

## My time with the Singapore Maritime Industry

The day after I obtained the MOT 1<sup>st</sup> Class Certificate of Competency (Motor) in late-June 1967, I visited the Straits Steamship superintendent's office to find out whether I could serve them as 2<sup>nd</sup> engineer on-board their only steamship 'Katong'; in order to obtain the 12 months sea time required to enable me to obtain a steam endorsement to my certificate.

I was unsuccessful, as Straits Steamship would only agree to give me the 2<sup>nd</sup> engineer's job on the condition that I served as chief engineer on-board one of their motorships for 12 months thereafter. As I had no inclination to serve another 24 months at sea, I turned down the proposal.

I decided that I would work within the fledgling Singapore Maritime industry, which had taken off with the formation of Jurong Shipyard Ltd in 1963. I was told that both Jurong Shipyard and PSA Dockyard Department required Engineer Foremen; but I was not keen on applying, as I knew that shipyards demanded a 7-day work week. I was prepared to work hard, but I also wanted time off during the weekends.

Within the first week, I spotted an advertisement for an Engineer Surveyor. During the interview, I discovered that Inteco Maritime Services was a firm of non-exclusive Marine Surveyors, who dealt with marine and cargo surveys for shipping and insurance companies. However, my main role would be for a subsidiary company called Hackett & Co, which issued Loadline and LSA Certificates on behalf of the Government of Panama to cargo ships trading in the South-East Asian region.

I instinctively felt that I would not like the job, but agreed to take it on for a trial period of 3 months.

### **Inteco Maritime Services**

I started work on 1<sup>st</sup> July 1967 and for the first week I followed the chief surveyor around and was shown how Loadline and LSA surveys should be carried out on-board ships lying in the anchorages and in drydock. After one week of familiarisation and training, I was instructed to conduct the surveys on my own and report back to the office to facilitate the renewal of the respective certificates by the chief surveyor.

Most of the ships I surveyed were old and in poor condition. Having been brought up with the Lloyds Classification standards, I found great difficulty in determining where to start and where to stop; as the hull plating on the old ships I surveyed had suffered so much wastage that I had to spend long hours closely inspecting the wind & water strakes, which were most susceptible to corrosion.

An added problem was that the hulls were of riveted construction and the replacement of the wasted plates by the riveting method was no longer feasible, due to the lack of riveting repair facilities. The wasted plates had therefore to be cropped out away from the riveted joints and the replacement plates were installed by welding the existing plates to the replacement plates and ring-welding all the rivets on both sides of the riveted joints.

Although I tried to minimise the extent of repairs required, I invariably went back to the office to be told by the chief surveyor that I was being too stringent with my repair recommendations. He advised that I should ease off a little. As the weeks went by, I became increasingly disgruntled, as I felt that the criticism of my work was arising from complaints made by the shipowners to the Panama Consulate.

Another problem was the survey of wooden hulled cargo ships, as it was difficult to find the locations where the timber had rotted or had been attacked by borers. My former colleagues at Keppel Shipyard made for me a tempered sharp-pointed hammer, which enabled me to

detect these locations, but it was really tough work closely inspecting the wooden hulls and being satisfied that I had done thorough surveys and had recommended what were necessary to ensure that the ships would be seaworthy for at least another year.

The LSA surveys also presented problems, as I soon discovered that some shipowners who owned several cargo ships were transferring the LSA equipment from one ship to another, in order to obtain the renewal of their LSA certificates. This called for vigilance and the surveys took much longer and I had to refer to the records of the other ships in the fleet before going out on a routine LSA survey.

The crunch came after about two months, when I was sent on-board a wooden cargo ship to conduct a LSA survey.

Upon arrival on-board the vessel, I asked the old wizened captain to lower both wooden clinker- built lifeboats into the sea. This immediately caused some consternation, as none of the crew on-board knew how to lower the lifeboats. I showed them how it was done and found that both lifeboats were leaking profusely and were only held afloat just above sea level by their buoyancy tanks, which appeared to be still intact. I told the shipowner that both lifeboats had to be sent ashore for complete repair and replacement of the lifeboat stores and left the ship to conduct another survey.

When I got back to the office, I was told that the shipowner had said that the ship was fully loaded and had to sail as soon as possible. He had pleaded that just one lifeboat be fully repaired and refurbished; to enable the fully loaded ship to sail within three days. The chief surveyor asked me whether I would accept this proposal and I responded by telling him that it was his decision, as he was signing the LSA certificate.

Three days later, I attended on-board the same ship once again and surveyed the repaired & refurbished lifeboat after it had been hauled on board by the davits. I reported back to the chief surveyor that all was in order with the refurbished lifeboat and the LSA certificate was duly issued to enable the fully loaded ship to sail.

Two weeks later, I was met by the same old wizened captain as I walked through the entrance to Clifford Pier, in order to board a launch to take me to a ship at the Eastern Anchorage.

The captain clasped my right hand with both hands and thanked me profusely in Malay. I asked him what the 'thank you' was all about and he began to relate the story of their recent voyage to Belawan on the east coast of Sumatra when his loaded vessel had been struck by heavy seas during a violent storm off One Fathom Bank in the Straits of Malacca.

The fully-loaded ship had started to take in water rapidly and the crew on board were fortunately able to lower the refurbished lifeboat into the sea, board it and row safely away from the rapidly sinking ship before she sank. The entire crew were picked up a few hours later by a passing ship and taken to Port Klang.

I was rather badly shaken by the captain's story and knew then that I could not continue doing this line of work. Therefore, upon returning to the office after I had completed the survey in the Eastern Anchorage, I handed in my resignation to the chief surveyor; to take effect at end-October 1967, which was only two weeks away.

The chief surveyor responded by requesting me to stay on until he found a replacement engineer. I subsequently agreed to stay on until end-November 1967; on the condition that I would only continue to conduct Loadline and LSA surveys and submit my findings and repair recommendations in writing to him for his further action.

As I had no job to go to, I approached the chief surveyors of Lloyd's Register of Shipping and American Bureau of Shipping, who I had met at the surveyor's office in Keppel Shipyard. I was told that I required a MOT 1<sup>st</sup> Class Certificate of Competency (Steam & Motor) in order to qualify for an Engineers Surveyor's job in Lloyd's Register of Shipping; American Bureau of Shipping had no vacancies.

After about one month of searching, I met Capt. Aziz Khan, who I had known since apprenticeship days. He informed me that he had recently joined a non-exclusive firm of marine surveyors, Herring & Company, and they were looking out to employ an Engineer Surveyor.

He arranged for me to be interviewed by Capt. Don Herring and Capt. Phil Rivers, and they offered me the job of Engineer Surveyor; to start work on 1<sup>st</sup> December 1967.

## Herring & Company

Upon joining Herring & Company, I very quickly learnt that they were engaged in a variety of marine surveys for shipping companies, underwriters and P&I clubs. However, all the partners and senior surveyors were master mariners and I was therefore their only engineer surveyor and expected to develop the marine engineering side of marine surveys.

Herring & Co had been established in 1955 by Capt. Herring and Capt. Tunbridge in Singapore and had expanded to offices in Penang and Port Klang. From humble beginnings of measuring cargo, surveying damaged cargo and conducting draft surveys on ships loading or discharging bulk cargoes at the anchorages in Singapore and ports in Peninsular Malaya, the company had grown to servicing the major shipping companies, marine underwriters & P&I Clubs and were even the correspondents for International Loss Adjusters, Toplis & Harding and Graham Miller International Adjusters.

Before me was a wide scope of survey work which I could get involved in. I was quite excited at the prospect of learning such a wide variety of marine, cargo and industrial surveys and was fortunate that the partners, who were based in Singapore, were keen that I should be involved in all aspects of the company's work whilst simultaneously developing the marine engineering side of the business.

## 1968

1968 was a very busy year for me, as I got involved in cargo loss assessment for cargo underwriters, ship-to-ship transfer of jet fuel at the West Jurong Petroleum Anchorage, survey of fire damage losses on behalf of fire underwriters, conducting break bulk surveys on refrigerated cargoes and occasionally conducting engineering surveys for the P&I clubs.

I had several senior surveyors to guide me in the various aspects of survey and I took on everything that came my way. I was fortunate to be provided with a secretary, so that I was able to dictate my reports and thus be able to cope with my heavy workload and still have recreational time during the weekends. Sometimes, due to the nature of the surveys, I was obliged to work overtime during the evenings and even overnight. However, the partners were generous and allowed time off in lieu, to compensate me for the extra time worked.

Through Capt. Herring, I managed to obtain repair superintendents work on Indonesian cargo ships under repair at the slipways located in the Kallang Basin. This gradually expanded my contacts with the small shipyards and as time went by, my circle of clients increased.

Towards end-1968, we clinched a superintendent's assignment for the registration of a self-propelled floating restaurant, which had been brought down from Hong Kong. I had to work closely with the marine department senior surveyor, Alfred Heng to facilitate the registration of 'Singapore Lady' as a self-propelled floating restaurant operating within the Singapore Harbour limits.

I gained considerable experience during the six months it took to overhaul the two main propulsion engines, auxiliary machinery and drydocking the vessel for survey and necessary repairs to the underwater hull and appendages.

