

Holograms Produced

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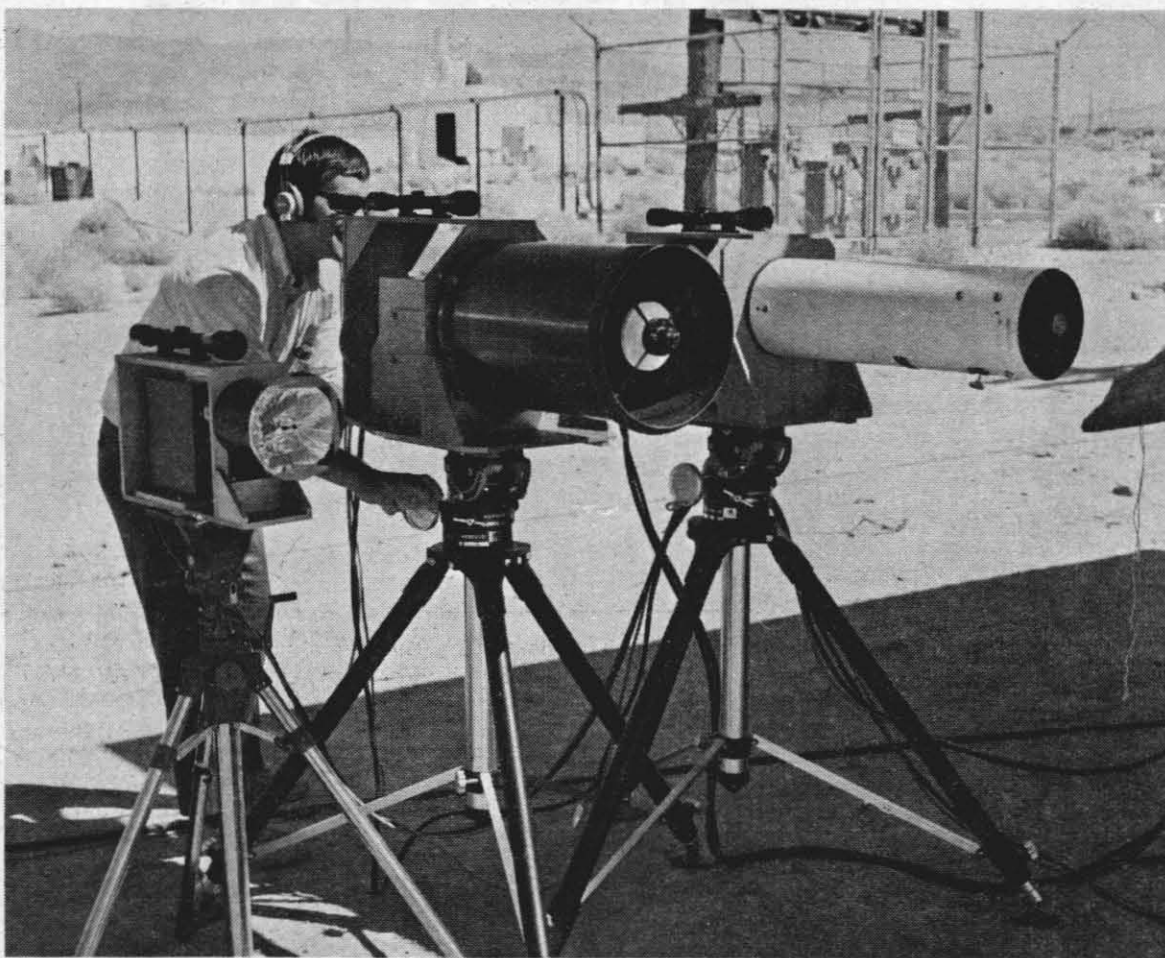
right side and looks through that section of the plate, he can look through the lens and see the magnified picture—just the same as if he were looking through the actual magnifying glass itself!

Leslie T. Long and John A. Parks of the Applied Physics Division of the Laboratory are producing the holograms using a CW helium-neon laser emitting at 6328 Angstroms.

In a holographic picture of rocket exhaust, the pattern of particles is "frozen" in time and space. The picture can be examined at leisure to determine particle dispersion, number, size, and location—all in three dimensions. The collimated laser light produces a surprising depth of focus in the picture.

