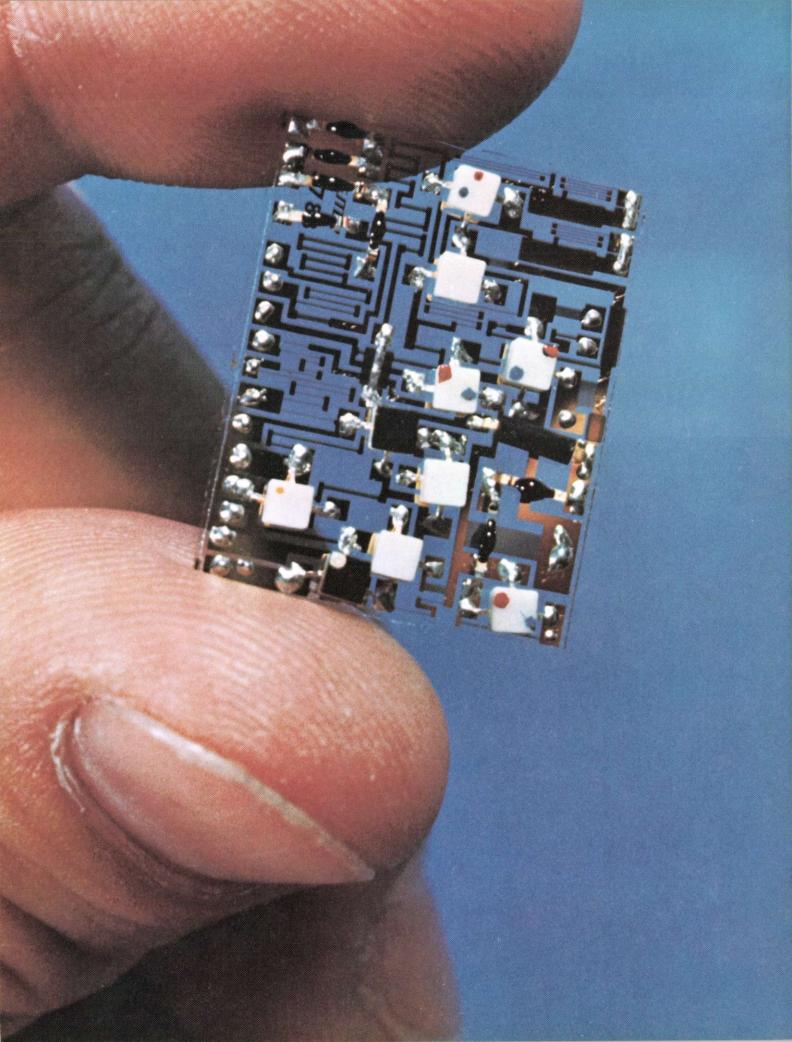
# SCHLUMBERGER

Annual Report 1965



# SCHLUMBERGER Annual Report 1965

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Front Cover. Painting by Magritte.

**Inside Cover.** Integrated circuit module to be used in future NASA space programs (EMR).

# IN BRIEF

	1965	1964
Operating revenues	\$318,106,000	\$302,367,000
Operating income	\$44,682,000	\$43,111,000
Net income	\$27,087,000	\$24,606,000
Net income per share	\$5.28	\$4.78
Dividends paid per share	\$1.50	\$1.10
Shares outstanding	5,128,757	5,150,957



Pierre Schlumberger, President Emeritus.



H. G. Doll



J. Riboud.

# To the Shareholders

Net income of \$27,087,000 in 1965 was 10% higher than in the previous year. Revenues of \$318,106,000 were the highest in the history of the company.

Operating revenues and net income improved during the year in each of the major sectors of our business. Worldwide oil field service revenues and net income were higher, particularly as a result of expanding exploration for oil in the Eastern Hemisphere and Canada. Our electronic and instrumentation business also had improved results. Weston Instruments, for the first time in several years, operated at a profit.

This, in brief, is the story of your company for the past year. A comprehensive operating and financial review, in the following pages, describes each subsidiary or division, its products or services, its problems, its performance and its plans.

The resignation of Pierre Schlumberger as president was announced on May 7, 1965. In recognition of his exceptional contribution to the company during more than 25 years, Mr. Schlumberger was elected president emeritus.

We plan over the next three years:

- to increase oil field revenues even if the rate of world exploration for oil remains at the present level. This will be achieved by improving the quality of present services and adding new services.
- to expand our electronic and instrumentation business. The reorganization in the past two years has provided a sound base upon which to build.
- to bring closer together the various entities of Schlumberger. This will enable us to take full advantage of our financial resources, of our management capability, and of our large research investments. Basic technology is the same in oil field measurements, space telemetry, and electronic instrumentation.

The Board of Directors voted on February 25, 1966 to split the common stock three shares for two to stockholders of record March 10, 1966. The board also increased the quarterly dividend to \$0.45 per share, equivalent to an annual rate of \$1.80 per share before the split or \$1.20 after the split.

March 8, 1966

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Jean Riboud President

H. G. Joll

H. G. Doll Chairman of the Board



# **SCHLUMBERGER IN 1965**

# **Oil Field Wireline Services**

To define traditional Schlumberger oil field services and to distinguish them from other types of services, the term "wireline" has gained wide acceptance. Why wireline? Because each Schlumberger laboratory unit uses a winch and an electric cable, the wireline, to lower instruments and tools into the well. Today more than 850 units, truck or skid mounted, perform more than 70 different wireline services.

The most important of our wireline services are the *logging services*. To log a well is to measure the physical properties of the earth formations encountered in the well bore. These measurements, the log, are recorded on film scaled to depth. Many measurements may be performed, depending on the down hole instrument used, such as spontaneous electric potential, electrical conductivity, temperature, speed of propagation of sound, natural radioactivity, or rate of absorption of neutron and gamma rays. Their purpose is to determine the depth, thickness, porosity, oil and water saturation of the formations. Other services implement the log's interpretation by recovering core or fluid samples from the formations.

Completion services are performed after a steel casing has been cemented inside the bore hole. Explosive shaped charges are used to perforate the casing thus enabling formation fluids to enter the well. The setting of mechanical production tools in the well is a part of these completion services.

The production logging services, a third series, are performed in producing wells. They provide data for a diagnosis of fluid flow. This is most important in wells of declining production to permit remedial work and to plan secondary recovery programs.

Wireline services are offered 24 hours a day from centers reaching more than 50 countries over the free world. More than 1,250 engineers are responsible for the performance of these services.

### Research and Engineering

Over \$7.5 million was expended during 1965 for research and engineering to develop new tools and services. This sum represents a relatively substantial percentage of service revenues. The nature of our business and its increasingly complex technology makes such expenditures a necessity as we intend to remain the leader in the field.

One research and two engineering centers employ 170 graduate engineers and scientists.

The research center, located at Ridgefield, Connecticut, concentrates on advanced scientific studies and on the development of the services and tools of the future. The principal research effort is directed toward electrical and electromagnetic phenomena, nuclear physics, acoustics and log interpretation supported by a strong mathematics group and a data processing section.

Engineering centers are located at Houston, Texas, and Paris, France. Their function is to design and engineer new tools that will provide dependable service under severe oil field conditions and that can be maintained as readily in a remote, isolated location as in a well-equipped center.

Complex electronic and mechanical tools must be packaged to withstand high temperature and pressure yet be small enough in diameter to move freely inside a well bore. Some current engineering developments focus on instruments that will operate at temperatures near 500°F, and at pressures over 20,000 psi. Others aim at miniaturization and increased reliability of electronic tools through the use of integrated circuits, printed circuits, welded circuits and encapsulation techniques.

Combined long-term research and engineering efforts have enabled us to introduce commercially several new services in 1965. They include:

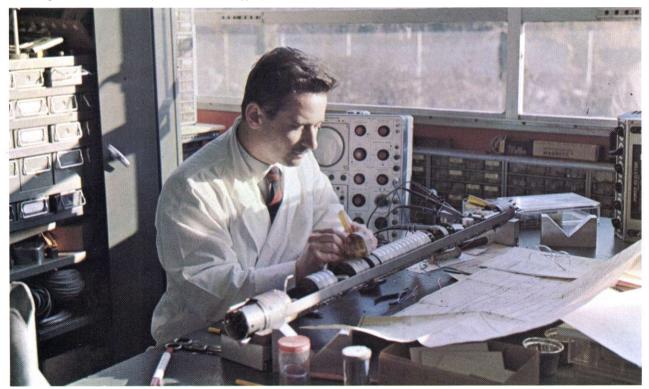
Epithermal neutron logging

This logging technique accurately measures the low porosities encountered in consolidated formations.

Neutron thermal decay logging

A high performance pulsed neutron generator tube designed at our Ridgefield Research Center made pos-

Checking a microsonic cartridge (Paris). Sonic logging is one of our 70 wireline services.



sible the development of this nuclear service. It is used to determine the presence of oil and gas behind casing where electrical measurements cannot be made. The service is applicable in the growing workover market.

