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We in the United States are again faced with the responsibility and the opportunity to select the man who will be our President for the next four years. Two-thirds of our congressmen are also to be elected this fall.

A meaningful vote is one of our most precious rights! We have every reason to believe that a government selected by a true majority of our great people will be a good government. However, we must be concerned when millions of our citizens fail to exercise their right to vote.

I urge each of you to study carefully the issues and the candidates — then VOTE.

Booth B. Strange

☆ ☆ ☆

vote vote vote
Western's Headquarters Opens for Business

HOUSTON-BASED Westerners have moved into a striking new headquarters building, the first of six planned structures to rise at the Litton Resources Group's new 26-acre "campus." About 700 employees of Western Geophysical Company have been relocated in the new building from previous offices throughout 14 buildings in the Houston area.

The international architectural and engineering firm of Welton Becket Associates designed the concrete and glass building, which features stepped-back floors and a lobby enclosed with sloping glass. The building is essentially L-shaped, with the lobby forming a triangular space between the north and east wings. A single-level, 28-foot-high tape storage library is located at the west wing.

Exterior panels are of precast concrete with a rough-sawn board finish. These six-foot panels enclose concrete beams and are linked vertically by six-foot ribbons of recessed glass. Machine-finished metal panels encase the first level of the building for environmental and security controls of the data-processing operations. The tape storage building was built of precast, tilt-up concrete panels.

Interior space ranges from 70,000 square feet on the
ground floor to 30,000 square feet on the fifth floor executive level.

The ground floor, designed primarily to accommodate the data processing center equipment, houses the computer systems, playback equipment, reproduction cameras, an active tape library for approximately 365,000 tapes, a 104-seat auditorium with a full stage, and the mechanical plant. Departments located on the first floor include personnel and employment, payroll, personnel records, purchasing, safety, and foreign shipping and receiving. There is also a guard station.

On the second floor are located the marine, land, and special processing staffs (Houston digital center and the land and special problems center). In the south wing, offering a panoramic view of the entire project, is a luncheon area, which seats 300 to 400 people.

Navigation mapping is located on the third floor as are interpretation groups R-6, R-10, and R-12, the latter of which has complete printing facilities; the technical group, including the television studio, the education, art, and public relations departments; instrumentation and field services and part of the Houston laboratory; facilities and construction departments; and general services involving telecommunications, office supplies, and the mail room.

Facilities on the fourth floor include data processing development, research and development, interpretation group R-1, a mini-computer group, a large conference room and book library, and the gravity section.
Corporate offices are located on the fifth floor as are the administrative offices for technology, Eastern Hemisphere, Western Hemisphere, South America, and all finance offices.

Linbeck Construction Corporation of Houston was the general contractor and constructed the buildings on a "fast-track" schedule that allowed basic work to begin before the final details were complete. The result was a savings of several months in construction time.

Construction began October 10, 1974, and except for landscaping was completed 19 months later. Occupants of the fifth floor began moving in on April 1, and the personnel for the fourth, third, second, and first floors moved in at weekly intervals following that.

Transfer of people and equipment from the old headquarters building at 8100 Westpark Drive was closely scheduled and caused only minor interruptions of activity in the various departments.

Top—The interpretation department on the fourth floor, headed by Aart de Jong (left), produces subsurface geologic maps using the full spectrum of processed geophysical data. Working with Aart is Dave Lunsford. Above right—Hard at work in one of the copying centers, this one on the third floor, is Ruth Bryant. Opposite—Worldwide communication with Western’s parties is maintained from this well-equipped radio center on the third floor. At the left is Ron Mitchell. Seated at the console is Benny Berry, supervisor of the communications center.

Checking records at the desk is Chuck Nelson, who is responsible for keeping the equipment operating at top efficiency. Below—The third floor navigation data processing department produces preplot printouts for shipboard use and postplots data logged during a shooting so that each shot point may be properly located. Elaine Mendezo (from the left), Warren Snyder, Phil Hughes, Larry Dibb, James Bell, David Yeary, and Evan Price, department head, admire their new quarters. Bottom right—The second floor drafting department is large and well lighted. Nearest the camera are Sheila Smith (left) and Rose Guez. Bottom left—Crew Solomon (left) is one of many Westerners occupied in keeping up with financial work generated by the Company’s activities. Supervisor Don Luce (right) has been conferring with the accounts payable department.
Above—Dyed leather was used to construct this artist’s impression of a geologic cross-section that decorates the reception area of the fifth floor. On the far left hangs one of the many large photographs scattered on each of the floors that depict Western’s work all over the world. At the right, decorated in the earth tones that are featured throughout the building, is one of the floor’s seven secretarial units where the open landscape concept is portrayed. At her desk Dorothy Huebel is talking with Ralph Lundrum. Center left—Working at some of the Time-Share-Option (TSO) terminals linked directly to the main IBM 370/165 computers are Western’s research department and digital program staff members Sharon Misener (from the front), Bill Curtis, Ling Van Huang, and Ken Larner, manager of geophysical research. Center right—Marc Smith prepares to load a tape in a LRS PRE/SEIS system in the computer center while Bob Malmby watches the equipment. Below left—Office supplies are dispensed from this stock room by Norma Moeller. Below right—Mail is sorted and distributed throughout the building from the third floor mailroom by John Malito (left) and Beverly Lipinski.
Top—Visitors to the lobby get this view of the main computer room that houses the central processing units, the memories, and the disk storage for two IBM 370/165 computers, as well as some smaller units. Operators attend the computer room monitoring station only when analyzing operations or when trouble shooting. Above left—The computers in the above photo are fed by the tape drives and card readers from this adjoining room. The results that are generated are returned to the magnetic tapes or printers. At the left is Lou Metcalf, and Terry Knox is watching the monitor. Above right—Digital tapes from the processing center are converted to seismic cross-sections in the playback center. At work are T. W. Eubanks (left), and Debbie Haney. Center left—The active tape library has storage space to accommodate an additional million and a quarter reels. The crew that is locating and returning the tapes includes Russell Irish (from the left), Teetsa Stavas, Liz Edwards, and Russell Mai. Below left—Members of Western's foreign shipping department who see that every crew gets what it needs regardless of the remoteness of its location are Rufus Anderson (from the left), Don Gregory, head of the department; June Downs, Gayle Riese, Lewis Turnage, Therese Tivcoske, Don Scott, Joe Young, Mark McCoy, Jim Harrison, Howard Sheffield, and Pale Starks.
Top left—Building security centers at this television console in the guard station where guards Ron Cooley (left) and Earnest Jean monitor and control the remote cameras located in all critical areas. Top right—The instrumentation room in the field service department on the third floor is set up to service all types of recording and processing equipment. Setting up the PRE/SEIS system are Ronald Higgins (left) and Glenn Gilliam. Center—Indoor plantings and an outdoor patio make this an attractive spot for lunch and coffee breaks. At the center table are James V. Carpenter (from the left), Marion Anderson, and Dan Paddock. At the right are Diane Green, David Swearingen, and Cookie Jackson. Opposite—Complete facilities for production of color videotapes for Western’s extensive education and training programs are contained in the third-floor studio and control room. At the console is Bob Watson, the assistant audio-visual director.
This Is Trinidad

The dense jungles of Trinidad reach right down to the shoreline in this view of the north coast of Trinidad near Maracas Bay, a tourist attraction.

Story and Photos by W. E. Boone

Only seven miles offshore from Venezuela lies the island of Trinidad. This island, inhabited by approximately one million friendly, English-speaking natives, is the present home of Party 42.

The first people to call this island “home,” however, were the Carib Indians, who inhabited the island when it was discovered by Christopher Columbus on July 31, 1498. Columbus named the island Trinidad, or “the Trinity.” About two weeks later, Columbus discovered another island that lies 20 miles northeast of Trinidad. This island, now called Tobago, and Trinidad today make up the present-day country of Trinidad and Tobago.

The Spanish retained possession of Trinidad for three centuries while Tobago changed hands many times. During
Party 42's tent camp is being built on the foundations of an old golf course clubhouse by crew members Driller-Mechanic Humberto Chaparro (from the left), Party Chief Bill Boone, Driller-Mechanic Felix Gutierrez, and Party Manager Gus Gomboa, while Cecil Philip, expeditor, and Doakles, a crew captain, watch. The crew arrived in January.

Party 42 camp tents are being put up by two unidentified laborers as Driller-Mechanics Humberto Chaparro (left) and Felix Gutierrez discuss the erection and the placement.

The first charge, exploded as part of an up-hole test, is set off by Party 42. A safe distance away are the camp and onlookers.

these early days the Spanish, French, English, and others struggled for control of the two islands, which produced cocoa, tobacco, sugar, rum, and molasses. Unusual geologic circumstances created an accumulation of heavy hydrocarbons (asphalt) in a small area in the south known as Pitch Lake. The Spanish extracted a lamp oil from this pitch in the early 1700’s, but the importance of this resource was to remain minor for many years.

Great Britain captured Trinidad in 1797 and Tobago in 1802. The two islands have remained British ever since. During the early days of British control, the main product of Trinidad was sugar. Large plantations were worked by African slaves; but with the abolition of slavery in 1838, labor became scarce and thousands of East Indians were brought over as indentured servants to work in the sugar industry. With a population which is 43% Negro, 36% East Indian, 16% mixed, 2% European, and 1% Chinese, Trinidad presents a picture of racial harmony matched in few places in the world.

Trinidad and Tobago became a self-governing member of the British Commonwealth on August 31, 1962. At present the country is governed by a bicameral parliament and prime minister, and a governor-general represents the crown. A new constitution, however, is under consideration, which would make the country a republic.
Party 42 set up shop on an old abandoned golf course. The 18th green, which is partially visible in the foreground, has been fenced in and put to an ungolf-like purpose—storing explosives for the Trinidad crew.

A hill in the jungle provides a panoramic view of San Fernando, where Party Chief Bill Boone has an office and a warehouse.

A Party 42 charge is set off in the dense jungle of Trinidad by Observer Paul Rueter (left) and Trainee Shooter Pittyman as Trainee Shooter Ramesan looks on. It is the first time in more than 10 years that any Western party has been working on this island in the Caribbean Sea.

The Party 42 drill unit is at work. Driller-Mechanic Humberto Chaparro kneels to clean out the mud pit while Vibrator Mechanic Harvey C. Whiteman walks off to get another drill joint. Operating the drill are Party Manager Gustavo Gamboa (left), Observer Rigoberto Ruiz (behind the drill), and Driller-Mechanic Felix Gutierrez. The crew began arriving in Trinidad in January settling near Santa Flora.
Carnival is such a colorful event that it is little wonder that photographers keep turning up in other photographer’s pictures. Everyone wants a photograph of all the bands and dancers who turn out for the two-day Carnival held just before Lent begins.

Steel bands, a Trinidadian invention, always accompany the masqueraders as they dance through the streets of Port-of-Spain, the nation’s capital. Members of the band are referred to as “panmen,” but our photographer, after a search, found a “panwoman.”

The country of Trinidad and Tobago has given birth to two art forms, the steel band and calypso music. The steel band has to be heard to be believed. Steel oil drums are cut and tuned by master craftsmen who use a hammer, blowtorch, and tuning fork to obtain a variety of notes from each drum or “pan.” A steel band consists of as many as 70 members, called panmen, who beat the steel drums, each one having a different range of notes. After hearing music played in this fashion, one would swear that there is an organ hidden somewhere among the steel drums.

Calypso is a folk art with origins in the musical past of all Trinidadians. The roving minstrel, singing songs of current events and popular interests, as well as the African rhythms, has inspired this art form. Calypso singers sing of current events, politics, history, and items of general interest, which is primarily CARNIVAL!

Carnival is celebrated on the Monday and Tuesday before Ash Wednesday. Preparation, however, is begun months in advance with the making of elaborate costumes for the masquerade (called “Mas” by the natives), the composing of new calypso songs by the artists, the tuning of steel drums, or trying to get tickets to the various events.

The festivities begin on Sunday night with Dimanche Gras. This features brass bands, dancing, and calypso. The music and dancing continue all night and into Monday.
Bands of masqueraders flood the streets of Port-of-Spain, Trinidad's capital, during that island's annual two-day Carnival.

Many of these costumes worn by the masqueraders have taken months to prepare because of the amount of details in each costume.

This elaborate costume, which looks more like a float than anything else, took months of work to make. The heavy costume is worn for the parade held on the Monday and Tuesday before Lent.

It may take five people to steer and guide this elaborate-looking creation, but essentially this is a costume for only one person.

morning. On Monday is Jour Ouvert when the general public mixes and dances with the masqueraders prior to the latters passing by the reviewing stands in a more or less organized fashion. The Parade of Bands begins on Monday and is repeated on Tuesday. Bands of masqueraders, sometimes numbering more than a thousand persons, accompanied by truck-mounted brass bands, dance (the dance is called "jumping up," and this fairly well describes the steps) through the streets of Port-of-Spain, the capital of Trinidad and Tobago. Bands and individual costumes are judged. A very high honor is that of being named king or queen of Carnival or to be a member of the best band.

This year, during the weeks before Carnival, other preparations were being made. These preparations, however, were for the opening of Party 42, the first land seismic crew to operate in Trinidad in more than 10 years. The oil industry in Trinidad, which was born in the extraction of lamp oil from the Pitch Lake asphalt, has grown to the extent that it is now the most important resource in the island. Oil companies in Trinidad are seeking to discover more potential reserves both on and off shore.

Party 42 was organized to assist in the search for additional reserves on shore. Co-ordinator, Latin American Operations, Keith Leavitt and Party Chief Bill Boone arrived in Trinidad in January to initiate the new crew.
Many tourists, natives, and crew members of Party 42 think that the Maracas Bay beach is the best beach in Trinidad.

A view of the Carnival parade in Trinidad also provides a view of racial harmony that is matched in very few places in the world.

Party 42 members were selected from other crews operating in Latin America. Party Manager Gustavo (Gus) Gamboa was the next to arrive, coming from Party 44 in Colombia. Driller-Mechanics Humberto Chaparro and Felix Gutierrez and Observer Rigoberto Ruiz were recruited from Party 49, which was operating in Ecuador. Vibrator Mechanic Harvey Whiteman came to us from Party 76 in Mexico, and Observer Paul Rueter arrived from V-19 in Bolivia.

A tent camp was erected on the remains of a golf course clubhouse, near the town of Santa Flora. Additional living quarters were obtained in Santa Flora, where a staff house-field office is maintained. Bill Boone lives in San Fernando, near his office and warehouse.

Felix Gutierrez and Humberto Chaparro have been spending their time teaching the local laborers how to drill shot holes while the local laborers have been teaching Felix and Humberto how to speak English. The language now spoken on our drill crews can best be described as an X-rated mixture of Trinidadian English and Costeño Spanish.

Rigoberto Ruiz and Paul Rueter have been training the recording crew. English is the main language used, and the first problem that was overcome was explaining to the local laborers that “Casa Blanca” referred to the recording instruments and not to an old Humphrey Bogart movie. After this initial problem, the “casa blanca” crew received instructions from Paul on the proper manner of picking up, carrying, and laying out the geophones and cables. Rigoberto runs the instruments and communicates to his men on the lines through what is, by far, the best telephone system on Trinidad.

Vibrator-Mechanic Harvey Whiteman keeps our supply trucks rolling and has taken charge of making the camp more comfortable. His latest addition is what he claims to be a portable hot water shower.

Gus Gamboa has been running this hard-working crew, overseeing all phases of the operations. This party is unique in our Latin American operations in that it is the only one in which the expatriate staff speaks Spanish and the local labor force speaks English. In addition to Gus' other qualifications, he is conversant in both languages, a great help to the crew.

Two members of Party 42, Paul Rueter and Bill Boone, will soon be leaving Trinidad for new assignments. Paul will be replaced by Observer Mario Comacho, from Party 45, and Bill by Tom Walker, from Party 44. Mario and Tom have both recently been working in Colombia. The crew looks forward to welcoming its new members.

Recent visitors to Party 42 have been Keith Leavitt, Instrument Supervisor Julius A. (Ras) Rasmussen, Seismologist John White, and Field Service Engineer Wayne Tillery, all from the Houston office. Party 42 looks forward to more visitors to this sunny land of calypso music and steel bands and of beautiful beaches and lush forests.
EMPLOYEES, families, and friends of Western Geophysical Company were treated to two nights of Open House to mark the official opening of our new headquarters building in Houston.

Groups toured the building both nights as guests were given a chance to visit the many departments housed in the new structure. After winding through the building, floor by floor, the groups were led to the lunch area where a catering service had set up a beautiful buffet of hot and cold refreshments.

About 300 representatives of client companies were given special, but informal, tours the first evening. An even larger number of friends and families of Westerners visited the headquarters the following evening.

This occasion was made especially significant for Westerners by the presence of the Company's founder, Henry Salvatori, and his wife, Grace; the second president, Dean Walling, wife Thelma, their daughter Joan with her husband, Dr. David Halbert, and granddaughter Belinda.

Photographs were taken on Thursday evening only. Among those missing were Senior Vice President Neal Cramer and Vice Presidents Ben Thigpen and Charles Dick, who were out of town. Also, the Wallings attended only Friday evening's festivities.

