

DRILLING AND SERVICE CONTRACTS IN OFFSHORE OIL AND GAS OPERATIONS

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As onshore oil and gas deposits are becoming more difficult to locate, and as the world demands for energy continue to increase at an alarming rate, oil companies are channeling much of their exploration activities towards offshore operations, and in particular, towards operations centered off Canada's coastlines. Because of the environment, offshore drilling presents problems which are novel to the onshore-g geared oil industry. J. M. Killey discusses in detail many of the considerations involved in drafting the offshore drilling contract, concentrating on problems such as the liability of the various parties; costs; scheduling; pollution; conflict of laws; etc. Similarly, he discusses service contracts (such as supply boat charters; towing services; helicopter services; etc.) which are a necessity to the operation of an offshore drilling rig. To complement his paper, the author has included a number of appendices which list the various considerations a lawyer must keep in mind when drafting contracts for offshore operations.

I. INTRODUCTION

Our world has used more energy in the last 30 years than was consumed in all history prior to 1940. The peak has not yet been reached. World energy consumption is expected to nearly double between 1970 and 1980 and demand should increase nearly fivefold by the year 2000, reaching the equivalent of 400 million barrels of crude oil daily.

The United States contains 1/16 of the world's population and consumes 1/3 of the world's energy. Oil and gas is forecast to provide 72 percent of the United States needs in 1980. As late as 1985, the oil and gas share of the total market should still be as high as 66 percent.

The United States' reserves of oil and gas are, however, diminishing. The U.S. now depends on foreign sources for 25 percent of its petroleum needs and it appears inevitable that the States will become increasingly reliant on imports. U.S. Interior Secretary Morton is reported as saying that by 1985 more than half of the U.S. oil supplies may have to be imported.¹

It is with this forecast of world energy demand in view and the proximity of Canada to the major world energy user that the risks of Canadian offshore exploration are undertaken.

These risks are not insignificant. In the main, they flow from the environment offshore in which operations are conducted. After the geology, the important considerations are the weather and the depth of water.

Canadian offshore operations may encounter extreme weather conditions that historically have produced winds up to 87 miles per hour off the east coast and 100 miles per hour off the west coast. On either coast, these winds may be accompanied by 74 foot high waves (100 year forecast) at a frequency of 16 seconds and a current of up to 3 knots. Tides rise and fall 8 feet but 20 feet and more is usual in the Queen Charlottes.

Icebergs, field ice, "berger bits" and fog as well as superstructure icing are other natural phenomena that may seriously affect the logistics

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¹ Globe and Mail, April 11, 1972.

of offshore operations. While icebergs are carefully monitored and reported by the International Air Ice Patrol, they are a very real threat.

The presently held offshore permits cover acreage with water depths of up to 14,000 feet off the east coast of Canada and 9,000 feet off the west coast. These depths demonstrate an overwhelming optimism on the part of industry since the present technology is not capable of drilling year round off Canada in depths greater than 600 feet.

The world's continental shelves (that is, water depths up to 1,000 feet adjacent to land masses) encompass 10.7 million square miles or approximately three times the area of the United States. This area is statistically rated as having potential reserves of 700 billion barrels. North America has about 20 percent of this shelf area and a corresponding potential of 140 billion barrels. The continental shelf of Canada (East and West) represents a large portion of this area, and provides industry with an attractive prospect to supplement onshore reserves.

II. HISTORICAL

To put our discussion into some kind of perspective it may be helpful to look briefly at the history of Canadian offshore drilling and to take note of the current land situation.

1. West Coast

Richfield was the leader off the west coast. It took out permits for 1.3 million offshore acres in 1958. In 1961, Shell acquired permits of 11.5 million offshore acres and, in 1967, drilled Shell Prometheus H-68, the first Canadian west coast offshore test. By 1969 Shell had drilled 14 tests with total depths from 7,662 feet to 15,656 feet. All were drilled with the semisubmersible Sedco F which had been constructed in Victoria for Southeastern Commonwealth Drilling Limited. These tests represent the total of offshore west coast drilling.

Industry presently holds approximately 16 million acres of west coast offshore permits of which Shell holds 12.3 million acres.

2. East Coast

Mobil was the first to file on east coast offshore acreage when it acquired 1.1 million acres of permits on and adjacent to Sable Island in 1960. In 1963, Shell filed on 20 million acres off the Nova Scotia coast, followed by Texaco and Chevron in 1964. The first test drilled offshore Nova Scotia was Shell Onondaga E-84 drilled to 13,085 feet in September of 1969 by the semisubmersible Sedneth No. 1. To date, Shell has drilled 26 further tests using the Sedneth and the semisubmersible Sedco H rig which was constructed in Halifax by Southeastern Commonwealth. Shell's 27th hole, the Primrose N-50 well, was tested and is capable of production from 4 zones one of which produced sweet medium gravity oil.

Mobil drilled a 15,000 foot test on Sable Island in 1967 then, in 1971, had an oil and gas discovery in Mobil Tetco Sable Island E-48.

The industry presently holds some 64 million acres in permits offshore Nova Scotia and Sable Island. Shell with 34.2 million acres and Mobil with 12.9 million acres are the major permit holders.

3. Newfoundland

Amoco and Mobil were the first to obtain permits offshore Newfoundland when they filed on 31.3 million acres and 13.5 million acres,

respectively, in 1964. In 1966 Amoco, with Imperial, drilled two tests using the Glomar Sirte, a shipshape vessel. They completed 4 more tests on the Grand Banks in 1971-72 and are currently drilling with the Sedco I which was built for them in Halifax. Elf completed one test in 1972 using the Sedneth rig on a sublease from Shell.

Currently, the industry holds approximately 190 million acres offshore Newfoundland. The major permit holders are Amoco-Imperial (37 million acres), Imperial (32 million acres) and Mobil and Shell each with 21 million acres.

4. Hudson's Bay

In Hudson's Bay, filing began in 1963. Currently, industry holds approximately 65 million offshore acres under permit in Hudson's Bay. Major permit holders are Arco and Aquitaine.

In 1969, Aquitaine drilled Walrus A-71 with the Wodeco II, a shipshape vessel, and reached 3,926 feet before being blown off the location. Then, enroute to Halifax, the derrick, pipe and other equipment were lost over the side during a storm off Newfoundland.

5. Gulf of St. Lawrence

In the Gulf of St. Lawrence, Amoco, Hudson's Bay, Texaco and Mill City acquired permits in 1965. Hudson's Bay-Fina drilled 2 tests on their Northumberland Strait acreage with the Wodeco in 1970.