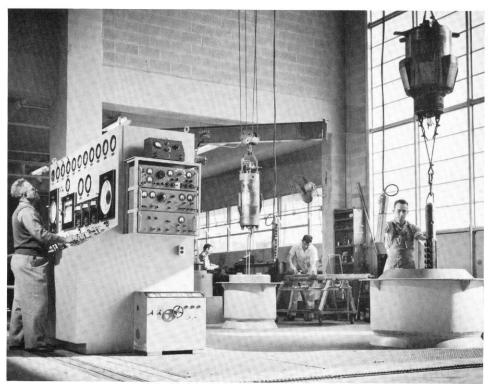
Multiple test fluid sampling

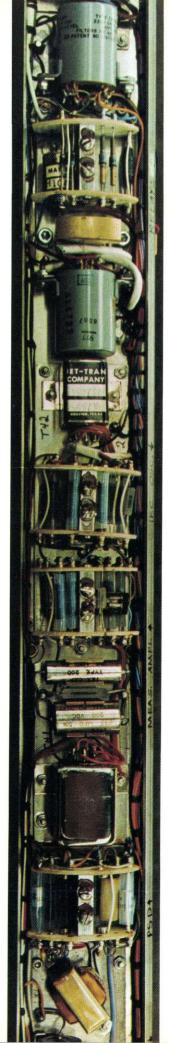
An improvement over the original service, when only one fluid sample could be recovered on each trip into the well, this new service enables us to recover up to six fluid samples on each trip. This gives our clients more information in less rig time and consequently at a lower cost.

Other tools and services are in the process of being field tested, such as a sand consolidation tool, nuclear magnetic resonance logging, and a microsonic fracture finder. Further development work during 1966 will continue on log transmission by radio and telephone and on the use of digital computers for log analysis.

On the right: Packaged in a steel housing less than four inches in diameter, this cartridge stands pressures of 20,000 pounds per square inch and temperatures of 400° F.

Below: Test well at Houston engineering center. Tools are checked under conditions similar to those encountered in oil wells.









Above: Wireline truck and offshore unit assembly line (Houston): 86 laboratory units and 62 offshore units were assembled in 1965.

At left: Control panels in Schlumberger truck. Field engineer monitors logging operation, observing light beams from the galvanometers of recording camera.

## Manufacturing

After tools and equipment have been developed and have undergone extensive field testing, they are released for manufacturing in our facilities at Houston, Texas, and at Paris, France. In 1965, the output of specialized tools and instruments from our shops was valued at more than \$25 million. During the year, 86 laboratory trucks and 62 offshore units were produced. We built 151 recorders and in excess of 600 sets of major logging tools. A variety of over 1,000 different items was manufactured for field use.

An initial series of tools is manufactured at the center associated with the engineering development group, thereby taking advantage of engineering know-how until production problems are solved. Later, tools and field units are manufactured to identical specifications in both Houston and Paris to provide flexibility in meeting field requirements.

# **Review of Operations**

### North America

The demand for petroleum products in the U.S. increased 4.3% in 1965. It was met through increased domestic crude production and through imports. Price structure for refined products was generally firm and the oil industry condition was on an overall sound basis.

Although capital expenditures for drilling and production in the U.S. remained at approximately the same level in both 1964 and 1965, a shift occurred in the type of drilling on which money was spent. While the number of wells drilled decreased from 45,236 to 41,423, there was an increase in the drilling of deeper wells, in offshore drilling and in secondary recovery projects. Forecast expenditures for drilling and production in 1966 are about 4.5% greater than in 1965.

In spite of the 8.4% decrease in the number of wells drilled, our field revenues were substantially the same as in the previous year. Deep wells and offshore wells represent high unit investment, and in consequence, the operator needs the most accurate and most extensive data that can be obtained from them. The demand, therefore, for our newer services—the double induction laterolog, the bore hole compensated sonic log, the compensated formation density log, and the formation analysis log, for example—increases in the high cost and deep wells.

West Texas was an area of deep drilling with more than 20 wells drilled, or in the process of being drilled, below 20,000 feet. This is a record better understood when compared to the average depth of all U.S. wells, which is 4,380 feet.

Other deep drilling was concentrated in south Louisiana as was most offshore drilling activity. Despite Hurricane Betsy, which temporarily shut down 25% of offshore drilling, the number of wells drilled offshore topped the 1964 level as did our income.

In 1965 successful wildcatting took place offshore Texas and in the Cook Inlet of Alaska. New leases will be offered offshore California in 1966. Active exploration in 1966 is expected to continue in these areas and in the Delaware Basin of West Texas.

Drilling was below normal in Kansas, the southern Rocky Mountains and Texas. The lower number of wells drilled in Texas was of special importance because of this state's usually large contribution to the total. As a consequence of economic factors in the shallow well areas, generally 2,000 feet or less, there was strong competition last year, as in prior years, from small logging and perforating companies offering limited services at cut-rate prices.

In Canada 3,746 wells were drilled, a 12% increase over 1964. The large increase in drilling was due to the demand for gas at favorable prices and to the high per well oil production allowable in Alberta. In British Columbia and Saskatchewan, oil wells may be produced to market demand. Last year, major discoveries were made in the Rainbow Lake area of Alberta, and active exploration continued in Saskatchewan and British Columbia.

Our service revenues increased substantially more than in proportion to the increase in drilling. The above average service revenue increase was due to the

Ready for logging operation.



introduction of new services and to increased exploration drilling, which requires more complete logging programs than does field development drilling.

The 1966 forecast for the U.S. and Canada indicates increased drilling over 1965 with the continuation of the trend towards deeper drilling, an increase in the number of offshore wells in the U.S., and greater exploration drilling in Canada. We are continuing our program to furnish the field with new and more advanced logging tools. At the same time, we are making a continued aggressive effort in the field of completion services. For instance, in 1965 we took the lead in high pressure completion work with pressure control equipment that handles up to 10,000 psi. We are also introducing on a commercial basis our newer production logging tools.

# Central and South America

Our revenue for 1965 increased slightly over that of 1964. However, our activity varied appreciably between the several oil producing countries as a result of political and economic factors. Revenues decreased in Chile, Colombia and Trinidad. They increased in Argentina, Brazil, Ecuador, Peru and western Venezuela. We expect an overall increase in 1966. There should be some improvement in Colombia and Trinidad, and prospects in Brazil and Argentina are favorable. Serious financial problems slowed oil developments in these two countries in recent years, but as these problems become less acute more active oil exploration should develop.

Operations in Central and South America are spread over wide areas. In mountain and jungle areas equipment and personnel often reach the well site by helicopter. Technical logging problems, however, are similar the world over, and we are trying to solve them in much the same way. We make a strong effort in training personnel and in bringing management close to the field. We employ increasing numbers of capable engineers from the countries in which we operate. The latest and most modern equipment is introduced wherever needed. In 1965, 30% of our revenues were derived from services introduced in the last five years.

### Eastern Hemisphere

More than 80% of the world's known oil reserves are located in the Eastern Hemisphere. Over the last five years oil production has increased 73% and has now reached a rate of 16.7 million barrels per day. This is about 56% of world production and about twice that of the U.S. and Canada. Middle East production alone now exceeds that of the United States.

Europe, excluding Russia, accounts for 26% of the world petroleum demand, and its oil consumption is increasing at a faster rate than the world average. Since 1946 world consumption has more than quadrupled. During the past five years it has increased 7.5% annually. This compares with a 2.8% annual growth rate in



Offshore unit on platform "Pero Negro" in the Gulf of Suez. In the Eastern Hemisphere, similar units operate in the North Sea, the Adriatic, the Persian Gulf, and off the coasts of Africa, Australia, and North Borneo.



Schlumberger truck airlifted to survey geological conditions for a new Gothard tunnel in Switzerland.

the U.S. for the same period. The Eastern Hemisphere is both a growing consumer of petroleum products and a major source of crude oil production.

More than one fourth of our total wireline service revenues is derived from Eastern Hemisphere operations. During 1965 revenues increased 12% over those of 1964, mainly because of offshore activity. At year end there was offshore drilling in the North Sea, the Adriatic, the Persian Gulf and off the coast of Libya, Egypt, Nigeria, Australia and North Borneo. As in the United States, offshore operations call for the more recently developed logging tools and services.

Indonesia and Algeria were the only two areas in the Eastern Hemisphere where our revenues decreased. In both countries, uncertain political conditions have hampered oil exploration. All other areas were either level or showed an increase. Major areas of activity were Nigeria, Libya, Middle East, Australia and Northern Europe.

We foresee higher activity in 1966 in the following areas:

**North Sea.** Gas discoveries and favorable geological conditions indicate that this area has considerable potential. Drilling operations started at the beginning of 1965. Exploration has been slowed by high cost and nonavailability of suitable drilling platforms. New platforms are now being built at an increased rate. Activity

in 1966, from bases in Great Britain and in Holland, should be satisfactory.

