



TO APPEAR AT COMMUNITY CENTER—The "American Eagle Blues Band," above, will provide the entertainment at a dance sponsored by the China Lake Youth Center...

SHOWBOAT NEW RATING PROCEDURES Future ratings for motion pictures shown at the Center Theater will be based on two different types of ratings—the familiar Parents' Magazine ratings, and the new MPAA (Motion Picture Association of America) ratings.

FRIDAY SEPTEMBER 12 "OTLEY" (91 Min.) Tom Courtenay, Romy Schneider 7:30 P.M.

SATURDAY SEPTEMBER 13 "AROUND THE WORLD IN 80 DAYS" (93 Min.) Three Scoops 1:00 P.M.

SUNDAY-MONDAY SEPTEMBER 14-15 "100 RIFLES" (110 Min.) Raquel Welch, James Brown 7:30 P.M.

TUESDAY-WEDNESDAY SEPTEMBER 16-17 "CHITTY CHITTY BANG BANG" (143 Min.) Dick Van Dyke, Sally Ann Howes 7:30 P.M.

THURSDAY-FRIDAY SEPTEMBER 18-19 "DEATH OF A GUNFIGHTER" (94 Min.) Richard Widmark, Lena Horne, John Huston 7:30 P.M.

Tri-Valley BPWC Will Hold Fall Conference Sept. 27-28 at COM

The China Lake Business and Professional Women's Club will host the thirteenth Fall Conference of the Tri-Valley District BPWC on September 27-28 at the Commissioned Officers' Club on the Center.

Marjorie Reed, Immediate Past President of China Lake BPWC is conference chairman in charge of all arrangements.

"Our Liabilities to Our Community" has been selected as the theme for the conference announced Betty Jackson, President of Tri-Valley District. At 2 p.m., Saturday, the 27th, a Civic Participation Panel will present "What Every Woman Doesn't Know."

The Saturday banquet will feature a "Welcome to Tri-Valley District," presided over by Mary Weightman, District 2nd Vice-President. "The Gavel and Aye," a parliamentary workshop will be held on Sunday morning.

State Representative at the conference will be Marion Burbridge, President-Elect, California Federation of BPWC. This will be the first time that a member of this district has served as its State Representative at the conference.

ence. Mrs. Burbridge was 1960-61 president of Tri-Valley District, she has visited China Lake many times, and was the featured speaker at Bosses Night in 1966.

The China Lake PBW Club will be represented by President Irene Branham and June Redfroe, First Vice-President. June Wright and Millie Gregory are alternates.

Mrs. Reed estimates a crowd of 250 ladies, representing 28 clubs located throughout Owens, Kern River, Searles, Antelope, Indian Wells and San Fernando Valleys, will attend the conference. Ida Martin is in charge of room reservations with local motels for the out of town guests.

Decorations for the banquet will be furnished by the local club under the chairmanship of Alice Lafleur. Jan Edwards, President of Kern Desert BPW, is in charge of decorations for the luncheon.

There is no registration fee for the conference. Business women of Indian Wells Valley who would like to join the BPW are invited to attend the conference. Additional information may be had by phoning Marjorie Reed at Ridgecrest, 446-3822.



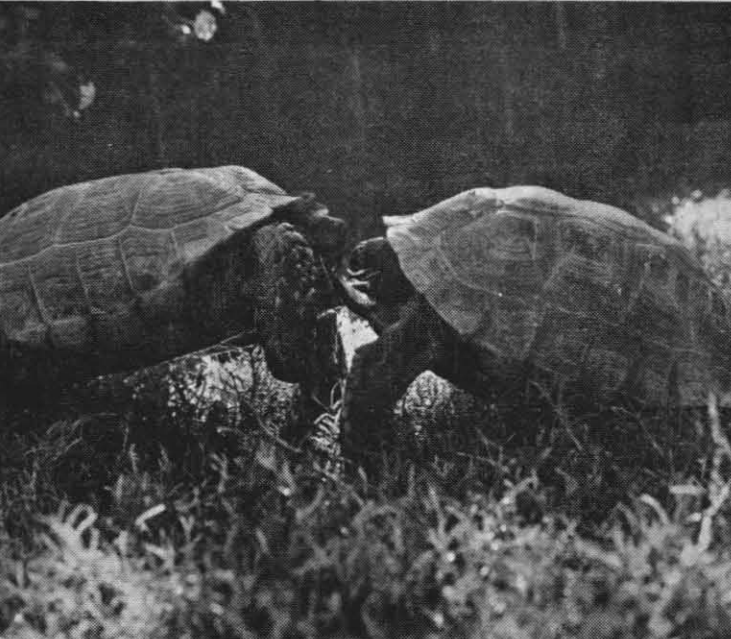
Youth Activities Holds Dance At Community Center

The China Lake Youth Center will offer a youth and adult oriented square dance instruction program beginning on September 16, 1969 at 6:30 p.m. at the Community Center.

Bill Grady, well known in square dance circles in this area for the past 11 years, will be the instructor.

Age limits for youngsters will be 12 through 18 years. Youth Center membership paid through March 1970 is required, or the youngster may pay a \$5 registration fee. A \$10 adult registration fee will be charged.

For further information contact Youth Activities at Ext. 72909.



EASY DOES IT—Two male turtles, owned by Mr. and Mrs. Edward Price, 511-B Lexington, are seen in the midst of a pitched battle in the Price's backyard. It seems that the combat is over the attention of a female turtle, also owned by the Prices. This picture was taken just as the two combatants met head-on and the collision caused their forefeet to come off the ground as each turtle tried to flip the other over on its back.—Photography by PH2 Michael F. Krause

Assessments Due GEBACLAS

Assessments No. 184-112 are now due for the death of Roy Vernon Brown, 51, announced Lawrence R. Mason, secretary-treasurer of the Government Employees Benefit Association and the China Lake Mutual Aid Society. Mr. Brown passed away September 6 at the San Diego Hospital from a brain tumor.

All GEBACLAS members are encouraged to be prompt in paying the \$1.20 assessment. Those who mail their payments may send advance payments to save on check and postage costs.