Organization of the special events was handled by Don Blue and C. J. Phillips.
Shown on pages 14 through 18 are 
some of the guests who attended the Open House. 
all are identified from left to right, 
and this (W) after a name denotes a Westerner.

Mr. and Mrs. A. V. Hargiss 
and Hollis Scoggin

David Caliga (W), Barkley Souders, 
Dan Underwood, and Dick Miles

Mr. and Mrs. Bill Richardson 
and President Booth B. Strange (W)

S. T. Spradlin, Mr. and Mrs. Ernest Moore, 
and Supervisor Roscoe Sullivan (W)

Sandra (Mrs. Carl) Savit (W), Senior Vice Presidents 
Carl Savit (W) and Howard Dingman (W), 
Henry Salvatori (founder and former president W), 
and President Booth B. Strange (W)
Joe Imirie (Litton senior executive vice president), President Booth B. Strange (W), and Henry Salvatori (founder and retired chief executive officer W)

Mr. and Mrs. H. E. Stommel and President Booth B. Strange (W)

Mr. and Mrs. Paul Howe and Dr. E. J. Mateker (W and president Aero Service)

Laura (Mrs. Booth) Strange (W), Lolita (Mrs. E. J.) Mateker (W), and Margie Kay (Mrs. John) Russell (W)
Mr. and Mrs. Dean Hammond and Mrs. Al Stewart

Mr. and Mrs. Bill Tucker, Digital Manager and Mrs. Jimmy Jordan (W), and Mr. and Mrs. Roy Knight.

Supervisor Jack Litchenberg (W), Mr. and Mrs. Dan Tudor, and Jerry Morrison

Bob Peacock, Maxene Lund, Bart Groves, and Walter McNeil

Bob Childress, Supervisor Roscoe Sullivan (W), and Matt Kirkland

Mr. and Mrs. Bill Frew and Mr. and Mrs. Adrian Becker
Above left—Quality Control Supervisor Bill Walz (W), Mr. and Mrs. Neal Clayton, and Supervisor Roscoe Sullivan (W). Above right—Mr. and Mrs. Cecil Rhodes, Mr. and Mrs. Jim Murphy, and Don Payne. Center left—Mr. and Mrs. E. E. Fickinger, Mr. and Mrs. R. W. McWilliams, Becky Arrington, and Lee Lundstrom. Center right—Mr. and Mrs. Bryan Claunch, Clif Phillips (W—personnel recruiting and training), and Art Thompson

Left—Three presidents of Western were present during the Open House. Western’s founder and first president, Henry Salvatori, is in the center; at the left is Dean Walling, the second president; and at the right is Booth B. Strange, third president and current chief executive officer. With Mr. Walling looking on, Mr. Salvatori, on behalf of the Company, presented a pair of cuff links to Mr. Strange marking his 40 years of service with the Company. The first two presidents came from the Los Angeles area to Houston for the festivities.
What Does Western Do?

World’s Oil and Gas Industry Relies on Our Seismic Surveying

The first article in this series (PROFILE, Winter 1975) was intended to give its readers a basic understanding of how oil and gas is formed and trapped in the earth. In this article I have tried to give a simplified view of Western’s role in locating these oil and gas reserves.

The Western Geophysical Company name is known all over the world as one of the leaders in the oil and gas industry. Although Western does not actually find oil and gas, we have earned our reputation by providing our clients with the best possible information from which they can decide where oil and gas traps might be found. In fact, one might say that we at Western are really in the surveying business.

The end products of the surveys that we make are maps of the layers of rock in the earth ranging from the surface to depths of as much as 10 miles (16 kilometers) or more. Nearly all of our surveying work is done by using the seismic reflection method. The basic idea behind this method is to create a loud sound at a spot somewhere in the earth and then record all of the echoes that come back to that spot from inside the earth in the first six or eight seconds.

Usually we make the sound at one spot and listen at many spots. Our “listening” devices do the job of microphones; that is, they receive the sound waves and convert them to electrical signals. The listening devices that we use on land are technically called “geophones” or “seismometers,” but the people who work with them usually call them “jugs.” Listening devices used at sea are called “hydrophones.” They do not have a nickname, probably because they are not handled individually by the members of the marine field crew.

All of the listening devices are connected by cable. When a crew is ready to record the echoes, the cable is hooked up to the recording instruments in the recording truck or on the seismic ship.

Fig. 1—In the early days of seismic surveying, shots were fired at widely separated places along the line of survey, and reflections came from separated spots in an underground layer.
In the early days of seismic surveying, we used simple techniques to create the loud sound and record its echoes. We would explode a charge of dynamite in a shallow hole and listen at a few places and then move ahead a considerable distance and repeat the whole procedure. (Fig. 1) The main problem was to recognize any reflections that we might have received and to figure out which reflections from a given rock layer at one position corresponded to the reflections from that same buried rock layer that we found at another position. We did not even attempt to get more than one reflection from any one spot on a reflecting layer.

All of the work of deciding when we had found a reflection and which reflections from different points matched up was done by people on the field crews. All of the calculating was done by hand, by people whose job title was “computer.” (Fig. 2)

During the last 20 years, machines have become available to handle much larger amounts of seismic information. Now, instead of looking at each underground spot only once, we have adopted field methods that let us look at each underground spot two or three or more times and then average the results. Today it is not unusual to set up in such a way that we record 48 reflections from each reflecting point and use an average of all 48 as our result. By averaging many measurements of the same thing we greatly improve the accuracy of our results. We can average out the effects of small differences in the earth between our shot and the receivers. The result is a much clearer picture of the earth’s layers than we previously could make.

In order to appreciate what our new computing machines have to do in making up all these averages, let us look at a typical marine operation. The ship tows a two-mile-long (3-kilometer) cable with 48 groups of hydrophones. The groups are about 220 feet (67 meters) apart along the cable. Each time the ship moves ahead one-half the group distance, about 110 feet, a shot is fired. This activity goes on continuously, hour after hour. Many reels of magnetic tape are used to record all of the signals received by the hydrophones. The computers (machines, this time, not people) sort out which hydrophone group signals go together to make up one average. They must also take into account and correct for the fact that the sound waves travel different distances to the same re-

![Diagram](image-url)
Western’s sister company, Litton Resources Systems, now builds a special digital computer called the PRE/SEIS™, which can carry out this job with ease.

Although our current equipment and techniques have opened up new areas to petroleum production, the pressing need for more oil and gas is creating a demand for even clearer pictures of the earth beneath us. Western is hard at work designing new field techniques and computing equipment to keep us in the lead in quality seismic surveying.

Fig. 3—As the seismic ship fires 48 shots at intervals of half the hydrophone group spacing, the same reflecting point sends a reflection to each successive hydrophone group along the cable.

It is up to the computer programs to select which records to combine, to correct for the different lengths of sound path, and to adjust for minor irregularities in ship speed or shooting intervals.
Car Batteries Are Dangerous, Should Be Handled with Care

The Explosive Truth About Batteries. “Have you ever seen a battery that has exploded? They’re just like the millions of batteries installed in passenger cars, trucks, and other vehicles. Explosion usually occurs when the battery is being charged. The conditions were just right and bang—the battery blew apart and sent parts of the cover and sides and a good deal of acid flying out in all directions.

“This could result in the loss of an eye through acid burns and the entrance of high velocity pieces. When batteries blow, they go like a hand grenade, and that can be very dangerous.
“The questions that come to mind, then, are why do batteries explode and how to prevent explosion.

“During charging, the lead sulphate of the positive plates is reconverted to lead peroxide, and the lead sulphate of the negative plates is reconverted to sponge lead. This chemical reaction releases hydrogen gases which bubble up and out through the battery cap vent holes.

“When the battery is being charged, the hydrogen and oxygen gather around the top part of the battery, just above the electrolyte or acid, and then vents out through the holes in the caps. This venting process leaves an accumulation of gases around the top of the battery, and the area around the battery becomes a potentially explosive atmosphere. Should there be a spark near these gases, they will ignite and explode, and the explosion will be carried right down into the battery.

“To prevent an explosion during charging, sparks must be kept from getting into the battery or near its top. It is a little like working around gasoline: one good spark and you can blow yourself right out the door.

**Using a Charger**

“First take those safety goggles out of the closet and put them on. Then remove all the vent caps and cover the holes with a damp cloth (we’ll explain the reason for the cloth later). Be sure the switch is off on your charger, and connect the clamps to the battery posts if you are charging a battery on a bench. If the battery is in the car, connect the positive clamp to the positive post first and then take the negative clamp and connect it to a good ground at least 12 inches away from the battery. Just in case there is a spark, it will be far enough away from the battery to minimize the possibility of igniting the gases. After the battery has been charged, be sure that you switch off the charger before you attempt to disconnect the clamps from the battery. If you are near enough to an air line, it would be a good safety precaution to blow air across the top of the battery both before you attempt to hook up, and just before you remove the cables.

**Boosting from a Live Battery**

“The more hazardous job is boosting from a live battery to a dead one. The risk is higher here because you are dealing with two batteries and because you cannot switch off the booster as you did the charger.

“When boosting, the first thing you should do is open the hood of the car you are to boost so it can ventilate and blow some of those gases away while you are getting out your booster cables. You could carry a rubber bulb with you and give it a few squeezes across the vents to help remove the gases from the booster battery and the dead car battery.

“Now take off the caps from both batteries and lay damp cloths over them (the batteries). If you don’t have a cloth, loosen the caps and put them back in the holes, but don’t force them down. This will prevent them from blowing out if any gas accumulates.

“At this point you are ready to connect your cables in the following sequence. First, take the red positive clamp from the cables and attach it to the positive post of the booster battery. Put the other end of this cable on the positive post of the dead battery in the car. Be sure at this point that the cars are not touching or are not in any way electrically connected. Take the green or black negative clamp of the booster cable and put it on the negative post of the booster battery. The remaining clamp now goes on the car but not on the negative post of the car battery. This clamp goes to a good solid ground on the car at least 12 inches from the battery. You can use an ear on the manifold or some heavy part that will accept the clamp. Don’t put it on the air filter or some thin metal part that will melt as soon as you send the starting current through it.

“One you have started the car, remove the cables in reverse order, starting with the ground to the block and keeping in mind that you are trying to avoid sparks at both the booster and the car battery. If you did use a wet cloth, throw it away because by now it is soaked with acid vapors and if you stick it in your pocket it’ll rot a hole right through to your jockey shorts. The reason for the rags is to act as a flame arrester over the vent holes while allowing the gases to pass out and the dirt to stay outside the cells. Should a hot spark hit the wet cloth, it will be extinguished before it can ignite the gases in the cells.

**Beware the Frozen Battery**

“There is another cause of battery explosion that is worth thinking about, too. When a battery becomes discharged and is left out in freezing temperatures, it may freeze. If you put your booster cables on a frozen battery, there is a very good chance it will blow right there in the car. If you know that a car has been out all night during a freeze, don’t attempt to boost it until you have looked into all the cells.

“If there is ice in there or you can’t see any electrolyte, then you have a frozen battery. This battery must be allowed to warm up until the ice melts. Then and only then should you attempt to put a charger on it.

“Keep in mind that any sort of spark, whether it be from a welding torch, air-conditioner leak tester, cigarette, or sander, can ignite battery gases. If you ever get a faceful of acid, run like the devil to the nearest water fountain or hose and flush your face and eyes with water. If you can’t keep your eyes open, get someone to help you. But get that acid out of your eyes, and fast! Get out of those acid-soaked clothes and call a doctor.

“Remember, treat your battery with the same respect you would a tray full of gasoline.”—Niles, Illinois Fire Division of Training
PARTY V-94—NORTH SLOPE, ALASKA . . .

RICHARD MOFFATT, Reporter
DAN BOGA, Photographer

The latter part of January marked the onset of Party V-94’s start-up for this season’s arctic operations. It began at the Itkillik pad when DAN BOGA, vibrator mechanic; RON BECKER, mechanic; GENE NASH, cook; WAYNE FERGUSON, camp attendant; ROGER HOLME, surveyor; RICHARD MOFFAT, field clerk; and Party Manager D. E. (DEL) HILL started digging the camp out of its summer’s “hibernation” and generally getting ready for the rest of the crew, who would soon be coming out.

The next group to follow was A. R. (SONNY) BOYD and JIM BRUCE, vibrator mechanics, and RON DIVEILBIS, vibrator operator. They began reviving the vibrators from their long summer shutdown. This proved to be quite a project, and so reinforcements were sent from Houston in the form of vibrator Supervisor LAWRENCE DOWDY.
Vibrator Mechanic Sonny Boyd (right) and Vibrator Supervisor Lawrence Dowdy are changing a flat on the vibrator shop vehicle prior to yet another camp move by Party V-94 on Alaska’s cold North Slope. The camp moved 38 times during the year.

Party V-94 moved camp many times to keep up with the pace of its crew. Here two “cots” are ready to move the camp strings again.

Vibrator Mechanic Sonny Boyd is shown using a portable heater to help warm the engine of a vibrator so it will start in 40°-below-zero weather. It is a daily chore for those on Party V-94 crews.

A vibrator shaker is being checked by Party V-94 Vibrator Operator Ron Divelbiss (left) and Vibrator Mechanic A. R. (Sonny) Boyd.

With his unwavering attention and stalwart attitude, V-94 was ready to shake. Steve Clason, technician, and Dale Hoyt, observer, prepared the “doghouse” while John Boss, cable pusher, got the cable and geophones in order. Steve was ably relieved from his technician’s duties for time off by Assistant Instrument Supervisor Ken Jenkins, who also did a fine job. Field Supervisor Jerry Patrick came out and helped the crew and also relieved Del Hill during Del’s break, for which he went back to California.

Once things were ready to roll, Bill Tackett, surveyor, scouted the trail ahead as the camp followed behind; winding its way down the Colville River to the site of this year’s prospect on the arctic ice. We began operations with Lonnie Parker and John Ray operating the air gun. When long drives were encountered, we used a helicopter to shuttle the crew to and from the field. For some persons, such as Dave Guyer, Kevin Cox, Carl Watters, Jim Rossco, Lyle Aspergren, Vern Marquardt, Luther Fragodt, and Dan Tweter, all helpers, this proved to be a unique experience since helicopter flying was entirely new to them. The chopper also slung cables for the recording crew, and V-94 was sorry to see it leave. By the time, however, the air gun work was complete and the vibrators were ready, we were itchin’ to go. Go we did; by the end of the season, camp had been moved 38 times just to keep up.
Vibrator Operator Jim Bruce fills his vibrator's tank. Jim was among the first of Party V-94 to arrive for the season's work.

Cook Gene Nash, although smiling, looks as if he is in a hurry to return to the warmth of his kitchen to fix a meal for Party V-94.

Vibrator Mechanic Sonny Boyd (left) and Vibrator Supervisor Lawrence Dowdy look over equipment in Party V-94's vibrator shop.

Lonnie Parker prepares to board Party V-94's helicopter, which is used to shuttle the crew to and from the field. The helicopter is also used to sling cable for the party's recording crew.

As the season progressed, V-94 picked up personnel from various other crews that had finished earlier, including Jerry Fulkerson, observer from Party V-11; John Fogg, Lonnie Owens, Mike Thrasher, Steve Amerine, and Paul Burns, all helpers from Party 95; and Mike Harris, helper from Party 199, and Michael Heil, helper. Driller Harold (Butch) Komarek and his helper, George Vela, both from Party 95, joined us at about the same time. Jim Clamp, expeditor, was really kept busy in Anchorage when we started up—obtaining items from pencils to geophones—and he did an excellent job.

Production ceased toward the end of April, and the camp returned to the Itkillik pad where it is waiting for start-up again next season.
PARTY V-12—WEST-CENTRAL ALBERTA . .

CLEM WOLFATER, Reporter
WARREN BENEDIK, Photographer

Led by Party Manager Ed LORENOWICZ, Party V-12 set off on December 10, 1975, for the Peace River country of northern Alberta. The terrain around these areas is such that even the “cat” contractor did not believe in detours around the hills; so he cut them right over and on line, earning himself the name “Chief Hack-em-up!”

On weekends some of the crew would go into Fairview, Alberta, a small farming community 35 miles south of camp. It was on one of these weekends that Vibrator Operator FRANK SERA met a lady named SHARON. Observer WARREN BENEDIK and Vibrator Technician JIM HENRY seem to think that come summer both FRANK and SHARON will be sharin’.

To date our recorder has sent out 30,796 sweeps, each one dutifully recorded and written down by Vibrator Operators DOUGLAS (ACE) BAKER, KEEN FIELD, and ROD HUNTER, who complain that the lines are too rough to read their “shoot-em-ups” and that ROD just wants “time off.”

Party V-12’s line crew consists of Line-truck Drivers JOHN NICHOLLS, KEITH JOHNSON, and HERB DIXON. Ed LORENOWICZ keeps promising the “juggies” that he is going to come out and “show them the way it’s done.” Although he never seems to find the time, the juggies keep anticipating.

A Party V-12 vibrator (in the center background) is ready to come down a steep hill in a coulee near the Peace River in desolate northern Alberta.
Helpers on Party V-12 are: Dave Wallace, Roger Keen, Bruce Forster, Ralph Hauger, Lorne Pruden, and Glen (General Hand Grenade) Tallis. Surveyors Henri Unverricht and Jack Thomson and Assistant Surveyor Rob Martin keep everyone on line while Rodmen Jim Rothery and Brent MacLean get to hold the rod and yell “chain.”