When she was nearly ready for operation, I had to organise a 'panic' test; in order to simulate the sudden movement of passengers to one side of the ship on the topmost deck of the vessel. Alfred Heng stated that this could be done by positioning 44-gallon drums filled with water on the centreline of the top-most open deck of the vessel and at the given time having them pushed towards one side of the deck by an equal number of workers; to simulate the rapid movement of a specified number of people towards the same side of the vessel.

It was a rather stressful exercise, as the risk of capsizing the vessel was ever present and I was taking the responsibility for the outcome of the test. Fortunately, everything went well and the vessel only listed a few degrees, and the result was accepted by the Singapore Marine Department.

After the floating restaurant 'Singapore Lady' went into operation, Herring & Co were retained as technical superintendents and I had to attend on board frequently to sort out the problems, which arose during operation. I also had to attend on a weekly basis, in order to ensure that ongoing maintenance of the machinery and equipment on the vessel was being kept up.

## 1969

In 1969, my workload increased as I was recruited into the draft survey team, which was servicing the bulk cargo loading of iron ore at Kuantan and Pekan on the east coast of Peninsular Malaysia and the occasional loading of rubber wood chips at Muar and Batu Pahat on the west coast of Peninsular Malaysia.

I was taken on one training trip to learn how a draft survey was done, and thereafter, I had to drive up once every two weeks and stay at Kuantan for about four days, in order to carry out initial and final draft surveys on the cargo ships loading about 10,000 tonnes of iron ore destined for Japan. To me the hardest part of the job was the immediate typing of reports and signing them; so that the bills of lading could be issued by the shipping company.

Back in Singapore, the surveys varied from day to day, although engineering surveys took priority. I was continuously busy, but I enjoyed the survey work, as I was eager to learn as much as I could about the business.

The draft surveys on the east coast of Peninsular Malaysia were conducted between mid-March and end-October of each year; as the sea conditions were unsuitable for the loading of bulk cargo at those anchorages during the North-East monsoon, which occurred on the east coast between November and March of each year.

There were a few fire damage surveys on behalf of Fire Underwriters; however, these surveys were conducted by a loss adjuster and I went along, when I was free, to assist in the restoration of the fire damage and to assess the loss arising from fire damage. I also accompanied the loss adjuster on Burglary claims; to confirm that the loss had been caused by forced entry into the premises and to also verify the full quantum of the loss.

Towards the end of 1969, a fire occurred in Changi Village, which razed about seven shops belonging to Indian merchants. Ironically, all the shops, which sold clothing, electrical appliances, household goods and toys were covered by one insurance company and Herring & Co were appointed to survey and adjust the loss suffered by all seven Assureds.

There was a suspicion of arson, but this could not be proved. The loss adjuster, Freddie Jones was in overall charge and two senior surveyors and I together with a few assistant surveyors conducted surveys to determine the full extent of fire loss and the value of the merchandise in each shop prior to the occurrence of the fire.

The surveys had to be carried out quickly in order to safeguard the undamaged merchandise from loss by theft and to salvage as much of the damaged merchandise as could be achieved. This required good organisation and supervision and I gained a lot of experience organising and supervising a workforce under scrutiny of the fire underwriter's and the assureds' representatives.

There were large quantities of goods that were water-damaged and these had to be sorted out quickly, so that they could be sold to salvage merchants. This was my first experience with selling damaged goods to salvage merchants on a sealed tender basis. Sealed tenders for each lot of damaged goods were opened in the presence of the salvage merchants at our office premises at an appointed time and the successful bidders were then made to make payment before they were allowed to clear the goods away.

## 1970

During the Lunar New Year celebrations in early 1970, there were considerable losses due to firecrackers and fireworks and this immediately led to a ban on the firing of fire crackers in Singapore in March 1970. We conducted quite a few loss adjustments on fire damage during that period and I was called upon to assist the loss adjuster.

The draft survey season started in mid-March 1970 and I then had to travel once every two weeks to conduct the draft surveys at Kuantan; unless an engineering survey prevented me from doing so. Once back in Singapore, I attended to a variety of marine, cargo and non-marine losses and continued the superintendent's visits on board 'Singapore Lady'.

In mid-1970, Loss Adjusters Toplis & Harding appointed Herring & Co to conduct surveys at the construction site of the new container terminal at Tanjong Pagar. The main contractors of the construction project, Taylor Woodrow, had a 'contractors all risks' policy covered by Lloyds of London and the accidents to the cranes and mobile construction equipment, which occurred during the construction period, kept me busy conducting the damage and reinstatement surveys; to enable the T &H adjuster in London to adjust the claims lodged against the underwriters.

Towards the end of 1970, Capt. Tunbridge passed away due to illness and shortly after, I was awarded a 3% shareholding in Herring & Co. I was happy to note that my survey work had been recognised and appreciated by the partners of Herring & Co.

The 1970 draft survey season ended at end-October 1970 and I thought that I could have a break from travelling for about four months; but in late- December, massive floods occurred in Peninsular Malaysia and I was called upon to survey a newly-opened tapioca starch factory in Kuantan, where all the new and expensive machinery had been submerged by floodwater.

The Underwriters wanted the survey conducted at the earliest opportunity; but as the major roads were impassable at various locations on the roads leading to Kuantan, I had to fly to Kuala Lumpur on a commercial flight and arrangements had to be made to fly me to Kuantan on a Malaysian Air Force transport plane, which was on flood relief operations.

After conducting the initial survey on the machinery, the machinery manufacturers were called in to conduct their inspections; in order to decide what had to be done to reinstate the water-damaged machinery to operating condition. I therefore had to make several visits to the factory premises and other locations where the machinery had been taken to, in order to carry out the reinstatement work.

This assignment was very interesting; as I had to follow through the complete reinstatement process and thereafter adjust the claim made against the underwriters. The whole assignment took me about six months to complete.

Surveys on behalf of Hull & Machinery Underwriters were few and far between as Herring & Company were up against the might of non-exclusive marine surveyors Ritchie & Bisset, which had a compliment of more than 10 marine engineer and master mariner surveyors and dominated the marine survey market. Ritchie & Bisset also represented classifications societies such as Bureau Veritas and Germanischer Lloyd and several P&I Clubs and this

placed them at the forefront whenever any ship casualty occurred in and around Singapore and Peninsular Malaysia waters.

## 1971

1971 was significant for the introduction of Parcel Tankers, which were dedicated to the carriage of palm oil from Singapore and Peninsula Malaysia. The Herring & Co assistant surveyors had to be organised and trained for the inspection of the multi-tank parcel tankers and the subsequent loading and sealing of the tanks, prior to the vessels departing for West Asian & European Ports.

I was involved in the planning and survey aspects for the first few parcel tankers, but had to return in March 1971 to the draft survey team, whilst continuing with my superintendent engineers work on board 'Singapore Lady' and other ships under repair; as the shipowners relied on marine surveyors to ensure that the work carried out by the ship repairers on board their ships was carried out properly and at reasonable cost.

In June 1971. I was told that Herring & Co had been sold to Caleb Brett, an International Survey and Inspection Organisation based in London and Rotterdam; which specialised in the inspection of petroleum, chemical and vegetable oil cargoes.

I was somewhat disappointed, as I felt that the new firm would focus on the inspection of liquid, mineral & grain commodities and gradually draw away from marine insurance & engineering surveys. It was also my dream to lead my own marine survey firm which would eventually service the marine underwriters, shipping companies and P&I clubs.

However, I continued my survey work with the newly formed Herring Caleb Brett Pte Ltd and as the months went by, I realised that there was significant expansion of the petroleum and palm oil survey teams, but engineering survey was my own sole effort.

I was also told that the Toplis & Harding survey work would cease; as Graham Miller International Adjusters were part of the group that owned Caleb Brett and would soon set up an office in Singapore and bring in a qualified loss adjuster to conduct the business.

It was suggested that I should work closely with the loss adjuster and ultimately qualify as a loss adjuster. As I still yearned to lead a marine survey firm, I was not too excited about the prospect.

At about this time, I had my first experience as a technical witness in the Singapore Supreme Court; which turned out to be a 'baptism of fire'.

It arose from a survey that I had conducted some two years before on a bulk cargo of sorghum, which had allegedly been moisture damaged in transit from Thailand. When the cargo holds were opened and the sorghum found to be damaged, I had been requested to attend on board the carrying vessel, and check out all the cargo hold ventilator fans. I found that all were in good working order and verified that all ventilation fans had been operating continuously from the time that the vessel had departed from Bangkok on her three-day voyage to Singapore with the full cargo of sorghum in bulk.

My report on the operating condition of the cargo hold ventilator system was incorporated into the cargo loss assessment report submitted to the vessel's P&I club. The matter between the sorghum consignees and the carrying vessel owners came up for hearing at the Supreme Court In August 1971 and I was requested to give evidence about the condition of the vessel's cargo holds ventilation machinery.

During his examination-in-chief, the P&I club lawyer inadvertently asked me what was the optimum moisture content of sorghum, when shipped; although it was not my area of expertise. After I had confidently stated that it was about 15% moisture content, I immediately looked across at the plaintiff's lawyer and noticed a gleam in his eyes; which suggested that he would be questioning me about my quick answer.

When it was his turn to cross-examine me, the lawyer started off in a friendly manner and asked me routine questions about my qualifications and areas of expertise and how I had conducted by survey on the cargo hold ventilation machinery. Then, he suddenly asked me on what authority I had answered the question posed by the defendant's lawyer about the moisture content of sorghum. This was obviously to discredit the evidence that I had given previously.