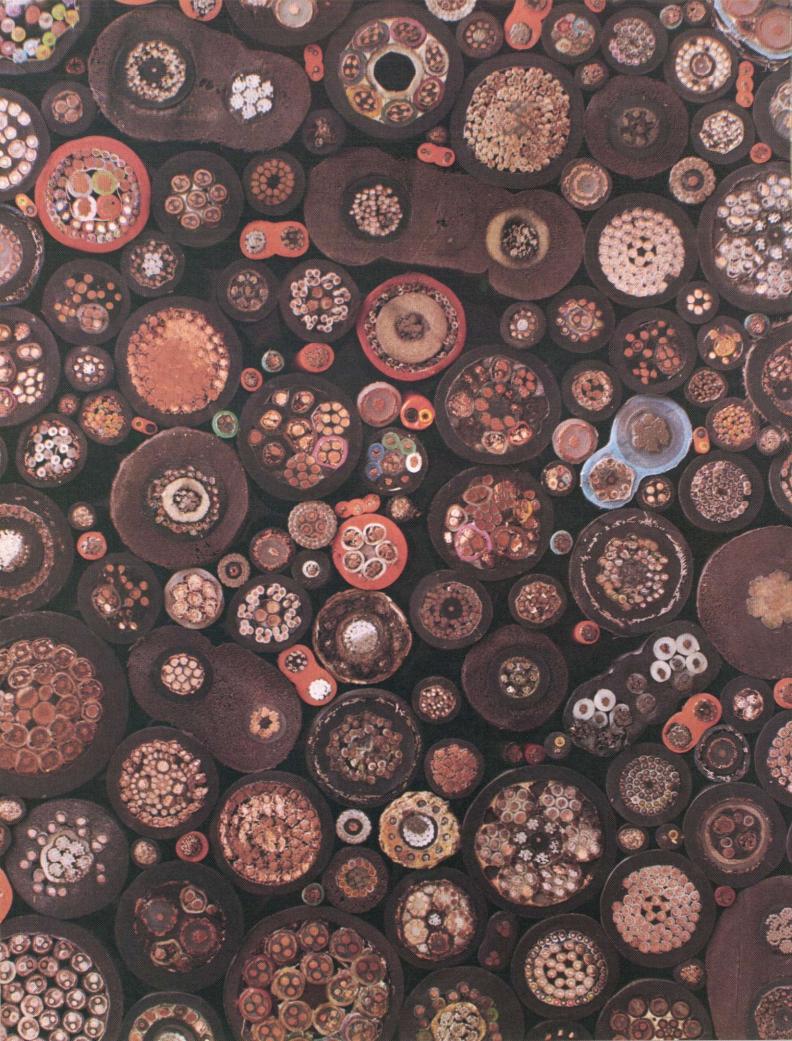
**Nigeria.** About 80% of all wells drilled in 1965 in Nigeria were commercial producers. The resulting increase in drilling activity is expected to continue in 1966.

**Egypt.** As a result of new discoveries, drilling activity is expected to be good in 1966.

Iran. New offshore concessions have recently been granted.

Operations in the Eastern Hemisphere are widespread and varied. We operate from Spitzbergen to Mozambique, from Spain to Indonesia. We operate for all major oil companies and for government oil agencies in India, Egypt and Burma. In Libya and Nigeria we are faced with growing competition from American service companies; in Egypt and India we have to prove the quality of our services versus Russian-built equipment. We have large operating centers and single engineer operations in wildcat locations in the desert and the jungle.

All field engineers are university graduates recruited from eleven different countries. All of them speak at least two languages. Before becoming qualified operating engineers, they undergo an intensive one-year training program, which includes practical training in the field and sessions in special schools conducted at headquarters.



# Allied Oil Field Services and Products

### Johnston Testers

Johnston Testers provides technical mechanical services and tools for the oil well drilling industry throughout the world. In 1927 the company placed in service a testing tool, invented by the founder, which would determine a well's production before completion, and since then the scope of this service has been expanded and improved. More recently, engineering developments have enabled Johnston Testers to create new services to solve mechanical problems in oil well completion, production and secondary recovery operations.

Fifty-two locations in twelve oil-producing states and eleven Canadian locations provide U.S. and Canada with Johnston Testers services and products. The Export Division ships testing and completion equipment for use in more than 35 countries.

The productivity log and the Multi-Flow Evaluator are two recent improvements of the basic testing service. The Multi-Flow Evaluator, developed in 1963 and introduced on a large scale in 1965, provides improved data on produced formation fluids and pressure changes.

The scope of the testing service recently has been extended further with the introduction of a complete line of full-opening test and high pressure stimulation tools.

A new concept in mechanical design has improved friction-type, hold-down and anchoring tools. These tools—ZEBRA series—introduced at year end will not pit casings or damage mill varnish and plastic coatings on the inside of the oil well casing.

Sales of Johnston Retrievable Production Packers and Permanent Bridge Plugs increased during the year. The hydraulic fishing jar line used to loosen and retrieve equipment stuck in a well bore has been expanded. Demand for this equipment is strong.

In spite of the decline in drilling activity, Johnston Testers last year showed an increase in sales of 10%. It is due to the introduction of new services and to the sale of new tools both inside and outside the U.S. The company operated at a small profit after absorbing substantial expenditures for engineering work. The emphasis towards development of new services and a wider range of products will continue in 1966.



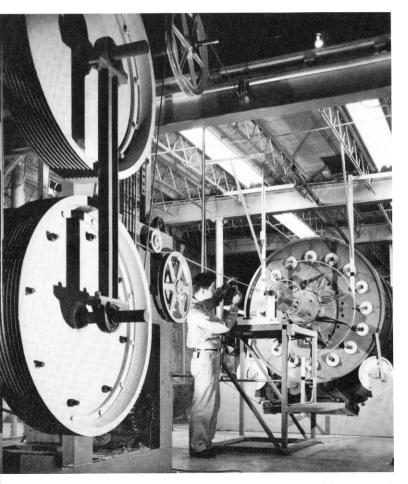
Field technician operating sample analysis equipment in conjunction with Johnston Testers Multi-Flow Evaluator.

# Vector Cable

Vector designs and manufactures high quality electrical cables, connectors and accessories. They are sold either as standard items or as systems engineered to customers' specifications. These products are used in seismic exploration for oil, for well logging and perforating, and for oceanographic and scientific applications. Sales increased substantially in 1965. Profits kept pace with the increase in sales following the continued growth pattern that has taken place since the company was acquired in 1963.

Cables used in geophysical exploration on land represent approximately 40% of sales. Besides the production of bulk cables, Vector adds supplementary accessories making the cable ready for immediate field use. Scarcity of raw materials such as copper and neoprene is presently limiting production.

Sales of seismic marine cables have grown with expansion of offshore oil exploration throughout the



Vector Cable armoring machine. Armored cables are used primarily for oil well logging.

world. During 1965 Vector introduced a long floating cable that can be towed under water at any assigned depth. Use of this depth control system permits significant economical advantages in marine exploration. Vector is also developing a marine cable system that can be towed continuously while seismograph recordings are being made, resulting in faster and more efficient operations. Another promising development incorporates the use of piezo electric detectors within the extruded buoyant sheath. It will allow the replacement of fragile oil-filled, detector enclosed buoyant cables by more rugged and cheaper cables.

Vector has become an important supplier of cables for wireline operations. These cables must withstand high oil well temperatures and maintain stable mechanical characteristics in order to minimize stretch when used in deep wells. Some Vector cables can operate at 650°F. Sales have been limited by manufacturing capacity. A new cable armoring machine was installed in 1965 to meet increased demand.

In April 1965, Vector purchased Marsh & Marine Manufacturing Company. With this acquisition, Vector added a new capability in the field of underwater connectors and oceanographic data acquistion systems. As in the case of geophysical cables, this enables the finished cable system to be delivered by one supplier.

Production facilities, as noted, were expanded during 1965, and at the end of the year Vector had its largest backlog of orders. Research and development on new products increased to meet individual customer requirements. There is increasing evidence of good growth in the immediate future in all of Vector's areas of activity, and the company is well prepared to meet this growing demand.

### Forex

Our French drilling subsidiary, Forex, has 46 rigs and is the largest drilling contractor in the Eastern Hemisphere. Its operations are concentrated in Europe and Africa.

Operating revenues remained the same in 1965 as in 1964, in spite of a sharp decline in drilling activity in the Sahara. Net profits were higher as a result of lower operating costs.

Founded after World War II, Forex was a small drilling company in France. It expanded at a fast pace following the drilling boom in the Sahara. At its peak in 1963, more than 65% of Forex business was derived from Sahara oil fields. When activity leveled off and later declined in this region, Forex faced the difficult



Neptune drilling platform in the North Sea. Schlumberger logging unit is in foreground.

problem of transferring rigs to more active areas where concentration of drilling could provide profitable operations. Holland and offshore islands, later Nigeria, opened new territories for Forex rigs. In 1965, Forex took the major step to enter Libya. Six drilling rigs all located in Libya were acquired for a total of \$3,700,000. Results in Libya will become significant in 1966. At the end of 1965, operations outside the Sahara accounted for two thirds of total Forex business.

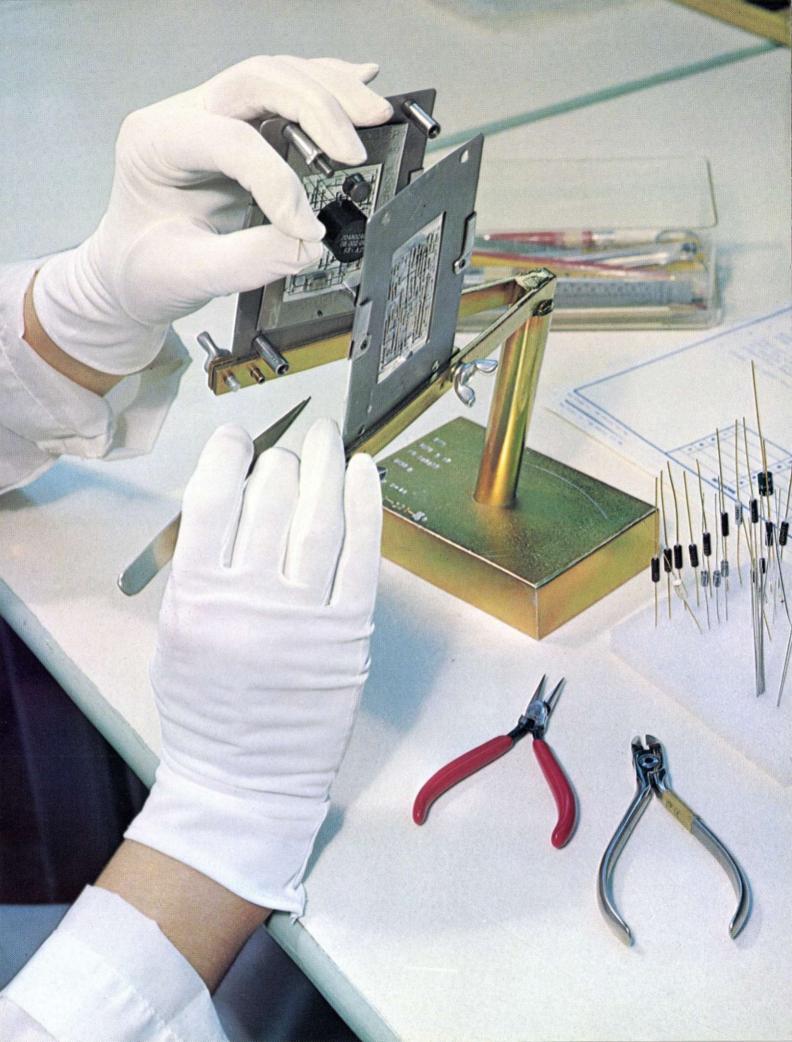
Forex joined in the formation of a 50% owned subsidiary for offshore drilling, Neptune. Neptune plans to have in operation during 1966 deep drilling offshore platforms in the North Sea, the Bay of Biscay, the Atlantic off West Africa, and the Arabian Gulf.