This laser technique will be a powerful laboratory analytical tool for the Naval Weapons Center's Corona Laboratories, which over the years has designed all of the fuzes used in the Navy's missile family and has furnished much of the missile guidance and countermeasure know-how of the complicated missile system.

Pyrotechnics Branch Investigates Spectral Output



RADIOMETRIC INSTRUMENTATION—Richard Maitland, instrumentation technician for Block Engineering, Inc., Cambridge, Mass., is shown above performing tests on pyrotechnic devices during a recent stop at the Center. Complete spectral data was gathered on seventy-five test items during their week's stay on the Center.

Keeps Pace With Advances

The Pyrotechnics Branch of the Explosives and Pyrotechnics Division of the Propulsion Development Department is continually investigating the spectral output of experimental and operational pyrotechnic items.

In addition, the Branch has been developing infrared and illumination flare instrumentation in support of its mission since the early days of Sidewinder and is continually updating its facilities in order to keep pace with developmental demands and advances that have been made in electro-optic instrumentation and technology.

In this connection, the branch was able to take advantage of extremely unique instrumentation recently through the use of a Block Engineering, Inc., instrument van from Cambridge, Massachusetts, that was prevailed upon to stop at China Lake on their way home from a four week stint at Edwards AFB.

The Block Engineering Inc., instrumentation provided an opportunity to obtain complete spectral data on a number of statically fired pyrotechnic items, including Mark 24 illuminating flares, Mark 46 and 47 Decoy Flares, and several experimental flares and chemical systems; and to compare the data with that gathered by instrumentation currently being operated by the Center.

The instruments used were a visible spectrum spectrometer and infrared spectrometers in the 2 to 15 micron and 1 to 5 micron regions. The principle employed is the same as the Michelson Interferometer.

During a test the instruments scan their respective spectral regions at a rate of approximately 12 times a second. The resultant data is recorded for subsequent computer analysis, and an "x-y" spectrum plot is also produced for a "quick look" at the information that is being recorded.

The technique produces greater resolution for signals of low strength than with other types of spectrometers. The equipment was operated by James Engel and Richard Maitland of Block Engineering, Inc.

China Lake Schools Open

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Transportation for the Wherry children attending fifth grade at the Groves Richmond and Vieweg Schools will be provided by Bus 14 which will load at Dorado and Sandora, Wherry Office, and Prospect and Toro at 7:55 a.m. They will be returned at 3:20 p.m.

Sixth, Seventh, Eighth Grades

All sixth, seventh, and eighth grade pupils will attend the Murray School. Transportation will be provided to and from school for all sixth, seventh, and eighth grade pupils living in Wherry. Buses 12 and 14 will load at Prospect and Toro and at Dorado and Sandora at 7:20 a.m. Bus 12 will again load at the same stops at 7:40 a.m. Sixth grade pupils living in Site B Capeharts will be provided bus transportation in the mornings and may board Bus 14 at corner of Knox and Rowe at 7:40 a.m.



MUMPS INOCULATION — Janet Peters, pictured above receiving her mumps inoculation, was just one of many military dependent children who took advantage of the inoculation period at the Center Dispensary. PHCM Ray Peters is shown trying to comfort his daughter, while his son, Edward, left, looks on.

PROMOTIONAL OPPORTUNITIES

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(3) experience in a variety of separate types of nursing functions and specialized wards.

Advancement Potential: To journeyman level of GS-7.

Clerk (Typing), GS-301-3 or 4, PD No. 817007, Code 1731—Incumbent acts as clerk for Operations Staff. Duties include typing of financial and other reports, maintaining branch files, and performing general clerical duties as required. **Minimum Qualification Requirements:** For GS-3: completion of high school plus one year general office experience, for GS-4: the above plus one year specialized experience. **Job Relevant Criteria And Of Selective Placement Criteria:** Prefer some experience in the budget or financial area. **Advancement Potential:** GS-3's may advance to GS-4.

File application for the above with Sue Prasolowicz, Bldg 34, Rm 28, ext. 71577.