I hesitated for a moment and answered that I had seen it in either 'Thomas Stowage' or 'Lloyd's Handbook'. He turned around dramatically and walked back to his table and returned with the book 'Thomas Stowage' and slammed it down on the lectern in front of me; requesting that I find it.

I feverishly thumbed through the pages, but could not find the information I had given; whereupon the plaintiff's lawyer turned towards Justice Choor Singh, a judge with a very stern demeanour and requested that as it was near the lunchtime break, I should return to my office and bring back 'Lloyd's Handbook' to prove that my statement was right.

The judge agreed and I returned to my office in a sweat. I opened 'Lloyd's handbook' and to my great relief saw that it clearly stated that the optimum moisture content of sorghum, when shipped, was 15%.

I was vindicated, but it taught me a lesson to always keep within my area of expertise, when I answered questions in court and to refrain from quickly answering questions which were outside my area of expertise, unless I was absolutely sure of the source of authority. In November 1971, a Singaporean naval architect, Moshe Elias approached me to join his firm of naval architects and marine engineers called Elias & Associates.

He said that he and his partner, Jack Kiang, a marine engineer, had secured a 3-year contract to develop and operate Westbank shipyard. As Westbank shipyard was already in full operation and they both had two more years left to complete the contract, they had plans to include marine surveying amongst the services they could offer to the rapidly expanding Singapore Maritime Industry.

My older cousin, Robin Reynolds, a marine engineer surveyor and former shipyard foreman had also been approached to join E & A; in order to turn it into a firm of naval architects, marine surveyors and consultants.

The proposal was for Robin and me to develop marine survey and services for underwriters, shipping companies and P & I clubs from their newly-purchased office in Goldhill Plaza. We would be given 18 months to develop the business; at the end of which, E & A would-be is restructured, in good time for the return of Moshe and Jack from their contract with Westbank Shipyard.

I would have to take a 10% pay cut on my wages; but what was proposed really appealed to me and the more I discussed it with Robin, who was nine years older and had considerable experience in the marine services industry, the more I was attracted to the proposal. I made my decision in late-November 1971, but withheld submitting my resignation to Herring Caleb Brett until mid-December 1971; as I wanted all matters with Herring Caleb Brett properly settled before I left them.

My resignation letter to take effect in mid-March 1972, which was submitted to Capt. Herring, the managing director of Herring Caleb Brett Pte Ltd, was not accepted in the first instance and I was told that two Caleb Brett directors from London and Rotterdam would be coming to Singapore in early-January 1972 to discuss matters with me.

The 45-minute meeting with the Caleb Brett directors and their Singapore lawyer was very flattering as they told me that they valued my services and had selected me to succeed Capt. Herring as managing director of HCB within five years. They also offered me an increase in salary. They outlined the focus of the company in the petroleum, chemical and palm oil inspection services and I could see that I would eventually become an administrator and would have very little to do with marine survey and engineering services.

I rejected their offer and confirmed my resignation, which would take effect on 14th of March 1972. During the two months before I was released, I closed my outstanding files and carried out short-term surveys which could be completed before I left.

## Elias & Associates

The start of my new venture was not good; I was hospitalised for viral hepatitis two days after I commenced work. It took me about three weeks to recuperate, as it was debilitating and I could not find the energy to carry out long duration survey work. So I spent some time on light work and visiting former clients to tell them that I had moved.

Meanwhile, Robin carried out the surveys that Moshe had already secured for us. Commencing from April 1972, we were busy servicing shipowners through Robin and underwriters through me. The repair superintendency and marine survey work picked up at a steady pace and after about three months, we decided to carry out motor accident assessments for motor underwriters, in order to penetrate the Insurance market.

Although the fees for conducting the motor accident assessments were rather low, we rapidly gained recognition with the engineering underwriters, as we were able to show them that that we could minimise the losses with our engineering expertise. Both Robin and I worked shoulder to shoulder conducting the surveys quickly and submitting the reports promptly.

The naval architects arm of E&A produced small ship designs and ship construction drawings and we started to complement this by offering ship building superintendency to the owners. At the year-end of 1972, after eight months of hard work, there was sufficient surplus to earn the both of us one month's wages as bonus.

## 1973

1973 started rapidly and by the time March came around, it was necessary to employ an assistant surveyor to take over the motor accident assessment work. As I was involved with some assignments which called for frequent follow-up work, Robin had to train the assistant surveyor, who already had some engineering knowledge, because he was a motorcycle enthusiast.

In June, I was requested by lawyer G P Selvam of Drew & Napier, on behalf of the P&I club to conduct a survey on a cargo vessel where an accident had occurred during cargo loading operations in Puerto Rico; which had caused severe injury to a stevedore. I was required to obtain the specifications and examine certificates of the cargo winch and take measurements of the booms and rigging; which were pertinent to the matter.

After I had submitted my report, I was informed that I would have to attend a USA court during August 1973, to confirm my findings. I was told to prepare for eight days to travel to Puerto Rico via Los Angeles and Miami, deliver my evidence and return by the reverse route to Singapore.

However, when I was met by the lawyer upon arrival at Puerto Rico, I was told that the assignment would take longer; as it had been decided to put me on the stand to give my evidence last of all. This assignment took 17 days to complete, and the travellers' cheques that I had carried with me ran out after 10 days. The rest of my stay in Puerto Rico had to be funded by the lawyer. I then realised that I required a credit card, in order to travel comfortably on future overseas assignments.

Upon my return to Singapore, I heard the news that Robin and his family had been granted permanent residence status in Perth, Australia and that he was planning to leave E&A by March 1974.

At about this time, Moshe and Jack had about three months of their contract with Westbank Shipyard left, and they would be returning to E&A. Moshe then revealed that it had been decided to terminate the partnership and form a shareholding company called Elias & Associates Pte Ltd as Jack had decided that he wanted to take up the position of shipyard

manager in the newly-formed Asia-Pacific Shipyard. It was therefore left for Moshe to take me in as a minor shareholder, in order to set up the new shareholding company.

#### 1974

As soon as the Elias & Associates Pte Ltd was incorporated, Moshe employed a naval architect, Lye Seong Woh and we started our search for a marine engineer to take over from Robin. Robin, to his credit, worked with the same earnestness, whilst he prepared to sell his property and prepare for the move to Perth.

We subsequently hired John Savage, who I had known since schooldays. John had obtained his 1<sup>st</sup> Class Certificate of Competency in 1972, and had since worked as a marine engineer surveyor in Herring Caleb Brett for about one year. John joined E&A about two months before Robin left and the development of Elias & Associates Pte Ltd then took off during the next six months of 1974, with the appointment of another naval architect, Lee Choo Ling and marine engineer, Joe Arul.

Rapid development of the naval architecture side of the business led to rapid increase in shipbuilding superintendency work and we had to bring in technical surveyors to assist the marine engineer surveyors in the numerous superintendents contracts that were being awarded to E&A. By end-1974, I had to shift my team of marine engineers and technical assistants to a nearby office, which was also owned by Moshe and had been timely vacated.

At this time, the construction of steel flat-top barges, tugs and landing craft, to support the growing offshore oil exploration in Brunei, Sarawak and Indonesia, was developing rapidly and the construction of barges was being carried out on the river banks in the north-east and the coastline of south-west Singapore, and tugs and landing craft were being constructed at the small shipyards in Kallang and Tanjong Rhu.

Whilst Moshe was generating superintendency work for John Savage and Joe Arul, which kept them and the assistant surveyors fully occupied, I continued developing the marine insurance work and towards the end of 1974, received my first survey of a mobile crane, which had returned from charter from the offshore petroleum sector in badly damaged condition. This initiated 'on hire' and 'off hire' surveys for cranes belonging to crane owners and I soon had to start training my technical assistants; in order to cope with the crane survey work that was coming in on a regular basis.

#### 1975

1975 was a busy year for shipbuilding superintendency; so much so that all the shipbuilding and marine surveys were left to John Savage, Joe Arul and their assistant surveyors, whilst I coped with the marine insurance and mobile crane surveys with my team of two assistant surveyors.

Early in that year, Moshe and his team of naval architects commenced on the design of 2500-tonne deadweight mini-bulk carriers. I was called in to assist in the selection of propulsion and auxiliary machinery and the pedestal cranes that were to be installed on board these vessels and in this capacity had to compile the machinery specifications to be incorporated into the building specifications.

I assisted in similar manner on the design and construction of two twin-screw tugs, each having an output of 1800 BHP; which was a quantum leap from the twin-screw 1200 BHP tugs, which had been designed and built in Singapore up to that time.

All these vessels were to be built at the Singapore Slipway and Engineering in Tanjong Rhu and Joseph Arul had to be stationed there on an almost full-time basis; in order to

superintend all the ship construction work, which was taking place in that yard. I attended, when required, to discuss problems with the shipyard management.

On 14th May 1974, Pilgrim passenger ship 'Malaysia Kita', which was undergoing repairs in the Singapore Eastern Anchorage, prior to the start of the annual pilgrim season voyages to Jeddah, Saudi Arabia, caught fire in way of her shelter deck. The SHB firefloat 'Api Api' attended alongside to put out the fire and poured so much seawater into the vessel's shelter deck that she started to list heavily to port.