### Dowell Schlumberger

Owned equally by Schlumberger and the Dow Chemical Company, this company performs cementing, acidizing, fracturing, formation testing, and other well services outside North America. Operating revenues and net income have grown steadily since the company was formed in 1960. Last year, sales increased more than 15% over 1964. Profits were sharply higher.

Libya accounted for the largest increase in revenues. In Algeria, decline of drilling activity was offset to an appreciable extent by increasing stimulation work in producing wells. A substantial investment was made in Nigeria to enter this promising market. Sales remained at satisfactory level in Latin America during the year; western Venezuela registered a moderate increase over the previous year. In 1965, Dowell Schlumberger started offshore operations, having under contract units on offshore platforms in the North Sea and off the coast of West Africa.

Engineering developments helped increase sales. A new sand consolidation technique based on plastic sand-coating was introduced commercially in Trinidad, Nigeria and Gabon. A new "Tornado" cement mixing technique was introduced. It is a definite improvement over the conventional "jet" mixing practice. The Multi-Flow Evaluator, a Johnston Testers development, was introduced as a Dowell Schlumberger service in Libya and Venezuela.



# Instrumentation and Electronics

### **Electro-Mechanical Research**

EMR is engaged in designing and manufacturing telemetry and data handling instrumentation for industrial, military and aerospace applications. It has three main divisions:

- Sarasota, Florida, where standard telemetry products and complete systems are developed and manufactured
- Princeton, New Jersey, where photoelectric sensors are built and work is undertaken on space probes
- Minneapolis, Minnesota, where scientific digital computers are designed and manufactured

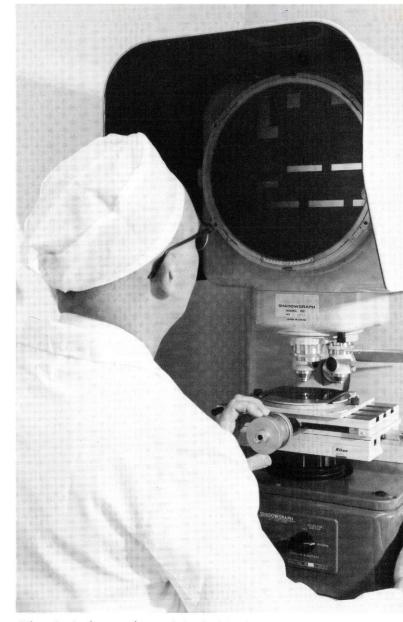
Research at EMR has been largely self-sponsored, and today one of every ten employees is an engineer or scientist.

In Sarasota one of EMR's major efforts is the design of standard products to meet the expanding needs of aerospace data acquisition and processing. Design effort last year was focused on new generation devices in the company's traditionally strong telemetry product lines. Work in advanced systems and critical technologies was directed primarily toward microelectronics, thin-film deposition, thick-film technology, design of airborne microelectronic telemetry instrumentation, and development of concepts for ground digital data processing.

EMR designed digital telemetry instrumentation is standard for the Gemini manned space project. All of the Gemini flights in 1965 employed EMR telemetry, which transmitted information about the astronauts, their environment, and the spacecraft itself. The EMR equipment met specification requirements on each flight.

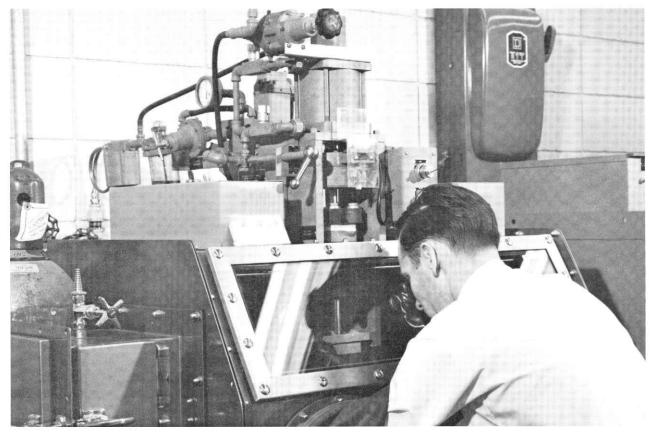
The competitive status of EMR thin-film technology and microcircuitry was confirmed during the year by a NASA contract to design and build two prototype microelectronic systems for the analog telemetry of the Apollo Lunar Excursion module.

EMR introduced a new solid-state VHF transmitter designed to meet the stringent specification of the NASA Saturn Program. A contract from NASA for a large number of a new type telemetry discriminator



Microcircuit photographic mask checked for dimensional tolerances with an optical comparator (EMR).

Assembly of airborne Pulse Code Modulation telemetry module (EMR).



EMR engineer encapsulating a microcircuit. Environmental conditions can be carefully controlled during operation.

was completed and these instruments were installed at Cape Kennedy. Several recently developed ground telemetry instruments are designed for constant bandwidth telemetry use, a technique pioneered by EMR and expected to represent a major portion of the telemetry market in the future.

EMR was awarded a study contract by NASA Marshall Space Flight Center to design instruments for use by astronauts in making geophysical surface and subsurface measurements on the moon. This is a combined effort of EMR and research and development engineers from the Schlumberger Well Surveying Corporation, our U.S. wireline service company. The technologies developed by the wireline group for geophysical studies on the earth can have direct application on the moon.

During 1965, NASA Goddard Spaceflight Center awarded a contract to EMR for the assembly of the Interplanetary Monitoring Platform (IMP) Satellites F and G. Other highly successful IMP satellites have been assembled by EMR.

In mid-year EMR received a contract to provide 70 engineers and technicians for scientific and engineering

services at the NASA-Goddard Center. Under terms of this contract EMR will assist NASA's Spacecraft Technology Division in studying components and systems for various scientific satellites and space probes.

In Princeton, significant improvement occurred in the sales of EMR-developed phototubes. The unique rugged mechanical qualities inherent in the construction of the phototubes and their high performance has gained EMR this larger market. Additional effort will be directed toward developing photoelectric sensing systems in which the phototube is only one element. These electro-optical devices have an expanding market potential.

A family of devices closely related to EMR phototubes is the so-called imaging tube, which has broad scientific and military applications in such widely divergent areas as astronomy, battlefield surveillance and navigation. Development work was completed during the year on a high-performance image dissector tube.

In Minneapolis, the Advanced Scientific Instruments (ASI) division completed development and began deliveries of the new 6000 series scientific digital com-



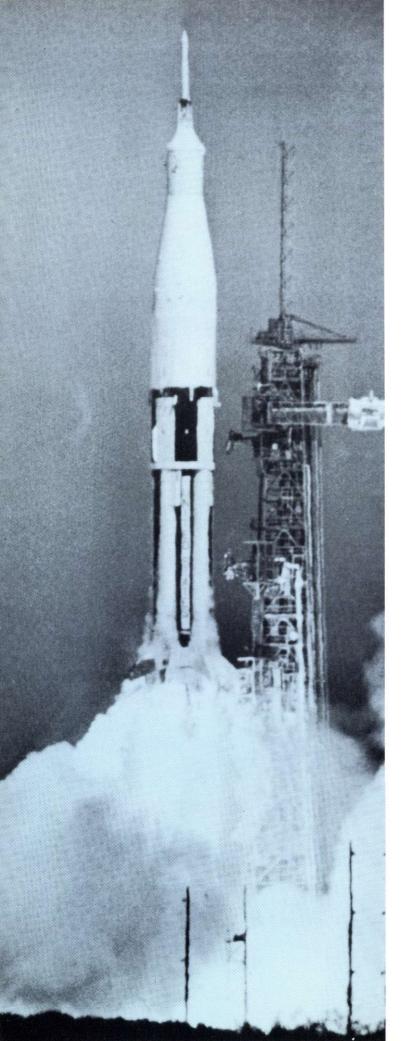
puters. The basic unit is the 6020 computer. The 6040 model incorporates an integrated circuit high speed arithmetic unit. The 6050 has floating point arithmetic, while the 6070 has special arithmetic multiply-and-sum hardware for processing seismic data. ASI has emphasized applications in a few selected fields such as nuclear data computation, seismic data processing and Schlumberger wireline service log analysis requirements.