Supervisory General Engineer, GS-801-13, PD No. 345097, Code 4533—This position is Head of the Test Management and Product Evaluation Branch and manages weapon qualification programs to ensure that guided, free-fall, and ballistic ordnance meets fleet specifications. **Minimum Qualifications:** Basic requirement is the Bachelor's degree in one of the engineering disciplines or physics or the equivalent plus three years experience in the mechanics of ordnance design, development, test or evaluation. **Job Relevant Criteria:** Projects management experience necessary and will establish highest qualified applicants. Best qualified applicants will have in addition experience in at least half of the following: a) dynamic vibration testing, b) industrial X-ray inspection, c) thermal and environmental testing, d) non-destructive testing, e) test design and management, f) guided, free-fall and ballistic ordnance safety. **Advancement potential:** Position has potential to go to the GS-14 level.

File applications for the above with Jan Bixler, Personnel Bldg., Rm. 24, phone 72723.

Clerk-Typist, GS-322-03, PD No. 725008, Code 2522—This position is located in the Purchase Branch, Control Division, Supply Department. It is established to provide secretarial assistance to the Purchase Branch which consists of Branch Head and three purchase agents. The duties include: Typing, distribution, preparation of reports, filing, time cards, telephone and receptionist and messenger. **Minimum Qualification Requirements:** Six months of appropriate clerical experience.

Supply Clerk, GS-2005-04, PD No. 725038-3, Code 2575—The position is that of Supply Clerk, Receipt Control Liaison Section, Receipt Control Branch, Control Division, Supply Department. The incumbent is responsible for maintaining files of advance copies of inspection reports, invoices and requisitions for use by the receiving section and material inspection to check and inspect incoming material. Incumbent is responsible for identifying incoming material, matching it to the appropriate documents in the open order file and moving it for delivery and payment. **Minimum Quali-**



NWC Club Championship, Eighth Annual Invitational On Agenda

Paul Someson, golf pro at the China Lake Golf Course, reminds all Club members of the change in green fees and golf cart rentals that will be effective September 1. Anyone desiring more information regarding these changes are instructed to contact Paul at the Pro Shop.

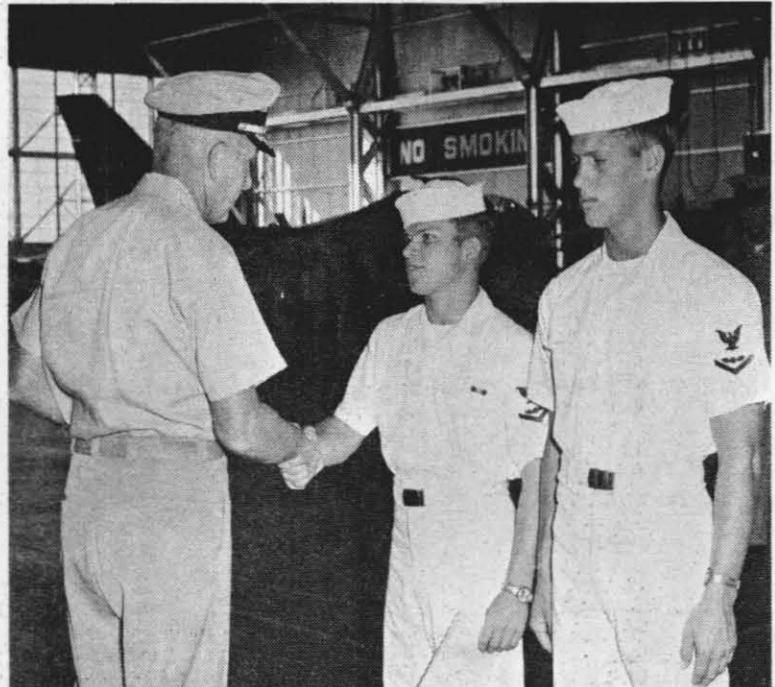
All golfers are reminded of the annual China Lake Golf Club Championship Tournament to be held September 6 and 7, and September 13 and 14. The tournament will be a match-play tourney with all competitors playing in flights.

For further information regarding the 1969 Club Championship, contact Ray Thurm, or Denny Kline.

Capt. L. A. Dewing, Golf Club President, has reminded all golfers that the 8th annual Invitational Tournament will take place in October.

Entry fee for this tourney will be \$30, upgraded from \$20 last year. However, golf carts will be provided to all golfers, as well as a practice round on Friday before the tournament, and a banquet to be held at the Community Center on the Saturday of the tourney.

Golfers desiring more information regarding the Invitational Tournament, contact Ray Thurm at 446-3379.