In the Gulf of St. Lawrence, industry currently holds 46 million acres. The major operators are Amoco, Texaco and Hudson's Bay-Fina. Texaco Exploration has gone to lease on two of four permits that it held in an area about 18 miles north of Prince Edward Island.

6. Labrador, Baffin

Off Labrador and Baffin, Tenneco filed on 16 million acres in 1966. In 1971 the first offshore test on the Labrador Shelf, Leif No. 2 E-48, was drilled by Tenneco using the shipshape Wodeco. The hole was prematurely abandoned at 3,558 feet when the shipshape drilling vessel "Typhoon" was forced off the location by bad weather.

Some 106 million acres of offshore permits are currently held off Labrador and the Baffin Basin. Shell, Total, Imperial and Aquitaine hold the major portion.

III. SCOPE

One drilling vessel with its support craft, services and supplies represents an expenditure of about 12 million dollars a year. In general, daily offshore drilling costs are in the order of 10 times the daily cost of normal Alberta drilling.

The principal expenditure is for the drilling vessel. Boats are required to keep the drilling vessel provisioned and supplied and to assist in towing. Other boats are needed to tow and to stand by the drilling vessel. Helicopter support effects crew changes and conveys emergency requirements to the drilling vessel. The vessel has a complex anchoring system to maintain it on position while it is drilling. To assist in setting anchors and for inspection and repair of the drilling system, the drilling vessel and the boats, specialty divers are required. The positioning of the vessel for drilling is vital and there may be navigational and positioning equipment contracts. Onshore, there will be a warehouse, office space and,

perhaps, some radio sites for the positioning equipment. During drilling, some specialty well services will be required.

The contracts involved have all to be keyed in all respects to the contract for the drilling vessel. Timing, both as to beginning and end, is one critical area where the provisions of the various contracts cannot be different. The fact is, however, that no provision of any contract can be considered without having regard to the drilling contract. As an example, inadequate arrangements for towing the drilling vessel can cause a refusal of cover and much down time or an increase in the contractor's insurance rates. Rather than paying such an increase or suffering the down time, the company will ensure that towing is provided for to the satisfaction of contractor's insurer.

We will touch on most of the contracts involved. We will be considering some of the unique provisions in them—those provisions, in other words, that are not likely to be encountered by an oil and gas lawyer in his everyday practice in Alberta. Rather than list the "usual" provisions that we will not be talking about, the Appendices set forth the "contents", in a somewhat expanded form, of particular contracts. They represent the approach of one company (not necessarily Shell) and are not put forward as "models". They may, however, be helpful as a kind of check list.

IV. THE DRILLING CONTRACT (See Appendix "A")

Offshore drilling requires, first and foremost, a drilling vessel. We will not concern ourselves here with whether it is a barge, semisubmersible or shipshape except to mention one factor that may have a bearing on the choice of vessel—if there is any option. That is that if the relevant recommendation in the Darling Report on The Coasting Trade of Canada and Related Marine Activity is implemented, a self-propelled drilling vessel may be classified as a "vessel" and subject to whatever requirements or restrictions apply to foreign vessels seeking permits to operate in Canada. The report also recommends that drilling rigs should be regarded as a specialized class of equipment for oil exploration whose marine characteristics are only incidental.² There are other factors that make one type of vessel preferable over another in certain conditions—but given the present availability of offshore rigs, the company may be obliged to take what it can get notwithstanding the extensive and expensive studies that were conducted to ensure that its choice of a vessel structure is sound.

The alternative to contracting for an existing vessel is to have one constructed to order—given the two years or so lead time required. While construction of a vessel is beyond the scope of this paper it may be worth mentioning the Ship Construction Subsidy Regulations³ administered by the Department of Industry, Trade and Commerce. A subsidy is available under these Regulations to provide a measure of protection for Canadian ship builders against foreign competition for eligible ships owned by a citizen of Canada or a company incorporated in Canada. An "eligible ship" includes a vessel used in the exploration of offshore mineral resources.

In 1966, the Schedule of Subsidies provided for a rate of 25 percent of all approved costs for eligible ships completed before May 31, 1969.

² Report to the Canadian Transport Commission, October, 1970 at 191.

³ S.O.R./66-1252, (1966) 100 Canada Gazette (Part II) 864, July 13, 1966, as amended.

This rate has been reducing since June 1, 1969, by ½ percent every 3 months so that the subsidy for an eligible ship completed now, (*i.e.*, after June 1, 1972 and before August 31, 1972), is 18½ percent. The rate will be 17 percent for eligible ships completed after February 28, 1973. Approved costs for unorthodox vessels such as an offshore semisubmersible are based on the structure only and do not generally include drilling equipment, cranes and similar equipment.

The Ship Construction Subsidy Regulations provide a subsidy for ships built in Canada for Canadian registration. Another programme was introduced on November 27, 1970. Grants are available under the Ship Building Temporary Assistance Programme⁴ to Canadian ship builders constructing vessels for foreign registry.

However obtained, a drilling vessel is the single most expensive item of an offshore operation, costing about \$12,000-\$16,000 per day.

Currently, in Canada, offshore drillers enjoy a seller's market. This fact alone will strongly influence almost all phases of the contract that the lawyer has to write. That may be frustrating—but it is a fact.

1. Delivery Date

A delivery date should be specified; one that is reasonable in the circumstances and which can be depended upon to some degree. The degree of dependence is, of course, the area where differences will arise during negotiations. This is a problem if the vessel is either being constructed to order, or is many towing days away from Canada. In either case, the delivery date depends entirely on performance by a third party (the builder or the tower) under a contract with the contractor to which the company is not privy. The firmest possible date is required simply because all of the support requirements must be keyed to that date. It could be embarrassing (and it is expensive) to have two supply boats, a standby boat, a tug, a helicopter, many men and much equipment just sitting around for very long. In the offshore business, that situation just could happen.

In addition, seasonal weather is a consideration in fixing the delivery date of the drilling vessel. If the vessel is newly constructed, as much as two months will be needed to shake it down and work out the bugs. After about November 15 weather and oceanographic conditions make rig moves and subsea equipment handling extremely difficult. If delivery is after about September 15 additional costs will be incurred as a result of less efficient operations during a longer shake-down period.

The delivery date usually keys the "commencement" of the contract which is when the agreed rates first become payable.

