school in 1934 and went on to study at Gonzaga University. The baccalaureate address will be given by Father Edward J. Morton, S.J., a former classmate of Dave and now president of Gonzaga University.

The day before the graduation ceremonies, the class of '34 will hold its Silver Jubilee reunion at the school.

During his school years at Gonzaga Prep, Dave won several gold medals for oratory, elocution and debating. He was president of his freshman class and a 3-letter man in football, baseball and track. He was also a member of the student honorary society, Knights of the Leash.

Tech Council Meets

The New Mexico Council of Technical and Scientific Societies will meet Monday, April 6, according to Lee Parman (4721), president.

The meeting will be held in the Warehouse Conference Room, University of New Mexico, at 7:30 p.m.



SAFETY GLASSES have played an important part in Walter Mooney's job as an apprentice machinist. For details on the reason for his enthusiasm regarding eye protection, see adjacent article.

Patent Granted for Special Antenna Invented at Sandia by P. L. Kerley

The U. S. Patent Office has notified Sandia Corporation that patent no. 2,867,803 for a "Circular Cavity Slot Antenna" has been assigned to the Atomic Energy Commission in the name of Paul L. Kerley.

Mr. Kerley, a staff associate in Special Problems Division (1413), has been working in the electronics fields at Sandia since September 1952. Previously he was four years with New Mexico State College, which was then operating a telemetering ground station under Naval Research Laboratory contract at White Sands Proving Ground.

According to the patent, "An object of the invention is to provide an antenna of small size and with a field pattern suitable for use in airborne equipment. Another object . . . is to provide a novel antenna having a doughnut shaped field pattern and which can act both as an antenna and a resonant circuit."

Slot antennas have been found effective in performing more than one function and also being able to withstand the forces of high speed flight.

Mr. Kerley explained operation of his device this way: "The circular slot allows radiation of the electro-magnetic wave in a direction outward from the antenna ground plane in a doughnut shaped field pattern, the ex-



PATENT AND MODEL for "Circular Cavity Slot Antenna" are proudly displayed by inventor Paul Kerley (1413). The U. S. patent was assigned to the AEC.

act shape of which is determined by the shape of the center element. The loading of the antenna is controlled by moving the center element in or out along its axis.

"The circular cavity slot antenna has another mode of operation wherein the center element is removed and a single wire transmission line is passed through the center hole and made concentric with the hole. In this mode of operation electromagnetic waves can be launched down the single wire line without the antenna actually being in physical or electrical contact with the line. A similar circular cavity slot at the receiving end of the line would be used to pick off the signal."

Co-op Fellowship Awarded to Sandia Summer Employee

National Science Association has awarded a graduate co-op fellowship to John F. Taylor, son of "Peg" Taylor (1473). "Jack" has worked three summers for Sandia Corporation and will be back again this June in Division 2551.

Jack will graduate this June from the University of New Mexico with a BS degree in Electrical Engineering. The fellowship provides \$1,650 for nine month's graduate study, which Jack plans to take at UNM.

Eustaquio Ulibarri Retires This Week

Eustaquio Ulibarri retired this week after more than seven and one half years with Sandia Corporation. He was a laborer in the



Mr. Ulibarri

Grounds Maintenance and Office Machine Repair Division (4515).

Mr. Ulibarri and his wife live at 211 North Fifth in Belen but they also have a little acreage three miles from Belen. He said, "I plan to farm a little. I don't want to just sit in the shade."

They also intend to visit their children in California and Mr. Ulibarri's brother in Wyoming.



