KSC's Murchison Recalls Original Armistice Day

When it comes to celebrating Armistice Day, Elmer E. Murchison of KSC's Procurement Division, does it with firsthand experience. He was in the U.S. Army 47 years ago when the end of the First World War was announced.

"Actually there was a false Armistice about three or four days before the authentic signing, and I remember every-one went wild," Murchison said.

"I was undergoing training at Camp Grant, Illinois, when we first got word. It must have been around 2:30 in the morning and they woke us all up. We had a parade downtown and everybody danced in the streets until daylight.'

Murchison said he was discharged from the Army about a month later. He had been called up in the draft in September 1918, and was sent from Camp

Grant, to Galesburg to study military

tactics.
"I couldn't see staying in with the war over, so I got out and went to school."

"Rockets were purely Buck Rogers stuff back in those days," Murchison recalls. "I was supposed to be in light artillery, but all I ever got was an old (See KSC's, Page 2)

SPACE



NEWS

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November 10, 1965

Checkout Cycle Begins For 009's Components

The command and service modules of Apollo spacecraft 009, which arrived at the Center recently, continue an extensive test and checkout cycle to prepare them for flight aboard the first Saturn IB launch vehicle.

Spacecraft **Preparations** Continuing

An electrical mating of the Gemini 7 spacecraft and its launch vehicle at complex 19, and re-installation of modified spacecraft components highlight the week's activities as NASA continues to prepare for an unprecedented, one-two space rendezvous mission.

Plans call for astronauts James Lovell and Frank Bornan to be launched in Gemini for a two week flight, and for astronauts Wally Schirra and Tom Stafford to follow them into orbit in their Gemini 6 spacecraft within the 14-day period to effect a series of rendezvous tests.

Gemini 7 spacecraft test conductor Fritz Widick, of the

Kennedy Space Center, said crews were installing a flashing light in the spacecraft adapter. Also the rendezvous and recovery module, which has been modified at the Mc-Donnell home plant in St. Louis, has been returned and will be reinstalled and re-test-

See SPACECRAFT, Page 4)

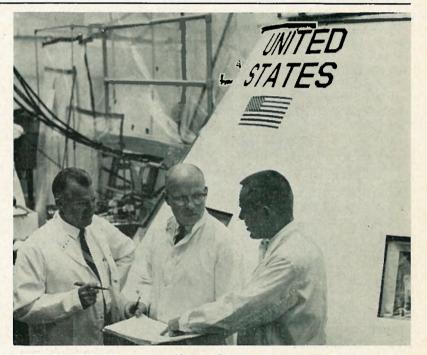
Unlike the boilerplate Apollo versions which capped the last five Saturn I rockets, Apollo 009 will be a fully instrumented spacecraft, complete with all sub-systems except a guidance and navigation sub-system and fuel cells and their supporting cryogenic sub-system.

Apollo will also be equipped with a programmer to simulate reactions of the astro-nauts, who later in the program will man the Apollo.

The instrumented Apollocommand and service modules and a Saturn lunar excursion module adapter (SLA)-will be launched by the Saturn IB to check spacecraft-launch vehicle mechanical compatibility and to test the spacecraft heat shield in a high-velocity reentry mode.

Gordon Turner, KSC space-craft test conducter, said the command module would first go to the Hypergolic Building at the Center for environmental control sub-system servicing and checkout of the electrical power sub-systems.

Calibration and functional tests will then be conducted on the reaction control subsystems. From here the command module will be taken to the Pyrotechnic Installation Building where it will be fit-(See CHECKOUT, Page 2)



GORDON TURNER, test conductor for Apollo spacecraft 009, checks schedule with H. E. Matthews, right; and William Stegles. The Apollo command module is in the background.

COMBINED TOUR' OPENS

The Air Force and NASA have worked out a joint agreement to combine the Sunday drive-through tours of Cape Kennedy and the Merritt Island Spaceport. The announcement was made by Major General Vincent G. Huston, Commander of the Air Force Eastern Test Range, and Dr. Kurt H. Debus, KSC Director.

Hours of the new tour, covering both complexes, will run from 9 a.m. to 3 p.m., starting this Sunday.

Combining of the tours has been under study for some time by Air Force and NASA officials, but certain traffic

problems had to be ironed out before the new tour plan could be placed in effect.

Visitors will be permitted to use either the south entrance to Cape Kennedy or the NASA Causeway— Route U.S. 1 entrance to Merritt Island. Security police will direct traffic at either gate, and markers will be placed along the tour route.