2. Operations Base

An onshore "operation base" or headquarters for the operation should be designated. There may be one for personnel and another for equipment. A right to change operations bases should be included to best accommodate the operations as they develop and follow trends. It would not make sense, for example, to be obliged to transport crew changes from Victoria, B.C. to a vessel drilling up in the Queen Charlottes. Usually these bases are where the contractor's obligations to supply and transport

⁴ S.O.R./70-2198, (1970) 105 Canada Gazette (Part II) 25, December 22, 1970 as amended.

material and manpower end and where he will take redelivery at the end of the term.

3. *Term*

Like Arctic drillers, offshore drillers are not interested in short term arrangements. The basic term might be five years but the employing company may be entitled to terminate at any time after two years so long as the contractor is compensated for the shorter time. A formula may be specified by which to calculate the amount of such reimbursement. In other words, if the vessel was constructed for the contract, it will have been substantially paid for by the end of the term unless it is lost at sea. If it is lost at sea, the contract should terminate immediately. Another cause for automatic termination might be if the vessel is inoperable for a continuous period in excess of, say, 30 days by reason of *force majeure*. I have not seen this provision in any Canadian contracts but it is one I would recommend for inclusion.

There might be a right to extend the five year term for perhaps a year at a fixed rate. An extension for beyond a year may be allowed but at rates to be negotiated, a provision with the usual perils of uncertainty, but, perhaps, better than nothing.

A word of caution: negotiators for a rig that is at work for another company should recognize that the employing company may have such an option to extend. The contractor is happy to negotiate against the possibility that there will be no extension. If the term is extended, the contractor is out nothing. But the potential employer has wasted valuable time. The negotiators are not likely to hear about a right of the present employer to extend until when and if it is exercised unless some specific demands for such information are made at the earliest possible stage. I understand one company was caught this way no less than three times. They made a deal on the fourth try.

The notice periods for termination or for extension are usually longer than with an onshore operation. Six months is not unusual.

4. *Performance*

An offshore drilling contract should terminate if the vessel is lost at sea. It is also possible that a vessel may be unable to perform satisfactorily the work required of it. Against this possibility, a desirable covenant is one by the contractor that the vessel will perform within certain parameters, failing which the company may terminate. The basic parameters in a performance clause might include the vessel's ability to be moved, to maintain position and to operate in specific sea conditions. There is usually not much of a problem in obtaining a meaningful commitment from a contractor when the deal concerns an existing vessel with which the contractor has some reliable experience. It is another matter where the work is in an area that is new to the contractor or the vessel is newly constructed, the latter, probably, because no vessel is exactly the same as its predecessor. In both cases, the contractor would like the company to take the vessel at its own risk regarding performance while the company expects the contractor to warrant that the drilling vessel will perform in all events and in any conditions. There of course has to be a middle ground which is reached only after some pretty hard nosed bargaining.

5. *Adverse Weather*

As mentioned earlier, the weather will have an important bearing on the progress of the work. The contractor might be inclined to be overly cautious in the interests of protecting the vessel and will suspend operations on account of weather sooner than the company may wish. At the same time, the company might err the other way. A reasonable, albeit uncertain, compromise might be a provision that the senior representatives of both parties who are on board at the time should jointly decide what to do in the face of impending adverse weather conditions.

The idea of each party having a representative on board with some authority is, I think, a good one. The scope of their authorities is of course, a matter of discretion but at least the routine day to day matters can be left to their resolution.

6. *Rates of Payment*

Except for some repair time which is usually at a reduced rate, the contractor is entitled to be paid throughout the term of the contract at one or another of several specified rates. They undoubtedly will include an operating rate; a standby rate with crew; a standby rate without crew; a voyage rate; a repair rate; and a *force majeure* rate. There may also be provision for extras such as overtime, meals and perhaps, a cost of living allowance as well as a method of payment for additional equipment that is required by the company during the term of the contract. Neither is it unusual to provide for a variation of rates in certain eventualities such as an increase in the contractor's labour costs, a major change in legislation affecting the contractor's financial burden, an increase in insurance premiums or a substantial variation in the rate of exchange of the Canadian dollar in terms of the contractor's money whether it be U.S. dollars, Dutch florins or whatever. There may well be a mobilization payment on the commencement and a demobilization payment on the completion of the contract if the vessel does not immediately start work in the area where it is located upon termination. While most unusual, there have been contracts that entitle the contractor to receive advances in local currency in order to cover its monthly local currency expenditures.

Perhaps a further word on insurance would be in order. In 1967 insurance on semisubmersible and shipshape vessels was attracting annual premiums at a rate of about 3 to 4 percent of the value of the vessel. About that time a Sedco unit being towed from the builder's yard in Japan sank in the South China Sea. The best guess is the loss was caused by structural failure resulting from heavy weather that the rig had encountered. A jackup rig being towed in the Gulf of Mexico encountered heavy weather and lost all its legs. Further, the Ocean Prince sitting on bottom in the North Sea was rendered a total loss by severe weather.

Insurance rates on semisubmersibles (but not shipshapes) rose in only a year from their low of 3 percent in 1967 to some 9 percent in 1968. Premiums today are running about 6¼ percent. Perhaps it is pessimistic, but there is no guarantee that offshore operators will not be struck with another series of calamities that will again boost insurance premiums to new highs. Against this possibility the contractor protects himself by providing for an automatic increase in rates if insurance premiums are increased. A company has few alternatives to protect itself against

such increases, but one possibility is that the company's insurance connections may be better than the contractor's. If there is any possibility of this, it may be advisable to include a right in the company to take the insurance over from contractor and handle it directly.

To return to the specific contract rates; they go by many different names, but the following are not uncommon.

The "operating rate" is the one that is payable throughout the term of the contract except when another specific rate applies. The critical thing is to know when this rate first becomes payable. That might be when the vessel is properly positioned at the first drilling location and ready to commence operations. The latest it is likely to be is when the first well is spudded.

The "standby rate with crew" applies, as the title suggests, when the vessel is fully manned. "Standby" refers to periods during which operations are not being conducted because, for example, of adverse sea or weather conditions; an act or omission of the employing company such as its failure to give instructions or a failure of and during repairs to company's equipment; or because the drilling vessel is under tow. This reference to tow requires that period of tow be defined, perhaps as beginning when the last anchor is secured prior to a move and ending when the first anchor is started out to moor the vessel.

The "standby rate without crew" is only payable when the vessel is not at sea.