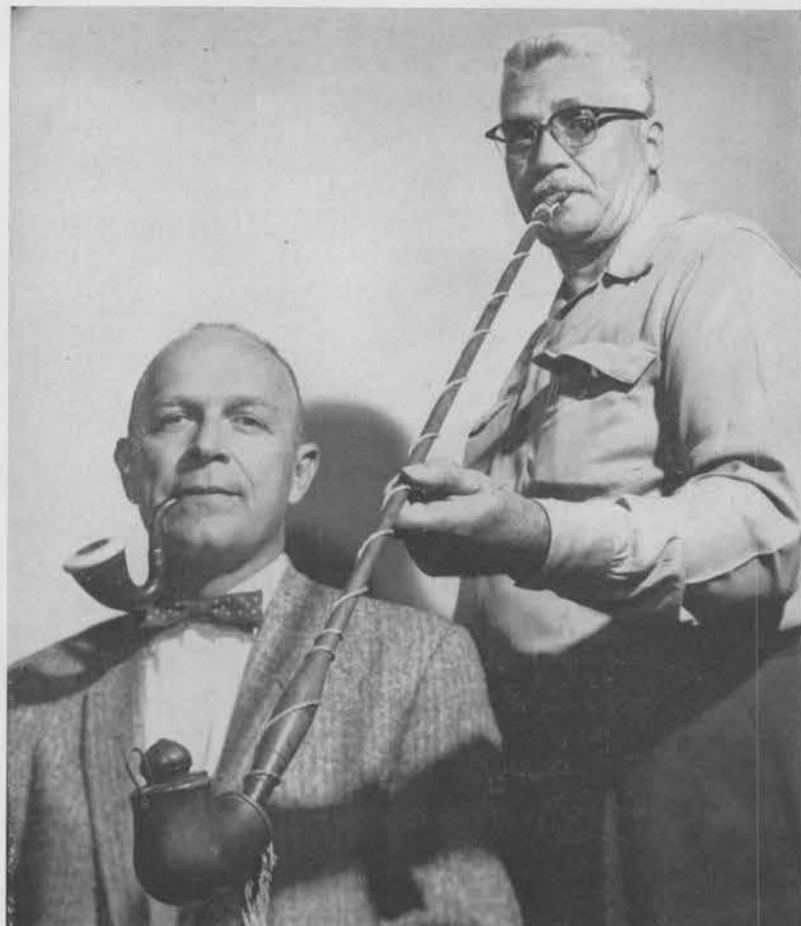
PARTICIPATING in a Western Electric Company Inter-Works Conference on Statistical Quality Control recently were three Sandians. Shown here with C. P. Walter, Assistant Superintendent, Inspection, Greensboro, N. C., Plant, (left) are (L to R) L. E. Snodgrass (2561), P. M. Wallack (2561-4) and J. R. Sublett (2560). The conference was held at the Lexington Road Plant, N. C.



**Sandia Corporation Has Worked
26 DAYS
Without a Disabling Injury**

HERE'S WHY...

Because safety doesn't cost anything until you forget it. Established safety practices are a big bargain because they give the individual assurance, peace of mind, and the opportunity to do his job well.



IT'S WHAT'S UP FRONT THAT counts, according to George Smith (8222-1), whose long stemmed German pipe was an Indian gift. Lurl Ostrander (8231-1) backs him up with an ancient calabash handed down through his family for generations.

A True Life Indian Story

Peace Pipe Really Was—To Relief of George Smith's Grandmother in 1872

One sunny morning in 1872 Rose Smith stepped from her newly-built log cabin at Lake Odessa in Michigan to find herself confronted by a party of Indians.

Mrs. Smith had come from Pennsylvania with her husband just a few months before to settle in the raw, new land. This was her first encounter with Indians.

Years later she told the story to her grandson, George Smith (8222-1). "Grandmother might have been scared, but she didn't let it throw her," George said. "She served them coffee and all the sweets she had in the cabin. They ate and left."

A few weeks later the Indians were back. Again the pioneer woman gave them coffee and sweets, but this time they didn't leave. Instead one of the Indians produced a strange looking pipe with a long stem, a meerschaum bowl, silver chasing and a yellow tassel.

Pipe Went Rounds

Solemnly he packed the bowl with tobacco, lit it, puffed a few times, and handed it to George's grandmother. In those days nice ladies didn't smoke. George's grandmother was a nice lady, but she smoked that pipe anyway.

The pipe went the rounds and then, with much show of ceremony, the Indians presented it to Mrs. Smith. Sixty-six years later she presented it to her grandson.

Albert Hall to Retire April 14

Albert C. Hall will retire April 14 after nearly six years with Sandia Corporation as a toolkeeper in the Stock and Material Control Division (4212).

With his new leisure time Mr. Hall plans to do a little fishing, some gardening and a little painting around the house.

In the fall Mr. and Mrs. Hall will make about their sixth trip back to Vermont, their former home. Mr. Hall was in the lumber business there before moving to New Mexico. "I had lived there all my life," he explained, "but I wouldn't go back to stay—it's too cold!"

In Albuquerque their home is at 2708 Graceland Dr. NE. Their son is Allen E. Hall, supervisor of Specialties Division A (4221).



Mr. Hall

just before she died in 1938 at the age of 84.

All George knows about the pipe itself is that it is of German origin. How the Indians got it will always remain a mystery.

Another odd pipe story comes from Lurl Ostrander (8231-1). Not long ago his uncle gave him a calabash pipe. Except for the bit and a meerschaum bowl, the pipe is made of a calabash gourd, grown in Africa.

Like George Smith's pipe, over the years it has been smoked from its original pure white to a rich mahogany color.

Smoked Five Generations

But that isn't what's different about Lurl's pipe. Calabash pipes are fairly common. What sets Lurl's old calabash apart is the fact that it has been smoked by three people who span five generations of Ostrandors.

"It was first owned by my great-great-uncle Ed Ostrander. I saw him only once in 1939. He was a veteran of the Civil War who died when he was in his 90's."