Jean Duguay and Fred Allain, cook and cook’s helper, respectively, ride the kitchen range and always manage a surprise come “chow time.” “Fred’s bread” is becoming a byword in the Peace country—mm, good! Camp Attendant Wilf Joff is our man of the morning: “O.K., everybody, it’s 6 A.M.” Rick Gooc is our field clerk.

Driller Bob Koochicum tries to keep ahead of “Pop-corn Karl,” a weathering crew that tags along with V-12. So far Bob has had some trouble with his rig—it keeps getting stuck.

Vibrators, line trucks, and equipment are maintained by Mechanic Charlie Coull and Mechanic’s Helper Mike Hitchner. Vehicles are left running 24 hours a day, and temperatures average −20°C. (−4°F). This winter has been exceptional; in years past the temperature can drop and stay at −30° to −40°F, for weeks!

Our winter is now officially half over, and plans are being made for the “spring break-up.” Of course, rumors of “Just a few more miles, one more line,” and the like circulate, and everyone vows “Never again,” but—see you in ’77.
The terrain is rough, but that does not stop Party V-12 vibrators from shaking down the "cat" line through the back-country bush in Alberta.

Vibrator Technician Jim Henry burns trash at the end of a day with Party V-12 in northern Alberta.
PARTY F-9—PENNE, ITALY . . .

ROMANO TASSI, Reporter
MARCO JOVANOVIC, Photographer

After many recent moves, Western Ricerche Geofisiche’s Party F-9 has now settled in the city of Penne, which is in the Abruzzo Region of east central Italy and is situated at the foot of the eastern slope of the Gran Sasse d’Italia, (2,914 meters, 9,564 feet), the highest peak of all in the Apennine chain. The Adriatic Sea is only 15 kilometers (9 miles) away. Penne (the ancient “Pinna” of Roman times) is a beautiful and gay city, located in the hills 438 meters (1,438 feet) above sea level, with a population of approximately 12,000 inhabitants.

Penne has many attractions—its nearness to the Adriatic beaches, its mountains, its pure fresh air from the mountains to the west or the sea to the east—so much so that it is the preferred resort for many holidaymakers, not only from Abruzzo but also from neighboring Regions. Today it is the center, “The city,” for the people of the Pescara inland and of nearby Teramo. Truly picturesque weekly markets and monthly trade fairs are important local events. Lately this zone has been included in the Government development program of the Vestina region.

The countryside around Penne abounds in the cultivation of wheat, grapes, and olives in great quantities, though naturally to a lesser degree towards the boundaries of the Apennines where many small villages lie. Though primarily an agricultural region, Penne has always been a flourishing center for handicraftsmen, due largely to its geographical position, i.e., far from large industrial areas. There are still blacksmiths, carpenters, shoemakers, dressmakers, and artisans of the handicrafts. Many graduates of the local art schools produce artistic works of copper, wrought iron, tapestry, carpets, and embroidery. There is even an American clothing factory here, which has around 500 employees. Also, the city boasts of dozens and dozens of small locally-owned industries engaged in almost all of the handicrafts.

It is sometimes easier to use animals for carrying gear than trucks or people. Thus, this animal became a “cable-horse” for Party F-9 in Penne, Italy.
It is impossible to say exactly in what era the city of Penne was founded, but it is certainly very ancient as it is mentioned in the works of Tito Livi, Silvio Italico, Polibio, and Vitruvio. The city had San Patras as its first bishop, one of Christ’s 72 Disciples. Saint Francis of Assisi’s visit here marks another important historic event for the city. It still has archways, belfries, medieval churches, remnants of the Renaissance era, and splendid baroque architecture.

As far as local gastronomy is concerned, the typical dish is “maccheroni alla chitarra,” which is a kind of “pasta” made from a mixture of flour and eggs. A sheet of pastry is passed through the strings of a special implement, which has steel strings like a guitar. Long, square strands of “pasta” emerge. This square spaghetti is then placed in a pot of water and brought to a boil. When it is ready, bits of meat, lamb, and tomato sauces are added. Other specialities are roast suckling pig and pure pork sausages.

In this friendly environment made up of genuinely polite and hospitable people, the personnel of Party F-9 found themselves at ease even though many of them, without doubt, missed their far-off families.
The crew is composed of 47 men. The party manager is Albert Chiari, a veteran of more than 25 years, who is on vacation at this writing. Romano Tassi, another veteran, who has served for almost 20 years, is Alberto's vacation replacement. The observer, Umberto Lombardo, is married to Maria and is the father of a beautiful 5-year-old little girl, Tiziana. Assistant observer Anzalio Simoncini is nicknamed "Simone" by his friends. Marco Jovanovic is the topographer; he is assisted by Giorgio Masotti. The permit agent is Roberto Vancini. Office duties are handled by Computer Emidio Di Sabatino, married to Maria Stella and father of a 4-year-old son named Fabrizio. Both wife and son wait for Emidio longingly at home. In closing we must mention our shooter, Angelo Margola, the daring parachutist of World War II.

In a short while the crew will leave Penne to move to Porto Garibaldi in the Ravenna area, which locality has been earlier featured in the Western Profile's pages of some years ago. (Before moving to Penne, Party F-9 worked 200 miles north, in the province of Forlì of the Emilia-Romagna Region. It is in this area that our front cover picture was taken.—Ed.)
Helper Gordon Fox works as a flagman while Party V-9 vibrators work on Highway 15 near Starkville, Mississippi, wintering in the warm South.

On the way to work are Party V-9’s Jug-truck Driver Larry Ferree (left), Vibrator Operator Jim Young, and Observer John Eckhart.

PARTY V-9—BATH, NEW YORK...

STEVE TURNER, Reporter-Photographer

After being on continuous spike work since October 30, 1975, Party V-9 can truly say “Spiking Is Our Business.” The crew spent all of November, all of December, and most of January in Clarion, Pennsylvania, and later in Franklin, Pennsylvania. Most crew members enjoyed the Pennsylvania work, particularly in Clarion, a college town.

Clarion offered a variety of night spots, restaurants, and pretty coeds to look at (and sometimes talk to). Most of the crew stayed at the Captain Loomis Hotel while the party manager, permit agent, and observer enjoyed the attributes of the new Sheraton Inn. It included an indoor heated pool, rooms facing an enclosed garden courtyard, pretty barmaids, and the like. We just cannot understand why no one ever heard even one complaint about the Sheraton Inn.

Cold weather and almost continuous snow hampered our efforts in December and January. One morning in Franklin, the thermometer dipped to 20° below zero. It was so cold that none of the vibrators or jug trucks would
start. Needless to say, we did not work on the line that day. A few days later, however, we received a phone call from Supervisor Joe Walker asking how we felt about spending the rest of the winter in Mississippi. Our first reaction was “Are you kidding?” “No” was, of course, the reply. Very few crew members knew anything about Mississippi. Those of us who did know were not saying much.

On the morning of January 31, with some reservations, Party V-9 left Bath, New York, bound for Starkville, Mississippi, some 1,100 miles away. To say that the trip was eventful would definitely be an understatement. After five days on the road we finally arrived in Starkville late in the afternoon of February 5.

After nothing but snow and ice for two months, the warm, spring Mississippi weather was almost unbelievable. Our fears about Mississippi were quickly erased once we discovered that Starkville was a college town (Mississippi State University), complete with night clubs, good motels, and, most certainly, those “Southern Belles.” Most of the crew descended upon the Plantation Belle Motel and found that part of the motel was being used by Mississippi State University for women’s housing. Not one complaint was heard from any of the crew members staying there.

During our stint in Mississippi, Party Manager Guy Brazell, Permit Agent Tom Fettig, and Observer John Eckhart enjoyed several weekend trips home to Bath. On one such trip, now referred to as the “big fish story,” John claimed that he caught 100 bass, the biggest ones weighing in at about a half pound. Our only comment is that he really used a smaller round figure to describe his catch. On another of those weekends, Guy and Tom lost their luggage. Luckily, they got their bags back in time to make the return flight.

Several crew members enjoyed vacations during our stay in Mississippi. Guy spent a week at home with his family; but, after his week had run out, he very quickly returned to Starkville (we believe he really liked the place). Junior Observer Gary Olter left during the Easter break to spend two weeks with his family in Gaylord, Michigan. Tom Fettig flew to Jeffersonville, Indiana, to spend several days with his family. His stay there was very relaxing. Upon returning to his motel room in Starkville, however, he discovered 50 live “chirping” crickets crawling everywhere, and his bathroom was “swimming” with minnows. The room extras were provided courtesy of the motel staff and the party manager. Tom’s first comment was “At least it wasn’t spiders and snakes.”

The whole crew enjoyed a four-day break during the Easter weekend. Our vibrator operator-brother combination took trips in opposite directions. Jim Young and his family traveled to Panama City, Florida, and Biloxi, Mississippi, to rest and soak up some sun. Brother Jeff Young, with his wife, Marsha, drove to Midland, Texas, to visit brother John Young (a surveyor for Party V-8). Asked about how he liked Texas, Jeff commented, “It all looks the same mile after mile.” Vibrator Operator Harold Dickinson, Jr., and his wife, Swanie, traveled to Houston to visit former crew member Bill Derington, a junior analyst at the Houston data processing center. Harold said that he enjoyed the trip—and hoped that
whoever stole his CB radio would enjoy that also. Field Clerk STEVE TURNER, JR., journeyed to the North Carolina Outer Banks to visit his girl friend and squeeze in some surf fishing.

“Mexico or Bust” was the phrase quoted by Helpers ROBERTO (PANCHO) GARZA, GORDON FOX, and JOE PEARSON, who rented a car and drove 900 miles to Ciudad Acuña, across the border from Del Rio, Texas. When asked about the purpose of the trip, PANCHO was heard to reply, “To see the historical sites.” We were not aware that there were any “historical” bars or night clubs in Ciudad Acuña. Jug-truck Drivers and Helpers LARRY (FREEBIE) FERREE and KARL COOK both flew home to Bath to see their families and girl friends, and Jug-truck Driver and Helper RAY PALMER drove (all day and all night) back to Mercer, Pennsylvania, to visit his family and girl friend. Helper KEITH NEELY spent the Easter break in West Point, Mississippi, and seems to have come under the spell of one of those “Southern Belles.” We suspect that spell is the reason for the “odd” look that we see on his face sometimes.

We believe that all enjoyed their Easter breaks, yet everyone seemed eager to return to Starkville. Maybe it had something to do with the congenial atmosphere and

A Party V-9 crew member, Surveyor Dave Estes, is shown plotting his survey work for the day. Party V-9 worked in Mississippi for two months before returning to their home base in Bath, New York.
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Party V-9 Helpers Fred Baggett (left) and Eddie Boyd leave the office for work while Surveyor Dave Estes pauses for a moment before entering the office. On the steps are Helper Ron Dorow (left) and Assistant Observer Calvin Martwick. Jug-truck Driver Larry Ferree waits inside for the crowd to get out of his way.

A Party V-9 crew member, Surveyor Dave Estes, is shown plotting his survey work for the day. Party V-9 worked in Mississippi for two months before returning to their home base in Bath, New York.
friendly people of Mississippi. Before leaving Starkville, Helpers Mike Mott and Ron Dorow were invited to a party given by friends in the women’s dorm portion of the Plantation Belle Motel.

As it always does, the stay in a “good town” came to an end. Hardly anyone on the crew was eager to leave Starkville, and most hoped to make a return trip as soon as possible. On the morning of April 30 Party V-9 left Mississippi to return to the cold north country and home base in Bath. It was a long three days traveling that 1,100 miles. En route Helpers Fred Baggett and Eddie Boyd stopped in Chicago for a brief visit with Fred’s grandmother whom he had not seen in four years.

At one of the stops just north of Nashville, Tennessee, Assistant Observer Cal Martwick and Surveyor Dave Estes, along with John Eckhart, Steve Turner, and Ray Palmer, drove to “Music City” to explore the sights and sounds of the famed “Printers Alley.” We were all treated to some fabulous country music and so great a night out on the town that we experienced some difficulty getting everyone ready to leave.

After the warm spring climate of Mississippi, the cold snow flurries of New York were not a welcome sight when the crew arrived in Bath on Sunday afternoon, May 2.

For a day the crew was allowed a brief and needed rest. Then, for two days, several of the crew were assigned maintenance chores in preparation for the new prospect in Wellsville, New York. Of course, the new assignment was a spike job, but that is our business here at Party V-9.

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PARTY 440—SELBY, UNITED KINGDOM . . .

A. R. Eade, Reporter
E. S. Ford and J. C. Georgiou, Photographers

May 1975 saw the advent of the first Western high resolution seismic crew in the United Kingdom in the form of Party 440. The crew’s initial area of operation was in the prestigious Selby Coal Mine, and since then it has been announced in the press that this mine will be the largest, most automated, and most modern in the world.

The prospect is situated in north Yorkshire, some 200 miles from London, and lies roughly between Selby, on the southeast, and York, a city of great historical interest, on the northwest. The whole area is exceptionally fertile and lies on or about mean sea level, and it is noted for its intensive farming and market-garden activity.

Cawood, Party 440’s first headquarters, is a small village on the banks of the River Ouse. It has a rather antiquated timber and wrought-iron swing bridge, which occasionally necessitated taking heavy equipment the long way around. Other than the bridge, the location, selected by the party manager, was central for the whole prospect.

Party 440 set up shop in an office that we soon discovered had been used, not too long ago, for the sale of the British delicacy, fish and chips. Up until the time of moving we received inquiries regarding opening hours.

Party 440, which is on the small side, consists of 17 persons and seven Land Rovers; it is under the supervision
of **John Georgiou**, who operates out of the London office, with regular visits to Yorkshire. Party Manager **Ray Griffiths**, a man with considerable seismic experience, attends to the day-to-day running of the crew and its attendant problems, often referred to him by our two observers, **David Reid** and **David Hazelhurst**. Despite his constant involvement, Ray still finds time to keep a fatherly eye on our young computer, **Richard Tinsley**. Ray’s assertions to the contrary, our permit agent, A. R. (Tony) Eade, accepts no responsibility for Ray’s going gray. Tony merely wishes to state that the area is the hardest to permit in the United Kingdom.

Making things go with a bang are our two shooters, **Tony Dillane** and **Eric McIntyre**, both of whom have been with us since the beginning. Examples of the shrewd local recruitment are Helpers **Kevin Lund** and **Gary Wright**, who have impressed us with their hard work and
A monitor record is checked by Party 440's Senior Observer David Reid (from the left), Junior Observer David Hazelhurst, and Party Manager Ray Griffiths. Party 440 is our very first high resolution crew in England.

Above—A portable drill mounted in the back of a Land Rover is shown in operation. Left—Crew members of Party 440 are working against a scenic background in Scotland. Below—Shooter Tony Dillane (center) loads a charge. He is one of two original members on the crew.
willingness to become involved. Of the other field personnel, several have taken Western jobs in the sunnier climates of Algeria and the Cameroons. There remains, of the original gang, only ALBERT GREGORY (vehicle maintenance) and GUY MILLER, who as rodman has seen several surveyors come and go.

The MANPAQ® system, mounted in the rear of a Land Rover, was utilized on the project. These instruments performed faultlessly all summer, due, no doubt, to the attention lavished upon them by our observers. Probably our observers wish to pass some of the credit to CHRIS VLATAS, a digital equipment engineer, and JACK SMITH, a field service engineer, both from Houston, for the instruction that they gave. By the end of the summer most of the bugs had been ironed out.

Since finishing work on the Selby Project, we have been rolling around the United Kingdom working at South Wales, Staffordshire, Nottinghamshire, and Doncaster. At the time of this writing we have returned to the Selby Project to obtain fine detail data for the mine's five main entrance shafts. This should take a further two months. Our next anticipated move is to Scotland in the near future.
PARTY 91—ANCHORAGE, ALASKA . . .

MIKE MISHLER, Reporter-Photographer

Party 91 started gearing up in October 1975 for the winter season in Alaska. Many of the “old,” seasoned men were back again. Party Manager J. J. (Jim) Thrasher was up from Nome, where he spent the summer working with several drills. Frank Taylor, who came from Kotzebue where he was the expeditor, Cat Operator Emery Dowst, and Driller-Mechanic Ron Macheledt spent the summer working at the summer base camp. Chief Observer Neo Ferrari came off the boats for another season on Party 91.

Replacing Bill Sands as surveyor (he is working in the Anchorage shop) was Fred Rishinski. Assisting Fred was Helper Stuart Helfrich, who worked as chairman. Cook Thomas Coleman, Jr., was back to spend another season preparing food, this time in the drill camp; and lending him a hand was Helper Bobby Shannon. Cook Dalmont Christopherson came up to Party 91 for the first time, and Helper Kelly Britton assisted Dalmont with the meals for the recording crew.

After a summer in more mild parts, it must have taken some effort for a number of the men to come up here. Junior Observer Mike Klein arrived from Colorado, where he had spent an easy summer with his garden and music. Up from a sunny summer in San Diego, California, was Field Clerk Mike Mishler to work with the recording crew. Also up from San Diego was Helper Fred Mueller, starting his first season with Party 91.