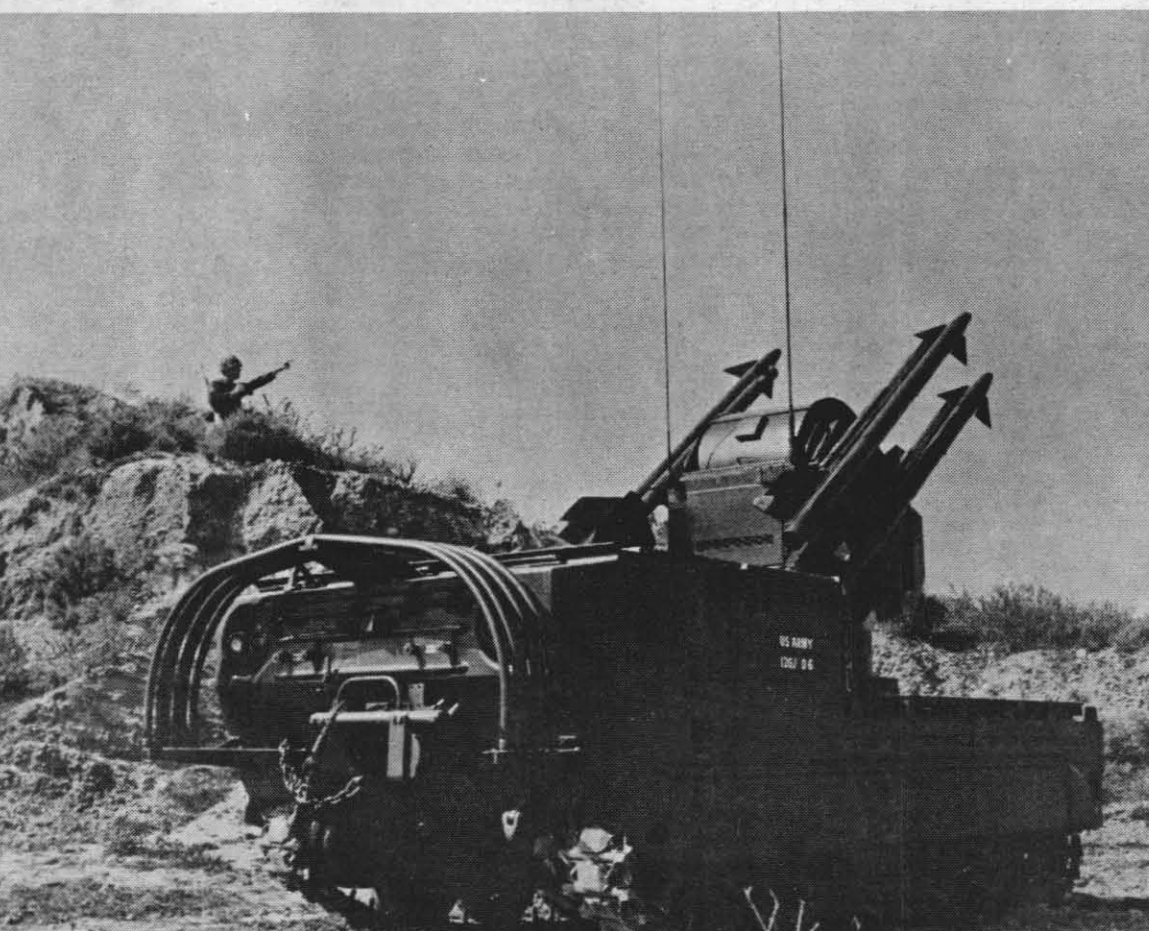
CROSSWORD PUZZLE

Crossword puzzle grid with clues for Across and Down. Across clues include '3-Armed bands', '4-Shut up', '5-In music, high', etc. Down clues include '1-Opening', '2-Substance', '3-Country of Asia', etc.

Form for sending the crossword puzzle to the publisher, including fields for 'From', 'TO', and a 'STAMP' area.



Vol. XXIII, No. 36 Naval Weapons Center, China Lake, California Fri., Sept. 12, 1969



KEY ARMY SYSTEM—Chaparral, a surface-to-air missile developed at the Naval Weapons Center, is now part of a key air defense system of the Army. Shown above is a complete fire unit in the field that was developed by the Aeronutronic Division of Philco-Ford.

Stone Sept'mber NWC Bluejacket

General Mess Galley Captain Chosen for Exemplary Work

CS1 Clifford H. Stone, Galley Captain at the NWC Galley, has been named "Bluejacket of the Month" for September. In addition to his duties as Galley Captain, Stone is also the Assistant Chief Commissaryman.

The 14-year veteran attended Calhoun City High in Oxnard, Alabama, close to his home town of Aniston. He is a graduate of Class "B" School at Newport, Rhode Island.

Stone was chosen for his honor as a result of his exemplary work habits, military bearing, and his ability to supervise men and work schedules.

As a result of his selection, he and his wife Ginger Ann, will be treated to an all-expense weekend in Bakersfield by the Greater Bakersfield Chamber of Commerce.

Prior to departing the local area, the Stones will pick up a new car from Doug Butler, owner of Desert Motors, which they will use during the weekend holiday. They will be met in Bakersfield by representatives of the CofC, and Stone will be interviewed on KERO-TV.

While in that city the couple will be hosted by the Royal Palms Motor Hotel, located at 200 Union Avenue, where they will receive lodging and meals.

Stone will receive gift certificates from Brock's Department Store, 1918 Chester Avenue; Valley Office, 1622-19th St.; the Cue Ball, 2111 Chester Avenue, and the Kern County Museum, 3801 Chester Avenue.

In addition the Stones will receive discount certificates from other participating merchants, which will be included in a hospitality packet given to the selectee upon his arrival.

"I've seen it so bad that I've cooked scrambled eggs in one of the big pots, 'cause it is quite an experience," he explained.

"I've seen it so bad that I've cooked scrambled eggs in one of the big pots, 'cause it is quite an experience," he explained.

Center Announces Opening Dates For Upland Game Bird '69 Season

Following the annual meeting of the NWC Natural Resource Management Board last month, approval has been received from COMNWC for three weekends of public hunting for upland game birds on the north range. Dates for the hunting weekends are: October 25 and 26; November 1 and 2; and November 8 and 9. Chukar, valley and mountain quail, cottontail and jackrabbits may be taken.

All restrictions of the California Fish and Game Code apply to hunting on the Center. Legal bag limits and other regulations will be enforced by personnel of the Department of Fish and Game.

Nearly 260 square miles of the north range is in the hunting area. New boundary signs will be posted and limits of hunting areas strictly enforced by NWC Security Department and the DFG. Hunters are reminded that Renegade (Little Petroglyph) Canyon is outside the hunting area.

Two overnight campsites will be available for hunters. Junction Ranch and Burcham Springs will both be open for overnights. Check point Center will be the Darwin Gate, seven miles south of the town of Darwin.

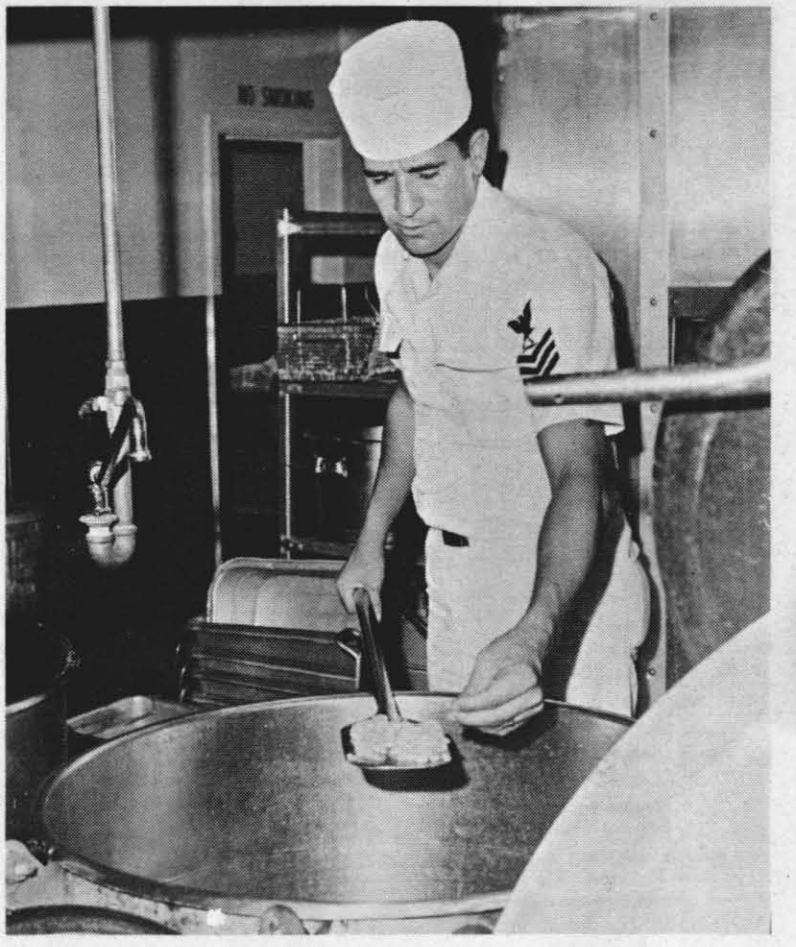
Open All Night New this year will be the opening of the gate on Friday at 8 p.m. and remaining to permit hunters to make camp and be ready for an early start on opening day. According to biologists of DFG who recently completed brood counts on the range the bird population is good to excellent. Tally this year was nearly nine juveniles per adult bird. But, add the game experts hunters will work to get their birds.



WILLIAM R. HATTA-BAUGH, Head of the Product Design Division of the Engineering Department, has accepted the chairmanship of this year's Combined Federal Campaign at NWC. The campaign, scheduled for October 15 to November 15, is a once-a-year fund drive that supports the IWV United Fund, National Health Agencies, and International Service Agencies.

Weather Forecast

Weather forecasts for the China Lake area may be obtained by dialing 712215 or 712216 or 712217. The Atmospheric Studies Branch of Systems Development Department prepares the forecasts on a daily basis.