"No one knows where he got it, but he smoked the old calabash for a good part of his life before handing it down to his grand-nephew Clyde Ostrander."

Somewhat of an expert on the care and smoking of pipes, Lurl takes a connoisseur's delight in filling the venerable calabash with good tobacco and relaxing for a long, satisfying smoke.



ONE MILLION MAN-HOURS without a disabling injury worked by Livermore Laboratory employees has earned the AEC Award of Merit. It's being presented here to R. E. Poole, Vice President at Livermore 8000, left, by C. C. Campbell, Manager of the AEC Sandia Area Office. The outstanding safety record was compiled during the period from February 16, 1956, to November 12, 1958.

Supervisory Appointment

John K. Wichelns to Assistant Buyer, Mechanical Subcontracting (4323-2).



During his eight years with Sandia Corporation John has worked in research and development, for five years in Business Methods and the

past 15 months in Purchasing. He received a BA degree in 1950 from the University of New Mexico and worked eight months in Chicago for the Aetna Insurance Company before joining Sandia.

During World War II John was in the Navy for three years, serving two of those years in all the major theaters.

Edward K. Bauer Retires in March

Retiring last month was Edward K. Bauer, a Corporation employee for seven years. He had been an electrical instrument technician



Mr. Bauer

in the Instrument Issue Section (1614-3).

Mr. Bauer has plenty of hobbies to keep him busy. He likes to do woodworking, electronics, gardening and, most of all, mineral hunting.

Mr. and Mrs. Bauer live at 329 Alcazar NE and their two sons, Edward and Alfred, both work for Sandia Corporation in Division 1611.

"I'll probably spend quite a bit of time with my five grandchildren," Mr. Bauer added.

Coronado Club Will Feature Calorie Count Menu Display Boards

Calorie counters can put away their charts and slide rules. Beginning Monday the Coronado Club restaurant will feature two menu boards that will list the calorie count of all items on the menu.

One large display board will list the calorie count of each item and the other menu will show the calories contained in complete meals.

For some time the cooking oil used in all Coronado Club restaurant food preparation has been corn oil. This type of cooking oil contains unsaturated fat which medical authorities recommend. It is believed that unsaturated fat in the diet in place of other types of fat reduces the amount of cholesterol in the blood and is a factor in the prevention of heart disease.

15 Year Pin



Harvey S. North
5211
April 5, 1944

Ten Year Pins



Arthur E. Johns
4232
March 25, 1949



Louis J. Ellis
5531
April 4, 1949

Five Year Pins

April 4-17

Kenneth O. Crays 5257, W. F. Shoemaker 2722, Otis C. Thomas 1592, Thomas D. Williams 4151, Elsie R. Bemis 4413, Robert T. Tuffnell 4153, Gloria A. Garcia 4623.

Paul E. Gammill 1451, Clarence W. Hansen 4842, Robert R. Neel 1218, William G. Branson 4343, Virginia A. Baker 4762, B. J. Pennington 4761, Daryl L. Anderson 1452.

Velma D. Davies 4623, Carl O. Kemp 4562, Faye C. Hole 4413, Maxcena L. Koetter 4542, Carrie L. Schall 8232, Mary M. Gonzales 4325, Antonio G. Torres 4761.

April 11-17

Marcella C. Ncble 4761, Donald E. Holliday 1215, Byron C. Coats 2561, Janice M. Sharp 4742, John B. Adams 2521, James M. Morris 8234, Phillip R. Vouterin 4572, Donald L. Werner 1411, Charles W. Ray 1613.

George Dennis, Jr. 2251, Doris M. Foreman 4623, William A. Davis 1252, Laura L. Beube 4761, Lucius V. Dilorenzo 8233, Emily C. Browne 4723, Evelyn H. Gillespie 4161, Sicely V. Nixon 4542, Lucretia M. Blum 4735.

J. Philip LaPoint 1614, Angela J. Hopkins 2731, B. O. Sandoval 4574, Raymond Goddard 1218, Reba K. Garrison 4211, Billy Johnson 1611, Randal K. Williams 4231, Joseph B. Gonzales 4511, David H. Davis 4142, Barbara J. Reeder 5320.

Two Year Certificates

April 4-10

B. H. Sullivan 2555, Robert P. McGovern 2722, Otis C. Thomas 1592, Thomas D. Williams 4151, Elsie R. Bemis 4413, Robert T. Tuffnell 4153, Gloria A. Garcia 4623.

Paul E. Gammill 1451, Clarence W. Hansen 4842, Robert R. Neel 1218, William G. Branson 4343, Virginia A. Baker 4762, B. J. Pennington 4761, Daryl L. Anderson 1452.

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Seek Golfers for '59 Association Season

Currently organizing for the 1959 season, the Sandia Corporation Employees Golf Association has sent out a call for members. Anyone interested in playing golf with the League is urged to contact Services and Benefits Division 4622, ext. 29157.