The "voyage rate" covers any period when the vessel is without drilling crews and is under tow.

A "repair rate" is payable for a period of, say, 48 hours if the work can be performed at sea and for a shorter period of, say, 24 hours if the work requires that the vessel be towed to shelter. It should be specified who is responsible for towing to and from shelter.

It might also be advisable to specify that the same item can only be repaired once under this clause in a year or nine months or whatever. Such a provision would serve to minimize losses in certain cases such as one that we know of, where a travelling block cracked at a weld. It was repaired within the 48 hours during which time a repair rate was payable to the contractor. However, the block cracked at the same place on four separate occasions in six months. Each time repairs were completed within the allowed 48 hours; but the employing company was out something in the order of \$300,000.

It is also advisable, particularly in the case of a new vessel, to differentiate between repairs that are the normal results of an offshore operation and the situation where the contractor may have to repair structural defects of the vessel. In the latter case, no rate should be payable. The responsibility for towing should, again, be specified.

The "*force majeure* rate" is payable during any period when operations are not being conducted because of *force majeure* other than adverse sea or weather conditions (when the contractor is entitled to the standby rate with crew) or a strike of contractor's personnel (when no rate may be payable). In all of the other rates, a dollar amount is specified. The *force majeure* rate might be tied simply to the contractor's costs to give him some kind of a break-even return.

It is well to remember that if the drilling vessel is down, say for repairs, the other support costs amounting to about \$8,500.00/day con-

tinue unabated until the vessel is back in operating shape. I have always thought it would not be unreasonable for the contractor to bear all or some part of these associated support costs if the repairs extend over an unreasonable period, particularly if they are required as a result of some omission of the contractor. There must be something wrong with my thinking however, since I have never seen such a provision.

7. Liability for Equipment

The basic situation is that each party is liable for its own equipment. But there is usually an exception. Thus the contractor may insist on being compensated for excessive wear if its in-hole equipment or choke manifold suffers a rate of wear appreciably in excess of the normal rate from H_2S , or it may require the company to replace or repair all high pressure manifolding excessively worn by sand. H_2S was a concern of a contractor in a Canadian contract; sand was a consideration in an Australian one. Generally, the contractor is not responsible for its other equipment in the hole unless it is lost or damaged through the contractor's negligence.

8. Assignment

A right to assign or sublet should not be overlooked. In the face of the tremendous expense involved in operating offshore it could be very valuable to be able to pass the costs on to an assignee while the information at hand is being assimilated. It is also just possible that, given the shortage of drilling vessels and the desire of permit holders to drill, such a right of assignment might result in the turning of a profit.

9. Right to Take Over

You will all be familiar with the right of a company to take over the contractor's operations in certain events. The events usually comprise matters such as incompetence of the contractor, slow progress, negligent performance or some other sound causes for dissatisfaction of the company. While it is not by any means a "standard" provision there is at least one contract giving the company the right to take over at any time in its discretion. In the first case of take over for cause, payments to the contractor are reduced perhaps by a fixed figure that represents the company's costs.

10. Governing Law—Currency

In view of the application of maritime law and its complexities to operations in International Waters it may be advisable to contract that Alberta law governs and that the courts of Canada have jurisdiction over the operations. There is usually an arbitration provision. When there is, the forum should probably not be London. Arbitration in London has been compared by one U.S. attorney to trial by battle.

It is also usual to include a provision that amounts expressed in dollars mean Canadian dollars. This is probably a good idea and may even be what is intended by section 12(1) of the Currency and Exchange Act which provides that:⁵

Every contract, sale, payment, bill, note, instrument and security for money and every transaction, dealing, matter and thing whatever relating to money, or involving the

⁵ R.S.C. 1970, c. C-39.

payment of or the liability to pay any money, that is made, executed or entered into, done or had, shall be made, executed, entered into, done and had according to the currency of Canada, unless it is made, executed, entered into, done or had, according to the currency of a country other than Canada.

11. Pollution

This topic is not, of course, "unique" to offshore operations. Neither is it handled much differently for offshore than for onshore operations. In short, while the contractor may be required to use its best efforts to avoid pollution, the company is usually solely liable and is obliged to indemnify the contractor for pollution occurring without the contractor's negligence.

If significant pollution is a possibility, the occurrence is probably a disaster and the first concern is the safety of the men. In addition to the presence of the standby boat many safety features are built in and onto a drilling vessel, one of the more interesting being the Brucker Capsule which is a means of escape from the deck of the drilling vessel to water and is used in place of a life boat. It is completely enclosed, holds 28 men, is provisioned for about 24 hours in an air tight state, and is fully equipped with a radio and fuel.

12. Taxes

If the drilling vessel is built in Canada, the vessel and drilling rig will be exempt from federal sales tax and, of course, no duty will be payable except on components of a class or kind made in Canada that are imported and incorporated into the vessel. Even when such components attract duty and sales tax on entering Canada, all or part of it may be recovered when the vessel is "exported" offshore into international waters. A foreign built vessel working in international waters is also tax exempt. For the same reason no taxes of the adjacent provincial jurisdiction apply, *e.g.*, Nova Scotia Hospital Tax and Fuel Oil Tax. A vessel can come into port, as could any foreign vessel, for repair, re-supply or storage without jeopardizing its tax exempt status.

No opinion is ventured on whether taxes of Nova Scotia will continue not to be assessed against offshore operations if the Nova Scotia Oil and Gas Rights Act⁶ which was passed is proclaimed. Section 2(1) of this Bill provides:⁷

The law of the Province is hereby declared to be and to have been at all times prior hereto in force in the marine area and Sable Island. 'Marine area' is defined as 'the sea bed and subsoil of any area covered by sea water and excludes any area so specified by regulation.'

The owners of a foreign drilling vessel will be aware of serious tax implications that may arise if they do business in Canada. This is a matter of real concern in the light of section 255 of the new Income Tax Act which declares the sea bed and subsoil in submarine areas in respect of which exploration and production rights are granted by the federal or provincial authorities as being "in Canada". They will therefore insist that the contract provide that any such tax liability will automatically be paid or assumed by the company. In such case the company should at least provide that the contractor will expend all reasonable efforts to minimize the tax liability and will provide the company with

⁶ Bill No. 124, 1972 session.

⁷ *Id.*

all information it may reasonably require to establish the amount of the increase in the contractor's tax burden accruing as a result of Canadian operations.