Other newcomers included Mechanic Dwight Toft and Driller Garland Zollinger, who came to work as mechanics. Gun Mechanic Jim Barnett arrived to take care of the Cape Beaufort base camp. Driller-Mechanic
DAVE BERGRUD was up again, as were Helpers RILEY EVAK, DAVE HENRY, and VICTOR ONALIK; Drillers DAN HARVEY, GARY KROSHUS, RODNEY HOWARTH, and EDDY SMITH. Helper TED KINGEAK, Jr., and Gun Mechanic MIKE JOHNSON arrived and got the fuel supply vehicle ready to run. New hire DON BURGESS, helper, assisted Party Manager JIM THRASHER with the paperwork in the drill camp.

Back from a summer in Noorvik was Helper CHARLIE PUNGALIK. VERNE LANGDON arrived from the Rocky Mountains to work as the Anchorage expeditor. Finally, the local helpers arrived, and Party 91 was off and running again.

No polar bear cubs were found this year. The one that we found last season is now in the Anchorage Children's Zoo. We did see many wolverines and foxes, as well as some caribou.

A few of the men would like to forget a thing or two. One was VERNE LANGDON shipping up several small metal filing cabinets instead of some metal files to be used in the shop. Also, no one would let Helper FRED MUELLER forget the day that he, with some people from Kotzebue, Indoors and therefore warmer than those who had to work outside (from the left) Helper Lance (whose last name was unknown or unpoppable to the photographer), Chief Observer Neo Ferrari, and Mechanic Ron Machledt stop to smile for Party 91’s camera.

Party 91’s driller, Dan Harvey (left), and his unidentified helper, a local hire, look happy as they take a break from the work.

The supply plane, piloted by Buck Maxon, circles for a landing while some drills (top) work on the hills behind Party 91’s camp.
Top right—It was twilight when Party 91 made this camp move farther on down the line. Of course, at that time of the year, twilight is all the light there is, but the work still must go on. This year the party, in order to finish by spring, became two separate camps, a drill camp and a recording camp. Above—A boom truck that mired in some soft snow is rescued by a “cat.” Party 91, working on Alaska’s North Slope, experienced a variety of weather and snow conditions during the party's six-month stay there. Opposite—Junior Observer Mike Klein begins the task of changing the oil in the recording truck generator. Keeping the vehicles in good condition is a job taking a lot of time because parts may become brittle and can break in the Alaska weather.

chartered a Lear jet to Anchorage because the regular airline plane was down for a day. From that day on, everyone joked with Fred, asking him if he would send for his Lear jet when they wanted a trip to town.

Driller Jerry Knapp and Expeditor Ward Maricle came up from California in January to help out. It was on January 18 that we finally saw the sun for a few minutes, after two months of darkness. Within two months we were up to 12 hours of sunlight.

The end of the season came quickly, and everyone was leaving just a little faster than they had arrived. Field Clerk Mike Mishler made it through his second season in a row without taking any breaks. Only Emery, Garland, Dwight, Junior, Neo, and Mike Johnson are still on Party 91 at this writing. They are working on equipment. Soon the summer will be gone, and once again the men will be returning and Party 91 gearing up for yet another season.
PARTY 32—HOUMA, LOUISIANA . . .

MARK WHITMAN, Reporter-Photographer

The past year has been an eventful one for Party 32. In August 1975 Party 32 was uprooted from its natural habitat in eastern Texas and transplanted to the wilds of Mississippi and Louisiana. It is currently reporting from Houma, Louisiana. Since that time we have become accustomed to frequent moves throughout this area.

The new year saw the departure of long-time Party Manager G. B. (Barney) Totten. The entire crew wishes Barney good luck in his new business venture. Field Supervisor R. M. (Mike) McCormic assumed management of Party 32 until the arrival of Party Manager Henry Kenney in mid-January. Also in January Permit Agents Will Caraway and Albert Baze, Junior Observer Bill Rieniets, Jr., Assistant Observer Mark Whitman, and Vibrator Operator Tommy Renick were welcomed to Party 32.

To start the new year right, a well-deserved Safety Dinner was enjoyed by the crew on January 17, with Safety Awards being presented by Mike McCormic to Driller Percy Gibbs, Helper Don Watson, Assistant Observer Bob Osborne, Cable Pusher Earl McRaney, and Permit Agent Will Caraway.

At the time of this writing the crew is widely scattered over Mississippi and Louisiana, all busily engaged in a diverse selection of current operations. Junior Observer Bill Rieniets, Surveyors Frank Jackson, Jim Welliver, and Claude Burton, Jr., aided and abetted by

Below left—Party 32's permit agent, Will Caraway, is busily securing another permit for his party's operations in the Houma, Louisiana, area. Below center—Driller Percy Gibbs is ready to drive his drill buggy to another shot point. He received an award during the party's January Safety Dinner. Below right—Party 32 is shown making one of its frequent moves, from Houma to Ham- mond, Louisiana. The crew also traveled to Mississippi. Bottom left—Helper Jimmie Harrison anticipates the start of another hole as Party 32 begins drilling in the marshlands around Houma. Bottom right—Assistant Observer Mark Whitman, who joined the crew in January, works on the business details for Party 32, which in the past year has been transferred from eastern Texas to Louisiana.
Helpers E. M. Alexander and Walter Abram, are enjoying the advantages and fine climate of Natchez, Mississippi. Though they are often heard to mutter things about the thickest jungle and steepest hills in the world, the rest of us are sure that this is a misleading attempt to keep us away from Natchez.

Surveyor Lee Disotell, Vibrator Operator Tommy Renick, and Helpers Alfred Granger, Jr., Wallie Vickers, and Glen Beard are in Hammond, Louisiana, slowly drying out and getting used to the never-ending brush cutting again. Driller Percy Gibbs, Helpers Don Watson (acting driller), James Breland, and Jimmie Harrison are also in Hammond and are grateful to be out of the marsh.

The balance of the crew, including Party Manager Henry Kenney, Observer Bill Goodwin, Assistant Observers Mark Whitman and Bob Osborne, Cable Pusher Earl McRainey, Helpers Charles Rothrock, Robert Beard, James Earls, Robert McLeod, Tom Nichols, Emmet Fletcher, Jerry Chaney, and Ron Watson are in Houma, Louisiana, “enjoying” the company of alligators, snakes, and many other forms of wildlife that swim, crawl, or fly, and most of which bite or sting; some may do both or engage in completely indescribable behavior for all we know. This portion of Party 32 loudly and often profanely hopes to return to Hammond and dry land in the near future.

Party 32 has not contributed greatly to the population explosion in the past year. Don Watson and his wife welcomed the arrival of their daughter, Melissa Ann, born on April 25, 1976. Congratulations from the crew, Don.
PARTY 95—NORTH SLOPE, ALASKA . . .

RICHARD ISGRIGG, Reporter
GEORGE UNDERWOOD, Photographer

After a move to the edge of the Brooks Mountain Range, Party 95, the veteran North Slope crew of seven seasons, proceeded once again to produce the top quality recording data so vital to the petroleum industry.

This year Party 95 split into two camps, a drill camp and a recording camp, and found that operations went much smoother with two separate crews, each with less than 50 persons.

Party Manager George Underwood, with the help of Surveyors Bob Mitchell and Cliff Heitkamp and Helpers Drew Crawford and Keith Findley, fearlessly led the crew over the roughest terrain we had ever seen. The fine drill crew consisted of veteran Drillers Paul Gould, Kurt Kirschner, Wes Bergsrud, Choy Cobler, Dan Isgrigg, Harold (Butch) Komarek, Bob Kroschus (also a mechanic), Steve Mahay, Orlando Sanchez, Chuck Doely, Dave Martin, and Joe Stafford. Working with them were Helpers Paul Burns, Gene Eidem, Jr., Dave Kirschner, Stan Lindsey, Jr., Trace Rankin, Doug Owens, and Tom Hundley. The crew drilled shot holes from the deepest valleys, surrounded by towering peaks, to the highest hills, overlooking miles of snowy plains. Support between recording and

Right—Party Manager George Underwood stands next to one of Party 95’s vehicles, refusing to take his sunglasses off even for a picture. For right—Because of the rocky rugged site, Party 95 had a challenge drilling holes in the hills lying north of the Brooks Mountain Range. Below left—Party 95 is shown during one of its frequent camp moves. Below right—Party 95 Driller-Mechanics Doug F. Blossom (left) and Bill Sands look over a snow-covered trailer tongue that is in need of some welding by the men.
drill crews was handled by Mechanic's Helper ELVIN COLLINGWOOD and Helper STEVE LANDSOM.

Field Clerks WALT KELLEN and DONALD MCDONALD not only did a fine job of keeping up with the endless paperwork but also assisted in moving and setting up camp. Keeping the men well fed is a seemingly endless chore, and we were fortunate in having the best cooks and kitchen help available. RICHARD ISGRIGG, PAUL KLABUNDE, RALPH HENNING, FRANK MARTINEZ, and DAVID HOWSARE are "old hands" at their jobs and kept the crew in high spirits, as well as serving good meals.

The responsibility for keeping the equipment in good mechanical condition and able to move is a tremendous job in the Arctic, but it proved to be no problem to Driller-Mechanic DOUG (ROSEBUD) BLOSSOM, Mechanics CLIFF (TINY) CHRISTENSEN, GENE KLABUNDE, and PAUL BARNETT, and Helper GEORGE DRAKE.

With their many years of experience, Chief Observer GEORGE SNOWDEN, Jr., and Observers AL DOHN and TOM AINSWORTH saw to it that the recording crew gathered quality material that met Western's highest standards. Cable Pusher MIKE THRASHER had the difficult job of seeing that the cables and fliers were laid out correctly by the cable-truck drivers, Helpers BILL KONICHEK, STEVE THRASHER, and STEVE AMERINE, along with Helpers ERIC

Mechanics Clifford Christensen (left) and Paul Barnett are in the outdoor shop replacing a cross-drive section in a tracked vehicle. There is no warm indoor shop to protect them from the weather.

Five Party 95 drills are set up on locations along the programmed line on Alaska's North Slope. The Brooks Mountain Range looms in the background.
In April the crew stacked camp for the summer to await another season of operation.

PARTY V-11—GLENALLEN, ALASKA . . .

STEVE PISA, Reporter

Glenallen, Alaska: Majestic mountains; perma-frost; spruce trees; the Alaska pipeline; and Western Party V-11.

The operation of a crew in this area presents its own unique set of problems, quite different from the problems that are encountered by our North Slope crews. Bulldozers equipped with special “shear blades” slice through the sparsely-forested terrain under the direction of surveying crew members SCOTT RICHARDS, PAT FLANERY, and KEN EKSTRAND. Closely behind can be found head Surveyor TOM SPEARS and Rodman BOB EMPIE.

The recording operation, employing vibrators, recording truck, and cable units, which are all mounted on rubber-tired “buggies,” is the next to arrive. Under the able leadership of Chief Observer LARRY (SHORTY) SWANSON, the cables and phones are laid out. Often waist-deep snow and heavy brush make geophone placement an aggravating problem, indeed, since the phones have to be laid out at a 45-degree angle to the cable. Cable Pusher KIM STERLING is the able director of this portion of the operation. Cable-buggy Drivers AL RATH and WAYNE HANSON are also working on the recording crew.

The roaring of diesel engines usually marks the presence of Party V-11 vibrators proceeding down the line as they are operated by JOE BLACK, JIM O’NEIL, DARRELL JOHNSON, and FRANK CRARY. Vibrator Mechanic LOUIE BYRD is responsible for keeping the vibrators running, which is often quite a problem when sub-zero temperatures make metal parts and pieces especially vulnerable to breaking.

Back at the base camp Mechanic DELON BLEAKNEY and Helper RICK DESAUTEL are keeping things in shape while BOB ZACHERY is busily going about his duties as bull cook/camp attendant. Feeding the men is the responsibility of Cook FLOYD WILLIAMS, who knows how to make some tasty dishes indeed. Field Clerk LARRY SPILMAN, besides keeping up with the crew office duties, has the responsibility of acting as a gravity meter operator.

One especially trying operation has been recently completed in a desolate portion of the program area. Because the area was so inaccessible, the men had to be flown in to the line and back each day in light, ski-equipped airplanes (Party Manager STEVE PISA was especially vulnerable to headaches during this period). Night man PETER HOLTENING has spent some lonely nights “baby-sitting” the equipment when the work day was done.

Soon breakup will be here, and Party V-11’s Alaska operations will be finished for the season. Memories — some good, some bad, and some indifferent — will remain part of a successfully completed operation in the wilds of Alaska.
Western's "35-Year Club" remains an exclusive one, for it has been two years since any employee has been eligible for "membership." On May 11, however, George J. Shoup, Houston, became the tenth Westerner to receive his 35-Year Service Pin.

George is now assistant manager of the digital center in Houston and for the past three years has been the accountant for that center's land and special problems division. Like so many Westerners, though, George began his Company career as a computer. On May 11, 1941, this new computer started traveling the "doodlebug trail" with Party 7, accompanied by wife Mary Elizabeth and little daughter Nancy.

Along the trail George also worked with Parties 13, 34, and 54 and became a chief computer and then party chief. The Shoups were living in Midland, Texas, where they were long-time residents, when George was promoted to assistant supervisor and two years later to supervisor. Transferred to Shreveport, Louisiana, in 1965, he worked in the marine interpretation center until September 1969 when the Shoups moved to Houston. He was appointed to his present position in August 1975.

During his 35 years of Western travels, George has worked in the Rocky Mountains, Mid-Continent, and Gulf Coast areas of the United States, central Trinidad, offshore west Africa, Central America, and South America. His most interesting job experience, though, is still one done here in the States, a long-range refraction survey in west Texas and New Mexico.

Working in the latter was like being home, for George was born in Albuquerque and earned his B.S. degree in mechanical engineering from the University of New Mexico. At the university he was elected to honorary math and engineering societies and was a member of Kappa Alpha social fraternity.

A second tax deduction for the Shoups came as they moved about the country, a son, George Michael. That "deduction" is now known as Party Manager Mike Shoup, a Western employee himself for the past 11 years, currently working Gulf Coast marine crews out of Houston. George and Mary Elizabeth are five-times grandparents, with three grandsons and two granddaughters.

The three boys are sons of daughter Nancy and her husband, Pat Mann, who live in Baytown, Texas. The oldest, Mike, was graduated from high school this year. Ronald, who completed his sophomore year, received a trophy for first place in mythology at the national convention of the Junior Classical League this past year. Young Brian is diligently working for his Eagle Award in Scouting, which he should receive this year as his brothers did two years ago.

The two granddaughters are the children of Mike and Betty Shoup. Paula Renee, who was only a year old when she lived in Ecuador with her parents, is now 6 and going to school. Leslie Michelle, the "newcomer" to the family, is 2½ years old. As these two little girls live in Houston,
George and Mary Elizabeth have a chance to baby-sit occasionally, which pleases them no end.

In addition to their baby-sitting, Mary Elizabeth also keeps busy with her homemaking and playing bridge. George says that he continues to enjoy working with Western Geophysical and helping guide newer employees along the “Western Way.” With the fine qualities of pride in his work, dignity, and high integrity that he has displayed during his 35 years with Western, his “guide work” is one of his further benefits to Western. The Shoups always look forward to their annual vacations that give them an opportunity to visit the mountains that they have loved since childhood.

Who are the other nine members of this exclusive “35-Year Club” that George has “joined,” and where are they? Dupree McGrady, now retired and living with wife Babes in Prescott, Arizona; R. T. (Bing) Crosby, retired and with wife Velma making their home in Holiday, Florida; G. E. (Ed) Planck, retired and with wife Laura still living in Houston; Ben J. Niehenke, retired and with wife Leona returned from Galveston, Texas, to their Los Angeles home; Booth B. Strange, president, Houston; John A. Adams, resident manager, Bakersfield, California; Jack Desmond, supervisor, Houston; John C. Mollere, assistant general manager of the laboratory and shop, Galveston; and Frank Ellsworth, supervisor, Bogota, Colombia.

down Western's line
for 30 years

TIME MAY FLY, but many Westerners do not do so from the Company as evidenced by the fact that in the first half of this year six men received their 30-Year Service Pins. They are L. T. Harsh, J. B. Jordan, and D. A. Bernhardt, all in Houston; W. T. Brooks, Dhahran, Saudi Arabia; B. W. Brown, Willows, California; and W. A. Knox, Houston.

January 1, 1946, saw Loren T. Harsh starting not only a new year but also a new career, one with Western Geophysical. His first assignment was as a surveyor for Party 20 in the Rocky Mountain area. He later became a permit agent and then in 1954 was made a party manager. As Honoring the 30th anniversary of Loren T. Harsh (second from the left), expeditor for the Houston laboratory, are, from the left: Fred J. Di Giulio, retired area manager; Loren; John J. Maines, Houston lab electronic department manager; Margaret Hale, executive assistant to the president; J. B. (Jimmy) Jordan, area manager-digital processing; W. A. (Al) Knox, Houston lab; Ben Thigpen, vice president of instrumentation and field services and head of the Houston lab; and Neal P. Cramer, senior vice president-eastern hemisphere operations. Following the taking of this picture in the reception area of the former headquarters office, the group, with the exception of Neal, then departed to Vargo's Restaurant for a luncheon hosted by Ben. This group of eight employees represents a total of 241 years of service to Western. Each person has more than 25 years; in fact, the range is from 27 to 34!
such Loren always ran a “tight” crew and an efficient operation and was well known as being very conscientious and “Western-minded.” This concern for Company money and vast experience in field operations stood him in good stead when he left the “doodlebug trail” in 1967 and was assigned to the Houston office; a year later he was made office manager, in 1972 a buyer, and in 1974 expeditor for the Houston laboratory, his present position.