E. E. Alford
8122
April 11, 1949



Norman W. Ollman
2251
April 11, 1949



John A. Roach
8234
April 4, 1949



Salvador Armijo
4511
April 1, 1949



Russell E. Herber
4251
April 15, 1949



A VERY EXCITED young lady, Mary Claire Ayen (8114-1), and a very dead marlin pose together to record the "great moment." The marlin, weighed in at 125 pounds and was 9 feet long. Mary Claire weighs 110 and is 5 feet, 3 inches tall. She and her parents recently spent several weeks in Mazatlan, Sinaloa, Mexico. Aboard the charter boat, she used a 100-lb. test line and it took her 35 minutes to wrestle the fish aboard.

PGSET Meets April 14

The Professional Group on Space Electronics and Telemetry (formerly Telemetry and Remote Control) will meet Tuesday, April 14.

Speaker will be Arthur Westneat of the Applied Science Corporation, Princeton, N. J. He will discuss "Statistical Telemetry."

The meeting will begin at 8 p.m. in Rm. 217 of the Electrical Engineering Bldg., University of New Mexico, according to C. S. "Chuck" Williams (1454), professional group coordinator.

H. N. Snook to Tell Manufacturers of Need for Quality in Missile Age



H. N. Snook

H. N. Snook, Vice President Engineering for Manufacture 2000, will address a dinner meeting of the New Mexico Manufacturers Association Tuesday, April 14.

His subject will be "Quality in the Missile Age." Mr. Snook will discuss the tradition of American industry for mass production which compromises between quality and cost.

He will show where this tradition must change in the face of requirements for the "missile age" to quality first, and then try to find ways to reduce costs.

He will discuss some of the tools in the hands of industry which aid in producing highest

quality and some of the methods for reducing costs.

The meeting will be held at Desert Sands.

Sandia Speakers On Program of Career Day

A number of Sandia Corporation employees have been invited to participate in the Sandia High School Career Day program on April 10. The Sandians will inform students about the requirements and future in fields of science and engineering.

Taking part in the program will be: Aeronautical Engineering, Samuel McAlees (5144); Biologist, W. H. Kingsley (4961); Chemical Engineering, D. F. Finchio (1463); Chemist, R. E. Fisher (1621); Civil Engineering, F. F. Norris (4541);

Electrical Engineering, Gino Carli (1542); Electrician, W. C. Elskes (4511); Machinist, Walter Hall (4250); Mathematics, D. R. Morrison (5126); Mechanical Engineering, E. H. Copeland (1471); Metallurgy and Mining, R. S. Lemm (4230); Physics, T. B. Cook (5111), and Plastics, H. C. Pierson (1625).

Welcome Newcomers

March 16-27

| Albuquerque | Count |
|----------------------------------|--------|
| Jo Ann E. Belmont | 4623 |
| Mavis H. Bowland | 4623 |
| Ruby S. Cruze | 4623 |
| Eva P. Jaramillo | 4623 |
| Janet H. Johnson | 4621 |
| Lucy M. Mosteller | 4233 |
| *Bertie J. Parker | 4752 |
| *Bertie C. Richardson | 4623-4 |
| Robert R. Salazar | 1621 |
| Loia B. Todd | 2731 |
| California | Count |
| Albert Narath, Berkeley | 5150 |
| Doris L. Briggs, Livermore | 8212-3 |
| Kenneth W. Smith, Livermore | 8221-2 |
| Robert L. Hanzel, Castro Valley | 8212-4 |
| John D. Sausser, Newark | 8223-3 |
| Robert D. Cozzio, Richmond | 8152-1 |
| Colorado | Count |
| Don P. Van Dyke, Pueblo | 8123-2 |
| Massachusetts | Count |
| George F. Blanchette, Leominster | 4254 |
| Ohio | Count |
| Melvin Terrell, Cleveland | 8114-3 |
| Stanley Glasky, Jr., Euclid | 8223-1 |
| Glenford D. Self, Cincinnati | 2561 |
| Virginia | Count |
| John C. Canode, Winchester | 1615 |
| Returned from Leave | Count |
| Barbara A. Bowden, Albuquerque | 4623 |

VOLLEYBALL STANDINGS
Sandia Employee League

| Team | Won | Lost |
|----------|-----|------|
| 1200-III | 2 | 0 |
| 1400 | 2 | 0 |
| 1600-I | 2 | 0 |
| 1600-II | 1 | 0 |
| 1200-I | 1 | 1 |
| 1200-II | 1 | 1 |
| 5100-I | 1 | 1 |
| 5100-II | 1 | 1 |
| 5500 | 0 | 1 |
| 4400 | 0 | 1 |
| 4300 | 0 | 2 |
| 5200 | 0 | 2 |
| Comb. | 0 | 2 |
| 4600 | 0 | 2 |

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
4. Use home telephone numbers
5. For Sandia Corporation and AEC employees only
6. No commercial ads, please
7. Include name and organization.