Because of the prolonged tour, rest stops will be available in the industrial area at Cape Kennedy. It is estimated that the entire drive-through will take approximately two

(See COMBINED, Page 3)



Elmer E. Murchison

KSC'S MURCHISON

(Continued from Page 1)

Springfield carbine. There's been quite a change in weaponry since then hasn't there?"

One thing that hasn't changed over the years, he added, is ditch digging. "We did it in basic training then and they still do it today."

Murchison filled a variety of professional and management positions in private industry before joining civil service in 1952. He was with the Yards and Docks Supply ofvice in Port Hueneme, California, prior to transferring to the Kennedy Space Center in 1963.

He is a contract negotiator at the Center and lives at the Saturn Apartments in Cocoa Beach with his wife, Effie. They have one daughter and five grandchildren.

Haworth To Speak

KSC Procurement Chief M. E. Haworth will speak on "Incentive Contracting at the Space Center" next Thursday night at the monthly meeting of the Federal Government Accountants Association.

The meeting will be held at the Crossway Inn with a social hour beginning at 5:30 p.m., and dinner at 6:30.

CHECKOUT

(Continued from Page 1) ted with parachutes and ordnance items. Weight and balance tests will follow, before the spacecraft is transferred to the Manned Spacecraft Operations Building.

Meanwhile, the service module is at Cape Kennedy Launch Complex 16 for leakage checks on the service propulsion subsystem engines. Static firing of the engines will be conducted. After checks for leaks, the propulsion sub-system will be decontaminated.

The service module will then be mated to the command module in the MSOB's high bay area. The two modules will be checked on a polarity fixture, which rocks the spacecraft off center in a test of spacecraft reaction control sub-system jets to correct 009's attitude.

Following integration checks, Turner said the flight nozzle of the service propulsion system engine will then be installed.

Spacecraft 009 will be transferred to Launch Complex 34 and mated to the Saturn IB launch vehicle.

At the pad more integration checks will be run, this time with the spacecraft and booster, and electrical mating will be accomplished. A countdown demonstration and flight readiness test will be held prior to actual launch, which is scheduled for early next year.

Actually, Turner said, KSC participation in the flight preparation of 009 began several months ago when he and a team of Center engineers participated in testing at North American's Downey, California plant.

The test conductor also said ACE-S/C (automatic checkout equipment for the spacecraft) is being used for the first time on Apollo 009 to run all sub-systems checks as well as the actual countdown.



KSC SENIOR scientist, Dr. A. H. Knothe, left, and Dr. Harlow Shapley, noted astronomer and expert on cosmography, compare notes following Dr. Shapley's tour of the Kennedy Space Center last week.

Serendipity Keynote To Space Discoveries

"Serendipity, that should be the keynote of your space programs," said Dr. Harlow Shapley, who toured the Spaceport last week as a guest of the Kennedy Space Center.

Dr. Shapley, Director of the Harvard Observatory for more than 30 years, and currently a lecturer and world-renowned authority on cosmography, spoke on "galaxies and mankind" at the first of a series of lectures sponsored by the Brevard Engineering College and the Institute of Electric and Electronics Engineers.

The "serendipity" he referred to means, loosely, an apparant aptitude for making fortunate discoveries accidentally.

Expect Unexpected

"I like to say you can expect the unexpected when you explore outer space," Dr. Shapley said. "We've already found a number of things no one knew about for sure on spinoff benefits of space flights. Take the irregularities in the shape of the Earth for instance. This is very meaningful."

Dr. Shapley said he doubted life existed in our solar system unless it is found on Mars. "Of course it depends on your definition of life," he emphasized. "There are millions of species of life here on Earth."

The eminent astronomer indicated it would conceivably be possible for life to exist outside our solar system, but he doubted man on Earth would be able to "defeat the physics" to develop the capability to explore such far away regions.

Star Exploration

"We can expect to communicate through radiation and light, but I doubt man will ever be able to personally explore the stars," Dr. Shapley said.

He doubts that man in spac will make any sensational discoveries within our solar system, but that significant facts will be learned on interplanetary space and its contents, including light, meteors, fragment of comets and high-flying spores.

Dr. Shapley was quite impressed with his tour of the Spaceport and said that man must continue to learn from his explorations

his explorations.