V. SUPPLY BOAT CHARTERS (See Appendix "B")

Let us turn now to consider the charter parties of the supply boats. Usually two supply boats are required to keep the drilling vessel provisioned and supplied, and to assist in towing it and placing its 30,000 lb. anchors.

A "charter party" is simply a particular form of agreement under which one party (called the charterer) rents or hires from a shipowner the whole or part of a ship, either for a particular voyage or for a specified time, to carry the charterer's goods or otherwise perform the charterer's service. If the agreement is to cover a single voyage it is known as a "voyage charter"; if it is for a specified time, it is known as a "time charter". If the charterer hires the bare ship without a crew providing his own, together with all fuel and supplies, the agreement is known as a "bareboat charter".

A bareboat charter is basic to any deal concerning American Flag Vessels. With them, for very complicated reasons, it is necessary to use two contracts. The second contract is an operating agreement which moves all the operating risks that accompanied the bareboat charter over to a contractor, who is probably a subsidiary of the boat owner, to man, operate, victual, maintain, navigate and supply the boat.

A time charter party will include a description of the services that the boat and crew will be required to perform; a description of the boat; a delivery date; place of delivery; term, including any rights of termination and/or extension; a place where the boat is to be redelivered at the end of the term; the charter rate and any mobilization and demobilization charges; specification of what is to be provided respectively, by the owner and the charterer, during the term; and a right of the charterer to modify or alter the boat at its expense with an undertaking to restore to original condition (if the boat is not built for the service).

There may be circumstances when the drilling contractor should take on the task of obtaining all the boats required for the operation—for a fee and at the company's sole risk and expense. In my view, it is generally preferable for the company to deal directly with the boat owner.

1. Delivery Date and Place

The delivery date for the supply boats should coincide as nearly as possible with the delivery date for the drilling vessel. It would appear reasonable that delivery would be more acceptable before rather than after delivery of the drilling vessel considering that a boat charter rate may be about \$1,000/day and the drilling vessel is at least 12 times that.

The clause might provide for delivery on a date designated by the charterer but if the designated date is after an agreed date, that agreed date will be the commencement date when payments start. A delay in delivery is usually at the charterer's risk if the causes for it are beyond the owner's control but the owner should be required to use his best efforts to provide a substitute vessel.

The charter could provide that if the drilling vessel is delayed, the

charterer may notify the owner that the boats will not be required until after the agreed date. In that event, the owner might contract (for what it is worth) to endeavour to delay delivery without cost to the charterer for the period requested. If no such delay is possible, the charterer is left to lay the boats up (*see* "Off Hire", *infra*).

The place of delivery needs no comment.

2. *Term*

The term should, of course, be concurrent with that for the drilling vessel in the sense that the supply boat charters may be terminated if operations with the drilling vessel come to an end.

It is likely more flexibility can be obtained as to the term of the supply boats than can be achieved for the drilling vessel. For existing boats, the term may be a basic six months or so with provision for, say, a two month notice of termination thereafter. If the boats are constructed for the charter the basic term will more likely be five years with a right to terminate after two years in which event, as in the case of the drilling vessel, the owner is to be compensated in some way for the shorter period.

The charterer should, if possible, protect his rights to possible extensions at fixed rates. Failing that, a right to extend at rates to be negotiated, with all its uncertainty, is worth something.

3. *Charter Rate*

The rate of payment for a boat on a time charter is likely to be on a daily basis. It is commonly payable monthly in advance rather than after the fact, as is the norm in other phases of the oil and gas business. Payments in advance create complications with deductions and additions—but it is a custom, at least in the offshore supply boat business, and an owner is unlikely to yield on this point. The charterer is protected by retaining a lien on the boat for advances paid and not earned.

There will likely be a mobilization charge in addition to the charter rate that becomes payable shortly after commencement of the charter. There may also be a demobilization charge that becomes payable if the charter is terminated by the charterer before the expiry of the minimum basic term. The demobilization charge can be scaled to reduce through the last year perhaps on a straight line basis. A demobilization charge should in no event be payable if upon termination work is found for the boat.

The charter rates may automatically increase if the owner's labour costs increase over those in effect at, say, the end of the first year of the term.

4. *Owner/Charterer—Responsibilities and Obligations*

There is nothing strictly "unique" in the sense of offshore operations about this provision covering the allocation of responsibilities to the owner and to the charterer. The matters covered are, however, unique to charter parties. The following is typical at least to the extent that it appears in about the same way in any charter I have ever seen.

The owner will be responsible for:

- provisions
- crew wages and expenses
- pilotage (except when compulsory)

cordage
deck, cabin and engine room stores
water (except for the drilling vessel)
fumigation and deratization exemption certificate
custom or import duties on the foregoing and on the crew's effects
drydock charges
boat maintenance.

The charterer will be responsible for all charges other than those borne by owner including:

fuel and lube oils
port charges
stevedores
compulsory pilotage
canal, dock and harbor dues.

5. Operations

One way of describing the boats' function is to provide that they will operate and navigate at such places and in such areas and at such times and to transport, berth and carry such personnel, material and/or equipment (with liberty to the owner to carry on or below decks), and to assist in towing, movement and mooring of the drilling vessel and to perform such related services as may be requested by the charterer pursuant to its operations in the exploration for and production of oil, gas and other minerals in the waters . . . and so on.

Perhaps a better way is to provide that the boats will do all lawful activities associated with offshore drilling and related operations including (but not limited to) anchor handling, towage and standby duties. If that is not better, it's certainly shorter, and, perhaps, avoids the perils of the application of the *expressio unius* rule.

6. Off Hire

Again, these are not strictly "unique" to offshore operations but they may be novel to one whose practice has been restricted to dry land operations.

(a) Lay Ups

The charterer will want a right to order the boats out of service and to be "laid up". In that event, the charter hire should reduce by whatever amount the owner can save by reason of the boats being laid up.

(b) Loss of Time

The boats may be hindered or prevented from working by any number of causes. Some will result in no charter rate being payable or in its being payable only for a limited time, say, twenty-four hours. For example, no rate is payable for any loss of time caused by a strike or refusal to sail, breach of orders or neglect of duty by the ship's company. A refusal to sail in this case is likely of the capricious variety and is not the same as a master exercising his usual right to judge whether a movement may be safely undertaken.

On the other hand, the charter rate continues payable (but only for twenty-four hours) when time is lost due to any cause (not the fault of the charterer) preventing the efficient working of the vessel; *e.g.*,

deficiency of personnel or stores, repairs, breakdown of machinery or boilers, *etc.*

The charterer normally has the right to cancel the charter if the boat is not returned to full service before thirty continuous days of loss of time have accumulated.