During his first 18 years with Western Loren worked on or managed field crews, both land and marine, in Montana, Wyoming, western Canada, Utah, Colorado, Nebraska, California, Texas, and Louisiana. Only then did he decide to “go foreign.” He headed for Europe in the spring of 1964 to manage North Sea crews out of Denmark, Norway, and England and also down the west coast of Africa for a marine crew working offshore Senegal. He later headed a marine crew in the Philippines and in 1967 one working out of Newfoundland and Nova Scotia.

Though born in Wilbur, Washington, Loren grew up in Seattle and Spokane. When he was graduated from high school, he was awarded a scholarship to the University of Washington; but the stock market crash made the university and the earning of an academic degree impossible. This did not deter this Westerner from achieving advanced education, however. He has always been a student and an avid reader and has studied every conceivable facet of human knowledge in depth—from civil engineering to French and the classics. Also, he enjoys tennis and cooking.

Doodlebugging with Loren these 30 years has been wife Carolyn, who is a highly intelligent and talented person. She shares Loren’s love of the theater, music, and other arts. Carolyn and Loren’s son Thomas, 16, excels in scuba diving and also plays tennis.

Observing Loren’s 30th anniversary with the Company Vice President Ben Thigpen, head of the Houston lab, hosted a luncheon at Vargo’s Restaurant in Houston. Guests in addition to Loren were Fred Di Giulio, retired area manager; John Maines, Houston lab electronic department manager; Margaret Hale, executive assistant to our president; J. B. (Jimmy) Jordan, area manager of digital processing; and W. A. (Al) Knox, Houston lab supervisor of documentation and training. The number of years of Western service of these seven persons ranges from 27 to 34 years, and their total is 214 years.

The longer he is with Western the happier he is, concluded J. B. (Jimmy) Jordan, area manager of digital data processing, on the occasion of his 30th anniversary with the Company. He added that the last six years had been the most challenging and the happiest. Jimmy thrives on chal-

Having just received his 30-Year Service Pin, J. B. (Jimmy) Jordan (center), area manager of digital processing, has been congratulated by, from the left: Senior Vice President Howard Bingman, Vice President John R. Russell, (Jimmy), President Booth B. Strange, and Vice President J. M. (Jim) Hornsby in the Houston office. They then went to the Lakeside Country Club where the president was host of a luncheon in Jimmy’s honor. Joining them there was Fred J. Di Giulio, retired area manager, for whom this was his first venture from home following hip surgery in January.
the second marine crew that Western put into operation. With the exception of a few brief stints as head of land crews in Oklahoma, Alabama, and Ohio, he spent most of the time from 1953 to 1962 as party chief of water crews in the Gulf of Mexico and as interpreter on marine work from throughout the world.

When Western set up its first compositing unit in 1962 in Shreveport, Louisiana, Jimmy was assigned to the unit. It was only a step from this compositing office to manager of the Shreveport data processing center—and supervisor. In fact, he helped set up and supervise Western's first analog processing center and also the transition from analog to digital processing. Thus, it was quite natural that in 1968 he was made manager of the Shreveport digital center and in 1970 of the ever-expanding one in Houston. A few years later he was promoted to his current position.

A native of Dushau, Mississippi, Jimmy obtained his early education in his home state and later attended the University of Georgia. During World War II Sergeant James B. Jordan of the United States Air Force attended radio and radar technical schools and served in the Philippines, on Okinawa, and in Japan as a radar technician.

Beside Jimmy through these 30 years on the "doodlebug trail" and later in Shreveport and Houston has been his devoted and loyal wife, Becky. A lover of music, she shares her husband's pleasure in fishing and the vegetable garden that they now have in their back yard. Having lettered in football, basketball, and tennis in high school and tennis in college, Jimmy still maintains an interest in sports.

Of course, the top "interest" that Becky and Jimmy share is daughter Cindy, who in June 1973 became the wife of Robert Pack, son of Western Supervisor Bruce A. Pack and wife Martha. Cindy is teaching in the HISD Magnet program, which is a music academy. She is involved in producing operettas and choir programs and also is accompanist for the Houston Boys Choir. Bob is an agent for a large, national insurance company.

Jimmy, the man known for his wonderful sense of humor and his big cigar, was honored on his 30th anniversary at a luncheon hosted by President Booth B. Strange at the Lakeside Country Club. Guests who helped him celebrate were Senior Vice President Howard Dingman, Vice Presidents J. M. (Jim) Hornsby and John R. Russell, and Fred J. Di Giulio, retired area manager.

When Treasurer Don A. Bernhardt joined Western, he had resigned from his only previous job because it had "no future." That was 30 years ago last April 25. He found his "future"! Also, with it he found, unlike most Westerners, residence in the same place for 23 years! That was in Los Angeles. For the past seven years he has lived in Houston.

Though born in Dayton, Ohio, Don's roots are in California. He was graduated from the University of Southern California with a B.S. degree in business administration. His first job with Western was as a bookkeeper, and less than two years later he was made supervisor of the bookkeeping department. In another two years he was promoted to accountant, senior accountant, and chief accountant. Then in 1963 Don was elected treasurer of Western Geophysical. With this background and an exceptional memory, it is no wonder that Don has the reputation of being able to recall more details relating to Western accounting than can anyone else in the Company.

Gathered in our president's new office are those who helped Don A. Bernhardt (center), treasurer, celebrate his 30th anniversary with Western at a luncheon hosted by the president at the Lakeside Country Club. They are, from the left: Dick Trippel, corporate secretary; John Russell, vice president-administration and finance; Jim Robinson, administrator-contracts and billing; Don; Booth B. Strange, president; and Lee Armond, personnel director. Dick, Jim, Don, and Lee had worked together for many years in the Los Angeles area when the headquarters office was in that city. This event might have been a pre-celebration for our president as his 40th anniversary with Western Geophysical was on June 9.

Prior to Western and that job with no future, Don served in the United States Army during World War II. He was a master sergeant with an American infantry division in the South Pacific. Then it was back to southern California—and its sports.

Don, who played on his high school basketball team, has always been interested in all sports; in fact, he may be called an avid fan. First, of course, in his heart and enthusiasm are the teams of USC, which has seldom let him down. Next are the professional teams of Los Angeles. Yes, "are"; though in Texas for the past seven years, Don still roots for the California teams over the Texas ones. (Bear with him, you Texans; after all, he was rooting for them even before Western—and we all cheer for our old alma maters.)
When Don’s attention is not taken up by Western accounting and sports, it may be centered on music. He likes good music and has quite a record collection. Unless his tastes have changed in the past five years, he favors the “Big Bands,” such as Benny Goodman and the Dorsey brothers, Tommy and Jimmy, and many more. He also enjoys the well-known night spots’ entertainment. His wife, Nell, is interested in interior decorating and has made a hobby of it.

In honor of Don’s 30th anniversary President Booth B. Strange invited some of Don’s colleagues who had worked with him in the Los Angeles general office and the vice president of finance to a luncheon at the Lakeside Country Club. Attending were R. C. (Dick) Trippel, corporate secretary; J. E. (Jim) Robinson, administrator-contracts and billing; L. L. (Lee) Armond, personnel director; and John R. Russell, vice president-finance. Carl Savit, vice president-technology and another former Angeleno, was unable to be present because of a previous commitment.

From the Rocky Mountains of North America to the frozen arctic of Alaska to the Great Australian Bight to the jungles of South America and to the desert of Saudi Arabia—though seemingly lengthy, this is but a condensation of the fascinating career of “Western’s Patton,” W. T. (Bill) Brooks, who is currently resident manager of the Company’s operations in Saudi Arabia, where he received his 30-Year Service Pin on June 5.

Bill, a native of Monrovia, California, came to Western fresh out of the navy, in which he served 30 months on an aircraft carrier and a destroyer in the South Pacific and before which he had attended Pomona College, Pomona, California. Hired in Los Angeles as a field crew helper, Bill reported to work in California’s San Joaquin Valley. The crew took one look at the nice, dapper-looking young man and assigned him to helping the driller—digging with pick and shovel! They were fooled; the mud did not bother Bill. Furthermore, the party chief soon discovered that this new hire was a far more skilled typist than anyone in the crew and an exceptionally good freehand letterer; so in a matter of a few months Bill was a computer-draftsman instead of a drill helper. Also, he showed great interpretative ability. In less than five years Bill had earned the promotion to party chief.

Tough, dynamic, volatile, ingenious, practical, and respected by his men, Bill runs a smooth operation as he likes tough operational problems, anticipates them, and can solve them, whether they be land, marine, or shallow-water and no matter the terrain. He also likes challenges and has met and conquered many, as a party chief, a supervisor, and an area and resident manager. One challenge was his first Alaskan assignment; he was sent up there in 1959 as party chief of one of Western’s first airborne crews, which worked out of Yakataga. Another was the seismic lines with shot points above the 11,000-foot elevation in the Rockies. We could go on and on.

His 30 years on the “doodlebug trail” have taken Bill to Alaska, Arizona, California, Colorado, Montana, Nebraska, New Mexico, South Dakota, Texas (he was coordinator of Latin American operations in the Houston office for two years), Utah, and Wyoming in the States. His first foreign assignment was in Guyana, and then he went to Australia. Bill started Western’s operations in Colombia, then Ecuador, and then Peru. Other countries in which he has worked are Argentina, Brazil, Bolivia, Venezuela, Mexico, and Saudi Arabia.

Some persuasion was needed to get him to Saudi Arabia as Bill and wife Cecilia, a native of Colombia whom he married while traveling between Houston and South America as co-ordinator, had bought a home in Houston and had a baby daughter. They still own the home even though Bill accepted this latest challenge. Bill’s family includes five children: Janet, 27; Bill, Jr., 24; Keith, 13; Sawad, 12; and the baby, Cecilia, now 2. Bill, Jr., is a graduate geophysicist and works for Western as a geophysical analyst in the Houston data processing center.

When Bill, Jr., was Boy Scout age, his father, a sports enthusiast, was also interested in camping and Scouting. Golf, fishing, hunting, football, baseball, basketball, and hockey have, for Bill, Sr., in Saudi Arabia, boiled down to offshore fishing and reading. Cecilia busies herself with playing mah-jong, baking, sewing, and shopping.

Of his “most interesting experiences,” Bill’s athletic one was vetoed from publication by one of his former bosses, who happened to have been in on it; so all that can be
reported of that is that it did take endurance. Military? "No big deal." Job? "Too many to enumerate" but the highlight of all, he says, was riding "Boyd’s Folly" to Ashmore Reef, with berthing accommodations on top of the cable! (Ashmore Reef is off the northwest coast of Australia, near Indonesia.)

Always enthusiastic and optimistic, Bill Brooks probably does not know the meaning of the word impossible. As it has been for 30 years, this continues to be a great asset to Western Geophysical.

Eight years ago Party Chief B. W. (Red) Brown wrote his own "25-year story," which seemed to be a farewell, a short paragraph attached to the end of a Party Pickings report. As it turned out, it was a farewell, but a brief one because although he did resign at the end of that year, in less than three years he returned to Western Geophysical.

Receiving his 30-Year Service Pin is B. W. (Red) Brown (center) from Vice President Leo J. Dunn as Sandy, Red’s wife, looks on. In Houston to "collect" his share of three months from the payroll department and take her to California to live, this veteran party chief was honored at a luncheon by this vice president, with whom he had worked in their early days in the Rocky Mountains. Also present at the luncheon were Supervisor Jack Desmond, another friend from the Rockies; Personnel Director Leo Armond and Treasurer Don Bernhardt, who knew Red well from their Los Angeles office days; and Margaret Hale, executive assistant to our president, who was Sandy’s "maid of honor" for the luncheon. Total Western service represented by these employees was 193½ years!

The Company regained an asset, and this past June 8 Red was eligible for his 30-Year Service Pin.

An unique person, with widespread knowledge and capabilities and a vast memory, Red originally started with Western in September 1943 as a computer on Party 19 and two years later was a party chief. Most of his 30 years have been spent in the West—the Rocky Mountain states, Nevada, Utah, and California. He left the States the latter part of 1958 to go to the then-territory of Alaska, where he led Party 36 operations out of King Salmon. He then returned to his position as head of Western’s first playback office on the West Coast, in Los Angeles. Sometime in 1959 Red went back to the field and has traveled ever since for his interim away from Western when he owned and operated a golf course in Lemoore, California. Currently he is managing a high resolution operation, Party 401, in northern California.

A native Californian, Red can answer almost any question about the history of the state’s oil industry and its oil exploration. In fact, he has written on the subjects for the Profile. Red is a great and interesting writer; he has a way with words and a knowledge of many things. Some of these he received at the Missouri School of Mines (now the University of Missouri at Rolla), where he earned his B.S. degree in civil engineering. Others he probably learned on other jobs.

That “Jobs Before Western” question fascinates Red, he says; and in answering it, he displayed his great sense of humor, perhaps with tongue in cheek at times. His list as he gave it: farm hand, dairy operator, surveyor, bootlegger, railroad bum, blackjack dealer, dude ranch horse wrangler, traveling pitchman, forestry mapper, CCC Camp, mule skinner, pool hustler, tractor operator, even baseball student (his last three semesters for his degree), and engineering or superintending for the Corps of Engineers and three construction firms on roads, dams, and army installations. (Maybe he was not being humorous; maybe he really did all of these things, and that is why he knows so much about so many things.)

That ended his variety of jobs while looking for a position with a “post-war” future,” he saw an ad in the Bakersfield Californian. He went to the address, which was Western’s lab and shop in Bakersfield, and talked to John Mollere (now assistant general manager of the Galveston lab and shops) and Ben Niehenke (veteran instrument supervisor, now retired). As a result, Red’s name was put on Western’s payroll in Modesto, California. “And here I am!” he concluded.

John and Ben may not have realized it then, but they hired a true “Company man.” Red is a pro at running an operation. There is no wasted time, no unnecessary “down time,” and no undue expenses. Perhaps behind this is a side of Red that has been called by many a “character” with exaggerated “exploits” but that is actually his perfectionist quality. Red Brown is precise and strives for accuracy, not only on his crews but elsewhere in the Company, whether they be made by a clerk or an official. His eagle eye quickly spots a mistake, and a letter comes into the general office to try to ensure its not occurring again and to save Company money.

While attending school and later working for Western, Red displayed his interest in sports. He was a track star at the university in Missouri. On the “doodlebug trail” in Montana he proved to be an outstanding softball pitcher, helping to arouse such interest in the sport that the town
put lights on the field so that they could see more of this Western team's games. He still participates in Western picnic softball and goes to major league baseball games whenever he has the opportunity.

Red recently surprised everyone when they learned of his marriage to the Company's assistant supervisor of payroll, Sandra Arrington (see story in Windstrip). "I suppose," he half moaned and half laughed, "that I'll now be blamed by everyone if they don't get their paychecks."

Thus ends both our 25-year and 30-year stories of Red Brown as he starts a new married life.

Another native Californian and another unique person who has served Western Geophysical for 30 years is W. A. (Alan) Knox, now supervisor of documentation and training. Registered to practice before the patent office as an agent and in California as a geophysicist, he is presently handling most of Western's and Litton Resources Systems' patent cases.

A cool, calm, and collected man with a dauntless spirit of resolution and a great sense of pride, Alan is respected for his scientific knowledge and theoretical mind. Whenever he becomes interested in anything, he studies it and he becomes an expert. Over the years these interests have included music—he plays the organ; astronomy—he built his own observatory in Calgary, Canada; languages—he has knowledge of 12 languages in addition to his native one, some of which he reads, some of which he speaks, and some of which he does both, and all of which he studied to fill a special interest; navigation—he has followed this both in the United States Air Force and with Western; flying—he owns his own plane, a C-150; scuba diving—he became adept at it and a full-fledged member of the Calgary Scuba Diving Club; literature—he has his own library, which is filled with books that reveal his varied interests; and gardening.

Only a person with his self-discipline could pursue so many and varied interests and still give his best to his company as Al has to Western Geophysical for 30 years. This career he started in 1946 as a computer, and within 10 months he had been promoted to party chief. When in 1949 Western sent some crews to Canada, Alan moved to Edmonton, Alberta, as party chief of one of the American crews. He was made an assistant supervisor in 1950 and a full supervisor in 1951. With the incorporation of Western Geophysical Company of Canada, Ltd., in December 1952 and the headquarters set up in Calgary, Alberta, he moved there from Edmonton. Later he also became a vice president of this Canadian company. A great deal of his time, however, was spent in the "bush" supervising crews and solving their problems in his own ingenious ways.