At that stage, it was decided to tow the listing vessel to shallow water and whilst this was being done, 'Malaysia Kita' capsized onto her portside and settled on the muddy seabed, with her starboard section above sea water level.

E&A rendered technical services to provide a system for uprighting and refloating the vessel; fully utilising our computer services, which had been set up in mid-1973, for this project. E&A did all the calculations and Moshe Elias collaborated with the Singapore Polytechnic in designing the six righting levers which had to be erected on her starboard side hull to accomplish the uprighting of the vessel.

On the day of the operation, during the high tide period, when there was no current, as the vessel was being winched upright, one of the righting levers twisted; but by then her portside hull had been released from her mud bed and the uprighting work became much easier. Once 'Malaysia Kita' was upright, she was de-watered by the salvors, Selco and refloated and towed to deeper water. She was subsequently purchased as a wreck by Selco and towed to Hong Kong for breaking up.

## 1976

In early 1976, Capt. Alfie Phillips, whom I had known from apprenticeship days, some 15 years previously, joined us to conduct sea trials on newly constructed vessels. In order to avoid conflict of interest issues which could arise on vessels built under E&A superintendency, Capt. Phillips was employed by a subsidiary company called Marine Management Systems Pte Ltd.

Alfie Phillips was immediately occupied with conducting compass adjustments and sea trials on ships built by Jurong Shipyard and leg-joining operations on jack-up rigs built by Keppel-Fels. He ran an operation, which sometimes required the assistance from other master mariners and deck officers, who would be brought in on short-term contracts.

My workload accordingly increased, as I was given the responsibility of overseeing his projects, in addition to the marine and superintendency work carried out by the other two marine engineers. However, I still kept on developing the marine insurance and mobile crane survey work and was constantly involved with editing all the survey reports produced by the surveyors before they were typed and signed by me.

I insisted that all survey reports should be edited by me; which sometimes required the presence of the surveyor to clarify matters and explain the shortcomings in the report. This ensured that the quality of survey reports was maintained; but I had to spend many hours ploughing through and editing the reports.

In mid-1976, the vessels under construction at Singapore Slipway & Engineering were completed and went out for sea trials. At that time, I was too busy with my own workload and left Joseph Arul and the naval architects to deal with the delivery of the vessels to the shipowners.

Around October 1976, I received a huge shock when I was called by Moshe to his office and told that he had decided to emigrate with his family to London in March 1977 and wanted me to take over Elias & Associates Pte Ltd as managing director.

He told me that the two naval architects would be leaving by end-1976 and only the chief draftsman and his team of 3 draftsmen would remain in service. I was requested to restructure the share-holding of Elias & Associates Pte Ltd and Marine Management Systems Pte Ltd; in order to continue our services to the existing clients.

Moshe did not give me the reason for withdrawing from the business; except to say that his decision was brought about by family matters. He then informed me that we would have to vacate the office premises which we occupied, as he wanted to sell the unit before he moved away from Singapore.

He said he would retain a share-holding in Elias and Associates Pte Ltd and left me to decide who I wanted to take in as shareholders. As for Marine Management Systems Pte Ltd, he had no interest in the company and left me to again decide who I wanted to take in as shareholder.

I decided that with E&A, I would ask John Savage and Alfie Phillips to take up share-holdings. As Alfie Phillips was solely involved in the MMS work, I decided that he could take up the share-holding with me in that company.

We then had to look for office premises to give working space for 14 personnel comprising three directors, one chief draftsman and three draftmen, two assistant surveyors, four clerical staff and accounts clerk.

Moshe managed to find a brand-new office space in a shopping centre in Kitchener Road, which was affordable and then embarked on renovating the 1100 sq. ft space to fit us all in. He managed to squeeze us all in; three directors having 9'x6' cubicles at the rear glass-panelled window section, with the drawing office, measuring 10' x 20' lining one wall and the rest of the space being fitted with screens to accommodate two assistant surveyors and five office staff.

Moshe designed all the furniture and cupboards to fit into the space. I had no choice in the matter, as the funds for the office removal and the new furniture was being provided by him.

I was hit by a double whammy in December 1976, when our elder son, David, was diagnosed with acute leukaemia and was immediately hospitalised. Besides preparing to move office and continuing my work of managing the newly-structured office, I now had to visit our son in the morning and evening and transport my wife, Rita, and father to and from the hospital, as they took shifts to be constantly with David, who was then only 8.5 years old.

## 1977

We shifted into the new office in early-January 1977 and I assumed the positions of managing director of both E&A and MMS. However, I found it difficult to concentrate on my work, as David's condition was worsening, with every day that went by.

He was haemorrhaging at different parts within his small body and finally on 20<sup>th</sup> February 1977, he succumbed to a cerebral haemorrhage. After we buried David, it took me a few weeks to regain my composure and lead E&A again. In the meantime, Moshe and family left Singapore.

Despite the office space constraints, the second half of 1977, showed an uptrend in marine insurance survey, mobile crane survey and marine repair superintendency. Alfie Phillips

continued with his compass adjustments and sea trials, whilst the drawing office continued to design small tugs, barges and landing craft, which were still very much in demand.

During the 3<sup>rd</sup> quarter of 1977, I received an interesting assignment to team up with Malaysian property valuer CH Williams to value the machinery and equipment listed in the assets registers of the rubber estates owned by UK-based Harrison & Crossfield in Selangor & Perak; for the purpose of transferring the interests to Malaysian interests.

This entailed meeting up with the property valuer and spending several days visiting the H & C estates, in order to inspect the operating machinery and equipment and establish the overall value of each estate. I had to make three 4-day trips, in order to complete the inspection work with the property valuer.

### 1978

In January 1978, just before the Chinese New Year, E & A were appointed to conduct a survey in connection with damage sustained by cartons of frozen chicken stored in a large refrigerated room of a major refrigeration storage facility. I attended with an assistant surveyor and upon learning that the refrigerating system for the refrigerated room had completely broken down, arranged for the immediate transfer of all sound cartons of frozen chicken to other refrigerated rooms available at the facility.

However, we found that the frozen chickens in a considerable quantity of cartons had deteriorated beyond human consumption and these had to be left at one side of the room and salvage merchants were called in quickly to sight the damaged lot and make their offers to purchase the lot on an 'as is where is' basis, for animal feed and fertiliser; the terms of sale to include the complete clearance of the damaged lot from the room.

This was done very quickly by sealed tender and the salvage sale was awarded to the highest bidder, who paid up by cheque upon signing the sales contract, which I had drawn up and signed. The delivery order was given to the salvage merchant during the late morning of the eve of Chinese New Year and he was asked to clear the damaged lot immediately. I then sent an assistant surveyor to the refrigerated storage facility, to ensure that all the damaged cartons of frozen chicken were cleared from the room that day; so that cleaning could be commenced and completed before the holiday.

Just before 5pm, I received a phone call from the assistant surveyor, informing me that the salvage merchant's labourers were refusing to clear one lot of cartons of chicken that had been found badly deteriorated, emanating a foul smell and infested with maggots. He said that the salvage merchant was threatening to leave the refrigeration storage facility and suggested that I go down immediately to invoke the sales contract.

I hurried down and immediately summed up the situation. I realised that I had to lead by example and returned to my car to get my overalls and obtained a pair of Wellington boots and a spade from the refrigeration storage facility. I then went to the room and started shovelling the badly deteriorated chicken into a handcart. After a few minutes, I was joined by the salvage merchant's labourers, who took the spade away from me and asked me to leave the room. They then proceeded to clear the room and transfer the badly deteriorated chicken into their pick-up truck.

However, I still had another problem; the salvage merchant informed me that the dumping permit had not been obtained and the Tampines dumping ground office had already closed for the day. I informed him that I would accompany his pick-up truck to the dumping ground, in order to ensure that the rotted chicken could be dumped there.

Upon reaching the dumping ground at about 7pm that evening, I found that the vehicle barrier was closed and the watchman informed us that he would not let the pick-up truck in, unless a dumping permit was produced. I then took over and asked the watchman to see what we had in the pick-up truck. He acceded to my request and I informed him that if he did not let the pick-up truck into the dumping ground to dump the foul-smelling and rotted contents, I would instruct the workers to dump all the rotted chicken beside the barrier gate. My bluff paid off, as the watchman immediately relented and opened the barrier gate. That ended a stressful late afternoon before a public holiday.

In early-1978, I was approached by average adjusters, Richards Hogg International to act as their marine engineer consultant in Singapore; in order to shortcut the process of referring to their marine engineer consultant in London. This appointment immediately opened the doors to the marine hull & machinery insurance market in Singapore, Malaysia and internationally and E&A began receiving assignments from more marine underwriters.

Towards end-1978, E&A started receiving survey work from The Salvage Association, which had set up an office in the Singapore office in 1973, but had up till then given all their overspill and conflicting survey work to Ritchie & Bisset.

At the end of 1978, an office space became vacant in the same building where Richards Hogg International were located; which gave E&A & MMS much more space and was affordable.

Shortly after we made the move to the new office, we faced a dilemma when a landing craft which had been designed by our chief draughtsman upon being launched floated at her load line marks. As we had no naval architect to turn to, Alfie, John and I made the decision to close down the drawing office; as all of us felt that it was posing a risk to the marine work we were doing successfully and had full control of.