A PINCH OF SALT—CS1 Clifford H. Stone, NWC's "Bluejacket of the Month" for September, is shown preparing food for the evening meal in the NWC Galley. Stone, who is Galley Captain, is a 14-year veteran of the Navy. Chosen for his exemplary work and outstanding attitude, Stone and his wife will be treated to an all-expense weekend in Bakersfield by the Bakersfield Chamber of Commerce as a result of his being chosen Bluejacket of the Month.

CHAPLAIN'S MESSAGE

High Holydays

By Student Rabbi Robert Klensin



Jews throughout the world will begin observing the High Holy Days—Rosh Hashana, the New Year, and Yom Kippur, the Day of Atonement—this evening, September 12.

Rosh Hashana is the Jewish New Year, but that is where the similarity to January 1 ends. Rather than being a time of frivolity and merriment, Rosh Hashana is a time to slow down from the rapid pace of our everyday life and step back to look at the purpose of life, asking—why are we here? It is a time to consider how the quality of our lives may be improved.

The ten days between Rosh Hashana and Yom Kippur are spent looking back over the past year, at the mistakes we have made and the wrongs we have committed. This period is called the "Ten Days of Penitence."

The Hebrew word for "Penitence" is also translated "Return." And so it is that through penitence we return to God and a better life. As the Prophet Ezekiel taught, God does not desire the death of the wicked, but rather that he should change his ways and live.

The High Holy Days end with Yom Kippur, the Day of Atonement. It is taught that God will forgive us for our sins if we truly repent and sincerely plan to do better in the coming year. However, on Yom Kippur, a person will not be forgiven for sins against his fellowman unless he makes amends first with the individual involved.

There can be no question that by striving to make our lives more productive, we are inscribing ourselves in the book of Life that we may have a fuller and more meaningful life. If we sincerely mean the promise we make to God and ourselves to do better during the coming year, then truly the new year will be a good year.

In one of the central prayers on Rosh Hashana and Yom Kippur, we pray for the day when all men and nations will live together in brotherhood, justice and peace. May this year bring us closer to that goal.

PROMOTIONAL OPPORTUNITIES

Employees are encouraged to apply for the positions listed below. Current applications (SF-171) or Standard Form 58 bringing your work history up-to-date should be forwarded as described below.

Administrative Officer, GS-00341-13, PD No. 140139, Code 4002—The incumbent is responsible for all administrative and staff work in the Weapons Development Department.

File applications for above with June Chipp, Bldg. 34, Rm. 26, Phone 72676. Computer Operator, GS-332-7, PD No. 717043-2, Code 1781—Incumbent operates the Univac 1005 which is linked to the Univac 1108 during production runs.

File application for the above with Sue Prasolowicz, Bldg. 34, Rm. 28, ext. 71577. Supply Clerk (Typing), GS-2005-04 or 05, PD No. 31027-1 or PD No. 725041, Code 2552—Performs clerical duties involved in the procuring, shipping, receiving and controlling of ammunition and explosives.

File application for the above with Sue Prasolowicz, Bldg. 34, Rm. 28, ext. 71577. Supply Clerk (Typing), GS-2005-04 or 05, PD No. 31027-1 or PD No. 725041, Code 2552—Performs clerical duties involved in the procuring, shipping, receiving and controlling of ammunition and explosives.

'DESERT PHILOSOPHER'

Potpourri

By "POP" LOFINCK



On the way over to Victorville last Saturday, I observed kids picking up aluminum beer cans along the highway.

They sell the cans for one-half cent a can, and they were doing well and getting exercise in the open air.

When they came to their pick-up truck they dumped the beer cans in the pick-up and proceeded. The pick-up goes on ahead to where the next bagfuls will have been accumulated.

They can't sell the so-called "tin" beer cans. They cannot be melted-down. They are not just tin — but iron with a very thin coating of tin.

I was amazed at the growth of Victorville. It is now a city! NO FOOTPRINTS IN THE WATER

As you may know, Whales are mammals. They galloped around on land for eons of time — then went back to the ocean. In fact, the skeletons of today's Whales still have leg bones.

They can't breathe in water like fish. They surface to rid their lungs of stale air and refill with pure air.

Maybe the human race can eventually take to the ocean — plenty of room out there. Kids could have a baby Whale for a playmate instead of a puppy dog.

Robbers could escape easily, leaving no footprints on the water!

It would be fun to touch a Whale with an electric prod such as the cowpokes used on cattle (a hollow cane full of storage batteries — see the Desert Philosopher column of August 8.)

Untrained horses are loaded into trucks with the electric prod also — they don't go up the tailgate ramp on the double it's on the triple or quadruple.

Why doesn't some advanced thinker train Whales to pull boats around harbors?



DON'T BEG, HOGAN—The principal characters in "Under the Yum Yum Tree," the China Lake Players presentation which will be performed Sept. 19, 20, 26 and 27 in the Murray School Auditorium, are seen in the rehearsal picture. Joan Leipnik, standing, will play Irene Wilson; Flo Gerrish, seated, will enact Robin Austin; Frank Pickett, on sofa with Flo, plays the role of Dave Manning; and in the background, G. Robert Pinney, who is the unscripted Hogan. The Lawrence Roman play will begin each evening at 8:15. Chuck Moore, a VX-5 sailor, is the technical director. An unusual feature of this production is two other Navy men behind the scenes: Stan Young, stationed at NAF, who will handle the lighting chores, and Dave Earle, who is also at NAF. All three men come highly qualified, having worked in a great many productions. Tickets may be purchased from the Gift Mart in Ridgecrest, or from the Station Pharmacy.

NWC Plays Major Role In Chaparral

(Continued from Page 5) had been subjected to the rigors of the qualification test program.

Had Setbacks When considering all of the testing, whether qualification, road, or flight tests, it cannot be said that failures and setbacks did not occur. Indeed, some of the flaws and design inadequacies that came to light as a result of the tests and long work hours for the Chaparral Project Team, the support groups at NWC, and the supporting contractor.

However, none of these discrepancies was of a serious nature, and none delayed the over-all progress of the Chaparral development effort. For that matter, the whole development phase was accomplished in only 2 years and 8 months. From the time the Army made the decision to develop the Chaparral system to the time production hardware was delivered to Army troops was 32 months.

Over-all Management Only exemplary cooperation between the Armed Services and the various agencies within each could have brought about the development of the Chaparral system in such a short time.

The tests combined phases of engineering test, safety test, and engineering design test as specified in U. S. Army Test Command Project Number 3-6-9230. Test objectives included an evaluation of the effects of transportation vibration and shock on both ready-to-fire and stored Chaparral missiles; a determination of durability of both missiles and the launch and control pallet; and an evaluation of the practicability and adequacy of maintenance equipment.

During these tests the vehicle and missiles were driven over the entire spectrum of terrain that is available at Aberdeen. This included gravel and unpaved roads, ramps, rough open country, swamps, streams and watercourses, steep grades, and side slopes. After all runs were completed, it was found that cumulative test mileage actually totaled more than 5,800 miles, rather than the scheduled 4,000 miles.

Throughout all of these tests NWC engineers and technicians have been present. In early phases Barney Kinkennon, of Code 4051, and Ben Tidwell of the project office monitored tests. In later phases, Roy Eisenhower provided field support.

While qualification and road tests were being accomplished to meet U. S. Army requirements, plans were being advanced for actual firing of Chaparral missiles at White Sands Missile Range, White Sands, New Mexico. Here with technical support being provided by NWC Chaparral flight test engineer, Paul King, tests were conducted to measure Chaparral's flight performance against drone targets. The test plan specified a wide range of targets, altitudes, ranges, velocities, and aspect angles.

Frequently, these parameters were established to test the Chaparral missile at the very limit of its seeker or flight performance range. Although actual test results cannot be tabulated here, both the U. S. Army evaluators and Chaparral management personnel at NWC expressed satisfaction with the flight test series.

These favorable results were achieved despite the fact that many of the Chaparral components, such as GCG and rocket motor were supplied for flight from specimen lots that



ADVANCEMENT TO THIRD CLASS — Capt. Charles W. Fritz, right, Commanding Officer of VX-5, congratulates three new Third Class Petty Officers on their promotion. The enlisted men were rated during the month of August following a Navy-wide examination. The men are: YN3 Benton, AMS3 Sweikow and ATN3 Moore. A fourth man, AE3 R. Eichenhofer, was also promoted to Petty Officer Third Class, but is not pictured.