Returning to the States in 1961, Al was assigned as a senior research geophysicist in the mathematical research department in the general office in Los Angeles. When that department moved to Houston in 1968, Al went with it and became manager of navigation, first there and then in Galveston in 1971. During these years in Los Angeles, Houston, and Galveston he traveled on special projects to the Caribbean Islands, the Middle East, Australia, the Far East, and Ecuador.

Prior to Western Alan served over four years during World War II in the air force, enlisting as a private a few weeks after Pearl Harbor and separated as a lieutenant colonel after the war's end. Assigned to Guadalcanal in August 1942, he remained in the South Pacific for the duration. Not only was he lead navigator for the XIII Bomber Command, but also he was a navigation instructor at the general staff level.

During his overseas duty he returned to California on a short leave, during which he married Jessie. He had met her while he was in aviation cadet training at Mather Field near Sacramento, California. Thus Jessie started on the "doodlebug trail" with Al.

Jessie and Alan have two children, both born in Canada. Daughter Penny, who was graduated last year from the University of Houston with a journalism major, is a substitute teacher at the high school and junior college level in the Houston school district. Son Kim is in his last year at the same university, majoring in political science.

To top off his work and hobbies, Al belongs to the following organizations: the Society of Exploration Geophysicists, the Houston Geophysical Society, the Airplane Owners and Pilots Association, the General Aviation Pilots Association, the Houston Patent Law Association, and the Patent Office Society. A busy man!

Western is proud of these six men who have contributed so much to the Company and its operations in their 30 years.
During the first six months of 1976 five employees have received pins denoting 25 years of service with Western Geophysical Company. They are John D. White and James A. Dees, both of Houston; J. Warner Loven and Grant P. Bates, both of Calgary, Canada; and Thomas G. Sergeant, Denver.

Seismologist John D. White is a Westerner who has found all of his Company jobs interesting whether he was hustling jugs, interpreting data, or whatever. Currently he is assigned to the Latin American Operations and is affiliated with Party 42 in Trinidad in the West Indies.

John joined Western on March 7, 1951, as a junior draftsman on Party 13 in Spur, Texas, and immediately became well acquainted, he says, with jug hustling, drill helping, and the frantic rush to get the map report for the client into the mail before the post office closed. Later that year he was promoted to computer. His first Western transfer was to Party 21, then in Madill, Oklahoma, where he met and married Peggy. “Best move I ever made,” he enthusiastically adds.

Later transferred to Party 54 in Lamesa, Texas, as chief computer, John spent two years on this crew. Then began a series of treks back and forth between west Texas and Louisiana, which lasted until 1956. At that time the Whites settled semi-permanently in New Orleans, where John was assigned to review crews as a seismologist. With the exception of one or two side trips to Houston and Shreveport, Louisiana, they remained in New Orleans until 1970, when they moved to Houston. As this is written, though, one never knows whether John is home or in Trinidad!

This 25-year veteran was born in Jackson, Tennessee. John spent three years in the United States Marine Corps and served as a corporal in the Pacific Theater. After discharge from the military, he enrolled at Mississippi State College, from which he earned his B.S. degree in petroleum geology. Upon graduation he was hired by Western for his first full-time job, which so far has lasted over 25 years.

During this 25 years John acquired Peggy, and together they acquired three children. Paul, 22, was born in Texas, “on Party 54.” He is in construction work in Houston. New Orleans was the place of birth of the other two children. Charles, 18, is a freshman at Southwest Texas State University, in San Marcos, while Delena, 15, is a freshman at Dulles High School in a Houston suburb. “Worrying Dad” is their activity, says the fond father.

When their boys were younger, John was committeeman for a Boy Scout troop for four years and also was active in other youth programs for five years. Now his activities run to hunting and fishing. Peggy spends her spare time playing bridge and sewing.

“In the 25 years I have been with Western, my greatest pleasure has been the association I’ve had with the people I have met and worked with within the Company,” sums up John. If this friendly, people-oriented veteran and his vice president boss, V. C. (Vic) Boyd, ever happen to be in Houston long enough at the same time, John will have a belated celebration with some of his colleagues.

A man with an unusual “bonus” is Interpretation Supervisor James A. Dees, who began his Western career April 18, 1951. “As a golf nut who enjoys playing different courses, being able to play one or more courses in seven...
foreign countries represents a bonus to me,” volunteers Jim, who has served abroad at various times during his 25 years with our Company.

The countries to which Jim was assigned where he had access to golf facilities were Venezuela (Maracaibo), Cuba (Havana), Libya, Australia, England (London), and Italy. He also worked in Iran, but his seven-day-a-week work schedule precluded golf there; he made up for this by playing in Scotland en route home from Italy. In addition to these countries in which he was “in residence,” he has interpreted data from these other foreign areas: Gulf of Suez, offshore Burma, Indonesia, South China Sea, and offshore England and Ireland. His domestic “doodlegolf” has been along the Gulf Coast, Florida (the Bahamas), and Texas.

Western has had offices in three cities of Australia at various times, and Jim has worked in all three—Melbourne, Perth, and Sydney—and also in the field office in Darwin. His service “down under” (three times) brought him what he considers probably his most interesting assignment. This involved riding the Oil Creek around the coast of Australia from Cairns on the east to Darwin at the northwest corner. The crew stopped in the Gulf of Carpentaria about four days to shoot a few lines without benefit of navigation control and encountered rough weather and high seas all of the way. While it was routine for everyone else on board, to Jim it was unusual. “I’m glad I did it,” he concluded of this experience, “but I wouldn’t care to do it again.”

It was earlier in his career that Jim had his most enjoyable Western experience, his tour of duty in Havana. It also became rather exciting at the end because Castro was making his move to take over the island. One night a very noisy bomb exploded a short distance from the Dees’ apartment and shook up the family a bit; it was at this time that the authorities were becoming really nervous. The following Saturday Jim and two colleagues were driving around a wealthy residential area looking for the Havana Country Club, where a professional golf tournament was being played, when they were stopped by a car full of policemen. After satisfying themselves that the three Westerners were not rebels scouting the area for Fidel, they escorted these golf buffs to the gates of the club.

Jim started with Western as a senior draftsman on Party 33. In a few months he was a computer and by September 1955 a party chief. It would seem that all Westerners from over the years must know him as the number of crews that he has headed is many—too many to count! These have been both land and marine crews. In the past 10 years he has been doing interpretation—in Shreveport, Louisiana; in Houston; in London; in Milan, Italy; in Sydney, Australia; and now back in Houston. It was in mid-1968 that he was promoted to interpretation supervisor, while he was with the Milan digital center in Italy.

A native of Many, Louisiana, Jim was graduated summa cum laude from Centenary College, in Shreveport, Louisiana, with a B.S. degree in mathematics and then had a year of graduate work in math at Louisiana State University. Following this he taught high school algebra for a year. Previous to college Jim was in the army air corps during World War II. As a staff sergeant, he was a radio operator in a ground station of Army Airways Communications. The only stations outside the United States for him, he says, were in northern Canada and the Azores.

While his “No. 1 hobby” is golf, he also plays tennis occasionally and loves baseball and football and all kinds of music. Jim and wife Colleen, whom he met in Australia, have a 2-year-old daughter, Karen Marie. In addition to caring for their child, Colleen spends her time cooking gourmet dishes, gardening, and playing tennis and also loves music. Jim has two other daughters by a previous marriage. Diane works for Southern Bell Telephone in Shreveport; and Debra is graduating from Louisiana Tech University (Ruston) this year.

In honor of Jim, Senior Vice President Neal P. Cramer hosted a luncheon for this 25th anniversary. The total years of service to Western represented by the group was 155 years! The host’s guest list of interpretation experts, in addition to Jim, included Aart de Jong, manager-data interpretation; Walter C. Browder and Ray Richard, senior party chiefs, and Walter R. Barksdale, interpretation supervisor.

An assistant computer 25 years ago, today J. Warner Loven is vice president and manager of operations of Western Geophysical Company of Canada, Ltd. His entire Western career has been spent in Canada.

Born in Grande Prairie, Alberta, Warner was graduated from the University of Alberta with a B.S. degree in geology. From the university he went directly to work for Western, starting on Party F-50 on May 16, 1951. He progressed to computer and senior computer on that crew and then the following year was transferred to Party F-39 as a chief computer. Four years after joining Western he was a party chief and headed many of its Canadian crews until January 1963 when he was promoted to supervisor.

Warner’s capabilities and value to the Company were proven in May of that year on his selection as successor to the long-time vice president and manager of operations of Western of Canada, Jack M. Desmond, on the latter’s recall to Western of America to head the burgeoning operations in the Rocky Mountains. Warner has held this position ever since.

After 25 years he recalls as the most interesting his experiences with crews working in the frontier areas. These

Western of Canada Vice President and Manager of Operations J. W. (Warner) Loven (right) has just received his 25-Year Service Pin from Grant P. Gates, in the Calgary office. Warner then returned the honor by presenting to Grant a similar 25-Year Service Pin.
include, among others, the first crew in Fort Nelson, British Columbia, in 1953, and the first Western crew in the Canadian Arctic, in 1960. To Warner going north was going home, for in this sparsely settled area any place within a 500-mile radius of Grande Prairie was “home.” “All he had to do,” said a friend, “was shout, and someone knew him.”

The geophysical activities of this veteran have not been confined to the company. Warner is a member of the Society of Exploration Geophysicists; the Canadian Society of Exploration Geophysicists; and the Association of Professional Engineers, Geologists, and Geophysicists of Alberta. He was chairman of the Canadian Petroleum Association's geophysical committee in 1973-1974 and chairman of the registration committee for the 1969 international convention of S.E.G., which was held in Calgary. With Warner these 25 years has been his wife, Joy. Like her husband, this gracious woman is always busy, doing needlepoint, petit point, and antique refinishing; sewing; entertaining guests; and helping raise their family of five children. Larry, 24, received his bachelor of science degree in mathematics this spring. Maureen, 19, works in the radiology department of the Foothills Hospital in Calgary. Ed, 21, is attending Mount Royal College in Calgary, studying radio and television communications. Greg, 16, is in high school and Donna, 9, in elementary school. All of the young Lovens are skiers.

Though a light-heavyweight on the University of Alberta's wrestling team, Warner's athletic interests have since been transferred to other sports. In the winter it is curling and in the summer golf.

His most memorable athletic experience came, however, during a high school baseball game. Warner was playing centerfield for the Beaverlodge Royals when he was struck by lightning. Hanging in the Lovens' rumpus room is the uniform he was wearing. “It is a sight to behold!” commented a friend. “Someone up there likes him!” When his sons were young, Warner was a PeeWee hockey coach and also involved with the Cub and Boy Scouts.

In observance of his 25 years of service to Western, Warner was a special guest at a luncheon at the Blackfoot Inn. Attending were Don O. Frisbee, former executive vice president of Western of Canada who was in Calgary on Company business; Supervisor Jock Coulit; Party Manager Bill Cherniak; and a co-honoree, Supervisor Grant Bates.

Another Canadian observing his 25th anniversary with the Company this year is Supervisor Grant P. Bates, who has been with Western Geophysical of Canada for his entire geophysical career, working in Alberta, the Northwest Territories, and Alaska.

Ratied today as an excellent geophysicist and a topnotch interpreter, who understands computers (machines), Grant is in charge of the interpretation group in Calgary. He started, however, as a draftsman, first junior and then senior, on Party F-61. Less than five months after joining the company, he became a computer (person), serving in this capacity on various crews until the spring of 1956. Then he was transferred to Party F-62 as its chief computer. Five years later he left F-62 for F-69 to be its assistant party chief. The dawn of 1965 saw him achieve full party chief status with a transfer to Party F-71. He headed several parties until made a supervisor of interpretation at the beginning of 1969.

Grant achieved his competency in interpretation by “rub off” and his own great initiative. The “rub off” came from such persons as Jack Desmond, former vice president and operations manager of Western of Canada and now in Houston, and the late Ray Whitt, a party chief and then supervisor in Canada. Interested and desirous of achieving more knowledge of the subject, he read books and studied clients’ records. He became so proficient that he has been “farmed out” at times to clients to interpret their records for them.

Born in Cardston, Alberta, Grant went in for sports during his high school days. He won three Alberta boxing championships and also played on the basketball team. Now his interests are centered around gardening, carpentry work, and electronics. During World War II he was a navigator with the Royal Canadian Air Force.

Grant and Dora were already husband and wife and had one baby when they joined the “Western family.” Myrna, that child, is now 25 and married. Their son, Brian, 22, is a driving instructor; and daughter Sandra, 16, is an honor student in high school. They lost another son, Ronald, when he became ill and passed away in 1965 at the age of 9. While her family is occupied with their jobs and school, Dora is busy as the cashier in the stationery department of a large department store in Calgary.

With his boss, Grant was honored for his 25 years of service to Western at the luncheon at the Blackfoot Inn. Although the last of these five men to be eligible for his 25-Year Service Pin (June 1), Field Equipment Supervisor Thomas G. (Tom) Sergeant, was the first of them to be employed by Western (January 8, 1949). His Western service was interrupted for over two years by the army.

Born in Fort Morgan, Colorado, Tom in December 1948 “left cold Colorado for sunny California,” where, he says, he soon met Western Geophysical and V. E. Prestine (well-known and long-time vice president, now retired). Hired as a helper, Tom found himself on his way out of the warm climate, driving a new water truck from Los Angeles to Calgary, Canada. He then reported to Party 8 in Wolf Point, Montana, “(—40° and ‘Red’ Brown, too!’)”
On Party 8 he worked the “high line” in Montana and finally down to Wyoming as a driller, but during this period he had also driven more trucks from Los Angeles to Canada.

From Wyoming he entered the army and became Sgt. Sergeant in the 2nd Armored Division of the Combat Engineers. For two years and 13 days he served in Texas and Germany. Upon his discharge he returned to Western, in early February 1953, and, as luck would have it, was assigned to Party 7—and Fort Morgan!

This hometown assignment was too good to be true, however, for a month later Tom was transferred back to Montana, first to Party 36 in Glasgow and shortly after to Party 1 in Plentywood. With this crew he managed to get as far south as Green River, Utah, and even to Fort Morgan again. Alas! Party 1 was closed down there. His next assignment was, yes, Montana—Browning this time—followed by a winter in Canada and then North Dakota and Montana.

Figuring that there was one possible way of getting out of the cold northern United States and Canada, Tom volunteered for overseas duty. It worked—he went from Hardin, Montana, –30° to Kingston, Jamaica, +80° with 40% humidity! From 1956 to 1967 he remained overseas, with the exception of short stays in California, Alaska, and Texas in between these foreign assignments, which in some places were classified as hazardous duty. In these 11 years he worked in Jamaica, Cuba, Venezuela, Portuguese Guinea, Argentina, Aden, Tunisia, and Iran as a driller, driller-mechanic, and vibratory mechanic. His sister said that she always knew where Tom was working by checking the newspapers for the place of the latest revolution—that was where her brother was!

Tom decided, however, that “enough’s enough” and returned to the States in late 1967. He worked out of the shop in Midland, Texas, for a year as vibratory mechanic and then moved to Los Angeles. His vast experience and ability as a driller and mechanic brought him the promotion to equipment supervisor. He was assigned to Pacific Coast Operations, working out of Los Angeles—“mostly out,” he says—in California and Alaska. Then in 1972 this operations office moved to Colorado, and Tom was “home” as Denver is near Fort Morgan. If the reader wonders where his field supervising travels take him now, you guessed it, Wyoming and Montana!

During all of this wandering Tom has been known as an excellent driller and mechanic. Coupled with this were his traits of doing anything asked and never complaining. A rather quiet person, Tom has a good sense of humor and likes his fun. In spite of his good looks and pleasant personality, Tom roamed the States and the world single; and most of his colleagues—and their wives—were sure that no gal would ever “catch” Tom Sergeant.

Tom began succumbing, however, to the friendliness and charms of a Western employee before both were transferred from Los Angeles to Denver in 1972. That girl was Darla Garman, administrative assistant in the Pacific Coast Operations office. Tom and Darla surprised everyone in August 1974 by flying from Denver to Reno, Nevada, and exchanging marriage vows. This delighted everyone, including Darla’s little daughter, Diané, who adores her new father.

Although Tom professes to have no time for sports or hobbies, he played basketball in high school until he injured his wrist so badly that he could no longer play. Also, he was an excellent swimmer and was a lifeguard at a community pool for a while. He loves water skiing but has not tried that for several years.

His wife says that Tom does have hobbies. One is caring for their large yard since he and Darla bought a home in Denver. Another that he really enjoys is gardening. In their “back 40” (part of back yard) he grows all kinds of vegetables and other food—currently cherry tomatoes, beefsteak tomatoes, squash, red beets, corn, lettuce, radishes, onions, potatoes, sweet peas, green beans, rhubarb, and strawberries. Another of Tom’s hobbies involves the Sergeants’ cat. Have you ever heard of a retriever cat? Well, Tom has taught theirs to retrieve a ball and is now in the process of teaching her to sit up! A year ago he was teaching his then-3-year-old daughter to use a calculator.

While Tom lists his wife’s activities in one word, WESTERN (she started with the Company in 1964), Darla adds that she does have other interests, reading and sewing. The latter she has taken up in the past few months to make herself some maternity clothes. Diané, who will be 5 in October, is a lively, pretty little girl, now “growing tall,” and has the usual child’s activities.