This change was made very quickly and we found ourselves in a position to take on more technical surveyors to cope with the increasing volume of survey work which had come our way. My workload increased, as I still insisted in editing and counter-signing every report that left the E&A office; although it meant that I had to spend many evenings and part of the weekends working on the reports which had been sent to me for editing.

At about this time, we also decided that the name of the company required change; as it was not well accepted by certain quarters because of its perceived connections to Israel. We therefore changed our name to Techmar Marine Services Pte Ltd and continued our services to our clients without any interruption.

In late-1978, I was approached by G P Selvam, a marine lawyer from Drew & Napier, who were at that time a leading legal firm in Singapore with just 13 lawyers. He asked me whether I could act as a Marine Engineer Consultant in a case which he had taken up on behalf of Shipowners in a claim against Jurong shipyard, who had carried out stern tube repair on his client's tanker and which had subsequently proved to be defective and had immobilised their vessel; necessitating the re-docking of the vessel and a complete repeat of the repair process which had delayed the vessel and resulted in the loss of charter.

This was the first time that I had been asked to do this type of work, but I readily agreed, as I was eager to be a marine engineer consultant. This matter was scheduled to be heard in the Singapore Supreme Court and I then had several sessions at the lawyer's office to prepare for the matter.

After I had explained to Selvam the technical aspects of the case, I had to swear an affidavit as an expert witness and Selvam went about making a cardboard model of the lignum-vitae stern tube; in order to prepare for his opening address before Justice Winslow.

On the first day of the hearing, as the plaintiff lawyer, Selvam had to do the opening address to explain the merits of the Shipowner's claim against the Shipyard. He used the model of the stern tube to illustrate how the damage had occurred. From the onset, it was obvious to me that the judge was not comfortable with the technicalities surrounding the matter and really did not want to do this case; as he kept interrupting and ridiculing Selvam constantly and I could see that the lawyer was getting agitated and stressed.

After about 15 minutes, Selvam paused and turned around to me to ask what he should do to advance his case. I advised him to take the matter to arbitration; so he immediately asked the judge for a meeting in chambers. The judge subsequently announced to the court that the two lawyers had agreed to take the matter to arbitration.

I was rather surprised that the defendant's lawyer had agreed to arbitration; as it did not favour his case. As it so happened, in late-1979, the panel of two technical arbitrators, who were practitioners in the Maritime industry, awarded the claim to the Shipowners.

This was my first successful case as a marine engineer consultant; which was to be the forerunner of many appearances as expert witness in court and arbitration hearings thereafter; as G P Selvam, introduced me to his fellow marine lawyers and they began to consult me on marine engineering matters.

### **Techmar Marine Services Pte Ltd**

1979 & 1980 were years of rapid expansion of Techmar's services to the insurance market, as we broadened our range of surveys for cargo, hull & machinery, ship repairer's liability, builder's all risks, machinery break down and construction all risks underwriters; especially when damage occurred to machinery and equipment.

In addition to conducting regular hull & machinery surveys for The Salvage Association, we received appointments to conduct surveys for ship repairer's liability and builder's all risks claims arising in the Keppel-owned shipyards and at the Keppel-Fels rig-building yard respectively.

### **Ship repairer's liability and Builder's all risks claims**

This work kept me continuously busy; so John Savage had to take over the marine survey and repair superintendents work and my brother, Gerard, joined Techmar in early-1980 to assist John. Gerard, having spent 15 years at sea and going through the ranks from junior engineer up the chief engineer, took a little while to get used to the faster pace of work ashore; but settled in to ease our marine engineering workload.

Three young ex-national servicemen were trained during the period 1979 to 1982 to conduct insurance surveys on technical cargo and mobile machinery and equipment. All of them possessed O-level certificates with good grades in English; as report writing was the criterion and had to be carried out quickly to meet the underwriters' requirements.

I edited all their reports and encouraged them to enrol in the insurance courses conducted by the Singapore Insurance Institute, in order to obtain their Insurance diplomas. I told them that they would have to pay for the courses first and they would be reimbursed as soon as they obtained a diploma and this would qualify them for promotion within Techmar, with adjustment to their salaries.

This period, which lasted up to end of 1983 was particularly busy; as the shipyards in Singapore were fully engaged in ship repair, ship building & ship conversion and accidents occurred regularly; because they were all working at a frantic pace. Techmar was appointed by the Insurance Corporation of Singapore, who were then the leading underwriters for ship repairer's liability and builder's all risks policies taken out by the Singapore shipyards and shipbuilders.

Techmar was called in to survey several fires occurring on board ships under repair as well as under construction or fitting out. Surveys in the shiprepair and shipbuilders yards would always involve me personally, as the work was complex. We had to determine the cause of the fires, in order to establish whether the underwriters were liable, whilst we worked closely with the shipyard, to mitigate losses and reinstate the fire-damaged vessels to pre-damage condition; in order to minimise potential 'loss of use' claims.

We found in most cases that the seawater used to extinguish the fires on the ships caused more damage to machinery and equipment than fire-damage. The initial clean-up after the fire and corrosion prevention measures that had to be taken promptly, were therefore of utmost importance and we had to push the shipyard management to use all their resources in order to mitigate losses.

Joint surveys were conducted with the marine surveyors representing the fire-damaged ships and I was always thankful when the surveyors appointed by the shipowners or the P&I Club co-operated with the shipyard's efforts to reinstate the fire-damaged ship to pre-damage condition and did not cause unnecessary problems to hamper the progress of the clean-up and reinstatement process.

Most of the fires were caused by 'hot work' and the failure to put them out quickly often resulted in devastating damage; but several fires started from the crew accommodation during off-work periods and it was often debatable whether the fire had been caused by the ship crew or the shipyard workers leaving behind smouldering materials after they had completed their work for the day. However, during the initial period after the fire was put out, we conducted joint surveys quickly in order to enable the shipyard to commence on the clean-up process and reinstatement work as soon as possible.

Flooding of machinery and equipment spaces by burst fire-fighting hoses or temporary piping installed by the shipyards was also a common occurrence and required clean-up and corrosion prevention on an urgent basis. Submersion of electrical cabling called for full current-resistance and insulation checks on the affected electrical circuits, which quite often revealed that the electrical cabling had to be completely renewed, because water had penetrated the deteriorated sheathing or connections and seeped into the core of the cables.

In the ship conversion and shipbuilding sector, we surveyed several fires which had been caused by 'hot work' and as the vessels were under the full care and custody of the shipyard or shipbuilder, the liability aspect was not disputed. We therefore concentrated on mitigating the loss and reinstating the vessel to pre-fire condition and to classification requirements and owner's satisfaction.

In most cases, the final negotiation of repair costs with the shipyard or shipbuilder and the adjustment of the claim against the underwriters were rather complex and sometimes took up a lot of my time; especially when the fire loss exceeded SGD 1 million. On a tin dredger where the fire originated at the bottom of the rubber-lined discharge chute located at main deck level, the fire rapidly spread upwards through the superstructure; eventually burning itself out. As this fire occurred just one week before the vessel was completed and delivered to owners, the fire damage was devastating and the final claim against the BAR underwriters was over SGD 4 million.

During this time, there were several launching-damage and leg-joining damage claims; as the rig builders did not have the facilities to carry out these phases of jack-up rig construction in a totally safe and risk free environment.

One jack-up rig, which was almost completed and being towed out by four tugs from the outfitting berth to the Anchorage for the leg-joining phase of construction during the early morning darkness, was suddenly hit by a Sumatra (strong wind and rain) and drifted out of control across the channel to the adjacent shipyard; colliding with a large tanker, which was lying alongside a repair berth and preparing to leave the shipyard to go on a charter. One of the tugs was sandwiched between the two hulls and the cantilever platform of the jack-up rig contacted the accommodation superstructure of the tanker.

The total claim against the BAR underwriters for the damage sustained by the jack-up rig, tug and tanker ( including the 'loss of charter claim') amounted to more than SGD 4.5 million and involved a lot of my time scrutinising and negotiating the various costs arising from the incident.

The conversion of the ill-fated drillship 'Enewetok' during 1982, resulted in four claims being made against the BAR Underwriters; two of which were due to fires started by 'hot work'. The first fire, which occurred when the conversion work on the former bulk carrier was still in its preliminary stages caused relatively minor fire damage. However, the second fire gutted the entire forward superstructure and destroyed all the navigation and communications equipment in the wheelhouse and furniture and fittings in the accommodation cabins. This resulted in a claim exceeding SGD1 million.

Upon completion of the conversion to drillship 'Enewetok' in January 1983, whilst being towed off the outfitting berth, her drill tower collided with the cable car system located between Mount Faber and Sentosa Island. This resulted in major damage to the cable car system and the deaths of 7 people. Techmar was not involved in this major casualty, as the P&I Club with which the drillship was entered were not Singapore-based. However, I believe that the total claim for the reinstatement of the cable car system and the claims made by the families of the deceased amounted to more than USD 20 million.

#### **Daniel C Griffiths & Watson Gray**

During 1980, I was requested by Capt. David Young of Trident Malaysia, marine surveyors in Peninsular Malaysia, to start up the Singapore branch of Daniel C Griffiths, an international cargo inspection and product certification organisation with headquarters in United Kingdom.

After several months of discussion, I agreed to register Daniel C Griffiths Pte Ltd in Singapore; to inspect and certify manufactured products exported from Singapore and to employ a Master Mariner to carry out the inspection work. This later led to the formation of Watson Gray (Singapore) Pte Ltd, the branch office of the International Petroleum Inspectors, in 1982, and I took charge of both operations as managing director.