Computers for nuclear computation studies were delivered during the year to the University of Chicago and Argonne National Laboratories. Software performance advantages resulted in computer sales for seismic data processing to the Sun Oil Company, Gulf Oil Corporation, and Compagnie Générale de Géophysique in France. The backlog of orders at the beginning of 1966 indicates the growing customer interest in the high performance of these computers.

Total sales of EMR declined last year as a result of the completion of several large telemetry system orders, such as Gemini, and because there were fewer major system government contract opportunities. The Sarasota and Princeton divisions operated at a profit although EMR overall operated at a loss because of large research and development expenditures at ASI. However, these substantial development costs at ASI will not only provide EMR with essential digital computer capability, but they will benefit all other Schlumberger companies in developing digital instrumentation.



Left: Processing all-ceramic envelope photo-multiplier tubes. These tubes measure light in the extreme ultraviolet region. Above: Manufacture of photo-multiplier tube. Leads are sealed in the glass envelope (EMR).



## Weston Instruments

Weston has pioneered the development and manufacture of electrical measuring instruments. The company today produces a complete line of panel and portable meters and meter relays, a number of aircraft and aerospace instruments, laboratory standard instruments, bi-metal and electrical resistance thermometers, various special electro-mechanical and electro-hydraulic devices, electronic test instrumentation, potentiometers and industrial gauges. Weston also subcontracts for precision machine parts and electrical assembly and subassemblies. Sixty percent of its total sales in 1965 was to the industrial market and forty percent to the defense and aerospace markets.

New products that Weston introduced last year were the Half-Inch Edgewise Panel Meter and a Flat-Scale Edgewise Panel Meter. Initial orders exceeded expectations. Production lines for meter and relay assembly in the Newark plant have been completely rearranged for better manufacturing efficiency.



Above: Weston's new volt-ohm-milliameter, the first portable of its kind to be packaged in a console-type case. Left: Launching of Apollo.



Weston temperature chamber tests meters and relays from minus 100° to plus 1,300° F.

Weston instruments and mechanisms are standard in many commercial and executive aircraft flight panels. A new model Course Selector and Indicator for aircraft was added to the Weston products in 1965.

Weston aerospace instrumentation was included in both the Mercury and Gemini spacecraft. Twenty-eight indicator displays to measure such variables as voltage, current, pressure, frequency and temperature are now being designed and manufactured for Apollo Block II instrumentation.

United States Defense services, the Air Force, Army and Navy have all accepted the Weston Rotek absolute AC Voltage Standard instruments for their calibration requirements.

The bi-metal and electrical resistance thermometers are produced by Weston in a complete line of sizes and types. Of high accuracy and durability, they are sold to laboratories, hospitals, schools and industry. Weston production engineering completed this year a development for improved reliability of the resistance bulb model thermometer.

Weston is a producer of such electro-mechanical devices as servo- and synchro-mechanisms and systems, miniature and subminiature servo-motors and generators. Orders for these items, which are produced primarily for sale to aircraft manufacturers and their suppliers, were greater in 1965 as a direct result of increased defense requirements. Another product introduced last year is a magnetically compensated tachometer.

The market for the Weston-Boonshaft and Fuchs Transfer Function Analyzer is growing steadily. Emphasis this year and next will be to provide specialized accessories for use with this basic model. A second model digital voltmeter was introduced late in the fall incorporating new developments in design and performance. A new Process Variability Monitor instrument has been developed. Its application is for improvement of quality control in industrial processing.

Orders and sales of miniature Weston precision potentiometers were favorably affected by the increased requirements of computer manufacturers. Four new design squaretrim potentiometers were placed on the market, each of which will contribute importantly to sales over the next several years. The models are qualified to military specifications on all resistance values required.

Weston manufactures gauges for determining the thickness of sheet metal produced in rolling mills. A micro-limit gauge for measuring the diameter of wire is a standard product. Substantial gauge orders have been filled this year for major steel and aluminum companies, both domestic and foreign. A transistorized aluminum foil thickness gauge was introduced in 1965. This is part of a continuing effort to convert X-ray gauge design from vacuum tubes to transistors. The solid state equipment improves accuracy capability and reliability in service.

Operating revenues of Weston increased more than 18% over those of 1964. Increased production, combined with greater efficiency, the installation of modernized manufacturing procedures, a more effective program of manpower utilization and an overall cost reduction effort, resulted in a small net profit in 1965. Continuing progress in these areas, together with an accelerated research and development program, should insure even better profit attainment in 1966.



A wide range of aircraft measuring instruments is produced and inspected at the Newark, New Jersey, plant of Weston.



Solartron plant (Farnborough, England).

### Solartron

Solartron's headquarters and main production facilities are located in Farnborough, England, with an instrument manufacturing plant at Chessington. Expansion of the plant at Farnborough is underway, and when completed, the Chessington operations will be transferred to Farnborough. Better management control and greater manufacturing efficiency should result. Solartron is engaged in the development and manufacture of a wide range of laboratory electronic instruments, simulators and systems which incorporate many of their instruments.

The company's marketing organization operates throughout the United Kingdom and Commonwealth countries. Sales in Europe are handled through other Schlumberger companies with technical assistance from the Solartron marketing staff.

Major growth in the company's instrument business was in the digital voltmeter line, where sales tripled during the year. The addition of various fan-out units extends the measurement capability of the voltmeter application to data logging systems.

Oscilloscopes and dynamic analysis instruments showed steady growth. A new lightweight portable battery powered and fully transistorized oscilloscope was developed to United Kingdom military specifications and should receive wide acceptance. The most significant new product developed during the year was a hybrid transistorized analog computer. Delivery of the first system will be made to Imperial Chemical Industries early in 1966. This development will enable Solartron to retain its lead positon in the European-manufactured analog computer market.

Solartron produces special radar, sonar, and tactical simulators. An important order for a tactical simulator for the Royal Navy had been formally accepted at year end and was in the final stages of being moved to HMS DRYAD for permanent installation.

The Solartron developed video-map has now become standard equipment for the British Air Traffic Control Systems. Strong sales efforts are being made to convince other European and overseas customers to standardize with this equipment.

In 1965, the Military Systems and Simulation activities and the Computing and Data Systems Group were consolidated into the Systems Division. This will provide unified direction and reduce duplication of sales efforts.

Solartron's sales last year increased more than 10% over the previous year's, the major portion of the increase resulting from business outside the United Kingdom. Export sales accounted for about one half of total sales. The company showed a loss for the year principally because of nonrecurrent inventory write-offs.

# Société d'Instrumentation Schlumberger (SIS)

During the last five years Schlumberger acquired a majority interest in eleven French electrical and electronic instrument companies. In this period SIS, a wholly owned Schlumberger subsidiary, acted as a holding company for them.

Eight of these companies, in which Schlumberger had acquired 100% ownership, were merged with SIS in mid-1965. SIS was then realigned as an operating company. Three divisions—Applied Physics, Electronics and Industrial Control—were organized. Each division will direct its own research, engineering, manufacturing and sales. The general accounting and personnel activities were centralized under the SIS headquarters staff. An accelerated program is scheduled for the consolidation into four plants in the Paris area of all manufacturing that is now being done in as many as 20 smaller locations.

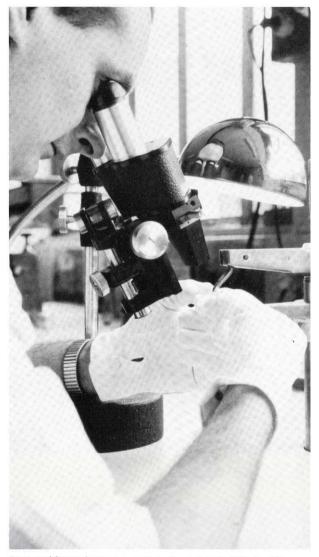
SIS has also organized a central marketing group which is responsible for sales in France of the instruments and products for the Schlumberger Group companies outside of France.

The SIS European Marketing Division is responsible for the management of the sales effort in Europe, outside of France and England, for products from all of the Schlumberger instrument and electronic companies.

At year end, the outstanding minority interest in

Maintenance and service facilities in Stockholm for Schlumberger products.





Spot welding of vacuum gauge components (SIS, Paris).

Rochar Electronique was acquired, and this company began operating as a division of SIS on January 1, 1966.

The broad product base of SIS—electronic laboratory instruments, transducers, galvanometers and relays, industrial pyrometry and recorders, telemetry equipment —is favorably situated within a rapidly growing market for instrumentation. The company can be an important factor in Schlumberger's overall development into a worldwide electronic instrumentation manufacturer. Significant engineering developments were accomplished during the year on stabilized power supplies and electromagnetic flowmeters. Sales of our high vacuum measuring equipment increased and further expansion in sales of these products is anticipated. A new range of Rochar digital voltmeters has been well accepted by customers.

Total sales of SIS increased significantly. However, the company operated at a substantial loss largely because of the expense of consolidating and regrouping production activities, expansion in the sales force, and special inventory write-offs. Further effort is required on organizational and production problems before a satisfactory profit performance will be achieved.

### Heath

The Heath Company headquarters is established in a modern 205,000 square foot plant near Benton Harbor, Michigan. Other company plants are located in Canada, England and Germany. The company is the recognized leader in the production of electronic kits. Such items as color TV sets, electronic organs, shortwave portable radios, stereo/high fidelity audio sets, amateur and citizen band radios, marine electronic equipment, and educational test and laboratory instruments are all produced in kit form. Each kit contains an instruction manual, with simple diagrams, to enable the purchaser to assemble the product. Basically Heath is a mail order business, and the annual product catalog now lists more than 250 different kits for sale to customers in the U.S. and all over the world.