To celebrate Tom’s 25th, a small group gathered at the Sergeants’ home where Vice President Charles W. Dick presented Tom a 25-Year Service Pin and read a congratulatory letter from President Booth B. Strange. Following cocktails they then drove to one of Denver’s newer restaurants, Les Jardins. In addition to Charles, Tom, and Darla, Field Supervisor Gordon Langston and his wife, Andrée, took part in the festivities.

Congratulations to these five men who have dedicated 25 years of their lives to Western for its gain and seemingly thoroughly enjoyed doing it through thick and thin. See you in five years!

Vice President Charles W. Dick (left) is about to present a 25-Year Service Pin to Field Equipment Supervisor Thomas G. (Tom) Sergeant in the latter’s home in Denver. This spot in front of the Old World map above the mantel was considered appropriate for the ceremony for Tom because of his service in many countries.
OUR MAN IN WASHINGTON. Carl Savit, Western's senior vice president-technology, is on the Coastal Zone Management Advisory Committee, which met recently in Washington, D.C., and in Juneau and Anchorage, Alaska.

Five years ago the committee was established by Congress to advise the United States government and the Department of Commerce on matters affecting the management, development, conservation, and enhancement of the territorial waters and adjacent shores in and around the United States.

Members of the committee represent a broad cross-section of industries and other concerned agencies and groups. Carl, the sole representative of the energy-producing industries on this committee, was appointed to serve a three-year term, which began in late 1975.

The committee is required by act of Congress to meet on a regular basis, and meetings are held alternately in Washington, D.C., and other coastal areas.—Carol Blackhall.

PARTY 75 is now based in Morgan City, Louisiana. This does not mean that we work out of only Morgan City; we also cover the Gulf Coast of Texas and Louisiana. The crew has been involved in some drag cable work but at this writing is back to streamer cable.

Party Manager Jim Squires left the crew to do a job in Venezuela, and Russell Brown has replaced him. There have been a number of changes in personnel because another crew has been activated and some from each crew helped to get it established.

Don Birdsong, an "old-timer," is doing his normal good job as co-ordinator. Observers David Biven, Doug Ballard, and William Behrens and Assistant Observer Jeff Rockwell are running the recording room very efficiently. Gean (Whitey) Tonn is gun mechanic, and Cook C. W. Ethridge keeps the crew happy with a full table of good food.

Captains Larry and Norman Creel keep the Western Geophysical II on course and in shipshape with the help of Marine Engineer Maynard Hall, Jr., Harold Foster, Lorac operator, is head navigator and seems a permanent fixture since he has been on this crew for three years.

Everyone on Party 75 sends their regards, and next time maybe we shall have more news.—Russell Brown.

CINDY LYNN SUMRALL, born on January 8, 1976, is the newest addition to the household of Mr. and Mrs. James S. Sumrall. Jim, a job analyst in the Houston gravity department, and his wife, Nancy, have two other children, Susan and James, Jr.

Instrument Supervisor Russell Kaminsky (left) receives his 20-Year Service Pin from Supervisor-Field Service Operations Jack Litchenberg during a luncheon for Russ at Vargo's Restaurant in Houston. Russ is widely known to many of our field crews for the competent and willing help that he has given them over the years.
YOUNG WESTERNERS from all over the country joined the ranks of the class of 1976 in May and June. Some of Western's proud parents wish to share their pride in their children with their fellow employees.

Lori Lynn (Lorali) Blair, daughter of Marvene and Jimmy D. Blair, permit agent for Party V-4, was graduated on May 28 from A. C. Jones High School in Beeville, Texas.

Lorali's high school career included achieving top honors in the senior class vocabulary contest, serving as a cheerleader for two years, and participating in the pep squad and the choir, where she was an officer. Outside of her school activities, she has been involved in church events, tennis, boating, and horseback riding.

While she has no immediate plans for college, Lorali does want to work as a teacher's aide after vacationing in Colorado, Oklahoma, and New Mexico.

Martha Jean Brown is now a nurse, following her graduation from the Northwestern State University College of Nursing at Natchitoches, Louisiana, on May 14. Martha is the daughter of Mr. and Mrs. William Russell Brown of Berwick, Louisiana. Russell is a party manager for Gulf Coast crews.

On August 21 Martha was married to Keith Paul Barbier of Berwick and is now working in the medical-surgical unit of Lakewood Hospital in Morgan City, Louisiana.

Crane High School in Crane, Texas, graduated Merry Coker, daughter of Connie and Roger M. Coker, assistant shop supervisor in Galveston, Texas, on May 28.

Merry was volleyball manager during her junior year of school at Crane, lab assistant to her art teacher in her senior year, and a member of the pep squad in both her freshman and senior years.

After she completed school, Merry traveled across the state of Texas to visit her parents in LaMarque before she was married on September 18.

Ronald Edward Floyd, who was named a “Distinguished Student” by Texas A & M University, has been graduated from Galveston's Texas Maritime Academy, a branch of Texas A & M, on May 8.

Ron, the son of Galveston Expeditor E. E. (Earl) Floyd and his wife Pearl, was listed in Who's Who in American Colleges and Universities 1975-1976, was named the Cadet of the Year 1976 by the Galveston Women's Propellor Club, and received the American Bureau of Shipping award as the Outstanding Practical and Theoretical Engineering Student 1976. In addition, Ron was a member of the Texas Maritime Academy Propellor Club and of the student advisory committee and was company commander of the Texas Maritime Academy Corps of Cadets.

His special activities include serving as an ensign in the
United States Naval Reserve, and he has obtained the United States Coast Guard license, which qualifies him as Third Assistant Engineer, Steam and Motor Vessel Unlimited Horsepower.

With that background, it is only natural that Ron is now working as a third assistant engineer for an oil company.

Listed on her class “A” honor roll was Janice McLendon, who was graduated from Lake View High School in San Angelo, Texas, on May 27. Jan, daughter of Party V-52’s Permit Agent B. R. (Slim) Gilbert and Mrs. Gilbert, finished in the top 10 of her graduating class. She received an academic award for her “A” average in civics-government and an award for her perfect attendance. Jan also won first place in the local D.E.C.A. district contest and is a member of the D.E.C.A.

Spring Branch Senior High School in Houston, Texas, is the alma mater of Vicki Lynn Scott, daughter of Geneva and Carl Scott, digital equipment engineer at Houston’s data processing center. Graduated on May 26, Vicki was a member of CHUMS, which is composed of senior girls who promote school spirit during the pep rallies held at football games.

Vicki was married on June 25 to W. Darwin Cooper of Palestine, Texas, son of Mr. and Mrs. Ross Kelly, and is now working as a cashier at a discount store.

Teresa Lynn Shivers was graduated from Clear Creek High School in League City, Texas, on May 25. Teresa, daughter of Marzee and Joe Shivers, general manager of the Galveston lab, was a member of Home Economics Co-operative Education and the school choir.

Her spare time is spent on bowling, swimming, and horseback riding. Teresa’s dad says that she is also the self-appointed protector of all the stray animals in the neighborhood.

Because of her love for children, Teresa worked at the Totland Nursery in League City after school all year, and her current long-range plans are to pursue a career in the child care field.

Kimberly Aileen Watts, daughter of Jeanette and Harold D. Watts, party manager of Party V-52, was graduated from Ouachita High School in Monroe, Louisiana, on May 21.

With no immediate plans for college, Kim is now working in a local sporting goods store.

The Profile joins with Western employees in congratulating these young people and wishing them every success in the future.
PARTY 8 SPENT the months of December through April on spike in southern California, but we did take time out to help with the March of Dimes Walk-a-Thon here in Willows, California.

On May 1, in Orland, a few miles north of Willows, Party 8 got together with Party 401 and had a picnic. One of the high points of the day was a softball game between Party 401 and ourselves. Party 8 won the game with an edge of about three times as many players as B. W. (Red) Brown's Party 401.

Party 8 has contributed to the population explosion in three small ways during the past year. Helper Jim Rich and his wife Sandra had a baby boy, Micah, in November. Surveyor Brad Swarengin and his wife, Malissa, had a baby girl, Jessica Jo, on April 1; and Helper David Stone and his wife, Rebecca, had a baby boy, Robert, on April 12. All three were born in Willows. Driller Tracy Bradshaw and his wife, Peggy, were expecting their baby in July.

Field Equipment Supervisor John E. Cligan joined Party 8 for a time, assisting other members of the crew. Members of Party 8 include Party Manager Allen Carney, Field Clerk William R. (Bobby) Harrelson, Observer John W. Johnson, Junior Observer Jim Scott, Surveyor Roger Holme (a recent transfer from Party V-94 in Alaska), and our shooter, Cable-truck Driver Roy Hill. Other crew members are Drillers Fred Leonard, Rod Lund, Steve Edwards, and William (Blackie) Waldron.

 Helpers this past year have been Kelly Carpenter, Danny Forbes, Jim Marmon, Agatha Rich, Frank Rich, Carson Lee, Chuck Hames, Darrell Rogers, and Tom Davenport. Others helping were Larry Corrie, Walter Schmidt, Lanny Montgomery, Leland Rhyne, Terry Cooper, Chuck Kilts, and Virgil Foster.—Bobby Harrelson.

AFTER SEVERAL “almosts” the Galveston machine shop finally completed 365 consecutive days without having a chargeable accident. For this feat we were “wined and dined” on February 29 at one of Galveston’s local establishments, where everyone enjoyed a steak dinner and a very pleasant evening of entertainment.

Those in attendance were: General Manager Joe D. Shivers and his wife, Marzee; Assistant General Manager John C. Mollere; Safety Engineer Chet Hale and his wife, Evelyn; Machine Shop Supervisor William (Bill) Liberty; Shop Fore-
At the time this article was submitted to the *Profile* the machine shop employees had completed 204 days without a chargeable accident. The "hound dogging" of Chet Hale to make certain that OSHA's Safety Standards are met, the continued policing of Joe Shivers to see that they are obeyed, and the constant care of every machinist in his work habits has made this enviable record possible.—*William D. Liberty.*

**WESTERN WIFE PASSES AWAY.** Word belatedly reached the *Profile* Office of the death of Nedra Bakke, wife of Field Supervisor R. D. (Ron) Bakke. Nedra, 48, passed away of a heart attack on June 8 in Cairo. Funeral services were held in Seattle June 15. In addition to her husband, she is survived by one daughter, Dayna, 10. Westerners will miss this lovely lady who always appeared happy and serene. On behalf of them the *Profile* extends sympathy to the family.

**PROFILE OFFICE VISITORS.** Members of the Western *Profile* staff were given a rare treat on June 10, a personally guided and illustrated tour to an Alaska crew camp by Westerners Mike Mishler and Fred Mueller, Party 91. Mike, who has worked for Western in Alaska the past three winters as a field clerk, and Fred, who had just completed his first winter up there, as camp attendant, drove up to Los Angeles (Sherman Oaks) from San Diego to show the Editor their several hundred color pictures of the camp and area where they had worked. Learning much, the Editor still wants to go to Alaska and the North Slope; her California-born editorial assistant decided that is is too cold up there. Both men work for Western in Alaska in the winter and return for the summer to their homes in the San Diego area, where Fred also has a maintenance business. The *Profile* Office door is open to all Westerners who care to drop in.

Above—Fred Mueller, who visited the *Profile* Office this summer, is shown working at his winter job as Party 91’s camp attendant.

Right—Mike Mishler, field clerk for Party 91, holds the polar bear cub that was found last year and that is now in an Alaskan zoo. Mike also was a visitor to the *Profile* Office this summer.
DENVER PICNIC. The day (May 23) of the combined Denver digital center/area operations office picnic started out rather traumatically for your reporter. My food assignment was two dozen deviled eggs. Now that sounds like something relatively easy—however, your reporter found it an insurmountable task. I do not know whether it was the altitude, the humidity, the eggs, or what—but peeling those eggs was an excruciating experience. When I finally arrived at Elizabeth, Colorado (about 25 miles south of Denver), I found that I need not have bothered bringing my rather dilapidated eggs. Everyone had brought scads of food.

Although storm clouds hung threateningly over the site and
the wind was a little nippy, there was a covered pavilion that provided refuge from the elements. Inside there was a large pot-bellied stove to keep us warm and toasty and a large grill to cook hamburgers and hotdogs. After everyone had exhausted themselves participating in contests, horseshoe tournaments, and a rousing softball game, we all gathered inside for the door-prize drawing. The grand prize, an electric ice cream freezer, was won by Pete Tracey, senior tape librarian. Your reporter went home 10 pounds heavier, weary, and without any deviled eggs!—Joyce Miller. (Photos by Chi Hsu.)

It is not every day that people who work on dry land and who have no direct connection with the sea or ships have an opportunity to tour a seismic exploration vessel. Thus, when Western’s *Anne Bravo* was in a Los Angeles-area harbor late last spring, several Litton officials availed themselves of the chance to see exactly what it is that a seismic ship does.

**Working** in northwest Kansas may seem like an ideal location for a geophysical survey by Party V-2, but looks can be deceiving. Weather and terrain play an important part in production.

The weather changes on a daily basis, from dry and dusty to cold and rainy. Although there is not much rainfall, northwest Kansas is one of the windiest regions in the United States, which affects our electronic records. Wind in this area has occasionally brought production to a standstill, with winds exceeding 50 mph (time to carry rocks in your pocket). As for the rain, April, May, and June are the main rainy months (sometimes accompanied by tornadoes).

Kansas may be thought of as gently rolling hills, but not everyone goes where a geophysical crew travels. Gently rolling hills turn into steep hills, cliffs, and deep creek beds, making a few miles seem like hundreds.

For the most part the people whom we have encountered have been friendly and happy to help whenever it is needed.

—Kris Brault.

An AQUAPULSE gun aboard the *Anne Bravo* is explained by Western Supervisor Orval Brannan to Litton officials from Beverly Hills, California. Intently listening to Orval are, from the left: Corporate Executive Vice Presidents Arnold R. Kaufman (partially hidden) and Joseph S. Imirje, Vice President and Corporate Secretary George W. Fenimore, Chairman of the Board Charles B. Thornton, and Executive Committee Chairman Glen McDaniel. In the background is our Western Gulf. The *Anne Bravo* stopped briefly in a Los Angeles-area harbor before continuing her trip to Alaska.

Taking part in the tour were Litton Chairman Charles B. Thornton, Executive Committee Chairman Glen McDaniel, Corporate Executive Vice Presidents Joseph S. Imirje and Arnold R. Kaufman, and Vice President and Corporate Secretary George W. Fenimore.

Tour guide for the afternoon was Western Supervisor Orval F. Brannan, who provided explanations of the *Anne Bravo’s* equipment, including the AQUAPULSE® gun system, which serves as the energy source for the entire seismic operations of the ship.

During the tour Orval explained the principles of a marine seismic data recording system. The data is collected by generating and accurately timing an acoustic signal that reflects off the strata and is recorded by the hydrophones that are strung out on the two-mile cable that is towed behind the ship.

Completing their tour of the ship and feeling refreshed by the sea air, the Litton officials departed for their offices. Later the 190-foot *Anne Bravo* steamed out of port, bound for a summer’s work off the southwest Alaska coast.

Helper Don McManus holds a surveyor’s rod for reading by a surveyor of Party V-2, which worked in the northwest Kansas hills.
WE WERE ON TELEVISION! Western’s Carl Savit and Party V-1 were featured on a 3½-minute segment of ABC’s Howard K. Smith national news program last May 27. Carl, senior vice president-technology, took the news-camera crew to where Party V-1 was working in Texas. There they shot the equipment in operation to show something of what is involved in geophysical exploration. ABC correspondent Roger Peterson then interviewed Carl and a representative of an oil company on the recent decline in oil exploration resulting from governmental restrictions being put on oil companies. The report closed with a view of an empty oil tanker leaving to bring back a cargo of oil from overseas. As the tanker left, it passed four idle drilling rigs “stacked” along the banks of the Sabine River.

DEATH TAKES EX-WESTERNER. Curtis Johnson, 67, a member of Western’s research department for a number of years, died June 7 of a massive heart attack in Laguna Hills, California. This former president of the Society of Exploration Geophysicists moved to this Leisure World community not long after his retirement from Western and in spite of several previous attacks and successful open heart surgery was enjoying an active life, including painting and participating in the art group at Laguna Hills. He is survived by his wife, Helen, of Laguna Hills, and their son, Doug, a stock broker in Los Angeles. Curtis was well liked by all Westerners who knew him, and on their behalf we extend sympathy to Helen and Doug.

“BUENAS DIAS” from all of the members of Party V-52. Como esta usted? Everyone here in Laredo, Texas, is doing well except for our troubleshooter, Helper Raymond Ashley, who broke his hand in an auto accident, but he is now back on the job. Surveyor Dwight Rich was hospitalized in Houston recently for tests, but fortunately no serious complications were discovered, and Dwight is also back on the job and feeling fine.
We regret to report that Observer Byron Roseberry has left Western and returned to his home in Purvis, Mississippi. Best wishes from V-52 go to Byron, his wife, Barbara, and their son, Allen.