FOR SALE

LOTS WITH plenty of trees, on State Highway 10, one mile south of Pine Flats, Wolfe, CH 3-0549.

'55 CUSHMAN Deluxe Hilander scooter, just completely overhauled and new paint job, \$150. Gustafson, AX 9-3270, 1920 Saint NE.

28' TRAILER, Spartan, for sale or trade, lived in 4 months, refrigerated air. Cummings, CH 2-1061 after 5 p.m.

LAUNDROMAT, Westinghouse, fully automatic, spin dry, \$50. Beach, AX 9-2990, 2523 Gen. Marshall NE.

VIKING 75 Tape Deck Manaur record-playback and stereo playback heads, \$79, original cost \$115. Winblad, DI 4-3109.

FREE LOCKS for '51 Willisy. Loncharich, AX 9-0835.

4 BRM HOME, 1 1/4 baths, colored fixtures, disposal, carpeting, walled landscaped, patio, barbecue, no qualifying, \$13,900. Honeycutt, AX 9-7544, 1212 Betts NE.

ENGLISH BIKE, \$25; balloon tire bike, \$15; 3000 CFM air conditioner, \$25; utility trailer, \$50. Radigan, Ext. 31287.

HOLLYWOOD BEDS, 2, \$35. Pitti, AL 6-1629.

ELECTRIC STOVE, 5-piece kitchen table and chairs, 8-piece lined oak dining room set. Grotberg, AX 9-1704 after 5.

WRINGER WASHER w/pump, \$20. Wilde, AL 6-1132.

HOLMES & EDWARDS work for 8, deep silver inlay, \$35; 4 golf clubs w/bag, \$25; compact vacuum cleaner, \$100; Martin, AL 5-4400 after 5:30.

MAN'S WATCH, Swiss Angelus, chronometer stop watch, 14 Kt. gold case, indicates month-day-year, new \$395, sell \$75. Fisher, AX 9-6469.

8mm MOVIE CAMERA, Keystone. Stiver, AX 9-6488.

'53 PONTIAC 8, 4 door, R&H, Hydramatic, one owner. Puccini, AL 5-0568, 933 Madison NE.

TRANSMITTER, Globe Champion 300, 30 foot tower w/rotator and 20 meter Gonset short beam, \$425. Croag, AL 5-2864.

TARGET REVOLVER, K-22 Masterpiece w/holster, \$55; camera, Ihagee 127, \$25. Schowers, AL 5-9279.

2 BRM HOME w/den, completely furnished, walled, planted back and front, patio, fruit trees and flowers, SE. Browning, AL 5-2969.

AUTO CARRIER w/tarp, heavy-duty, \$12.50. Sandine, DI 4-5359 after 5:30.

'58 MGA green roadster, under 4,000 miles, white walls, wire wheels, heater, Tonneau cover, \$2600. Cebuhar, CH 3-1916 after 5.

BOY'S BICYCLE, maroon w/white trim, new, \$30. Weimer, AX 9-5536.

TWIN BEDS, Weinger deluxe, firm mattress and matching box springs, \$115; child's rocker, metal, \$6. Snyderman, AL 6-6889.

'52 STUDEBAKER Commander, V-8, over-drive, R&H, Fordor, will paint your color, \$285 or trade. Villella, AL 6-1881.

36" GAS RANGE, Magic Chef, clean. Risse, AX 9-5002.

'53 PLYMOUTH, new tires, heater, must sell, \$495. Paul, AL 5-0422 after 5:30, 1236 Vassar NE.

'50 CHEVROLET, 4-door sedan, R&H, make offer. Boyd, AX 4-4968.

'58 BUICK, super 4-door, tu-tone, power brakes, power steering, R&H, nylon tires, low mileage. Bankes, AL 6-7491.

'50 SPARTAN house trailer, 1 bedroom, Credit Union will finance \$1300, total price \$1800. Souder, Ext. 34161.

PORTABLE TYPEWRITER, German "Op-forma", cost \$120, sell for \$80. Alpaugh, 1509 Gretta NE.

2 BRM HOME and den, Mossman, big garage, hardwood floors, air-conditioned, good landscaping, walled yard, \$950 down, new FHA. Zimmerman, AL 6-7226.

'55 VOLKSWAGEN, clean, \$1200. Newman, AL 6-9174.

ROLLEICORD IV, case, meter, Rolleigrad, used 6 rolls, \$65, cost \$180; MGA factory tonneau cover cost \$24, sell \$12. Dave, CH 7-1035.