In addition to the mail order business, Heath initiated retail store operations recently in San Diego, Los Angeles, Chicago, Detroit, and Denver. Additional new stores were opened in 1965 in Anaheim, California, London and Munich. Other stores will be opened in 1966. Each retail store offers a repair service for Heath customers in its area.

The sales of audio high fidelity kit products increased 10% over the prior year's. New items were a low cost line of amplifiers, tuners and receivers. A deluxe line of this equipment is planned for introduction in 1966.

Home entertainment products, television, radio and electronic organs, showed substantial sales improvement, which was due principally to the introduction of a new rectangular 25-inch color television kit in late fall. Color television sales were limited by inability to purchase a larger number of color tubes. A 19-inch rectangular color TV kit will be introduced in 1966.

Heath amateur radio kit sales grew at a higher rate than the growth of the total consumer market. Citizen band radio equipment sales showed a decline as compared with 1964. Added government regulations issued in 1965 controlling the use of this equipment had an adverse effect on sales for the entire industry.

Marine electronic product and kit sales remained at about the same level as the previous year's. Sales difficulty encountered involves the installation and servicing of the equipment on a customer's boat.

Educational kit and laboratory instrument sales showed the largest increase over 1964. These products are expected to show even greater sales this year.

Heath total sales increased 11% over the previous year. Foreign sales showed the greatest percentage increase, and sales in these markets will continue to

expand at a faster rate than U.S. sales. The net profit as a percentage of sales has also improved and is at a satisfactory level.

## **Furniture Divisions**

The two furniture divisions—Daystrom in South Boston, Virginia; and Virtue in Compton, California—manufacture furniture for household and institutional use, including dinette tables and chairs.

Daystrom Furniture Division sales increased 10% in 1965 on a profitable basis.

Virtue met numerous production problems and organization disruptions resulting from the move into a new plant. Sales declined and the division operated at a loss. By year end, however, many plant problems were solved and tooling for the 1966 model lines was completed. Virtue should have a markedly improved performance this year.



Heathkit products. Left to right: Transistor citizens band transceiver, transistor all-band shortwave radio, all-transistor stereo receiver, deluxe 5-band amateur radio transceiver, electronic keyer.



Left to right: W. J. Gillingham, A. Vennema, J. Riboud.

### Management

The Schlumberger Limited Board of Directors on May 13, 1965, elected Jean Riboud as president and chief executive officer to succeed Pierre Schlumberger.

Mrs. Schlumberger Primat was elected a member of the Board of Directors.

It was decided to establish the headquarters of Schlumberger Limited in New York City, a location better suited for more efficient management of our international operations. Houston remains the headquarters for worldwide oil field service operations. Paris continues as an important management center for Schlumberger Limited.

Management structure was changed from a geographical organization — Western and Eastern Hemisphere — to a functional organization along product lines to insure more direct management and more efficient coordination of research, manufacturing and sales.

A. Vennema, executive vice president, was assigned the management of all the Schlumberger electronic and instrumentation companies. His headquarters will be in New York. W. J. Gillingham, formerly president of Schlumberger Well Surveying Corporation, was promoted to executive vice president of Schlumberger Limited. He is responsible for oil field wireline services worldwide.

Paul A. Lepercq, president of Lepercq, de Neuflize & Co. and a member of the executive committee of the board, was elected chairman of the newly formed finance committee of the board. Other finance committee members selected from the board are: Enders M. Voorhees, Clinton S. Lutkins, and Jean Riboud.

Principal management changes in Schlumberger Limited subsidiaries were:

 the promotion of M. E. Loy from executive vice president to president of Schlumberger Well Surveying Corporation

the appointment of R. Génin as chief operating officer of Société de Prospection Electrique Schlumberger and Schlumberger Overseas

the election of J. Miller as chairman of Société d'Instrumentation Schlumberger and J. Babaud as executive vice president and general manager.

# **Financial Review**

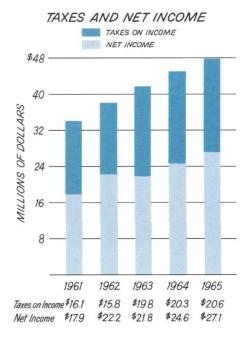
#### Net Income

Net income in 1965 was \$27.1 million compared to \$24.6 million last year, an increase of 10%. Net income per share was \$5.28 compared to \$4.78 per share last year. Operating income was \$1.6 million higher than in the previous year; the increase is attributable to improvement in both oil field and electronic-instrumentation operations.

Weston results improved substantially and there was continued growth at Heath. Major realignments and consolidations were effected in 1965 at our European electronic and instrumentation companies. Net income from oil field service operations increased, particularly in the Eastern Hemisphere where oil exploration continued to be strong.

Net earnings also benefited to the extent of \$1.4 million from an increase in tax-free income.

Increases in general expenses and research and engineering expenditures were mainly attributable to our electronic-instrumentation operations.



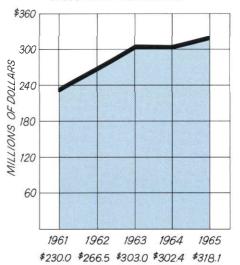
#### **Operating Revenues**

Operating revenues in 1965 were the highest in the history of the company. Electronic-instrumentation sales showed an increase over the previous year, particularly at Weston and at Société d'Instrumentation Schlumberger (SIS), our French electronic and instrumentation subsidiary. 1965 included sales of three instrument companies (Pyrometrie Industrielle, Contrôle de Chauffe and Le Boeuf) acquired by SIS in 1964. Oil field service revenues outside the United States continued to increase, particularly in Africa, Australia and the North Sea.

#### Taxes on Income

The effective tax rate in 1965 was  $42.4^{\circ}/_{\circ}$  compared to  $44.6^{\circ}/_{\circ}$  in 1964. A number of factors affect the composite tax rate of a company operating in over 50 countries throughout the world; the decrease in 1965 is about equal to the favorable effect of tax-free capital gains and a reduction of  $2^{\circ}/_{\circ}$  in the United States tax rate. The benefit of some \$2.5 million realized by use of a tax loss carry-forward in the United States, referred to in last year's annual report, was substantially offset by additional provisions for prior years' taxes in the United States.

#### OPERATING REVENUES



# Plant and Equipment

Total expenditures for plant and equipment were \$36.1 million, an increase of \$8.4 million over last year. Depreciation of fixed assets was \$22.7 million.

New field technical equipment for oil field services accounted for approximately \$16.4 million. In addition, our French drilling subsidiary, Forex, invested \$7.7 million in additional equipment including \$3.7 million for six drilling rigs located in Libya. Other fixed asset expenditures included \$8.3 million for machinery and equipment, primarily for the electronic-instrumentation companies.

#### Acquisitions and Investments

During the year, the remaining minority interests in Rochar Electronique, Les Laboratoires de Physique Appliquée, and Ateliers de Construction de Bagneux, subsidiaries of Société d'Instrumentation Schlumberger, were purchased for an aggregate of \$2.4 million.

The company's 54% owned subsidiary, Forex, increased its investment, by \$1.2 million, in Neptune, S. A., a French offshore drilling joint-venture in which Forex has a 50% interest. Neptune has made a commitment of \$19 million for construction of three offshore drilling units: Neptune I started operations in the North Sea in 1965, Neptune II in the Bay of Biscay in February 1966, and Neptune IV will start drilling offshore Arabia on delivery in the third quarter of the year.

In March, the company purchased the business and assets of Marsh & Marine Manufacturing Company, a manufacturer of underwater cable connectors and oceanographic data systems, for \$685,000.

#### Dividends

Effective with the dividend paid April 15, 1965, the regular quarterly dividend was increased to 40¢ per share from 30¢ per share. Regular quarterly dividends were paid during the year as follows:

Date of Record	Date of Payment	Per Share
January 4	January 15	\$ .30
April 1	April 15	.40
July 1	July 15	.40
October 1	October 15	.40
		\$1.50

Dividends declared in 1965 aggregated \$8.2 million or \$1.60 per share including the dividend of 40¢ per share paid on January 15, 1966. A dividend of 45¢ per share was declared February 25, 1966, payable on April 15, 1966, equivalent to an annual rate of \$1.80.

#### **Corporate Structure**

A realignment of the Schlumberger companies in the United States was completed in 1965, with all major operating companies in the United States becoming subsidiaries of Schlumberger Technology Corporation, a wholly-owned U.S. subsidiary of Schlumberger Limited. This reorganization will improve efficiency of operations and financial management.

In France, corporate and management structures of Société d'Instrumentation Schlumberger (SIS) were simplified; eight subsidiaries of SIS were merged into a single operating unit.

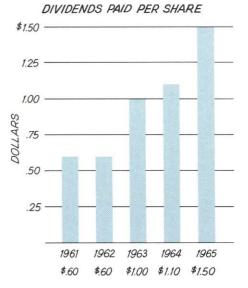
#### **Common Stock**

At the Annual General Meeting of Stockholders on April 27, 1965, the stockholders approved an increase of the authorized capital stock of the company from 6 million to 10 million shares of \$1 par value per share.

On February 25, 1966, the Board of Directors approved a three-for-two split of the common stock. Certificates for the additional shares will be issued on or about March 28, 1966, to stockholders of record on March 10, 1966.

Also, on February 25, the Board adopted a resolution recommending that the stockholders approve an increase in the authorized capital stock of the company from 10 million to 20 million shares of \$1 par value.

The company is continuing to make purchases of its common stock on the New York Stock Exchange for use on exercise of employee stock options and for other corporate purposes. During the year the company acquired 42,400 shares and sold 20,200 shares to optionees. At December 31, the company held 204,830 shares in the treasury.