"Frankly," he noted, "I expect the unexpected to be the dominating thing of space exploration. Serendipity, I call it"



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GEODETIC EXPLORER ORBITING

A 385-pound geodetic satellite — Explorer XXIX — was successfully launched into Earth orbit Saturday by the Kennedy Space Center.

It contained five geodetic instrumentation systems to provide simultaneous measurements that scientists require to establish a more precise model of the Earth's gravitational field and to map a world coordinate system relating points on or near the surface to the common center of mass.

John Neilon, Deputy Assistant Director for Unmanned Launches at KSC, said, "the higher than expected apogee achieved by the satellite will allow the geodesists to accomplish some tasks they would not have been able to do with the nominal apogee, although it may make some of the planned tests more difficult."

Robert H. Gray, Assistant KSC Director for Unmanned Launches, directed the flight. NASA's Thrust - Augmented Improved Delta, built by Douglas Aircraft, was the launch vehicle. It was the first flight for the Improved Delta second stage, which had enlarged fuel tanks to provide a longer engine burning time.

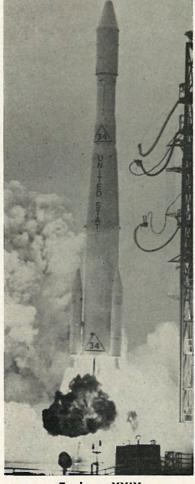
Hugh A. Weston is Manager of Delta Operations for KSC, and James W. Johnson was supacecraft coordinator for Explorer XXIX.

Combined Tour

(Continued from Page 1)
hours.

Highlights of the tour will be a drive-by of Minuteman, Atlas and Titan ICBM areas; Complex 14, launch site of Project Mercury astronauts; Complex 19, launch site of the Gemini pilots; Saturn facilities; Titan HI Integrate-Transfer-Launch complex; and the Vehicle Assembly Building on Merritt Island.

The combined tour will cover approximately 60 miles, and visitors are reminded that there are no gas facilities on either the Air Force or NASA installations.



Explorer XXIX

HOLIDAY TOMORROW

The Kennedy Space Center will not be open to drivethrough tours tomorrow, which is an official holiday.

Substantial numbers of contractor personnel will be working at the Center and at Cape Kennedy. To prevent any interference with operations, it was decided to rule out the usual public tour of the Merritt Island facility.

Similarly, the Center will remain closed to the public Thanksgiving Day, November 25, in order to permit the maximum number of Civil Service and contractor personnel to enjoy the traditional dinners with their families.

FLU SHOT SCHEDULE

Flu shot schedule for the next few days is as follows:

Friday, Launch Complex 39, pad A, room 221 - 8:15 to 11:30 a.m.; pad B, first aid station — 12:30 to 3:30 p.m.

Monday, November 15, District Corps of Engineers Office, A and B conference room—8:15 to 11 a.m.

Tuesday, November 16, VAB and Launch Control Center, -8:15 a.m. to 3:30 p.m.

KSC Employee's Suggestion To Be Adopted NASA-Wide

Lynett Cue, of the Kennedy Space Center's Personnel Office, has been presented a \$25 suggestion award for an idea she had that will streamline qualification inquiry forms.

These are sent to the employers of prospective hires, and have a section relating to character analysis. Lynett suggested a simplified revision of this section and the suggestion has been adopted.

In fact, her idea will be incorporated NASA-wide. It eliminates guesswork in filling out the qualification forms.

Lynett began work at the Kennedy Space Center in June 1964. She lives at 511 Taft Street in Cocoa.

Election Supervisors Selected At Center

Election supervisors for the NASA Exchange - Kennedy Space Center's new Activities and Welfare Association have been named.

They are: Agnes Hough, Spacecraft Operations; Marvin Williams, Launch Vehicle Operations; Jack D. Smith, Quality Assurance and Safety; Ed Johnson, Public Affairs and Director's Office; P. A. Fagnant, Administration; Annie Taylor, Engineering and Development; John Fike, Information Systems; O. L. Duggan, Plans, Progress and Resources; Roger Weining, Support Operations; and Chester Norris, Unmanned Launch Operations.

Election of the Activities and Welfare Association's first officers will take place at the Center on November 29. Representatives will be chosen, on a proportional basis, from each primary organizational element of KSC.

James F. Russo, Robert H. Clark and Thomas E. McGuire are members of the election committee. Russo is chairman.

Nominating petitions for Association officers must be turned in to the election supervisors by next Wednesday. Ballot sheets will then be distributed to all civil service employees at the Center, by November 26.