3 BRM HOME, 1 1/4 baths, large kitchen and utility area, double garage, covered patio, sprinklers, southwestern exterior, landscaping, \$15,800, terms, Calek, AX 9-7452.

DUPLEX, furnished, \$12,000, \$2,000 down, shown by appointment only. Roane, AX 9-1761.

'58 MOTORCYCLE, Harley-Davidson Mod. 165, buddy seat, crash bars and windshield, \$290. Padilla, CH 2-4984.

PATIO BRICK, 16" long, 8" wide, 2" thick, 400 for \$50. Sanchez, AL 6-2500, 3116 La Veta Dr. NE.

2-WHEEL TRAILER, spare tire, all lights, \$50; electric brake control, \$5; heavy duty trailer hitch, \$20. Patterson, AX 9-6590.

'41 CHEVROLET club coupe, reasonable. Templeton, 221 Indian School Road NE.

BEDROOM SUITE, 3-piece walnut w/box springs and mattress, \$60, without w/45. Byrd, AL 5-5867.

3 BRM HOME, Inez, 1 1/2 baths, dining room, carpeting, cooler, forced air heat, walled yard, sprinklers, low down payment. Scranton, 8210 Cutler Ave. NE, AX 9-5720.

STAUFFER 'Posture Rest' couch, \$150. Gustin, AL 6-3807.

NEXT DEADLINE
FOR SHOPPING CENTER ADS
Friday Noon, April 10

OXY-ACTYLENE welding and cutting outfit. Flowers, AL 6-1656.

DEER RIFLE, lever action, excellent for woman or boy. Sell or trade for pistol. Pritchard, AL 6-5667.

3 BRM HOME, Hoffman Royal, 1 1/4 baths, den, garage, circular drive, drapes, shades, carpeting, dishwasher, Presto, AX 9-1948 after 5:30 and weekends.

'50 DODGE pickup, \$275 or will trade for livestock. Chavez, AX 9-2392.

BOY'S BICYCLE, 20 inch, needs tires, \$10. Perea, AL 5-6902.

2 BRM HOUSE, hardwood floors, fireplace, 1/2 basement, near Fatima church, \$65 monthly payments or FHA loan, total \$15,800. Torres, AL 6-6600.

'58 BMW Motorcycle, 5500 actual miles, cost new \$1,167, sell for \$950 or best offer. Harding, ext. 36189.

MITER BOX and saw, metal, adjustable, \$5. Lyles, AX 9-7003.

'54 PLYMOUTH, 2 door sedan, less than 44,000 miles, one owner, \$500. Blake, CH 3-6749.

3 BRM BRICK home, 1 1/4 baths, sprinklers, landscaped with large back patio, carpets throughout, \$16,500. Valdez, AM 8-1004, 1020 Kentucky SE.

HEADBOARDS, bookcase, cabinet, drawers, shelves, \$17; Charbroiler, vertical, fast searing, \$10; garden tools, fence, pots/mix, mower, \$18; ladies clothes, size 10-14. Tendall, ext. 23195.

AUTOMATIC WASHER, Nergal, not used since complete mechanical overhaul, see for yourself, \$85. Pigg, AX 9-6690.

LIVING ROOM suite, 2 piece, \$75; dining room table, 4 chairs, buffet, \$50; coffee table, \$8; lamp table, \$8; Granite type double laundry tub with stand, \$10. Dixon, AX 9-6886.

GAS RANGE, Kenmore apartment size, oven thermostatically controlled, cost \$95, sell \$60. Bigelow rug 9 x 12 with non-skid pad, \$50. Lockingen, 9609 Arvilla Ct. NE.

UTILITY TRAILER, one wheel, all steel, including tarp and heavy hitch to fit '56 Ford, \$60. Magnuson, 6025 Bellamah NE.

BABY BRM, mattress and matching chair, \$45 or best offer. Lowery, AX 9-5177.

REVOLVER, K-22 S&W .22 caliber, stag grips, fired 200 rounds, \$60. Telescopic sight, Weaver K-8, never used, \$40. Shunmy, AX 9-2787.

NESTA BED unit, makes into sofa or twin beds, \$75; cedar chest w/compartments tray, \$45; 18" Sears lawnmower, \$12.50; playpen, \$5. Hillard, AL 6-5692.

8 ROOM HOUSE, open planning, dishwasher, airconditioned, screened patio, landscaped, replacement cost \$24,850, reasonable down payment. Scharpen, 1208 Parsifal NE, AX 9-0842.

6 TRANSISTOR radio \$18; 14' aluminum ribbed kayak, \$95; Voltrath steering hook-up, \$16.50; boat windshield, \$5; brown lounge chair, \$10. Rice, AX 9-1261.

BABY CRIB and mattress, \$15. Baby-tenda eating table, \$7. Malpas, AL 6-1356.