Party V-52 would like to extend a Western welcome to our new assistant observer, Bruce Calloway, and his wife, of Dallas. We welcome them to Laredo and hope that their stay will be fulfilling for them and an asset for Western.

Surveyor Gary Glover went on a leave of absence June 1 to build a home on his ranch in Utopia, Texas. Gary, alias "Lincoln," returned to work August 1, and we had many miles of line waiting for him to run-in.—Ken Nippert.

Three Westerners from the Houston digital center received certificates of appreciation from Junior Achievement of Southeast Texas. Receiving their awards from our president, Booth B. Strange (left), were Night Shift Supervisor William Lowenberg, of the digital center; chief advisor to the junior achievement company: Senior Geophysical Technician Fred Carney, and Geophysical Technician Don Conner, both from the HDC marine group. Fred and Don served as counselors one night each week to the student company.

CERTIFICATES OF APPRECIATION. Three Westerners who have donated one evening every week during the school year to "Minicom," Western's Junior Achievement Company, have received certificates of appreciation from Junior Achievement of Southeast Texas.

Receiving the certificates were Night Shift Supervisor Bill Lowenberg, of the Houston digital center; Senior Geophysical Technician Fred Carney, and Geophysical Technician Don Conner, both of the HDC marine group. Bill was chief advisor to the students participating in "Minicom," a company that offered a line of custom-made pen and pencil sets and paperweights. Both Fred and Don acted as counselors to the student company.

Congratulating the three men in a letter to Western’s President Booth B. Strange, Glenn H. Westman, president of Junior Achievement of Southeast Texas, wrote: “I would like to extend my sincere appreciation for the efforts of your personnel who accepted the challenge of counseling for Junior Achievement (JA) in the 1975-76 program. Those who worked in the JA Program appreciate the importance of effective counseling and realize the responsibilities and the personal reward of helping our young people learn sound business principles and practices . . . .

“Your continued support for the program, and the business leadership of your personnel, helped to advance the knowledge of the free enterprise system to many teenagers who might otherwise have missed this valuable experience.

“We look forward to your support again in 1976-77,” the letter ended.

“Minicom," run by a group of junior and senior high school students in Houston, was set up along traditional corporate lines, complete with officers and a board of directors. The objective of the students participating in "Minicom," like that of all the 2,500 Houston-area students enrolled in Junior Achievement, is to learn what a business is and how it is operated through practical experience.

"RED" AND "SANDY" MARRY. Yes, Good Friday was indeed a good Friday for B. W. (Red) Brown and Sandra (Sandy) Arrington as that day, April 16, was the one on which they were married at Lake Tahoe, Nevada. Red, a 30-year Western veteran, is party manager of Party 401 in northern California; and Sandy, who started with the Company in March 1970, has been assistant payroll supervisor in the main office in Houston.

As one of Red’s long-time friends explains it, this started out as a "telephone romance"! Sandy, as many Westerners in the field know, took the crew payrolls over the phone—and that is how Red “met” her. Calling in his payrolls every two weeks, he realized that he was talking to a person very efficient on her job. As efficiency is a quality that has always rated high with him, he made it a point to meet her personally when he was in Houston and invited her to a ball game. Sandy flew to California the Thursday before Easter for their wedding.

Present for the ceremony were Red’s two sisters. According to Red, Pauline posed as “best man” and Grace as the “mother.” His crew members knew what was about to happen and “threatened” to journey to Tahoe also, but the weather came to Red’s aid when it was so bad in the area that chains were required and they had to give up their travel plans.

On Easter Sunday Sandy flew back, with their secret, to Houston and all of our paychecks. She spent the Memorial Day weekend in California when her father-in-law came from Missouri to Lemoore where Red’s mother is buried. Then, having given a month’s notice, Sandy went on leave of absence July 31 and joined Red for a vacation trip and after that the “doodlebug trail.”

As we write this, only the Westerners on the West Coast and two or three in Houston know this happy news, but we are sure that all Westerners join with us in wishing many years of happy married life to these two popular Westerners.—The Editor.

Well-known Westerners B. W. (Red) Brown and Sandra (Sandy) Arrington were married in April at Lake Tahoe, Nevada. Red is party manager for Party 401 in northern California, and Sandy has been working as assistant payroll supervisor in our Houston headquarters office.
THEY SERVE

Service Anniversaries . . . April, May, June

40 YEARS
*Mollere, John C.
Strange, Booth B.

39 YEARS
Adams, John A.

35 YEARS
Shoup, George J.

34 YEARS
Hale, Margaret E.

33 YEARS
Buschmhie, Joe E.

32 YEARS
Maroney, Thomas P.

31 YEARS
Sullivan, Roscoe L.

30 YEARS
Bernhardt, Don A.
*Brooks, William T.

29 YEARS
Maines, John T.

28 YEARS
Browder, Walter C.
Dingman, M. Howard
Hanson, Ernest E.
*Lammert, John F.
Martin, Charles E.
Williams, C. Q.

27 YEARS
Anderson, Clarence N.
David, Vernon B.
Nicholls, Charles W.
*Sebastian, Charles F., Jr.

26 YEARS
*Brick, Larry
Richard, Carl R.
Schuller, Jerome A.

25 YEARS
*Bates, Grant P.

Dees, James A.
*Larrabee, Harry C.
Lovin, J. Warner

Vorpapel, George A.

14 YEARS
*Fontana, Renzo
Kubik, James F.
Malagutti, Mario
Moseman, Wayne A.

13 YEARS
Palacino, Gaetano
*Pivanti, Carlo
*Russ, Robert S.

12 YEARS
Bowling, James H.
Chambers, Ronald E.
*Dunwoody, Kenneth
*Green, Jack
*Leavitt, Keith A.
*LeLaux, Richard A.
*Satchliffe, Donald
*Wittford, Jeffrey A.

11 YEARS
Bivin, David D.
*Broussard, Milton J.
Cole, Patrick J.
Di Francesco, Riccardo
Goodman, David W.
*Lloyd, Guy
*MacRae, Hilton
Richards, Alan
*Small, Kenneth L.

10 YEARS
*Bingham, Ronald D.
*Bishop, Steve D.
*Chun, Joong Hae
*Creel, Norman J.
*Cross, Marie
Dorsey, Richard W.
*Hadford, Jeff J.
*Hall, Cooper E.
*Heard, V. P.
Lonsdale, Geoffrey E.
*Renzetti, Mario
*Scheffler, Arthur O.

9 YEARS
Bishop, Edward J.
Blossom, Douglas F.
Carabelli, Guido
Curd, Jesse
*Durham, David P.
*Edwards, Anthony J.
*Eubanks, T. W., Jr.
*Fish, Richard S.
*Gebauer, Klaus
*Hood, Gerald G.
*Jakobs, Dietmar

Kudrna, Antonin J.
*Lind, Harry W.
*Lindon, Elvin
*Massey, Derek L.
*McLean, Andrew
*Mitchell, Leslie
*Rachal, Willard G.
*Risbud, Indu
*Rogers, Joe E.
*Stokes, Janet
*Snyder, Donald C.
*Stella, Giovanni
*Swaroop, Brahma N.
*Williams, Ronald D.

8 YEARS
Alberti, Edgardo
Arenas, Antonio
Arvanitopoulos, A. M.
Bickham, Ronnie M.
Blair, Clare A.
Boone, William E.
*Chatooor, Winston J.
Evans, John T.
*Giansante, Samuele
*Handel, Arthur E.
*Isgrig, Richard O.
*Ivanitz, John M.
*Jones, Daniel R.
*Kingshall, David J.
*Meyer, Lotta F.
*Meyers, Rosemary
*Parker, Marion L.
*Peduli, Claro
*Price, Ronald W.
*Ramieri, Giuseppe
*Reed, Johnie L.
*Reilly, Edward C.
*Russell, Anthony
*Swarvingin, John T.
*Wright, Vincent

7 YEARS
Appicciutoli, Anthony
Baker, Christopher G.
Bernal, George A.
Brettell, Murray W.
Brown, Kelvin J.
*Bruckshaw, Donald W.
*Chegwin, Robert A.
*Di Profio, Vando
*Di Sabatino, Emidio
*Edmonds, Roger D.
*Erik, Wendelin
*Gambito, Gustavo
*Gonzalez, Henry B.
*Gonzales, Jose B.
*Hardy, Brian
*Henderson, Kenneth E.
*Hofer, Daniel L.
*Iovoli, Alberto
*James, Gary
*Jovanovic, Marco
*Kroebus, Robert C.
*Lavrati, Angelo

Lee, Evelyn Yuit Mei
Licitra, Giuseppe
*Marshall, Carolyn
Meyer, Percy W.
*Monttouri, Gennaro
Price, Evan
*Rochat, Donald M.
*Rosser, Richard A.
*Scherling, Michael D.
*Shaw, Bernard L.
*Sheffer, John B.
*Stringer, Barbara S.
Tan, Alice Sisk Leng
*Trebotich, Steve

6 YEARS
Ayres, Michael B.
Brummerhopp, Linda S.
*Caldeira, Jose
*Chua, Kim Siang
*Curlee, Robert M.
*Dawleman, Anthony W.
*Evans, M. W.
*Ewing, Ronald J.
*Goodloe, Kent I.
*Green, David E.
*Hashim, Bin Mohd
Jensen, Robert A.
*King, William F., Jr.
*Krochak, Dave
*Lattimer, Brian V.
*Manison, Ronald
McKee, Wavil A.
*Patrick, Jerry D.
*Renne, Rosalba
Samuels, Joseph G.
*Vagt, Volker

5 YEARS
Boyd, Andrew R.
Brown, David
Burnham, Paul
*D'Souza, Patrick F.
*Fredrick, Robert N.
*Garza, Johnny M.
*Gee, Ah Leong
Hamren, James P.
Harler, John C.
*Holmer, Richard A.
*Kauk, Kenneth K.
*Koenig, Wm. John
*Latimer, Le Jeune H.
*Little, Herbert A.
Miller, Adrian D.
*Opp, Anthony A.
*Papouci, Dragon
*Schicle, Roger D.
*Scott, Grenville T.
*Thomas Walkers, George T.
*White, Michael D.
*Yap, Dicky H. E.
*Young, John T.

*Interrupted Service
THEY SERVE

Service Anniversaries ... July, August, September

31 YEARS
Taylor, J. M.
*Young, William H.

30 YEARS
*Dungan, Wilton B.
Ferrari, Neo M.

29 YEARS
delong, Aart

28 YEARS
Caldarella, William C.
*Floyd, Emmitt Earl
*Hoyt, Leonard M.
Ross, Joseph C.
*Savit, Carl H.
*Webb, Nolen A.
Wimborn, Stephen A.

27 YEARS
Cramer, Neal P.
Taylor, Dalton

25 YEARS
*Kaminsky, Russell A.
Quintana, Benny
Robinson, James E.

24 YEARS
Baker, Zane H.
Goff, Brunner E.
Morgan, Donald D.

23 YEARS
Coker, Roger M.
*Jones, Glenn S.
Neis, James V.
*Squires, James R.

22 YEARS
Cane, Francis J.
*Goodgame, James O.
Scott, Carl W.
Southwick, Hillman
Tom Dieck, Detmar F.

21 YEARS
*Hansbrough, Charles C.
*Hearne, Harvey A.
*Porter, Arthur B.
Smith, Chester D.

20 YEARS
Barksdale, Walter R.
*Cherniak, William J.
Liberty, William D.
*Mantini, Carmine
*Stell, Marie T.

19 YEARS
Bertoni, Ferruccio

18 YEARS
Bezzi, Francesco
Bucarelli, Antonio
Casata, Ernesto
Cella, Paolo
Chiari, Alberto
Del Monte, Guido
Forlani, Giorgio
Gargano, Fulvio
Macchia, Edoardo
*Margola, Angelo
Monziani, Luisa
Perrone, Vincenzo
Rossi, Roberto
Tassi, Romano
Trucchi, Sergio
Zambelli, Goffredo
Zazzetta, Luigi

17 YEARS
*Reale, Giovanni
*Warren, Thomas A.

16 YEARS
Roundtree, Claude E.
Toschlog, Thomas A.

15 YEARS
*Banzi, Gino
Cooper, Ronnie R.
*Humerickhouse, James A.
Salvaggio, Frances
*Sferrrella, Dante
Stevens, Gene M.
*Van Reek, Jock
Weidner, Melvin I.

14 YEARS
*Battaya, Alfred F.
Gilmore, Truman R.
Rains, William M.
Rushing, Crawford J.
*Steggall, James D.
Sumrall, James S.

13 YEARS
Barbour, Jimmie H.
Bell, James H.
Knapp, Ralph S.
Lacaze, Malcolm E.
Lerch, Donald L.
Morgan, Felix H.
Robinson, William P.

12 YEARS
Anderson, Rufus O.
Balzette, Joe W.
*Freisen, Jacob
Holt, Sam L.
Jones, Robert J.
Kerry, Sybil A.
McCormick, Richard M.
*Milne, Craigwood
*Natalini, Silvano
Neis, Garry A.
Rutherford, Derek

11 YEARS
Cicognani, Giuseppe
Dallas, Tony G.
*Geisler, Donald A.
Henningsgard, Roger
Hoogeveen, John
Kelso, Boyd
Miller, Elliott E.
*Mirabella, Filippo
Pagram, Keith S.
Shammas, Victor
Smith, Jeff D.

10 YEARS
Bell, James Jr.
Bennett, John W.
Branman, Orval F.
Brown, Bill L.
Bruno, Rocco
Buccher, Berardino
Caldelli, Terigio
*Denholm, Henry J.
Drira, Abdelfattah
Edel, John J.
*Etridge, Charles W.
Karhu, Makkouf
Kostanic, John S.
Lund, Rodney D.
Malnory, Robert J.
Marzoli, Eliseo
*McDonald, Barry
Millson, Garry
Miranda, Anthony F.
Raihitha, Kanti
Schawalter, Walter
Venturini, Claudio

9 YEARS
*Allain, Alfred F.
Bailey, James P.
Cain, James D.
Colaiocco, Luigi
Ferrari, Shirley
Flowers, Archie M.
Jones, Joe

8 YEARS
Avila, Carlos
Bijou, Joseph
Brogden, James G.
Brooks, Frankie L.
Brooks, Larry D.
*Di Battista, Angelo
*Hitchcock, Neill P.
Ledzler, Walter H.
Mitchell, Stewart W.
Moree, Robert F.
Noble, David P.
Forrest, Eraldo
Ross, Walter F.
Ross, Paolo
Sharp, James R.
*Stroud, David R.

7 YEARS
Astorino, Antonio
*Bergstrud, Daryl W.
Bergstrud, Wesley A.
Blick, Stephen W.
Bourne, Idris C. J.
Boyer, Charles E.
Cavaleri, Brentani G.
Cosby, Milford M.
Dondi, Marisa I.
Dotson, Samuel M.
Downs, June
Earley, Charles D.
Eckhart, John D.
Elms, Mark
Farinelli, Giovanni
Ganem, Elias V.
Gleeson, Raymond
Godkin, Robert G.
Gonzalez, Lopez M.
Grabow, William R.
Guidi, Tonini
Hale, Chester L.
Hare, Bruce L.
Hix, Thomas B., Jr.
Hoek, Milton S.
Hsu, C. H.
Hubert, John L.
Innamorati, Rocco
Jahn, Cathy L.
Jeffery, Samuel E.
Johnson, Margie E.
Lombardelli, Antonio
Martin, Reginald H.
Mason, Glenys
Mason, Robert J.
McColgan, Patricia
McWilliams, William E.
Milz, Dieter H.
Morris, Robert G.
*Pack, Thomas C.
Pfingsten, John R.
Pimentel, James R.
Reynolds, Michael
Samurant, Gianluigi
Sandelman, Dave
Sasseen, Robert D.
Schweizer, Trudi D.
Scott, Gary L.
Sestan, Eleanore
Shapero, David J.
Slevinski, Michael T.
Stephens, Beverly J.
Tonn, Gean
Underwood, George E.
Vancini, Roberto
*Winton, John Y.

6 YEARS
Abdi Juma, Ali
Black, Darnell
Dhillon, Lawrence J.
Garcia, Ben
Gatti, Alessandro
Georgiou, J. C.
Gilbert, William A.
Hoyes, La Net Marie
Henkes, J. Hendrik
Neben, Stanley E.
*Osa, Antonio
Severson, Jon E.
Trasforini, Renzo
Wisekop, Robert D.

5 YEARS
Ames, Richard F.
Arledge, Earl E.
Berry, Benny W.
Bibby, Peter J.
Burcham, James F.
Caruana, Paul
Chaneck, Joseph H.
Chua, Poh Guan
Cramoisan, Pierre R.
Crews, Kenneth D.
Derington, William V.
Diver, Edward W.
El Kadi, Mahmoud A. G.
Hackett, Vaughn A.
Johnson, Murray W.
Koh, Edmund H. C.
Lee, Rodney E.
Lew, Helen
Muller, Friedrich
Ott, Leo E.
Polisensky, Janosik
Quinlan, Warren M.
*Ralton, Franklin
Reeves, William H.
Rosser, Richard A.
Thies, Linda G.
Vanek, Paul N.
Wilson, Gary W.

*Interrupted Service

WESTERN PROFILE

MARIANNE CLARKE, Editor