AAUW To Hold Annual Luncheon At Powers Home

The American Association of University Women (AAUW) will hold their annual membership potluck luncheon at the home of Mrs. Kenneth Powers, 306 Intrepid on the Center, Saturday, September 20, beginning at 1 p.m.

All women who are college graduates are eligible to join AAUW, and are cordially invited to attend. Current members are asked to bring a dish.

During the course of the Study groups will include: "Our Belegared Earth—Can Man Survive," and contemporary English and American play reading.

The purpose of AAUW, since its founding in 1882, is to unite college-educated women for practical educational work to promote intellectual growth, and advancement of women, and to be responsible to the society in which we live.

For further information, please call Mary Kate Price, 446-6026.

AIAA Holds Swim Party And Barbecue

The China Lake Chapter of the American Institute of Aeronautics and Astronautics (AIAA), will sponsor its annual barbecue and swim party on September 16, beginning at 5:30 p.m., at the NAF Pool.

Swimming, volleyball, and softball are on the agenda, as well as AIAA slides and soaring films.

AIAA members are asked to contribute \$1 per person for the barbecue dinner and refreshments. New Junior Professionals are also invited as special guests.

(Continued on Page 7)

PROMOTIONAL OPPORTUNITIES

(Continued from Page 2) Experience in either controlling, receiving, shipping, or procuring supplies in the federal service. (4) Experience in initiating or providing the paperwork necessary to control, receive, ship or procure supplies in a non-government activity. Advancement Potential: GS-5 Supply Clerk (Typing) if hired at the GS-4 level.

File applications for the above with Carol Cadle, Bldg. 34, Rm. 26, Ext. 71648. Clerk-Stenographer, GS-312-4 or 5, PD No. 4917033, Code 177—This position serves as secretary and clerical assistant to the Head, Management Division (the immediate supervisor) and to the Management Planning and Communication Staff, Code 1712. Minimum Qualification Requirements: Qualified Steno. Advancement Potential: GS-5.

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

WACOM Members Gather To Begin Fall Activities

The Women's Auxiliary of the Commissioned Officers' Mess (WACOM) will hold their annual Membership Coffee in the Mojave Room at the COM on September 16, from 10 a.m. to 12 noon.

All interested ladies are invited to participate in the get-together in order to meet their neighbors and sign-up for the coming season.

For further information, ladies are invited to call Flo Carmody, Publicity Chairman, at 446-2655.

The ladies' night physical education class will continue, however. Meetings will be held on the patio. The Gymnasium pool will also remain in operation during the time that the gymnasium undergoes refurbishing.

Club Chaparral Feature 'Beat Incorporated'

Mike Weinberg, manager of the Club Chaparral, has announced that "Beat Incorporated," a folk-rock band, will provide entertainment for club-goers tonight, and tomorrow night "Martha Lov and The Three Beats," will make an appearance.

Club Chaparral would like to invite all members and guests to come out for an evening of fun and entertainment.

Vet Population History's Highest

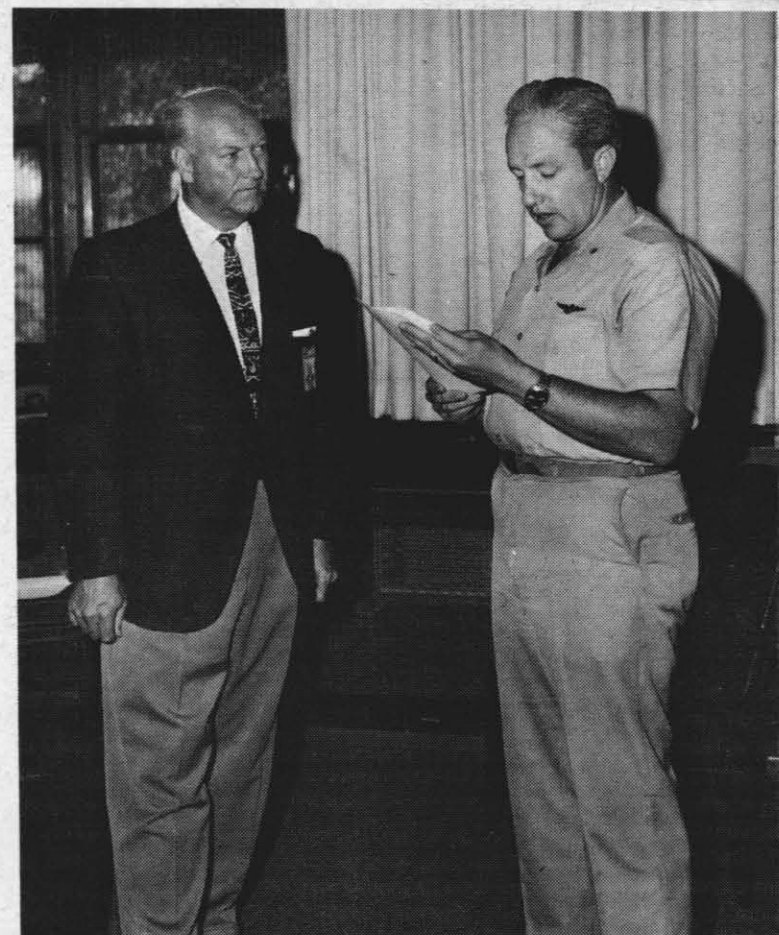
The G.I. roll call passed the 27,000,000 mark last month.

In announcing the new total of enrollees, the Veterans Administration said that Vietnam veterans discharged to Aug. 4 raised the ledger count to the highest peak in history.

In reviewing the veteran population, the VA notes that the average age of all 27 million veterans has increased to 44.3 years.

Broken down by wars, the average age of veterans on the active rolls are: Spanish - American (6,000 veterans) 90.3 years; World War I (1,647,000) 74.7 years; World War II (14,592,000 veterans) 49.7 years; Korean Conflict (5,847,000 veterans) 40 years; and Vietnam era (3,169,000 veterans) 26.2 years.

Of the portions of the program conducted at NWC, many have required exten-



PERSONNEL COMMENDED—M. H. Johnson of the Corona Laboratories was among those Center personnel who received Letters of Commendation from the Chaparral Management Office, Redstone Arsenal, for their work during the evaluation phases of the Army Chaparral program. Others who were similarly honored were John Lamb, Dick Boyd, Roland Baker, Chuck Smith, and Martin Landau.

The Rocketeer

Official Weekly Publication U. S. Naval Weapons Center China Lake, California

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"J." Bibby Public Affairs Officer

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PH1 Gary D. Bird, PH2 Delmar E. Hart, PH2 Michael F. Krause, AN Maurice Diaz, Staff Photographers

DEADLINES: Tuesday, 4:30 p.m. News Stories

Tuesday, 11:30 a.m. The Rocketeer receives Armed Forces Press Service material. All are official U. S. Navy photos unless otherwise identified. Printed weekly with appropriated funds in compliance with NavExos P-35, revised July 1958. Office at Nimitz and Lauritem.

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DIVINE SERVICES

Protestant (All-Faith Chapel)—Morning Worship—8:15 and 11 a.m. Sunday School—9:30 a.m., Chapel Annexes 1, 2, 3, 4 (Dorms 5, 6, 7, 8) located opposite Center Restaurant.

Roman Catholic (All-Faith Chapel)—Holy Mass—7, 9:30 a.m., and 12:30 p.m. Sunday.

Daily Mass—11:30 a.m. in Blessed Sacrament Chapel. Saturday, 8:30 a.m. Confessions—7 to 8 p.m. Saturday.

NWC Jewish Services (East Wing All-Faith Chapel)—8 p.m. every first and third Friday.

Sabbath School—10 a.m. to noon, every first and third Saturday.

Unitarian Fellowship—(Chapel Annex 95, 95 King Ave.)—Sundays, 7:30 p.m.