CHROME DINETTE set, formica, expansion leaf, two chairs, \$20; white porcelain and chrome dinette set with four chairs, \$20. Neagard, AX 9-2830 after 5 p.m.

AUTOMATIC ROLLEIFLEX, 3.5 lens with case and p.m., \$125. Hall, AX 9-6689 after 5:30 p.m.

'48 KAISER sedan, make offer; 6 volt siren, red light with flasher; Dormeyer deep well cooker; jig saw, bench type. Harris, AX 9-6664.

AUTOMATIC WASHER, GE, 2 cycle, water saver control, \$75. Scott, AL 6-9708.

LOST

LOST—Man's tan overcoat; prescription safety glasses w/initials DP; brown pen knife; States order made out to Mountain Money Investment for \$92; blue sunglasses case; black leather gloves size 8 1/2; gold lapel pin with pearls; lady's brown stone ring; lady's turquoise ring. Lost and Found, ext. 26149.

FOUND—Tan check topcoat; clip-on sunglasses; yellow button earring with sea shells; leather loop earring; copper drop earring; Waterman's silver ballpoint pen. Lost and Found, ext. 26149.

FOR RENT

3 RM. APT., furnished, 713 Jefferson NE, \$70 per month for couple or \$60 per month for single person, utilities paid. Buchanan, DI 4-1671 for appointment.

MOUNTAIN CABIN, furnished, efficiency-type, modern, suitable for bachelor, north Highway 10, 25 mins. from Base, utilities paid, \$60 month. Miller, ext. 33138.

2 BR. HOUSE, furnished; available for six months, possibly longer; water, garbage paid; \$100 month. Horne, AL 6-7527.

LIVERMORE FOR SALE

'52 CHEVROLET, Bel Air sedan, radio and heater, \$380. Dick Cook, HI 7-3525.

WANTED

ANTIQUA CUT glass pitcher or vase. Jordan, AX 9-4004 after 5:30 p.m. or Sat.

OLD GUNS of any kind or condition, will pay cash. Smitha, 8607 Menaul NE, AX 9-1096.

STEEL UTILITY cabinet with shelves. Sutton, AX 9-0384.

CHILD CARE in my home, Buena Ventura addition, excellent care and lunch, walled yard. Doris Blagg, 405 Conchas Ct. NE.

CHILD CARE in my home, close to Gibson Gate, 920 Kentucky SE, Morris, AL 6-0152.

WILL CARE for child in my home. Mrs. Farner, 1506 Erbbe NE, AX 9-6007.

HOME for two kittens, six weeks old, one long haired, one short. Ward, DI 4-2278.

IRRIGATION PUMP, 2 1/2 inch, gas driven. Guerin, CH 3-1238.

CHILD CARE in my home, days, in area of Spraul model homes. McKenzie, 4908 Ponderosa NE, DI 4-1260.

New System Spots Purchasing Problems Before They Occur



PROGRAMMING PRODUCTION Flow Plan, explained by Al Kaping (4332), diagrams production plan of Sandia products in supplier plants. This chart is part of the Sandia-designed Day Control program for reporting temporal status of production.



IDEAL SHOT for the hunter is demonstrated by Bobbie Hersey (wife of Paul Hersey 4631-2). She is practicing for a four-state archery tournament to be held in Albuquerque April 19.

Archers From Four States Expected To Compete in Bowhunters Holiday

Some 200 archers from a four-state area are expected to participate in "Bowhunter's Holiday," an invitational tournament sponsored by the Albuquerque Bowhunters, Paul Hersey (4631-2), president, reports.

Scheduled Sunday, April 19, at El Refugio Ranch located 12 miles east of Albuquerque on old Route 66, the tournament will feature shoots for 22 trophies and special events. The program, beginning at 9 a.m., will include a standard field round with life-size colored animal targets in the morning and a broadhead round with large and small game targets in the afternoon.

"Spectator participation is free and encouraged," Paul said. "We have placed great emphasis on safety."

Registration fees for competing archers will be \$2 for adults and \$1 for juniors and intermediate

Livermore Bowlers Tops

Two Livermore Laboratory bowlers came out on top in a recent competition and got a chance to bowl against Billy Welu, national singles champion.

Les Rowe (8220) made the top score of 1110 in the six game elimination series to see who would bowl against Welu. The second highest elimination series score was made by Jack Curran (8234-2) with 1085.

But the champ beat them both: Jack Curran lost 209 to 215 and Welu defeated Les Rowe 173 to 187.

shooters under 16 years of age. Entry blanks or additional information is available from Paul, ext. 45157.

A new type of "distant early warning line" has been developed by members of the Purchasing organization at Sandia Corporation.