Lynett Cue

Dr. Sienko To Speak

Dr. M. J. Sienko, well-known author and lecturer, will be guest speaker next Thursday night (November 18) at a meeting of the Canaveral Chapter of the American Chemical Society.

He will discuss "The Chemical and Physical Nature of the Lunar Surface."

Dr. Sienko is a professor at Cornell University and has published a number of articles and books on chemistry. His active research interests are in solid state and metalammonia systems.

The Society will have dinner at the Holiday Inn in Cocoa Beach at 6:30 p.m. Dr. Sienko will speak at the Brevard Junior College at 8 p.m. For further information call Dr. Peter Ricca, 867-3975.

Workshop To Be Held

An all-day incentive contract workshop will be held Saturday at the GENESYS facilities adjacent to the south gate of Cape Kennedy.

Dr. J. Sterling Livingston of Harvard, a recognized national authority in government contracts will speak on the "Latest Developments on Incentives."

Following a luncheon, there will be an afternoon work session and discussions.

Primary purpose of the workshop is to improve competency in the structuring, negotiation and administration of multiple incentive contracts.



A Kennedy Space Center engineer and his young French wife have an interesting story to tell concerning astronaut Charles "Pete" Conrad.

The engineer is Edward Kolesa of Bendix, and his wife is Claudine, who is from the city of Thionville in the Moselle wine country of eastern France near the Luxembourg border.

Claudine says Conrad's great uncle, Georges Conrad lives in the neighboring French town of Basse-Yutz. He is now 76 years old. During World War I, the astronaut's grandfather and Georges, who were cousins, fought the Germans along the Maginot Line.

But the real story concerns Georges' uncle. Claudine recounts the French version

thusly:

"The senior Conrad was in Basse-Yutz in 1870 when the French and Germans were fighting each other. The Germans broke through the lines, and Conrad, to escape capture or worse, hid in the back of a wagon under a load of apples. As the story has been passed down, the Germans stuck bayonets into the apples narrowly missing Conrad. He later came to the United States and then went back to marry a French girl.

During World War I the senior Conrad's two sons, one the astronaut's grandfather, visited Georges in Basse-Yutz.

Claudine says when Pete was announced as a pilot for the Gemini 4 mission, the French newspapers widely publicized the story of his great grandfather hiding in the apple cart 95 years ago.

She subsequently mailed the clippings to the astronaut in Houston.

LUNAR ORBITERS

Beginning next year, NASA will launch five lunar Orbiters; spacecraft that will orbit the moon and take mapping photographs from a height of only 25 miles.

1,000-Hour Sick Leave **Group Named**

The following Kennedy Space Center employees have accumulated more than 1,000 hours of sick leave during their years of service with the government.

Center Director, Dr. Kurt H. Debus has commended these employees for their continuous presence on the job which has contributed significantly to NASA's goals in the peaceful exploration of space.

Civil service workers are entitled to sick leave of 104 hours each year. Even if an employee never missed an hour because of illness, 1,000 hours sick leave could be accumulated only after nearly 10 years of service.

The employees with 1,000

accrued hours are:

accrued hours are:
Ernest C. Spivey, Charles L.
Buckley, Jr., Henry J. Porter, III,
John R. Galbraith, Benjamin W.
Hursey, Jr., William H. Merchant,
Opal M. Scott, Lloyd G. Ernest,
Jack B. Cecil, Norman A. Ferster,
Willard L. Halcomb, Milorad Konjevich, Joe M. Nelson, Cecil M.
Taylor, D. E. Mahoney, George B.
McGuire.

Taylor, D. E. Mahoney, George B. McGuire.

James F. Kanpie, Eugene L. Grunewald, Alton D. Fryer, Jr., Truett S. Smith, Henry Illian, Paul F. Cahlan, William L. Gambel, Thomas G. Broskie, Edward E. Manning, John D. King, Huber L. McRae, Peter G. Polas, Charles C. Young, Annie M. Wright, James C. Stanley.

Arthur K. King, Jack D. Smith, James M. Stumpf, Erwin W. Prid-dy, Vincent Parr, Lawanda L. Ross, dy, vincent Parr, Lawanda L. Ross, William B. Davis, Bruce L. Hilderbrant, Donald W. Moody, Jack V. Davidson, Haywood E. Matthews, Jr., James G. Winters, Jr., Paul E. Charles, Robert L. Phelps, Lee R. Bridgemann.