Golf Club Championship Tourney Matches Set for Final Weekend

With the China Lake Golf Club championship tournament half over, this Saturday's pairings have produced some interesting matches. Joe Jones and Curt Bryan fought it out on Sunday, September 7, after both had received bye's the day before. Jones emerged the winner and will play R. Moore tomorrow morning at 8.

Moore defeated J. Striches Saturday and moved into a match against C. Clark on Sunday after Clark had sent E. Nelson down to defeat on opening day.

Mary Rush, who had a bye on opening day, met Max Smith Sunday, who had beaten Mike Hines on the first day of play. Rush was the victor and receives a bye tomorrow, as D. Schoelkopf, who had defeated H. Pangle in the opening round, withdrew.

Rush will play the winner of the Jones-Moore match on Sunday, September 14.

In the First Flight on Saturday, Stump received a bye and P. Pilcher defeated D. Hiles. Pilcher won the match Sunday against Stump and will go up against G. Bruce at 8:12 a.m. tomorrow. Bruce had a default Saturday, and beat F. Santangelo, who had won his match against R. Pinto opening day.

Playing with Bruce and Pilcher tomorrow morning will be G. Wydra and F. McElfish, who made it to the semifinals by virtue of wins over W. Stelmiller and G. Boyts, respectively. On opening day McElfish had to go 21 holes before he finally defeated C. Wack, 1-up. Boyts knocked off W. Irby opening day to start his way up the ladder.

Second Flight matches tomorrow morning are: Jim Peck against Elmer Davis, teeing off at 8:24, and J. Siebold vs. M. Landau in the same foursome.

Third Flight competitors tomorrow are Don DeWitt versus G. Westmoreland and D. Sichley against R. Young. This group's tee-off time is 8:36.

In the Fourth Flight, Ed Donahue, who had to scramble to win his match last Sunday, 1-up after 19 holes, will tee-off at 8:48 against Mike Sanitate. Rounding off the four-some will be W. Koch and P. Hall.

Beginner's Class In Kodokan Judo Taught by Woman

Margaret Gulick, a Burroughs High School physical education instructor, and U.S. Judo Association District Coordinator for Central California, will instruct a class in Kodokan Judo beginning September 16 in the Burroughs High School Wrestling Room, at 7 p.m.

The class is primarily for beginners, and will be available for boys, girls, men and women above the age of 7.

In preparation for the course, Mrs. Gulick recently completed two weeks of intensive training with Olympic and world champions at Camp Bushido, in Olympic Valley, California.

There will be a fee of \$15 with monthly dues of \$4 for Juniors (under 16), and \$20 with monthly dues of \$5 for those over 16 years of age. The initiation fee covers the cost of the complete Judo uniform, a full year membership in the Armed Forces Judo Association, and a one year membership in the Amateur Athletic Union.

All students will be eligible for promotion within two months under the new United States Judo Association rules.



TOURNAMENT WINNERS—Pat McDonald, right, instructor for the China Lake Youth Center's golf class, is shown with the winners of the Summer Golf Program Tournament held September 5. Shown from left to right, the boys are: Mark Loper, 1st place Juniors; Keith Adicoff, 1st place Seniors; and Jim Carmody, 2nd place Seniors.



SUMMER ACTIVITY OVER—The group of youngsters pictured above are shown following the completion of a tournament held at China Lake Bowl September 3, under the direction of Dean Ray, seen in the background. The youths bowled in the summer

program sponsored by the Youth Activities Center each Wednesday and Thursday, from 10 to 11 a.m. Some of the youngsters are holding trophies and certificates which they won in the tournament.

—U. S. Navy photo.

Scoring Low As Premier League Takes to Lanes

The Monday Night Premier League started its fall season September 8 with a new 20-point system of scoring. Team play was hotly contested as bowlers rolled against their opposite in each game, the victor scoring one point. The team scoring the most pins in each game was awarded one point; the team with the most total points for three games received 2 points; making a possible total of 20 in a night that a team could garner.

This method replaces the 3-point scoring system, whereby a team got 1 point for each game won.

Scores were low as bowlers shook off the doldrums of summer. New pins and resurfaced lanes also helped to keep scores low, a handicap which will wear off quickly now that the house is full each night.

Dan Branson opened the season with a nice 579 series, followed closely by Ray Freascher, 574; Bob Sickles, 572; and Jack Lindsey, 566. Sickles had high game for the night, 243.

Ace-TV garnered all the high team honors, hitting a 960 enroute to a nice 2713 series. As most of the team averages in the league are right around 900, those figures will go up.

Following is a list of standings after the first week of play:

Dick Tolkmitt, Secretary of the Midway League, reports that after two weeks of play there is a three-way tie for first place between NAF, CPO and the Alley Kats. Each team has won seven games and lost one. Close on their heels are the Pincrackers and the Mixers with identical 6-2 records.

In play September 10, Ray Freascher had high individual series, a nice 594, followed by Bob Owens with a 568 and M. Baican with a 567. J. Irvin had high game for the evening, scoring a 231.



GIRLS' SOFTBALL—Cdr. S. S. Bates, Head of the Command Administration Department, gives a few pointers to the pitcher for team #2 during the All-Star game played at Reardon Field, September 3. Dr. A. Adicoff and Gene Harbin were the coaches of the winning team #2, while Bob Battaglia and Carol Hape coached Team #1. The teams were made up of girls from both A and B League.

Bakersfield Welding had high team game in the handicap division, hitting 1064. NAF took scratch honors, rolling 894.

PREMIER LEAGUE STANDINGS		
Team	W.	L.
Ridgecrest Bowl	14	6
Starlite	13	7
Ace TV	11	9
Kirkpatrick's	11	9
Zurn	10.5	9.5
AV Trophy	9.5	11
Boyd's Auto Parts	9	11
Mercury Moving	9	11
Tom's Place	7	13
C. L. Navy	6	14

According to Bill Nicol, the Center Gymnasium will be closed indefinitely beginning Monday, September 15, for a complete refurbishing.

Flag Football Kickoff Slated For September 16

Flag Football will begin September 16 at 7:30 p.m., with the Wolves meeting NAF at Schoeffel Field. This year's Flag Football season will see four teams: the Wolves; Ace TV; NAF; and VX-5, clash twice a week, on Tuesday and Thursday, at 7:30 each night.

On September 18, Ace TV will meet VX-5 in the other game to be played next week.

The league promises to be a tough one this year, as the players do not wear padding, and some of the bone-crushing blocks are enough to disable a well-padded fullback. All Center residents are cordially invited to come out to the games.

Following is a complete schedule:

1969 FLAG FOOTBALL SCHEDULE		
September:	16-7:30 p.m.	Wolves vs. NAF
	18-7:30 p.m.	Ace TV vs. VX-5
	23-7:30 p.m.	Wolves vs. VX-5
	25-7:30 p.m.	NAF vs. Ace TV
	30-7:30 p.m.	Wolves vs. Ace TV
October:	2-7:30 p.m.	VX-5 vs. NAF
	7-7:30 p.m.	Wolves vs. NAF
	9-7:30 p.m.	Ace TV vs. VX-5
	14-7:30 p.m.	Wolves vs. VX-5
	16-7:30 p.m.	NAF vs. Ace TV
	21-7:30 p.m.	Wolves vs. Ace TV
	23-7:30 p.m.	VX-5 vs. NAF
	28-7:30 p.m.	Wolves vs. NAF
	30-7:30 p.m.	Ace TV vs. VX-5
November:	4-7:30 p.m.	Wolves vs. VX-5
	6-7:30 p.m.	NAF vs. Ace TV
	13-7:30 p.m.	Wolves vs. Ace TV
	18-7:30 p.m.	VX-5 vs. NAF

New Hours Set For Camp Gear Check-out

Ray Gier, Athletic Director for NWC, has released new hours that camping equipment may be checked out by Center employees, beginning September 15, Monday through Friday, from Building 52.

Shotguns, rifles, sleeping bags, cots, ice chests, stoves, heaters, tents, thermos jugs, lanterns, rods and reels, may be checked out for a daily charge by military personnel and any civilian Center employee who has been employed on the Center for less than one year.

The hours are: 10:00 a.m. to 1 p.m., and 2:30 to 6 p.m.