This meant that I had to keep an eye on the surveys and inspections carried out by four companies, whilst still conducting the marine insurance surveys. Somehow, I managed to cope with everything; but hit a major problem, when we were informed in mid-1982 that the rental rate for the office space we occupied would be raised to SGD6.36 per sq.ft which was about 4 times the SGD1.60 per sq.ft we had been paying between May 1978 and May 1982.

#### **Shift to Anson Centre**

As this would have a serious impact on our annual budget, we immediately and feverishly started looking around and found a smaller but affordable office space on the fringe of the city centre in Anson Road. There were two existing rooms in this office space, so it was decided that I should have one room and leave the other room and the rest of the office space to be subdivided by screens to fit in the surveyors and office staff workplaces.

It seemed that we were reverting to the pre-1978 office arrangement. However, this time around we would have more space for everyone to work comfortably in, although in rather close proximity. The removal was quickly and efficiently carried out by the surveyors and office staff and I was impressed by the co-operation and enthusiasm that everybody showed. I suppose that they all realised that our survival as a marine survey and inspection organisation depended on being able to fit into an affordable office space; as we were self-funded and did not have much reserves to fall back on.

Surprisingly, after the move to Anson Centre, the workload, especially from marine insurance companies increased and Techmar soon had to employ two more marine engineer surveyors. I started to go out on major marine casualties in Singapore, together with assistant marine engineer surveyors, so that I could get them to follow-up and thus enable me to take on more assignments. This system worked very well, as I could guide the young surveyors and also ensure that quality reports were produced and counter-signed by me.

#### **Major Refrigerated Cargo claim**

In mid-1981, Tech mar was appointed by Lloyds agents on behalf of cargo underwriters, to survey a shipload of bananas on-board a refrigerated cargo ship which was en route from Philippines to Arabian Gulf ports. A major electrical power breakdown had occurred on board the vessel, just before she passed Singapore and she had been diverted to Singapore port to seek assistance. As the refrigerated machinery could not be operated, it was necessary to

immediately offload the 3000 tonnes of bananas packed in cartons and store them in refrigerated rooms ashore; in order to arrest the ripening process.

After the initial inspection of the chilled cargo, it was decided by the consignees and the underwriters to dispose of the entire cargo to salvage merchants in Singapore and we immediately contacted the major salvage merchants and arranged for a quick viewing of the perishable cargo, in order to obtain sealed bids for the entire banana cargo; the terms of sale being for the successful buyers to discharge the banana cargo overside into cargo barges.

We were fortunate to obtain three sealed offers within the 36-hour offer period; so the cargo was immediately sold to the highest bidder and the cargo discharge process commenced as soon as the payment cheque was received, the sale contract signed and the delivery note issued. Discharge of the banana cargo was carried out round-the-clock and we all breathed a sigh of relief when the last of the banana cargo had been off-loaded into the barges; as this was a job where time was the essence, due to the perishable nature of the cargo and we had to work quickly in order to ensure that the banana cargo would not rot in the vessel's cargo holds.

### **General Average Survey**

During the year 1983, Techmar was appointed as general average surveyors, when a fully loaded Indonesian cargo vessel 'Rimba Satu' carrying manufactured goods from Japan to Indonesian ports collided with another cargo vessel at the outer edge of Eastern Anchorage, Singapore; sustaining damage in way of all four cargo holds, which became partly flooded and which necessitated the complete discharge of the cargo; which had been carried under several hundred bills of lading.

The salvors who were appointed under Lloyd's Open Form then began the process of discharging the undamaged and damaged cargo overside onto flat-top barges. The loaded barges were then towed to a shipyard, where the cargo were discharged ashore and placed in an open lot; pending survey by all the interested parties.

This required a fairly large team of cargo surveyors to jointly survey the cargo being discharged from the damaged vessel, then at a shipyard where the cargo was received and finally surveyed at the open lot under each bill of lading; in order to document a general average survey report, to enable the general average adjusters, Richards Hogg to produce the general average adjustment.

I took the role of office coordinator and organised the cargo surveyors at the three locations and instructed each of them in connection with their individual rules, so that every aspect of the cargo discharge would be properly covered.

When the reports started coming into the office, I had to send out telexes to Richards Hogg and the various interested parties; so much so that I had to work with two stenographers and the telex machine was worked continuously throughout the day for five days, before the workload decreased; when all the cargo had been discharged ashore for the surveys of the cargo with the parties under individual bills of lading.

In the meantime, one of Techmar's marine engineer surveyors conducted joint surveys with the damaged vessel's H&M underwriters surveyor and surveyors representing the P&I clubs surveyors of both the vessels; in order to determine the full extent of damage sustained by 'Rimba Satu' and establish the cost of the repairs that had to be carried out in order to reinstate her to pre-collision condition.

This assignment took about 2 months to complete, and although Techmar was doing this type of work for the first time, the team of cargo surveyors and the marine engineer surveyor acquitted themselves well and were able to compile a general average survey report with

appendices covering each bill of lading; which subsequently received a commendation from the average adjusters. I was indeed proud of the Techmar team.

## **OMIC**

In early 1984, we saw signs of a world-wide recession and the Singapore marine industry was swiftly hit by a drastic drop in ship repair and shipbuilding projects.

Alfie Phillip's workload in Marine Management Systems fell drastically and we were compelled to set up an office in Brunei, to see if we could pick up work at the oil production centre in Kuala Beliat, where Shell Eastern Petroleum were in the process of handing over the operations to the government of Brunei.

This did not work out and after six months, Alfie returned to Singapore; just in time to join in the discussion with Overseas Inspection Corporation (OMIC) of Tokyo, Japan, who had secured the contract for cargo inspection and surveillance services (CISS) for Nigeria in the East Asian region and required a Singapore-based company to be registered, in order to carry out the inspection work in Singapore and Peninsular Malaysia.

OMIC Singapore Pte Ltd was quickly registered and I was appointed managing director, with Alfie and John as directors. Alfie was made the general manager of OMIC Singapore and as luck would have it, the office space next to Techmar went vacant and could be immediately occupied to accommodate Alfie and his team of inspectors and the Advisor from OMIC, Tokyo.

In order to set up OMIC Singapore, I had to relinquish my interests in Daniel C Griffiths and Watson Gray and both companies left our office premises. This gave the Techmar surveyors and staff more room to work in.

## **Worldwide recession**

During the recession years of 1985 and 1986, Techmar still managed to carry on, as marine casualties still occurred and the liquidation of shipyards and shipbuilders that had gone bust provided us with work in valuing their marine assets for the receivers. The OMIC Singapore Inspection revenue was very good during this period and shored up the shortfalls in Techmar

In January 1985, Techmar was appointed by the receivers of the Pan Electric industries Group, which had gone into Receivership; to inspect and appraise nearly 100 marine vessels owned by marine companies within the Pan Electric Industries Group; the largest of which was Selco Salvage', which had salvage tugs and support vessels based in Singapore and the Arabian Gulf.

We were requested to give priority to the Selco Salvage fleet, as the receivers planned to sell that company as a going concern, so that it could continue operations as a major salvage company in the South East Asian region and in the Arabian Gulf; where the Iran-Iraq war was generating a lot of salvage work, due to the missile attacks on the petroleum tankers operating for both sides.

As it was a difficult proposition to inspect the salvage tugs and support vessels based in the Arabian Gulf, Techmar was requested to examine the documents and specifications of each vessel and provide a valuation based on age, capability and on the assumption that the vessel was damage-free and fully operational. As for the salvage tugs and support vessels based in Singapore, we inspected all of them, in order to provide valuations.

Since the entire salvage fleet had been dealt with, we provided a consolidated valuation report; to enable the receivers to evaluate the bids they had received from the Sembawang Group and Smit Salvage. We then went on to inspect all the other vessels owned by the marine companies within the Pan Electric Industries group and we found from the asset register that quite a number of the vessels had been mortgaged to two major banks about

six months before the Pan Electric Industries group had gone into receivership and Techmar's valuations based on prevailing market rates in 1985, were considerably lower than the book values of the vessels posted in the assets register.

Our valuation reports prompted the receivers to return all the tugs and rig support vessels which had been recently mortgaged to the two Banks and the Banks were compelled to appoint ship managers to manage their vessels, which had to be laid up due to the recession.

I had to travel to Kuala Beliat, Brunei to inspect several tugs, crew boats and rig support vessels which were operating offshore Brunei. Two 6000 BHP salvage tugs, which were under construction at Pan Asia shipyard, a Pan Electric Industries company, were inspected; fortunately, one tug had been completed and was quickly disposed of to the successful bidder of the Selco Salvage fleet. However, the second vessel was only 50% complete and required multiple inspections to ensure that the hull, machinery and equipment was well preserved; in order to enable the completion of this vessel, which had to be sold in the uncompleted state.

Much of 1985 and 1986 was spent assisting the receivers of shipbuilders, which had gone into receivership, due to the recession and had partly completed vessels still lying in their respective shipyards awaiting completion. The receivers required values at which the partly-completed vessels could be disposed of; in order to complete their task, so that the enforced liquidation proceedings could be completed.