JUMPERS COMMENDED — Capt. L. A. Dewing (l), Commanding Officer of NAF, presents letters of appreciation to AE3 Steven A. Rainey (c) and AME3 Michael W. Dobson (r) during recent morning quarters at NAF. Rainey and Dobson received a "well done" from Capt. M. R. Etheridge, Commander NWC, for their participation in the paradrop during the 1969 Armed Forces Day open house at the Center.

Fat Albert Swan Song At Sandquist Spa

Fat Albert will hold his last revival for the summer season at Sanquist Spa, September 3, from 7 to 11:30 p.m. Persons 18 years of age and above, single or married, are invited to bring their own mug and join in the festivities. Events will include night volleyball, psychedelic lights, psychedelic dancing to the "Rubber Band," psychedelic beer-n-pop. Also featured will be a "Graffiti-Board" where anyone can express themselves with paint.

Donations are \$1. For further information contact Linda Hughes, Ext. 71616, or Don Scofield, Ext. 71340.



AGE WINS — The "Oldtimers" of the China Lake Intramural Softball League proved there is no substitute for age and experience Wednesday night at Reardon Field as they defeated the youngsters of the league, 11-9, behind the fine pitching of Billy Brown and Bobby Kochman. The "youngsters" hit

3 home runs (Al Hyles, Andy Gilpin, and L. Williams) but it wasn't enough, as the "oldtimers" concentrated their efforts into a team victory, with no outstanding stars. Pete Klassen, pitcher for the youngsters, who were ably managed by "Shorty" Pete Zammonon.

Burros Boosters Pancake B'fast Saturday, Sept. 6

Burros Boosters, Inc., has announced that their annual Pancake Breakfast will be held in the Burroughs High School Multi-Use room, Saturday, Sept. 6, from 7 a.m. to 12 noon.

Admission will be \$1 which will entitle the bearer to a pancake breakfast and a chance to win a Honda Trail 90 motorcycle. All donations will go to the Burros Boosters.



TROPHY WINNERS—Shown above are the first and second place teams in the China Lake Intramural Golf League. From left to right, the men are: Gene Boyts, Bill Tenan,

Lt. J. Kinchloe, and Cdr. C. Wack, members of the champion NAF team, and Paul King, Gary Wydra, Lou Renner and Audie Ball, who represented Code 45, Team No. 2.

Trap and Skeet Club Will Show Films Sept. 2

Ronald Stoutmeyer, President of the IWV Trap and Skeet Club, has announced that the club will show two films at the Community Center, in the Panamint Room, September 2, at 8 p.m.

One of the films, "Chukars in California," is from the Department of Fish and Game, and tells how to find and hunt chukars. The other, "Trapshooting With the Remington Pros," is an instructional film on how to shoot shotguns.

Attendance is free, and the public is cordially invited.

Stoutmeyer also announced that club members will practice at the Clodt Range in Inyokern, Sunday, August 31.

On September 13 and 14 the club will hold the annual Hobbs Memorial Shoot, a two-day event held in honor of General P. Hobbs, former Club Member.

This will be a handicap event, consisting of 100 birds each day. Trophies will be awarded, and high over-all gun in the event will receive a handsome silver belt buckle.

Summer Season Nearing End, Bowlers Needed

The Wednesday Night Handicap, with one night remaining to play, reports that the "Twiggies" had high series (2680) and high game (914) on August 20.

Maury Coleman hit a 237 enroute to a nice 625 series to lead the league in both categories. Gary Mitchell hit a staircase, 135-145-155 for a 435 series.

Fred Dalpiaz, manager of the China Lake Bowl, announced that all of the league schedules are now set, and bowlers interested in competing this winter, and not already on a team, are requested to contact the various league secretaries.

Novelty Match Held Again By Desert Gun Club

The Sierra Desert Gun Club recently held another Family Novelty Match at the NWC Rifle Range. This is a fun match designed to interest the shooter who normally would not participate in a regulation National Match Course and encourages the use of all types of sporting rifles in lieu of the standard target rifle.

Top scorer in the match was Don Herigstad, who posted a 138-4X out of a possible 150-10X.

Rosemary Miller shot 131-3X to place as high Woman Competitor, and David Herigstad was High Junior competitor with 95-0X.

Bill Miller was deer target winner with 27 out of 30, and Rosemary Miller won the balloon target category, with 20 out of 20.

Herigstad used a 1894 Winchester rifle caliber 25-35, and his son used a .22 to win his event, as did Rosemary Miller.