Residents Can Now Call For Emergency Aid

Help Line, Inc., an emergency telephone service for China Lake, Ridgecrest, and surrounding areas, will begin operation this Sunday, the organization's board of directors has reported.

Telephones will be manned by trained volunteers every day, including weekends, from 6 p.m. to midnight. Persons who are faced with any kind of crisis situation may call the Help Line, 446-5531, and receive immediate emotional support, plus, if needed, referral to local agencies or organizations which can provide necessary aid.

NWC has provided office space for the group as well as desks and other furniture. Since the effort is a community-wide one, volunteer workers have been recruited from both China Lake and Ridgecrest. Churches and other organizations, agencies, and individuals have combined their efforts to organize this much-needed service.

Additional persons are still needed to serve as volunteer telephone answerers. Each worker will be given an intensive 16-hour training course, and may work one or more three-to-six hour shifts per month. Persons wishing more information may write to P.O. Box 5658, China Lake, or may contact Help Line Director of Training, Dr. C. Douglas Lind, at 446-4387.

PWOC Invite Rev. C. French As Speaker

The Protestant Women of the Center will meet at 7:30 p.m., Tuesday, September 16, in the East Wing of the Chapel.

Rev. Charles French of the Covenant Presbyterian Church in Ridgecrest will be the speaker. He has chosen as his topic "Take Off Your Mask" and his remarks will introduce the new study topic for the circle meetings which are held monthly. Refreshments will be served following the program.

Mrs. C. J. Renne, president of the Protestant Women, has issued an invitation to all interested women to attend the meeting.

Stone Selected As Bluejacket

(Continued from Page 1)

I couldn't keep eggs from sliding off the grill, he added. "However, it was a big waste of time because most of the men don't bother to eat anyway in a sea like that."

Stone has received the Navy Unit Commendation, Good Conduct Medal, with cluster, National Defense Ribbon, China Service, and the Vietnam service ribbon with two stars.

The Stones reside at 308 Dorado St., in Desert Park.

Dr. Howard Wilcox Will Lecture At Community Center

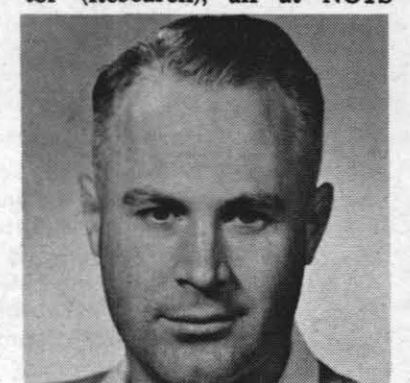
A former NWC Assistant Technical Director, Dr. Howard A. Wilcox, an independent Consultant specializing in technical, management, educational, and government-industry problems, will give a technical lecture at the Community Center September 15, beginning at 9:30 a.m.

The lecture will deal with the technical aspects of "A Science of Human Values," based on a forthcoming book on the subject that he has written.

Dr. Wilcox graduated magna cum laude from the University of Minnesota in 1943, with a B.A. in physics. He taught physics at Harvard and Radcliffe during 1943-44 and then served on the Staff of the Los Alamos Scientific Laboratory from 1944 to 1946.

He obtained his M.A. and Ph.D. in physics from Chicago University in 1948.

His long and varied career has seen many significant posts since 1950, including: a member of the Physics Department and of the Radiation Laboratory of the University of California at Berkeley; Project Engineer on SIDEWINDER at NOTS; Head, Weapons Development Department, Head, Research Department, and Assistant Technical Director (Research), all at NOTS



DR. HOWARD A. WILCOX

(now NWC); Deputy Director Defense Research and Engineering in the Office of the Secretary of Defense in Washington; Director of Research and Engineering for the General Motors Defense Systems Division; Technical Director of Advanced Power Systems, GM Research Laboratories at Santa Barbara, and finally, on September 1, 1967, the sole owner of his consultancy.

Dr. Wilcox has devoted the major part of his professional life to problems of scientific research, engineering, management and education related to the national defense.

For three years he served as Chairman of the Educational Program at the Center. In addition, he has given four special courses of lectures in mathematics for pre-college students.

Dr. Wilcox is a Fellow of the American Physical Society, and a Member of the American Association for the Advancement of Science, the American Institute of Aeronautics and Astronautics, Phi Beta Kappa, Sigma Xi, The Research Society of America, Tau Beta Pi, the Affiliates of the University of California at Santa Barbara, the United World Federalists, and the American Civil Liberties Union.

All interested Centerites are cordially invited to the lecture.



NEW CITIZEN—SD1 Jose F. Ibanez, a native of the Philippines, became a new United States Citizen on August 22 in Superior Court. Ibanez, who entered the Navy in February, 1955, has been at NWC for a year and a half. His reason for becoming a citizen, he stated, was that all three of his children had been born in the United States. Ibanez, his wife, Lourdes, and three children: Angelica, 7, Joseph, 6, and Grace, 2, live at 313 Cisco St., on the Center. For relaxation Ibanez enjoys oil painting, and recently completed a course in automotive mechanics.

Hoffman New IEEE Chairman

John Hoffman, of Riverside, has been elected to serve as Chairman of the Antennas & Propagation/Microwave Theory & Techniques Chapter in the Foothill Section of the Los Angeles Council of the Institute of Electrical and Electronics Engineers. Hoffman is employed at the Naval Weapons Center Corona Laboratories in the Radio Frequency Branch.

A letter received from G. M. Goldenstern, Chairman of the Los Angeles Council of IEEE, stated in part: "It is a compliment for Mr. Hoffman to be selected as a leader out of the thousands of IEEE members in his field as it is also a recognition of his past service. However, it is also an honor and a compliment to his employer because it is evidence of the caliber of the people which he employs."

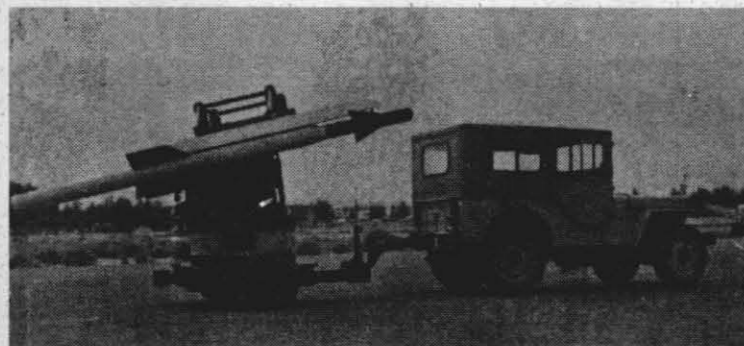
Special recognition is not a new experience for Hoffman. He was selected to serve in Vietnam in an overall laboratory assistance program. He helped to compile and put research techniques to work directly in the field in order to eliminate much of the delay ordinarily encountered in conceiving, designing, and building new weapons and equipment needed in the fighting areas. The purpose of his assignment was to gather information and conduct studies on current operations for the purpose of assisting the Commander Naval Force, Vietnam, in carrying out the responsibilities of his command. Hoffman returned from Vietnam in March.



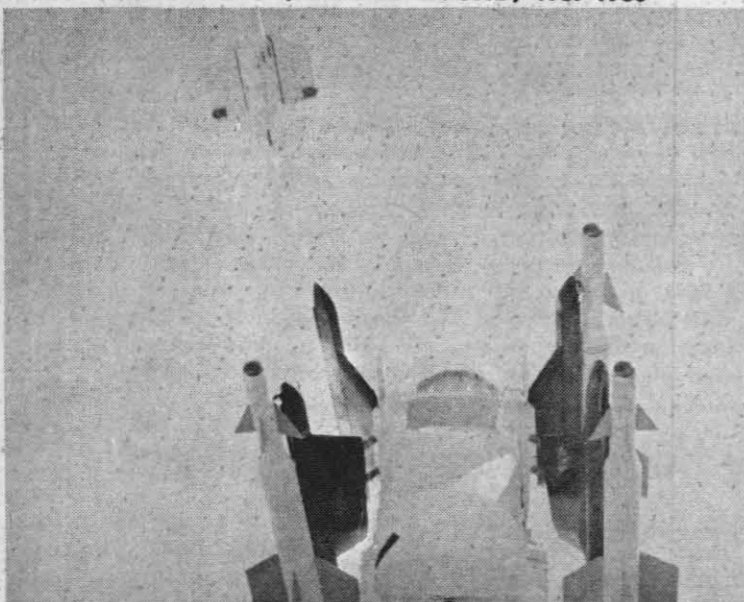
FORTY YEARS SERVICE—Charles P. Harsch, a security guard at the Corona Laboratories, is shown above being congratulated by Cdr. C. D. Brown, Officer-in-Charge, on the completion of forty years of service with the Navy. Harsch served in the enlisted ranks from 1929 to 1949, and has been in the Federal Service ever since.