#### 1987-1990

1987 was perhaps the start of phenomenal growth within the Singapore Maritime industry. The Keppel group made a bold move at the end of that year; to take over the leases of Mitsubishi shipyard (liquidated in 1985) and Marathon Letourneau (which closed the Singapore operations in 1985), located on the western side of Gul Basin.

Keppel-Fels with their acquisition of the Mitsubishi shipyard immediately gained the capability for building the rig platforms in drydock and floating them out, without any of the risks posed by launching them. The yard also had a deep waterfront where leg joining for the jack-up rigs under construction could be carried out, without the requirement to take the rig platforms out into the Singapore Anchorage to achieve this.

Keppel-Singmarine acquired the abandoned Marathon Letourneau yard located at the southern end of Gul Basin and this gave them sea frontage on Gul Basin for shipbuilding berths and sea frontage on the southern seafront for berthing ships for repair and two floating docks.

Techmar was also active in other shipyards; where accidents were occurring and we had been appointed by underwriters of the ships that had sustained damage as a result of the accidents.

One notable casualty occurred at Sembawang Shipyard; where one of their aging floating docks sank with an Indonesian cargo vessel which was undergoing major hull repairs. The Indonesian shipowners insisted on the vessel being reinstated to pre-sinking condition, as she had been customised for a long-term charter and although the cost of reinstatement to fully operational condition exceeded her market value, the shipyard was compelled to reinstate her to pre-sinking operational condition and also bear the 'loss of charter' claim.

Techmar was appointed to look after the interests of the Indonesian shipowners and I worked together with the shipyard to reinstate the vessel to operational condition as soon as it was practically possible.

During the first quarter of 1986, we noted a downtrend in the revenue from OMIC Singapore which had helped to keep Techmar operating profitably during the lean years of 1985 and 1986. Although the Techmar workload was beginning to show signs of picking up by mid-1986, I had to propose that the three shareholders of Techmar take a cut and the staff wage increments be frozen.

This was not well received by Alfie Phillips, who stated that he would withdraw his shareholding in Techmar and requested that the two remaining shareholders buy up his share. John Savage was hurriedly appointed as general manager of OMIC Singapore (to replace Alfie) and I made arrangements for the liquidation of Marine Management Systems Pte Ltd, which had been dormant since early-1984. The departure of Alfie was a blow to me personally, as Alfie and I had worked well together for 10 years; but I realised that it was the world recession which began in early-1984 that had probably started the decline in our working relationship.

With John going over to OMIC Singapore, it became necessary to reorganise Techmar; in order to cope with the increased insurance surveys, which Techmar was receiving. Capt. Michael Wong, who had been assisting Alfie in OMIC Singapore and had to double-up in Techmar whenever we received assignments for Towage Approval Surveys did this work until early-1988, when he left OMIC Singapore; to take up an appointment in a Ship Certification Organisation. Capt. Jimmy Lim replaced him, to enable Techmar to carry out the Towage Approval Surveys

We coped with the work well throughout 1987, but we had a setback in late-1987 when Lewis Liem who was in charge of the cargo department and crane surveys suddenly announced that he had been offered a position in a large insurance broking company and was keen to see what life was like in that sector. I was reluctant to let him go, but decided to do so, as I did not want him to feel that I was preventing him from gaining new experience. However, I did get his assurance that if he did not like his new job, he would come back to Techmar.

We then struggled through 1988, coping with all the insurance, cargo and crane surveys that were increasing with the pickup after the recession. I was therefore pleasantly surprised in late-1988 (exactly one year later) when Lewis asked to come over to my home one evening and announced that he wanted to return to Techmar. I took him back without hesitation, as my workload was getting to an unmanageable level.

We then restructured Techmar once again and advertised for a marine engineer surveyor. In April 1989, Ho Wah Soon, fresh from the sea, joined us and after a short period of training was able to ease my workload. However, his entry coincided with the departure of Capt. Jimmy Lim in mid-1989. Jimmy had assisted John in OMIC Singapore and had doubled up as a towage approval surveyor for Techmar; so we had to look out for another Master Mariner to cover that position.

We were fortunate in late-1989 to obtain the services of Capt. Zainol Abidin, who had retired as marine manager of Johor Port (Pasir Gudang) and was immediately available. At that same time, Techmar employed another marine engineer surveyor, Joseph Wee, who had previous experience with another firm of marine surveyors. Joseph slotted in immediately, but about 12 months later (in late-1990) he decided to join an oil major and we were looking around again; as the marine survey work had expanded significantly and we needed all the help we could get.

Joseph recommended that I take on Roy Lee, who was doing technical inspections and surveys in OMIC Singapore. I did so and immediately realised that although Roy only had a

Singapore Polytechnic diploma in marine engineering, he was fully capable of conducting marine surveys and producing detailed and accurate reports, which needed minimal editing.

However, we soon found with the ever-increasing workload that Techmar required more marine engineer surveyors; so we advertised again and in January 1991, we employed Suhairi Othman and Ong Hua Siong who had recently returned from their seagoing careers and were seeking jobs ashore. This proved to be a good move, as I was soon able to carry out more high profile marine casualty surveys together with an assistant surveyor, who could do all the follow-up work. In this way, Tech-mar was able to take on more assignments and still keep the quality and service level up to a good standard.

### **Major Builder's All Risks Claim**

Sometime during the first quarter of 1990, Tech-mar was instructed by Insurance Corporation of Singapore to survey the damage sustained by a Friede & Goldman MOD 5 jack-up rig during jacking trials alongside Keppel-Fels Shipyard.

I arrived at the scene to see several teams of engineers inspecting all the 36 jacking motor pinions on the three legs. I was informed that during the jacking trials with a fully preloaded platform, sharp fracture sounds had been heard and the operation was immediately stopped.

Upon inspection after the rack chocks had been engaged and the de-ballasting of the platform completed, it was discovered that one tooth of each of the pinions of four jacking motors had been found fractured. Further inspection revealed that numerous jacking motor pinions had sustained cracks on their teeth.

After three days of inspections, it was revealed that 24 jacking motor pinions were cracked on their teeth to varying degrees, besides the four jacking motor pinions that had been initially found with one tooth each fractured. I was informed that the jack-up rig would have to be temporarily repaired and towed out to offshore Brunei; as the owners had already contracted the jack-up rig 'Monitor' to drill at two locations offshore Brunei, prior to her completion and testing and there was a grace period of only 21 days to prepare the damaged jack-up rig for the towage to Brunei.

In order to achieve this, the shipyard executive with Owners agreement decided to remove the four fractured jacking motor pinions and equip the two legs straddling the cantilever platform with 11 jacking motors each and the rear leg with 10 jacking motors. The plan was to tow the repaired jack-up rig 'Monitor' to Brunei, jack up the platform without preloading, engage the rack chocks and then load the platform with seawater ballast to secure her in position for the drilling operations.

All necessary work was completed within the specified 21 days and the jack-up rig was then towed to the first location at offshore Brunei by three tugs; to commence the oilwell drilling contract. A Keppel-Fels team of engineers and technicians was placed on-board 'Monitor' together with the operator's personnel and I had to travel to Kuala Berliat, Brunei with the Keppel-Fels superintendent, B S Woo to witness the jack-up rig being jacked up at the first drilling location.

Upon arrival at the location, we boarded the jack-up rig and witnessed the positioning, jacking-up and stabilisation of the platform with sea water ballast, after the rack chocks and been engaged. The operation went on smoothly and I was told that the drilling operation would take about two weeks; following which the drilling rig would be moved to a second location, where she would remain for about four months.

Two weeks later, I returned to the jack-up rig and witnessed the de-ballasting operation, jacking the rig platform down to sea level and the retraction of the legs before she was towed

to the second location and manoeuvred into position for the second jacking operation without any seawater ballast preloading.

Upon arrival and positioning at the second location, the rack chocks were disengaged and the legs lowered to seabed level. When it was established that all the spud cans were in proper contact with the seabed, the jacking process commenced. However, as soon as the bottom hull plating of the platform broke the seawater interface, there was a loud whip crack sound from the rear leg and the jacking operation shuddered to a stop.

It was discovered that one jacking motor pinion tooth had fractured and the tooth was jamming the rack and the only way to recommence jacking operations was to remove the jammed tooth from the rack. The rack chocks were quickly engaged and 12 hours were then spent back-gouging the fractured tooth with welding rods, carefully removing the debris from the rack and cleaning and dressing up the damaged location.

Thereafter, the rack chocks were disengaged and a nail-biting jacking process was then commenced to elevate the platform to the 35-foot air-gap which was required. As soon as this point was reached, the rack chocks were engaged with much relief and the loading of the platform with seawater ballast carried out; in order to secure the jack-up rig at the second drilling location for a period of four months.

Keppel-Fels had planned to replace the jacking pinions of all 36 jacking motors with pinions purchased from another gear manufacturer and a repair base was then set up at Kuala Berliat to carry out the replacement exercise at the second drilling location; so that the jack-up rig could be jacked down and towed back to the Keppel-Fels yard in Singapore upon the completion of the drilling contract.

The jacking motor pinion replacement on all 36 jacking motors was successfully completed within the allotted time and I attended on-board 'Monitor' at offshore Brunei for the last time to witness the jack-up rig being safely jacked down and taken in tow for the voyage back to the Keppel-Fels yard in Singapore.