#### **Financial Relations**

The company president, Mr. Jean Riboud, discussed the plans and the outlook for Schlumberger at a meeting of The Boston Security Analysts Society in October. A summary of his remarks was mailed to the shareholders at that time. Copies may be obtained by writing Schlumberger Limited, 277 Park Avenue, New York, New York 10017.

#### SCHLUMBERGER LIMITED

(Schlumberger N.V., Incorporated in the Netherlands Antilles) AND SUBSIDIARY COMPANIES

# **Consolidated Statement of Income**

	Year Ended December 31	
	1965	1964
	(STATED IN THOUSANDS)	
Operating Revenues	\$318,106	\$302,367
Operating Expenses		
Direct operating	206,348	198,487
Research and engineering	16,058	13,641
General	51,018	47,128
Total operating expenses	273,424	259,256
Operating Income	44,682	43,111
Interest and other income—net	3,759	2,325
Income before taxes on income	48,441	45,436
Provision for Taxes on Income	20,561	20,283
Income before minority interest	27,880	25,153
Minority interest in net income of subsidiaries	793	547
Net Income	\$ 27,087	\$ 24,606
Net Income per Share	\$ 5.28	\$ 4.78

10

Expenses include \$22,692,000 and \$21,142,000 depreciation of fixed assets, and \$2,145,000 and \$1,962,000 amortization of intangible assets.

# **Income Retained for Use in Business**

Balance at beginning of year	\$196,416	\$177,780
Net income Dividends declared		24,606 (5,970)
Balance at end of year	\$215,281	\$196,416

See notes to financial statements

(Schlumberger N.V., Incorporated in the Netherlands Antilles) AND SUBSIDIARY COMPANIES

# **Consolidated Balance Sheet**

ASSETS       1965 (STATED IN THOUSANDS)         Current Assets       \$ 19,425       \$ 18,591         Cash       \$ 19,425       \$ 18,591         Time deposits       15,800       7,550         Marketable securities, at cost (approximately market)       52,897       61,099         Receivables, less allowances for doubtful accounts       67,316       64,344         Inventories, at cost or less       61,657       53,322         Other current assets       1,800       1,418         206,324       100       1418         Investments and Long-Term Receivables, at cost       13,830       17,700         Fixed Assets       131,589       120,390         Plant and equipment, at cost       131,589       120,390         Intangible Assets, less amortization       12,479       13,211         Other Assets       3,647       3,320         \$ 3328,938       \$ 3328,938       \$ 3328,938		Decen	December 31	
Current Assets         Cash       \$ 19,425       \$ 18,591         Time deposits       15,800       7,550         Marketable securities, at cost (approximately market)       52,897       61,099         Receivables, less allowances for doubtful accounts       67,316       64,344         Inventories, at cost or less       61,657       53,322         Other current assets       1,800       1,418         218,895       206,324         Investments and Long-Term Receivables, at cost       13,830       17,700         Fixed Assets       235,401       208,773         Less depreciation       131,589       120,390         103,812       88,383       103,812         Intangible Assets       12,479       13,211         Other Assets       3,647       3,320		1965	1964	
Cash       \$ 19,425       \$ 18,591         Time deposits       15,800       7,550         Marketable securities, at cost (approximately market)       52,897       61,099         Receivables, less allowances for doubtful accounts       67,316       64,344         Inventories, at cost or less       61,657       53,322         Other current assets       1,800       1,418         218,895       206,324         Investments and Long-Term Receivables, at cost       13,830       17,700         Fixed Assets       235,401       208,773         Less depreciation       131,589       120,390         Intangible Assets, less amortization       12,479       13,211         Other Assets       3,647       3,320	ASSETS	(STATED IN	THOUSANDS)	
Cash       \$ 19,425       \$ 18,591         Time deposits       15,800       7,550         Marketable securities, at cost (approximately market)       52,897       61,099         Receivables, less allowances for doubtful accounts       67,316       64,344         Inventories, at cost or less       61,657       53,322         Other current assets       1,800       1,418         218,895       206,324         Investments and Long-Term Receivables, at cost       13,830       17,700         Fixed Assets       235,401       208,773         Less depreciation       131,589       120,390         Intangible Assets, less amortization       12,479       13,211         Other Assets       3,647       3,320	Current Assets			
Time deposits       15,800       7,550         Marketable securities, at cost (approximately market)       52,897       61,099         Receivables, less allowances for doubtful accounts       67,316       64,344         Inventories, at cost or less       61,657       53,322         Other current assets       1,800       1,418         218,895       206,324         Investments and Long-Term Receivables, at cost       13,830       17,700         Fixed Assets       235,401       208,773         Less depreciation       131,589       120,390         Intangible Assets, less amortization       12,479       13,211         Other Assets       3,647       3,320		\$ 19 425	\$ 18 591	
Marketable securities, at cost (approximately market)       52,897       61,099         Receivables, less allowances for doubtful accounts       67,316       64,344         Inventories, at cost or less       61,657       53,322         Other current assets       1,800       1,418         218,895       206,324         Investments and Long-Term Receivables, at cost       13,830       17,700         Fixed Assets       235,401       208,773         Plant and equipment, at cost       235,401       208,773         Less depreciation       131,589       120,390         Intangible Assets       12,479       13,211         Other Assets       3,647       3,320		an and a series of a	State of the second second	
Receivables, less allowances for doubtful accounts       67,316       64,344         Inventories, at cost or less       61,657       53,322         Other current assets       1,800       1,418         218,895       206,324         Investments and Long-Term Receivables, at cost       13,830       17,700         Fixed Assets       235,401       208,773         Less depreciation       131,589       120,390         Intangible Assets, less amortization       12,479       13,211         Other Assets       3,647       3,320			(* 1850) (* 1950)	
Inventories, at cost or less       61,657       53,322         Other current assets       1,800       1,418         218,895       206,324         Investments and Long-Term Receivables, at cost       13,830       17,700         Fixed Assets       235,401       208,773         Less depreciation       131,589       120,390         Intangible Assets, less amortization       12,479       13,211         Other Assets       3,647       3,320			an all accounts on	
Other current assets       1,800       1,418         218,895       206,324         Investments and Long-Term Receivables, at cost       13,830       17,700         Fixed Assets       13,830       17,700         Fixed Assets       235,401       208,773         Less depreciation       131,589       120,390         Intangible Assets, less amortization       12,479       13,211         Other Assets       3,647       3,320		1		
218,895       206,324         Investments and Long-Term Receivables, at cost       13,830       17,700         Fixed Assets       235,401       208,773         Plant and equipment, at cost       235,401       208,773         Less depreciation       131,589       120,390         103,812       88,383         Intangible Assets, less amortization       12,479       13,211         Other Assets       3,647       3,320			10 - 10 - 10 - 10 - 10 - 10 - 10 - 10 -	
Fixed Assets       Plant and equipment, at cost       235,401       208,773         Less depreciation       131,589       120,390         103,812       88,383         Intangible Assets, less amortization       12,479       13,211         Other Assets       3,647       3,320		218,895	206,324	
Plant and equipment, at cost       235,401       208,773         Less depreciation       131,589       120,390         103,812       88,383         Intangible Assets, less amortization       12,479       13,211         Other Assets       3,647       3,320	Investments and Long-Term Receivables, at cost	13,830	17,700	
Less depreciation       131,589       120,390         103,812       88,383         Intangible Assets, less amortization       12,479       13,211         Other Assets       3,647       3,320	Fixed Assets			
Less depreciation       131,589       120,390         103,812       88,383         Intangible Assets, less amortization       12,479       13,211         Other Assets       3,647       3,320	Plant and equipment, at cost	235,401	208,773	
103,812       88,383         Intangible Assets, less amortization       12,479       13,211         Other Assets       3,647       3,320		131,589	120,390	
Other Assets         3,647         3,320		103,812	88,383	
Other Assets         3,647         3,320	Intangible Assets, less amortization	12,479	13,211	
	Other Assets			

### LIABILITIES AND STOCKHOLDERS EQUITY

### **Current Liabilities**

Accounts payable and accrued liabilities	\$ 43,474	\$ 37,296
Estimated liability for taxes on income	18,251	20,469
Short-term bank loans	8,826	6,234
Dividend payable	2,053	1 <i>,</i> 550
Portion of long-term debt due within one year	2,861	2,523
	75,465	68,072
Long-Term Debt	12,389	12,641
Other Liabilities	4,349	3,474
Deferred Credit to Income	1,600	2,400
Minority Interest in Subsidiaries	7,950	8,063
	101,753	94,650
Stockholders Equity		
Common stock outstanding—stated value	35,629	37,872
Income retained for use in business	215,281	196,416
	250,910	234,288
	\$352,663	\$328,938

See notes to financial statements

(Schlumberger N.V., Incorporated in the Netherlands Antilles)
AND SUBSIDIARY COMPANIES

# Consolidated Statement of Source and Application of Funds

Year Ended December 31

	1965	1964 N THOUSANDS)
Source	(STATED II	111003/(103)
Net income	\$ 27,087	\$ 24,606
Depreciation and amortization	24,837	23,104
All other, net	2,271	3,073
	54,195	50,783
Application		
Purchase of fixed assets, less retirements	33,097	24,563
Business acquisitions and investments	4,339	10,565
Purchase of treasury stock	3,107	10,454
Dividends declared	8,222	5,970
Reduction of long-term debt	252	2,076
	49,017	53,628
Net increase (decrease) in working capital	\$ 5,178	\$ (2,845)

### Notes to Financial Statements

#### PRINCIPLES OF CONSOLIDATION

The consolidated financial statements include all majority-owned operating subsidiaries and show the consolidated results of operations and financial position after eliminating intercompany transactions and providing for minority interests. Fixed assets and investments recorded in other currencies have been translated to United States dollars at historical rates and other items have been translated at current rates.