NWC Personnel Play Major Role In Army Weapon Development

Concept Of A System



HAMBURGER (GROUND ROUND) 1957-1960



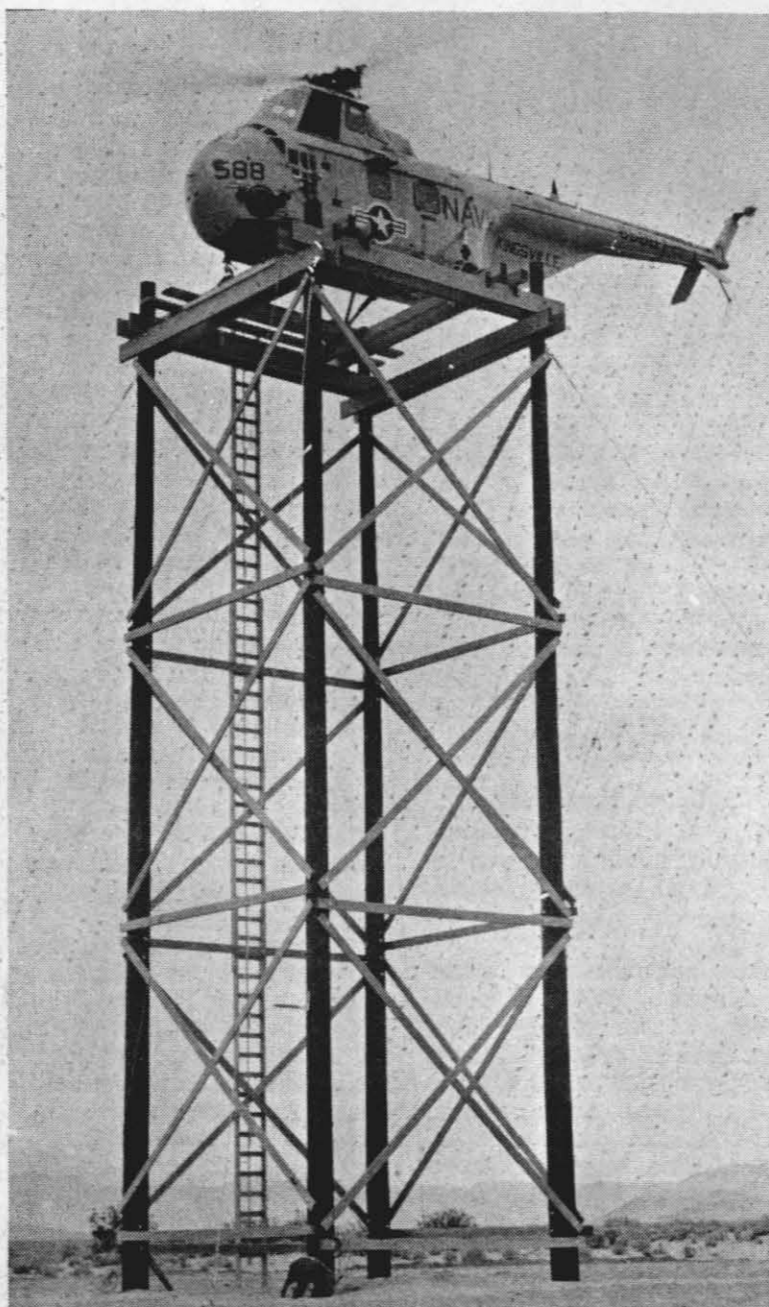
OSPREY 1961 - 1963



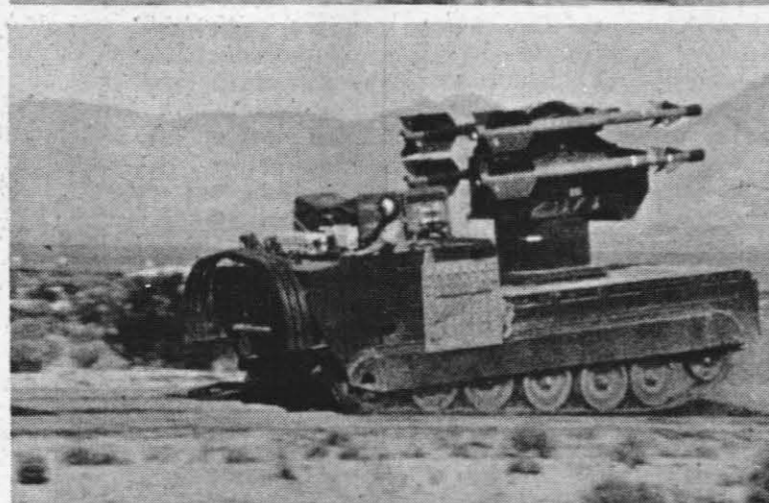
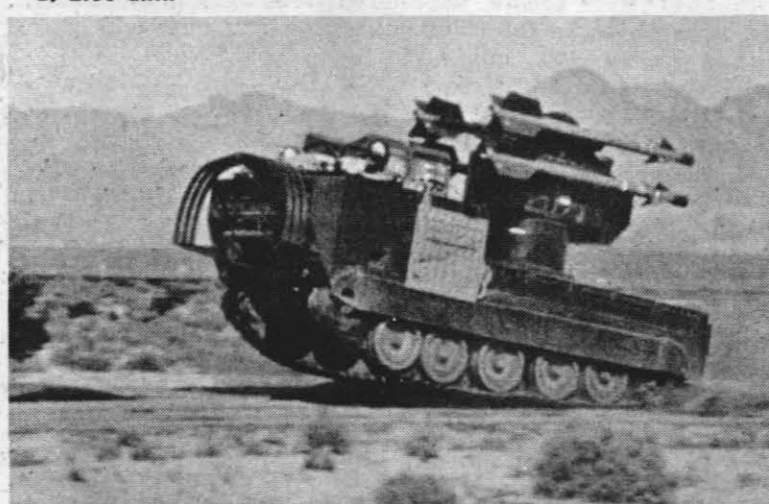
NWC CHAPARRAL 1963 - 1965



ARMY CHAPARRAL 1965 TO PRESENT



TEST FIRINGS—A specially constructed fifty-foot tower, especially designed to withstand helicopter operation, was built by Code 30 for a low-altitude test firing. In this test, the target was demolished and the tower was hardly damaged. Test firings at China Lake required extensive support from all departments. For this test, a surplus helicopter was provided by NAF. Countdown for the firing began at 2:30 a.m.



ROUGH TREATMENT — In the course of the evaluation phase of the program, the missile was subjected to over one hundred miles of "worst case" rough environment testing to measure the amount of shock and vibration that the system would withstand. The photos above attempt to show the kind of treatment to which it was subjected. Extensive support was provided by Public Works Vehicle Maintenance personnel in the repair and maintenance of the vehicle during test runs.

Summary of Work Tasks and Organization Shows Army Go-Ahead Key Commitment

The story of Chaparral is a familiar one to many at the Center because it is a story essentially about NWC, and a system which had its origins in early phases of the Sidewinder program.

Some will recall the first efforts in surface-to-air evaluation programs which were called variously "Small Sam" or "Hamburger" (Hamburger meaning Ground Round as opposed to the airborne Sidewinder).

Subsequent studies, in conjunction with the Bureau of Naval Weapons resulted in the definition of a dual radar/IR system for use on destroyers.

This system, called OSPREY, was mounted on the side of the 5"/38 gun mount and contained a mix of both radar homing and IR homing Sidewinder guidance units. Although complete technical development plans of the system were prepared (completed), funding limitations resulted in cancellation of Osprey prior to development.