Called "Day Control," it is a bar chart system devised to show the programming situation of Sandia products in supplier plants at a glance in one big picture. As the men who designed it say, "it gives an early warning of problems yet to come."

A creation of members of the Supplier Development and Purchasing Practices Division, 4332, Day Control is now being used in a number of supplier plants and will be installed in more plants in the future. Once it is decided to install this system in a suppliers' plant, A. E. (Al) Kaping and Ralph Davies visit the supplier and assist him in adopting Day Control to the Sandia Purchase order.

Russell D. Freyermuth, supervisor of the Supplier Relations Evaluation Section of the Division, reports that suppliers using the program are as enthusiastic about it as members of the Sandia Purchasing organization.

"It is simple to install, easily understood and has many additional advantages to management," he points out.

Shows Schedule Conditions

Using information the supplier would normally have in the process of manufacture, Day Control graphically shows the condition of schedules, inventories and extent of production at any given time, thereby eliminating voluminous reports.

"A Day Control chart is maintained by the supplier at regular intervals," Russ says, "and cumulative inventory information is sent to Sandia Corporation. We know and he knows how he is doing. The chart indicates potential trouble spots before a production line breaks down. It can also be used to develop new schedules, to forecast inventory requirements, and is a sounding board for engineering changes."

Day Control actually calls for two charts. The first is a production plan which normally remains unchanged after establishment. This chart could remind one of the diagramming of sentences when he was in school. The schematic shows steps of production, time intervals between steps, lead time needed and control points.

"Through use of colored symbols," Russ explains, "it indicates purchased parts, Sandia furnished parts, subcontract operations, shop operations, assembly operations and deliveries."

The other chart is called Day Control by its originators R. D. Freyermuth (4332) and J. W. Ben-



DAY CONTROL chart devised by Supplier Development and Purchasing Practices Division 4332 shows programming situation of Sandia products in suppliers' plants. Ralph Davies, above, is one of the men responsible for installing the plan throughout the country.

son, (4321). Here the vertical scale is total quantity of the order and the horizontal scale reflects the time in working days from the start of the operation to the completion of the order.

Delivery Date Plotted

On this chart the agreed upon delivery schedule is plotted. Lines to the left of this line and parallel to it are spaced according to the time intervals between control stations which are established on the first chart.

"Each control station is represented by a schedule line," Russ says.

An inventory bar extends horizontally across the schedule chart. The beginning and end of these bars should line up with the vertical line of each corresponding schedule line.

"It's not as complicated as it sounds," Jay W. Hughes, Division 5332 supervisor, reports. "When our men install the system in a plant and give a briefing on its operation the rest is easy. It requires no great effort from the supplier and calls for him to seek out no special information."

"Sandia need only possess a duplicate of the supplier's Day Control chart and current cumulative inventory information to be

well informed of the progress of the order," he reports.

Its greatest value to the supplier is that he knows he is doing well—or that he is approaching trouble. Through proper application of the knowledge he gains from Day Control he should be able to meet his production schedules.

Division 5524 Moves After Nine Years in Same Location

Division 5524 is moving out of Bldg. 868 after nine years following a change of function for the organization.

The name Nuclear Division has already been changed to Component Evaluation Division in line with its new duties.

Section 5524-2 has already moved to Bldg. 880, room 126. Division Supervisor R. E. Butler and his secretary moved to 880 last month and Section 5524-1 will join them after the new quality engineering evaluation laboratory is ready, about May 1.

ASQC Members to Hear Hughes Aircraft Director Quality Control

"Drawing the Line Between Quality Control and Reliability" will be the topic discussed at a meeting of the Albuquerque Section of the American Society for Quality Control April 6.

Speaker will be David A. Hill, director of reliability and quality control for Hughes Aircraft Company, Culver City, Calif.

The meeting will begin at 8 p.m. at Reddy's Rendezvous, Downtown at Fifth St. and Silver Ave., according to Ken Bricker (5531), publicity chairman.

Tech Writers, Editors To Meet April 15 at Lytle Engineering

The Albuquerque Chapter of the Society for Technical Writers and Editors will meet Wednesday, April 15, at 7:30 p.m. The program will include an open house at Lytle Engineering and Manufacturing Co., 1404 San Mateo SE, a demonstration of a Fotosetter typesetting machine and a movie, "A New Era in Printing." Refreshments will be served.

Reservations to attend the meeting may be made by contacting either Dick Jackson or Jim Murray (both 4721), ext. 39238.



BOY SCOUT CEREMONIES last week honored Roger Cundiff, third from left, who earned Eagle Scout rank recently, the first Eagle in the troop in several years. Shown (L to R) are his parents, Cathy (1611) and C. R. Cundiff (5332), Roger, his sister Elissa, and S. P. Schwartz, Corporation Vice President and General Manager who is chairman of the Manzano District Scout Committee.