7. *Port Captain*

Since the number of boats required to support an offshore drilling vessel will constitute a small fleet, it is prudent to provide for a Port Captain. The Port Captain would provide liaison between the charterer and the boats, deal with the operation, repair and maintenance of them, handle rosters for crew changes, relief and crew recruitment and act as paymaster.

There should be a provision that the Port Captain may act in that capacity as to boats other than those of the owner who employs him. No doubt there would be an additional fee for this kind of centralization.

8. *Duties of Crew*

Among the usual duties that should be set forth there should be included a specification that the crew will load and unload cargo. Owners might like to limit the duties of the crew to the operation, navigation and maintenance of the boat and the loading and discharge, on board, of liquid cargoes. The crew should at least have to extend itself to handle crated cargo, to go dockside, if not onto the drilling vessel, and to hook on cargo when discharging along side the drilling vessel. As we noted earlier, the charterer is responsible for providing stevedores but that obligation only applies when stevedores are available. Stevedores are not available at sea aboard the drilling vessel but a provision in the drilling contract that roustabouts will assist with cargo could expedite cargo handling at the drilling vessel.

Initially, the crew may be foreign. Provision should be made for changing over to Canadians. The provision may be optional or compulsory. Whether or not the provision so stipulates, such a change will be conditional on trained personnel being available. In fact, owners have replaced foreigners with Canadian deckhands. They have also instituted programs to train Canadians to serve as seamen and to develop them up to officer status. Replacements of qualified Canadian officers, however, are simply not usually available.

Because the operation of boats in conjunction with drilling vessels is not yet common even among foreign sailors, there should also be provision for training the crew, if required. The particular area of concern is with moving the drilling vessel to the first location and from one location to another. To this end, the owner might be obliged to provide an experienced hand or hands for the first two or three moves of the drilling vessel.

Men in addition to the normal crew are required when the boats are engaged in handling the mooring system of the drilling vessel. They might come from off-duty crew or, indeed, from the local pub—but the charterer can expect to pay whatever these men cost plus an overhead or “handling” charge.

Charters usually contain a right to complain about the conduct of ship's company which has to be jointly investigated. I am not aware that this provision has ever been resorted to in Canadian offshore operations,

but if it is and the complaint is substantiated, the owner is obliged to make a change failing which the charter may terminate.

9. Assignment

The charterer should ensure that he is entitled to subcharter the vessel. Such a right has its obvious advantages when the requirements of operations can change week by week. It could also be advantageous at the outset of the term should delivery of the drilling vessel be delayed, if some short term work can be found for the boats. The usual charter party permits the charterer to sublet but maintains the charterer responsible to the owner for the fulfilment of the charter.

VI. STANDBY BOAT CHARTER (See Appendix "B")

No drilling vessel is ever without an attendant standby boat as added insurance against any possible emergency that might arise. It is there to provide rescue in case of a disaster. It may also carry surveying equipment to assist in positioning the rig.

The standby boat normally will endlessly cruise around the drilling vessel so that it is always ready. Not an exciting job—but very necessary nevertheless.

While the configuration of a standby boat is different from a supply vessel (mainly in the absence of a long stretch of uninterrupted deck space that is typical of the latter), the charter party of the standby boat is basically no different from the supply boat charters. While the standby boat will be primarily used for standing by the drilling vessel the charterer should reserve the right to use it for other services in support of charterer's operations.

VII. TOWING SERVICE (See Appendix "C")

If the drilling vessel is not self-propelled it will have to be towed to its location offshore Canada, between drilling locations, and to the redelivery point on completion of operations. The contract for towing a drilling vessel to the exploration area from abroad might be a voyage charter. If there is one for towing between drilling locations, it could be a time charter. These charters would be similar to those for the supply and standby boats.

The usual situation offshore Canada is for the supply boats to tow the drilling vessel between drilling locations. The supply boats are constructed to the proper design and with the necessary horsepower.

If one is needed, an alternative to hiring an expensive tug on a time charter perhaps for use as the standby boat when it is not towing is to contract for towing services so that they are guaranteed available as required to move the drilling vessel. The basic contract would call for a tug to be provided at a designated location on some period of notice. Three days may be reasonable. The tug owner would be obliged, if his tugs were busy when notice is given, to obtain a similar vessel and provide it. Any premium the owner might have to pay for a suitable alternate tug would be for his account as, indeed, would any saving. Under such a contract the tug owner can expect to be guaranteed a minimum number of towing days per year.

It probably goes without saying but the tug service should be based near the operations. The further away the tugs are, the higher the

cost of travelling time and there is an increased logistical risk of having to call on tugs prior to reaching total depth on any well so the tug would be on the way when something happened in the well that delays the move.

VIII. DIVING SERVICES (See Appendix "D")

Divers usually are necessary if a subsea wellhead and blowout preventer system is employed and as well for general diving and inspection concerning the drilling vessel and the support boats. Inspections and preventive maintenance by divers are another form of insurance against a catastrophe. If a disaster strikes, it may be too late to find divers. As they are needed infrequently, they are not on the vessel full-time but should be on call and immediately available.

The basic contract is not complicated. The contractor locates on the drilling vessel the basic equipment that will be required; scuba for dives in depths up to 100 feet for up to 30 minutes; constant volume for diving down to 150 feet or for longer periods than 30 minutes; and helium oxygen equipment for lockout dives and atmospheric pressure inspection dives down to 600 feet. For this equipment, the company pays the contractor a monthly rate.

In addition, the contractor provides divers in crews of two as and when required by the company which pays for them at agreed rates. There may be a standby rate and a higher one covering up to eight hours of diving in a 24 hour period. There will be different rates for scuba and for deeper diving. Diving in excess of eight hours in any 24 hour period will call for overtime for which a rate should be specified. In addition, there will be extra rates payable for divers who work at depths under pressure.

The divers must be highly qualified experts and, if the ones supplied are not satisfactory or their numbers are insufficient, or if the equipment provided is inadequate, the company should be entitled to suspend the contract and to terminate it if the contractor does not rectify the deficiency within a reasonable time. In the event of a suspension, the company should have the right to use other divers and employ such of the contractor's equipment as is safe at the company's sole risk.

The drilling vessel contractor may be responsible for diving services in respect of the vessel only, while the company is liable for all the other diving. This is simply a function of the basic drilling contract separation of each party being responsible for its own equipment.