Upon cancellation of the Osprey system, Station efforts were once again directed to IR only, systems.

To differentiate between this simple system and the more complex radar/IR Osprey system, the name was changed to Chaparral. Additionally, the Chaparral system, being later in time, utilized the newer Sidewinder 1C missile which provided significant gains in performance and fewer changes to adapt to the surface launch environment. These studies were conducted in the Infrared Systems Division (Code 405), and utilized the same expert team that was responsible for the development of the Sidewinder 1C.

Army Gives Go-Ahead

The key commitment that finally put Chaparral developmental efforts on the path toward production and its ultimate role as an air-defense weapon was a decision by the Department of the Army in late 1965.

U. S. Army officials had been kept aware of the early efforts by NWC to adapt Sidewinder 1C for a ground-to-air defense mission. They had witnessed the military potential and engineering design evaluation being conducted here at the center, between January and October 1965, and were deeply impressed with the Chaparral missile's performance, fast reaction and launch time, and excellent capability against low flying targets.

Perhaps the most impressive part of the Military Potential program was the ability of NWC to conduct such an extensive project in such a short time frame (9 months). During this period, the prototype design was established; the Sidewinder missile was modified in accordance with the new design, utilizing hardware manufactured in NWC shops; and a flight evaluation program was conducted.

Mr. Roland E. Baker put his entire Mechanical Design

Branch to work on airframe and propulsion design improvements and on defining the interface and launcher environment;

Mr. E. E. Creer supplied information on over 1,000 firings of the rocket motor to establish safety confidence for Army personnel;

Eighty percent of the Electronic Design Branch (Code 4051), headed by Mr. C. L. Neal, performed the design changes on missile electronics, provided flight test support, and an interface definition;

Additional support on missile checkout was provided by the Optical Design Branch under the direction of Dr. E. E. (Mickey) Benton; and the job of defining design changes and performance obtainable from these changes was the responsibility of Mr. W. Gene Younkin, Head of the System Analysis Branch (Code 4055).

In summary, within the short time frame of 9 months, NWC established the Chaparral missile design, obtained missile hardware, fabricated a temporary launching system (in later phases the aeronutronic-designed launcher was utilized) and conducted a flight test program to verify the missile performance.

(Normally, it takes 5 months to get a contract set-up, one to two years to set up a production line, which doesn't leave much time for the people to design and test fabrication of hardware.)

In the month following the conclusion of the military potential flight evaluations, the U. S. Army made the decision to proceed with the Chaparral system. Additional Army funds were received in late 1965 for support of the NWC effort which would transform the basic prototype design utilized in the military potential program into an optimum ground-to-air missile defense system.

Tasks and Organization

With the Chaparral development task now definitely assigned to NWC, Code 40 management selected John W. Lamb as Project Manager and Roland E. Baker as Project Engineer. The selection of these men was based on their prior knowledge of the Chaparral System, as well as their earlier ground-to-air flight and evaluation efforts in the Small Sam/Osprey programs. To them, fell a series of tasks which was to culminate with the operational Chaparral System.

Lamb and Baker formed a project team and assigned responsibilities to various engineers and skilled technicians. An impressive share of the effort was assigned to other departments of NWC, including Codes 55, 45 and 30.

The first of these tasks was to set up the engineering development that would transform the design from the prototype to a completed design including full engineering drawings and a documentation package that would be suitable for mass produc-



JUNGLE TESTS—In the photo above (right), Roland Baker, Chaparral Project Engineer, discusses the results of a recent test run through the jungles of Panama during Army Tropical Evaluation Tests held in that area. In the photo

task was handed to Chuck Frederickson, of the Chaparral Project office. Although the majority of this effort was accomplished by the Chaparral Project office, a large amount of support was provided by the Engineering Department in finalization of guidance unit design and procurement of guidance control sections.

The job of directing the engineering development efforts in this area became the responsibility of Jim Bowen who already had several years of experience on the production support of the Sidewinder guidance unit.

Systems analysis, which investigated mission effectiveness and missile lethality was assigned to Dr. M. Rogers, Weapons Systems Analysis Division. Mrs. B. A. Fouse coordinated fuze data from Stanley Blank of John Nasteraro's Division (Code 504) in Corona and combined it with latest lethality data to provide accurate assessments of missile effectiveness.

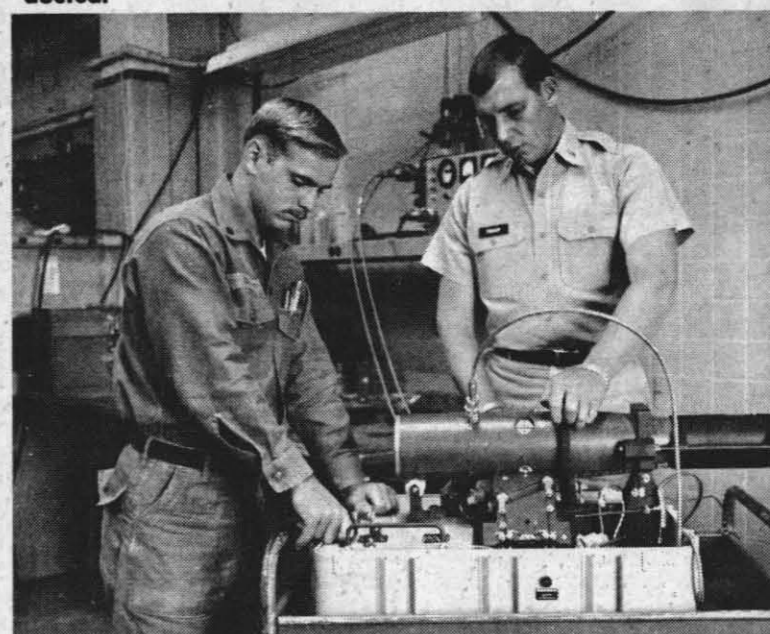
Reliability estimates for Chaparral were conducted to predict possible failure rates and modes before the system was placed into an operational state. Considerable support in this area was provided by reliability contractors. Bill Marsh from Computer Applications, Inc., Ridgecrest office, has worked on the organization and direction of the reliability task on Chaparral since Army go-ahead was given in 1965.

U. S. Army procurement of Chaparral included test equipment and test sets for checking missile components and the all-up missile prior to firing. This phase of development was completed by Don Winters of Code 5523.

Interface The complexities of interface between vehicle and missile were considerable. This



at left, some of the foliage still clings to the vehicle and attempts to show that the system remained intact despite the severity of the terrain through which the tests were conducted.



MISSILE CHECKOUT—Sp/4 David Berni (l) and First Lt. David Priddy are shown above preparing to check out a Guidance and Control Section of a Chaparral with the AN/ASM-79 missile test set. The test set is part of the Army's Air Defense Battalion Test Equipment for the missile. The two Army personnel shown above and Sp/5 Rayner have been assigned to NWC as support personnel for the Chaparral missile.

The test procedures included the normal exposure of components to shock, vibration, corrosion, acceleration, rain, sand and dust, temperature shock and life tests.

Other more unusual tests, such as acoustic, overpressure, to simulate nuclear blasts, and blast erosion, were also scheduled for some of the missiles.

Acceptance tests of the GCG, as well as a complete series of environmental tests to follow, was conducted under the cognizance of James Bowen, Code 5571. Work with the GCG required monitoring of a lengthy list of over 160 separate parameters for each guidance unit; and painstaking, almost constant, liaison with the General Electric Company who was assembling the preproduction GCG

units. The bulk of environmental testing on most other Chaparral components was equally detailed. But these difficult phases, too, were completed in a commendable and timely manner through the efforts of Ed Creed of the Chaparral Project office, who worked in conjunction with Jerry Halpin, Code 4533. Ed Creer also retained cognizance of the Chaparral wing vibration tests which were conducted in the Central Engineering Test Lab by Peter Bouclin, Code 5517. Army Road Tests At the same time that the Chaparral was being qualified through all of these major efforts in laboratory testing, the U. S. Army began evaluation of the missile on the prototype tracked carrying (Continued on Page 7)