Paul Tuggle, Joseph H. Galloway, Marcellus D. Harris, John F. Kolasa, Paul E. Ferris, Charles C. Furtado, Virginia M. Sexton, Bailey M. Davis, Edward E. Ashurst, Wylma E. Watson, James L. Williams, Gerald O. Ayers, Rodney B. McKibbon McKibben

Edward E. Rewerts, Raymond C. Carl, Noah L. Smalley, Charles E. Brockmeyer, Dr. Hans F. Gruene, Lester J. Owens, Chester L. Brown, Curtiss S. Armstrong, John J. Avery, Jr., Ruth Bernstein, Elsa M. Borgman, Frank M. Childers, Earl D. Cockerham, Sr., Ronald L. Crain,, Richard P. DeAgro, Robert B. Funkhouser.

B. Funkhouser.
William B. Hadwin, Richard H.
Harper, James C. Hughes, Dr.
Adolf H. Knothe, Robert E. Moser,
Jr., Thomas D. Pantoliano, Wallis
C. Rainwater, Isom A. Rigell, C.
Downing Sweat, Jr., Steve W. Tatham, Ira T. Thompson, Leo F.
Walsh, Thomas M. Crutcher, Joseph



GUEST speaker at the recent meeting of the Cape Kennedy Personnel Association was Charles E. Smith, second from left, director of Equa Employment Opportunity, Office of the Assistant Secretary of Defence, Manpower. From left are, Ben Hursey, KSC Chief of Personnel; Smith; Charles Friedlander, executive assistant to the deputy KSC director; and John Hett, director of industrial relations for the Martin-Marietta Co., Cocoa Beach.



Dear Sir:

Our class is taking on the project of an imaginary space flight. We are now concentrating on trying to find means of getting along together peacefully for six (needed in a small weeks space cabin), and would appreciate any material you could send to help us.

> Mrs. Evelyn R. Second Grade Teacher Findlay, Ohio

J. Kolnick, Clyde A. Whittaker,
Jack A. Waldrep.
Robert D. Harrington, Alex Welhan, James R. White, Carl A.
Whiteside, Charlotte R. Shankle,
Mark E. Smith, Jack D. Abercrombie, James F. Murphy, Arthur H.
Moore, Willie N. McClintock,
George E. Morford.
Lurlene W. Lambert, Fern E.
McClurkin, Robert W. Hedick,
Samuel E. Mayo, William A. Underwood, Worthington C. Hildereth,
Annie R. Smith, Roy E. Lealman,

derwood, Worthington C. Hildereth, Annie R. Smith, Roy E. Lealman, Jr., Carl J. Dahl, Elmer E. Murchison, Jack B. King, Patrick A. Obenhaus, William J. Mountz, Jr., Winston L. Kielkopf, Byron C. Driskill, Jr., Mittie C. Smith, Fred A. Mazzanoble, Richard G. Arbic. Joseph M. Bobik, Frank M. Crichton, Paul C. Donnelly, Elmer A. Horton, Harold G. Johnson, Nellie K. Morrison, Robert G. Mungall, Carl E. Roth, Roger F. Weining, John J. Williams, Wiley E. Williams, Kenneth W. Christopher, John H. McCurley, Robert W. Pfau, Ralph Richards, Joseph L. Stoeckl, James E. Keck. James E. Keck.

Contracting Officers Announced By Haworth

Selection of contracting officers for the stage contracts at the Kennedy Space Center has been announced by M. E. Haworth, Chief of the Procurement Division.

These men will serve in the dual capacity of contracting officers with limited monitary authority, and, in addition, will serve as Haworth's contracting officer representa-

They are: Stewart L. Carse. Chrysler; Elbert L. Adams, Boeing; Maurice H. Miller, Douglas; Paul E. Ferris, IBM; and Anthony R. Rosinski, North American.

They will be located in the KSC program offices and will serve as the contact between the Center and the contractor on matters pertaining to the stage contracts.

SPACECRAFT

(Continued from Page 1)

Meanwhile, at the Pyrotechnic Installation Building the Gemini 6 spacecraft is undergoing integrity tests of pro-

pellant systems.

Chief KSC spacecraft test conductor George Page said the "wet mock" simulated launch for Gemini 7, which is virtually a practice count-down, will not be conducted. Cancellation of this step may move up the launch date for spacecraft 7 as much as four days.