#### LONG-TERM DEBT

Long-term debt consists of \$7.2 million Weston 5<sup>1</sup>/<sub>4</sub>% sinking fund debentures due 1980 and \$5.2 million other debt payable mainly to banks and insurance companies.

#### TAXES ON INCOME AND RENEGOTIATION

In 1965, additional provisions for prior years' taxes and an increase in the deferred tax liability substantially offset the benefit of some \$2.5 million that was realized by use of a tax loss carry-forward. The amounts provided for taxes on income are believed to be adequate for all taxes applicable to earnings to date. Renegotiation refunds, if any, are not expected to be material.

#### STOCK OPTIONS

Options granted to key employees to purchase 158,475 shares of common stock at prices ranging from \$41 to \$80 per share were outstanding at December 31, 1965. The options granted in 1964 and 1965 are for five-year periods and are exercisable (at market value at date of grant) for one-fourth of the shares each year after the first year, cumulatively. Options granted prior to 1964 are for tenyear periods and for the most part are exercisable for one-fifth of the shares each year after the first year, cumulatively. At December 31, 1965, options to purchase 92,775 shares were exercisable.

During 1965, options for 37,000 shares were granted, options for 20,200 shares were exercised at prices ranging from \$30 to \$72 per share and options for 5,250 shares terminated.

#### COMMON STOCK

Amounts shown for common stock represent the stated value of the issued shares, stated value being \$50 million reduced by the cost of shares reacquired and increased by the proceeds of treasury shares reissued. Of the 10,000,000 shares (\$1 par value) authorized, 5,333,587 have been issued, of which 204,830 and 182,630 reacquired shares were held in the treasury at December 31, 1965 and 1964, respectively.

#### COMMITMENTS AND CONTINGENCIES

There were no commitments or contingencies other than in the ordinary course of business, except for several lawsuits which on the basis of presently available information are not expected to result in any significant liability.

#### SUPPLEMENTARY INFORMATION

Marketable securities comprise mainly United States dollar securities of the International Bank for Reconstruction and Development and of governments of the United States and other countries.

Inventories are stated primarily at moving average or standard cost less allowances for obsolescence, and comprise \$22.7 million operating material and supplies for oil field services and \$39.0 million applicable to manufacture of electronic equipment and other products.

Investments include 50% ownership in Dowell Schlumberger stated at cost of \$6.1 million. At December 31, 1965, the equity in the net assets of that company was approximately \$7.9 million. The company's equity in the current year earnings of Dowell Schlumberger exceeded cash dividends received from that company by approximately \$0.8 million.

Intangible assets, representing principally the portions of investments in consolidated subsidiaries not attributable to tangible assets, are being amortized over periods of five or ten years. Research and development costs are charged to operating expenses currently.

Deferred credit to income represents a portion of the gain on sale of land in 1964. The sale is expected to result in a tax-free gain of \$2.8 million, of which \$0.8 million was included in 1965 income and \$0.4 million in 1964 income; the remainder is to be recorded in 1966 and 1967 as semi-annual payments are collected.

Operating expenses for 1965 include \$8.8 million for employee benefit plans. Provision has been recorded for all benefits arising from prior service and, except for relatively small amounts, funds for the plans have been deposited with trustees.

### PRICE WATERHOUSE & CO.

60 BROAD STREET

NEW YORK 10004

February 15, 1966

To the Board of Directors of Schlumberger Limited:

In our opinion, the accompanying consolidated balance sheet, and the related consolidated statements of income and income retained for use in business and the consolidated statement of source and application of funds present fairly the financial position of Schlumberger Limited and its subsidiaries at December 31, 1965, the results of their operations and the supplementary information on funds for the year, in conformity with generally accepted accounting principles applied on a basis consistent with that of the preceding year. Our examination of these statements was made in accordance with generally accepted auditing standards and accordingly included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

#### SCHLUMBERGER LIMITED

(Schlumberger N.V., Incorporated in the Netherlands Antilles) AND SUBSIDIARY COMPANIES

# **Five-Year Financial Summary**

	1965	1964	1963	1962	1961*
for the year—		(5	STATED IN MILLI	ONS)	
Operating revenues	\$318.1	\$302.4	\$303.0	\$266.5	\$230.0
Research and engineering	16.1	13.6	13.8	14.2	13.7
Operating income	44.7	43.1	40.8	35.7	32.4
Income before taxes	48.4	45.4	42.3	37.7	33.9
Taxes on income	20.6	20.3	19.8	15.8	16.1
Net income	27.1	24.6	21.8	22.2	17.9
Amortization of intangible assets	2.1	2.0	1.8	1.3	1.2
Depreciation of fixed assets	22.7	21.1	20.1	14.5	13.3
Plant and equipment additions	36.1	27.7	21.7	22.0	16.6
at December 31—					
Cash, time deposits, and marketable securities	88.1	87.2	89.8	69.9	66.2
Working capital	143.4	138.3	141.1	126.0	113.5
Current ratio	2.9	3.0	3.1	3.5	4.0
Plant and equipment—					
Land	5.5	4.9	5.0	5.4	5.0
Buildings and improvements	55.5	51.4	48.5	46.2	41.0
Field technical equipment	120.1	101.0	91.3	57.9	52.0
Other	54.3	51.5	46.3	43.1	34.3
Gross book value	235.4	208.8	191.1	152.6	132.3
Depreciation to date	131.6	120.4	107.7	77.9	68.6
Net book value	103.8	88.4	83.4	74.7	63.7
Long-term debt	12.4	12.6	14.7	17.6	15.4
Stockholders equity	250.9	234.3	225.8	211.3	192.9
Number of shares outstanding	108 757	5,150,957	5,303,217	5 2 27 477	5 325 407
				5,327,477	5,325,497
Net income per share	\$5.28	\$4.78	\$4.09	\$4.17	\$3.35
Dividends paid per share	\$1.50	\$1.10	\$1.00	\$0.60	\$0.60

\*Data for 1961 includes appropriate amounts relating to Weston Instruments, Inc. (formerly Daystrom, Inc.) acquired February 1, 1962, and accounted for as a pooling of interests.

### **Operating Subsidiaries and Divisions**

Schlumberger Well Surveying Corporation 5000 Gulf Freeway, Houston, Texas Schlumberger of Canada 1780 Elveden House, Calgary, Alberta, Canada Schlumberger Surenco Apartado 1608, Caracas, Venezuela Société de Prospection Electrique Schlumberger 42 Rue Saint-Dominique, Paris, France Schlumberger Overseas 26 Berners, London W. 1, England Johnston Testers Sugar Land, Texas Vector Cable Company 5616 Lawndale, Houston, Texas Forex 35 Rue Saint-Dominique, Paris, France Electro-Mechanical Research 1900 Main Street, Sarasota, Florida Weston Instruments 614 Frelinghuysen Avenue, Newark, New Jersey Solartron Electronic Group Farnborough, Hampshire, England Société d'Instrumentation Schlumberger 42 Rue Saint-Dominique, Paris, France Heath Company Benton Harbor, Michigan Daystrom Furniture Sinai Road, South Boston, Virginia Virtue Furniture 19801 South Santa Fe Avenue, Compton, California

Associated Company (Not Consolidated) Dowell Schlumberger Bush House, Aldwych, London W. 2, England

# SCHLUMBERGER LIMITED

### **President Emeritus**

P. SCHLUMBERGER

#### Directors

H. G. DOLL Chairman of the Board

R. G. COWAN Chairman, National Newark & Essex Bank Newark, New Jersey

W. J. GILLINGHAM Executive Vice President

J. C. HUTCHESON, III Partner, Baker, Botts, Shepherd & Coates Houston, Texas

P. A. LEPERCQ\*<sup>o</sup> President, Lepercq, de Neuflize & Co. New York City

C. S. LUTKINS<sup>o</sup> Senior Partner, R. W. Pressprich & Co. New York City

A. MARATIER President, Forex Paris, France

### Officers

J. RIBOUD President and Chief Executive

J. de MENIL Chairman of the Executive Committee A. VENNEMA

Executive Vice President

J. E. RHODES Controller

W. NILES Treasurer

#### **Stock Transfer Offices**

First National City Bank, New York City Bank of the Southwest, Houston, Texas

#### Director Emeritus M. SCHLUMBERGER

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C. C. PARLIN Partner, Shearman & Sterling New York City

J. RIBOUD\*° President

MRS. SCHLUMBERGER PRIMAT Paris, France

R. SEYDOUX Paris, France

A. VENNEMA\* Executive Vice President E. M. VOORHEES<sup>°</sup> New York City

\* Member Executive Committee ° Member Finance Committee

H. G. DOLL Chairman of the Board P. A. LEPERCQ Chairman of the Finance Committee

W. J. GILLINGHAM

Executive Vice President E. F. STRATTON

Vice President

E. N. WEST Secretary and General Counsel

#### Registrars

Morgan Guaranty Trust Company of New York First City National Bank, Houston, Texas



The Board of Schlumberger Limited. Left to right, seated: J. Riboud, H. G. Doll, Mrs. Schlumberger Primat, E. M. Voorhees, C. S. Lutkins. Standing: W. J. Gillingham, A. Maratier, J. de Menil, R. G. Cowan, J. C. Hutcheson, III, P. A. Lepercq, A. Vennema, R. Seydoux, C. C. Parlin.

# SCHLUMBERGER LIMITED

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