IX. HELICOPTER CHARTER (See Appendix "E")

A helicopter is a necessity to transport personnel and freight between an offshore drilling vessel and its operations base. If the operations base is in a remote area, it may be that a fixed wing aircraft is also required to move personnel from civilization to the base. We had just this situation on Vancouver Island where personnel lived in Victoria and were carried by fixed wing aircraft to Tofino and from there by turbine helicopter out to the rig. The nature of the work to be performed and the distances involved may call for a large helicopter of the order of the Sikorsky S-61N with its 28 passenger capacity.

The first requirement in the preparation of a charter with a "class 4 commercial air carrier operating rotating wing aircraft" is to obtain

and be familiar with a copy of the carrier's tariff as filed with the Air Transport Committee of the Canadian Transport Commission.

General Order 1967-A-1⁸ of the Canadian Transport Commission (Air) provides in section 10 that where the terms of a contract conflict with the terms of the carrier's filed tariff, the tariff shall govern. It is also provided in the tariff itself, which is Schedule "A" to the General Order, that the rules, rates and charges in it and in the amended tables ". . . are as much a part of every contract between a charterer and carrier as if set out therein. . . ."

The result is simply that the operator's tariff is the basis for every charter and negotiations are necessarily limited to such matters as are not in the tariff or that the draughtsman can write so as to avoid the tariff.

The tariff prescribed by the General Order provides, *inter alia*:

- for the application of the tariff;
- that the tariff is a part of every contract of air carriage;
- for payment and adjustment of charges on cancellation or non-completion of flights;
- for the substitution of aircraft by the carrier and for what happens if the new aircraft is larger or smaller than the original;
- that the carrier has exclusive operational control over the aircraft and can interrupt or cancel flights as the carrier considers necessary;
- that the charterer is responsible for the carriage of dangerous articles such as explosives;
- that the carrier may refuse to carry any passenger whose condition may create a hazard, any article which may be unsafe or any improperly packaged baggage or goods;
- that the carrier is not liable for delays due to causes beyond its control;
- that the carrier's liability for passengers and baggage or goods is limited to specified amounts;
- for the limitation of certain actions against the carrier;
- that the charterer pays crew's expenses;
- for additional charges against the charterer for fuel and oil in respect of caches and premium prices;
- for the continuance of term charters;
- for summer and winter charges; *etc.* for determining flight times; *etc.* for transportation and spare parts by the charterer;
- for minimum charges, basic charter charges and accessorial charges (including, *e.g.*, loading and unloading, storage, hangarage, *etc.*);
- the location of the carrier's bases.

The tariff provision for the continuance of term charters is worth mentioning at a little more length. It is section 22(1)⁹ which provides that if a term charter is extended for an indefinite period or for a definite period not exceeding the period of the original charter, the rates and charges which applied to the original charter will apply throughout the period of the extension.

⁸ October 11, 1967.

⁹ General Order 1967-A-1, October 11, 1967.

The situation may be that a helicopter is purchased for the charter at a cost of \$500,000. The carrier might want \$100,000 a year for it over a five year term—not less than \$250,000 annually for two years. If the charter were written for a two year term at \$250,000 a year with a right to extend, section 22(1) would obviate reduced charges for the period of the extension. The remedy is, of course, to write the charter for the longer period of time with provision for earlier termination upon an additional payment.

As in all the other contracts pertaining to an offshore operation, the delivery date is critical and the place of delivery—an operations base—is specified. Once again, the term is closely related to that of the drilling vessel.

The charter rate is usually provided for on the basis of a monthly payment plus an hourly rate for any time that the helicopter is flying on the charterer's instructions. As with maritime charters, it is not unusual for aircraft charters to provide for payment in advance, at least of the monthly rental portion of the rates. Provision will also be made for mobilization and demobilization and what is covered by such fees. The possibility that operations may be transferred from one base to another is recognized and the charterer reserves the right to assign to a third party. The charterer, as well, may have an option to purchase and there may be provision for an increase in the charter hire if, for example, there is an increase in labour costs or the currency exchange rate varies significantly.

X. POSITIONING THE VESSEL

In offshore exploration operations, precise positioning is required firstly, for seismic lines in order to determine and map the subsurface anomalies and secondly, for the drilling vessel for the purposes of the company and government agencies.

One system for establishing position is called Hi-Fix. It has a relatively short range of 100 miles. Another, with a range of 300 miles is called Decca 12F. These systems involve three shore stations for a master and two slave radio transmitters or they can operate in the two range mode with the master transmitter offshore. The shore stations are fairly elaborate involving a trailer to accommodate the equipment and two operators to constantly monitor it. There also has to be a power plant and the required antenna can be a bulky piece of equipment. The shore stations have to be located a certain distance apart from each other and they have to be close to the water so as to reduce interference with the transmission. These shore stations send a signal to the boat or the rig and the location is established by triangulation.

The equipment can be purchased or it may be hired. If it is hired, it is usually done on the owner's form of contract.

The Canadian Government has required that the accuracy of positions established by Hi-Fix or Decca 12F be confirmed from a second source which may be the same equipment, satellite information or visual observation. The United States Navy Navigation Satellite System has been available to commercial users for several years and has proved extremely effective in positioning oil exploration vessels remote from land. The user is provided with data transmissions from the artificial satellites in polar orbit by means of the specialized radio and computer, available

from only two or three U.S. manufacturers, that are needed to communicate with the satellites. The radio reads the signal from the satellite and the computer translates that into a longitude and latitude. This can usually be done right on board the drilling vessel or the boat. The receiver and computer are fairly compact items but an impressive antenna is required.

APPENDIX "A"—DRILLING CONTRACT

1. *Interpretation*

1. Definitions—of, *e.g.*, "Commencement Date", "Exploration Area", "Operations Base"
2. Currency
3. Conflict—appendix is subject to contract
4. Headings—not considered in interpreting contract
5. Further Assurances
6. Contractor's Status—an independent contractor

2. *Term*

1. Effective Date
2. Duration
3. Extension
4. Continuing Obligations—Article XI and 1601 and 1602
5. Return of Company's Items—on termination

3. *Contractor's Personnel*

1. Number, Selection, Hours of Labour and Remuneration—determined by contractor
2. Providing Personnel—at the Operations Base
3. The Contractor's Representative—in charge of other personnel
4. The Company May Require Increase or Decrease in the Contractor's Personnel—day rates adjusted accordingly
5. Replacement of the Contractor's Personnel—if required by the company on reasonable grounds

4. *Contractor's Items*

1. Initial Supply—at the Operations Base prior to Commencement Date
2. Maintain Stocks—at the contractor's cost
3. Maintain and Repair Contractor's Equipment—and certain of the company's equipment

5. *Contractor's General Obligations*

1. Performance of the Vessel
2. Contractor's Standard of Performance
3. Operation of Vessel—sole responsibility of the contractor
4. Compliance with the Company's Instructions
5. Adverse Weather
6. Control of Mud Program—as required by the company
7. Cutting/Coring Program—according to the company's instructions
8. Records to be Kept by the Contractor

9. Difficulties Precluding Operations—the contractor may suspend work
 10. Safety Equipment
 11. Pollution
6. *Company's Obligations*
1. Equipment and Personnel
 2. Maintenance and Repair
 3. The Company's Employees—its representative is its senior man on board
 4. Replacement of the Company's Personnel—if required by the contractor on reasonable grounds
 5. The Company Representatives—who have access to the vessel
 6. Custom or Excise Duties—includes sales tax—on the contractor's items
7. *Company's Instructions*
1. Instructions to the Contractor
 2. Maximum Well Depth
8. *Rates of Payment*
1. Operating Rate
 2. Standby Rate With Crew
 3. Standby Rate Without Crew
 4. Voyage Rate
 5. Repair Rate
 6. *Force Majeure* Rate
 7. Additional Payments
 8. Early Termination Payment
 9. Payment for Additional Items—required by the company
 10. Variation of Rates
 11. Insurance Reimbursement
 12. Mobilization Fee
9. *Invoices and Payments*
1. Monthly Invoices
 2. Payment
 3. Manner of Payment
10. *Take Over*
1. The Company's Right to Take Over
11. *Liability*
1. For Equipment
 2. For the Contractor's Personnel
 3. For the Well, Hole and Reservoir
 4. For Pollution
 5. To Third Parties
 6. For Patent Infringement
12. *Insurance*
1. The Contractor's Insurance

2. Policies and Receipts
 3. Benefit Both Parties
 4. The Company's Option to Carry Insurance
13. *Subletting and Assignment*
1. Subcontracts by the Company
 2. Assignment by the Company
 3. Assignment by the Contractor—if the company consents
 4. Operations on Third Party Lands
14. *Option to Purchase*
1. The Company's Option to Purchase the Vessel
15. *Notices*
16. *General*
1. Confidential Information
 2. Arbitration
 3. *Force Majeure*
 4. The Company's Right to Audit
 5. Waivers
 6. Time of Essence
 7. Entire Agreement
 8. Enurement

APPENDIX "B"—SUPPLY OR STANDBY BOAT CHARTER

1. Term, Delivery and Right to Extend
2. Charter Rate and Payment for Early Termination
3. Items Furnished by Parties
4. Duties of Boat
5. Condition of Boat—Owner to Maintain
6. Changes by the Charterer to Boat
7. Off Hire
8. Operation of Boat—sole responsibility of the owner—the owner an independent contractor
9. Duties of Master and Crew
10. Space Available to the Charterer
11. Insurance—Both to Blame Collision Clause — New Jason Clause
12. Liability — Cargo — Crew — Boat — Third Party
13. Salvage—shared equally
14. Duties and Taxes
15. Labour Cost Escalation
16. Charterer May Sub-Charter With the Owner's Consent
17. *Force Majeure*
18. War
19. Compliance With Laws
20. Jurisdiction
21. Notices

APPENDIX "C"—TOWING SERVICE

1. Term and Delivery—right to extend term — right to terminate
2. Charter Rates—when hire begins and ends — minimum tows per year — invoicing — payment
3. Use of Tug—charterer's notice that tug required — owner's best efforts to comply — owner to provide substitute tug — charterer may cancel notice that tug required
4. Owner Furnished Items
5. Duties of Tug
6. Condition of Tug
7. Operation of Tug
8. Duties of Crew
9. Meals and Lodging—for company personnel on tug at additional cost
10. Insurance
11. Salvage
12. Duties and Taxes
13. Compliance With Laws
14. Liens
15. Arbitration
16. Notices
17. *Force Majeure*
18. Jurisdiction

APPENDIX "D"—DIVING SERVICES**1. Interpretation**

1. Definitions, *e.g.*, of "diving time" and "standby time"

2. Term of Contract

1. Duration
2. Suspension and Early Termination

3. Contractor's Equipment

1. Equipment Furnished by Contractor
2. Equipment Rates
3. Equipment Mobilization and Demobilization
4. Equipment Testing—prior to installation
5. Equipment Installation—on drilling vessel
6. Storage of Small Gear
7. Equipment Maintenance
8. Consumable Gases—Contractor to provide

4. Contractor's Personnel

1. Notice That Diver Required
2. Transportation Costs of the Contractor's Personnel—to Operations Base and to vessel
3. Normal Work Rates
4. Special Work Rates
5. Depth Rates
6. Accommodation and Meals—for the contractor's crews

7. Contractor's Representative—on board vessel
8. Performance of Work—the contractor an independent contractor
9. Replacement of the Contractor's Personnel
10. Use of Other Divers—in case of a suspension

5. *Liability and Insurance*

1. Contractor's Equipment
2. Company's Equipment
3. Contractor's Personnel
4. Insurance

6. *Invoices and Payments*

1. Dive Sheets—to be signed by the company's representative
2. Monthly Invoices
3. Payment

7. *General*

1. Assignment
2. Notices
3. Confidential Information
4. *Force Majeure*
5. Compliance With Laws
6. Waivers in Writing

APPENDIX "E"—HELICOPTER CHARTER

1. Term and Delivery
2. Charter Rate—monthly payment plus hours flown rate — early termination payment — mobilization fee for itemized costs — demobilization fee
3. Items Furnished by the Owner—the helicopter — crews — hangar space — gas and oil — life saving equipment
4. Owner's Obligations
5. Charterer's Obligations
6. Operation of the Helicopter
7. Duties of the Crew—includes keep information confidential
8. Transfer of Operations
9. Charterer May Assign With Consent of the Owner
10. Option to Purchase
11. Charter Rate Escalation—based on costs of labour, exchange rates
12. Liability and Indemnity
13. Insurance
14. Compliance With Laws
15. Notices
16. *Force Majeure*
17. Charterer's Right to Terminate
18. Waivers in Writing
19. Jurisdiction