This assignment took me about six months to complete, as the negotiation of repair costs and adjustment of the claim against the Builders All Risks underwriters, which amounted to SGD 12 million, had to be completed. This was indeed an achievement for Techmar, as this type of work is normally done by international energy adjusters; but we were accepted by both the Insurers and reinsurers in New York; as we were acceptable to Keppel-Fels.

### **1991-1992**

Ong Hua Siong introduced the use of personal computers for the production of reports, as soon as he joined Techmar in early-1991. Although I was sceptical at the beginning, I soon saw the benefits of purchasing PCs for the young engineer surveyors; as they all took charge of typing their own draft reports, presenting the hard copies to me for editing and producing the final reports shortly after I had edited the drafts.

It also meant that they could send out their preliminary reports faster on the Techmar fax machine, which had been purchased in 1988, and this contributed towards improving our work efficiency significantly. Gerard and I soon became the only marine engineer surveyors in Techmar who required stenographers to produce our preliminary and final reports.

### **Valuation of partly-converted Pipe-laying Vessel**

In mid-1991, Techmar was assigned to conduct a valuation on a large bulk carrier being converted into an ultra-large pipelaying vessel called 'Solitaire' at Sembawang Shipyard. The valuation was required by Allseas, the owners of 'Solitaire'; as a dispute had arisen between

them and the shipyard and they wanted to take delivery of the partially-completed vessel and take it to a Shipyard in Europe for completion.

In order to do this, Allseas had to obtain a court order for her release and the Singapore Supreme Court had to decide on the bond to be posted in a Singapore bank by Allseas. Ho Wah Soon assisted me and we spent several days assessing the work scope, services provided and materials supplied by Sembawang Shipyard in the conversion of the vessel; in order to provide a valuation for their input into the conversion project.

We finally came up with a valuation of SGD 85 million; whereas Salvage Association acting for Sembawang Shipyard came up with a valuation of SGD 300 million. The Supreme Court judge ultimately decided that the release bond would be SGD 125 million.

### **Major Shiprepairer's liability claim**

In September 1991, VLCC 'Eastern Strength' came out from her 5-year lay-up in the Johor river and went to Malaysia Shipyard and Engineering in Masai, Johor for drydocking and re-activation.

A major fire occurred in the engine room of the vessel after a few days lying alongside the shipyard repair berth; starting at the bottom floor-plates, where a cutting torch used by a shipyard worker ignited residual petroleum gas which had accumulated below the floor-plates. The flames spread rapidly upwards through the engine control room and the fire was eventually put out by seawater sprayed into the engine room through the engine room top skylights.

Techmar was appointed to conduct a survey by Malaysian Underwriters, Jerneh Insurance, with whom MSE had ship repairer's liability coverage. Suhairi Othman attended with me for the first survey and then followed up with the cleaning of the engine room and restoration work to reinstate the affected machinery and control room equipment to operating condition. This assignment took us about three months to complete, with Suhairi making regular visits to MSE (a 2-hour road trip each way from our office) and the final reinstatement cost amounted to RM 21 million; as all the engine control room equipment had to be renewed.

### **Superintending the completion & delivery of two Chemical Tankers**

During 2<sup>nd</sup> quarter 1991, Techmar was appointed by a major marine finance bank to look after their interests in the construction of two chemical tankers at Sin Koon Seng Shipyard located at Tuas, Singapore.

The initial survey was to inspect the shipyard facilities and access the capability to build the two chemical tankers on launch ways, located beside each other. I took Roy Lee to assist me, as it was intended that he follow up the construction of the two chemical tankers and keep me informed of the construction status and any problems encountered during the construction of the vessels.

The construction of 'Spring Wind' commenced with her keel-laying in mid-1991, whilst the keel-laying of the 'Spring Glory' commenced at the end of 1991. 'Spring Wind' was successfully launched and placed alongside the shipyard's fitting-out berth at the beginning of the 2<sup>nd</sup> quarter of 1992.

However, in mid-1992, whilst 'Spring Wind' was undergoing final testing and preparation for sea trials, we were informed that Sin Koon Seng shipyard had been placed in receivership by the suppliers of the machinery and equipment for the two chemical tankers.

Techmar was instructed by the marine lawyers representing the shipowners and financing bank to ensure that 'Spring Wind' was properly delivered to the shipowners, Hup Choon

Shipping. Roy was then appointed to attend at the shipyard on a daily basis, in order to ensure that the testing and sea trials of 'Spring Wind' were properly carried out.

Simultaneously, he was instructed to conduct a survey to determine the status of the construction on 'Spring Glory'; so that the shipowner's contractor could take over her completion, launching and fitting-out of the vessel at Sing Koon Seng Shipyard.

'Spring Wind' was successfully delivered to the shipowner about one month after the shipyard had gone into receivership, and thereafter, Roy concentrated on superintending the continued construction of 'Spring Glory'. After about four months, 'Spring Glory' was successfully launched and placed alongside the shipyard fitting out berth and within the next three months, she was successfully delivered to the shipowners.

Roy played a major role in the successful completion, testing and sea trials of 'Spring Glory' and Roy was commended by the shipowners for a job well done. However, his work was not yet over; as he had to compile a detailed report, which would be used in the Arbitration proceedings between the shipowners and the shipyard receivers.

Roy with my assistance produced a very good report, which was countersigned by me and this document assisted me at the Arbitration hearing to convince the three-man arbitration panel of the quantum of the shipowner's claim against the receiver of Sing Koon Seng Shipyard.

#### **Advising on the delivery-acceptance of a petroleum products tanker**

At end-March 1992, Techmar was approached by the marine lawyers representing the Indonesian owners of petroleum tanker 'Laju Prakasa'; to conduct a survey to determine the status of construction of the vessel being built at Promet Shipyard, Singapore, and to identify and list the defects and deficiencies on the nearly-completed vessel.

As I was fully involved with several major matters, I assigned Ong Hua Siong to conduct the survey. During the initial general survey of the vessel on 24<sup>th</sup> and 25<sup>th</sup> March 1992, Ong found that the vessel had already been launched and was lying alongside the fitting-out berth at the shipyard.

With the assistance from owner's superintendent and with reference to the construction and specifications manuals of the 4200Dwt petroleum products tanker, which was being upgraded for worldwide foreign-going service, and using this as a guide, Ong found numerous defects and inadequacies, which he listed in a 14-page report.

This report was comprehensive and covered the main deck, anchor windlass, forepeak store, derrick winch, manhole covers, gangways & ladders, cargo pump room & cargo tanks, superstructure wheelhouse & accommodation spaces and engine room. He concluded that many of the design details of the vessel were generally unsatisfactory and that rectification should be carried out before the vessel could be put into operation.

This was followed up by nine addendum reports and a 13-page report on 13<sup>th</sup> May; identifying non-compliance of SOLAS and MARPOL regulations. Finally, on 6<sup>th</sup> July, an 18-page report was submitted, identifying defects & deficiencies which were still existing and had to be rectified by the builders before delivery of the vessel to owners.

At this stage, Ong Hua Siong was banned from entering the shipyard and Gerard Pereira had to be assigned to bring about an amicable conclusion to the shipbuilding contract between the shipyard and owners; to enable the Owners to take delivery of the vessel.

## Major Shipyard Accident

In late October 1992, Techmar was appointed to look after the interests of the Repairers Liability Underwriters of the Keppel group of Shipyards in connection with a shipyard accident at the Keppel Singmarine yard, Singapore on 26<sup>th</sup> October 1992.

The 13,200 GRT Ukrainian passenger ro-ro vessel 'Belorussiya', whilst being in drydocked at No.1 floating dock had listed heavily to port side then starboard side, when she was being lifted out of the water; subsequently slipping off her keel blocks and coming to rest against the starboard dock wall with a 45° list to starboard and with the upper decks of the vessel partly submerged. The outer dock wall of No.1 floating dock simultaneously came to rest on the seabed and the starboard hull of the vessel rested on the port side outer wall of No.2 floating dock, which was in the lowered position alongside.

The shipyard appointed their marine lawyer and marine surveyor to deal with several marine surveyors besides Techmar; as the H&M underwriter and P&I club of 'Belorussiya' and the H&M underwriter of the two floating docks had appointed their own marine surveyors to look after their respective interests.

I took Ong Hua Siong along to assist me, as I anticipated that Techmar would be in for quite a lot of work in the raising of the listed and partly submerged vessel and the salvage of two floating docks. The first task was to appoint Smit Tak Salvage to parbuckle the 'Belorussiya' until she was in the upright position and then refloat her.

As the liability for the accident had not been determined, the owners of 'Belorussiya' had to contract with the salvors to raise their vessel and the owner of the two floating docks had to separately contract with the salvors to raise the floating docks after 'Belorussiya' was removed from the scene of the accident.

The parbuckling of the 'Belorussiya' necessitated the positioning of 26 slings around the vessel's hull and using 3 floating heavy-lift cranes with spreaders and a total lifting capacity of 4100 tonnes to do this. During preliminary diving checks, it was discovered that No.1 floating dock had sustained extensive damage and No.2 floating dock was pinned to the seabed and flooded throughout, with the partly submerged vessel lying on top of its port side dock wall.

The parbuckling operations commenced on 14 November 1992, and the vessel was dewatered, transferred and berthed alongside the shipyard repair berth for extensive cleaning operations. Subsequently, No.1 & No.2 floating docks were raised, and due to the extensive damage sustained, several sections of No.1 floating dock had to be cut away and placed on a barge for removal from the location.

The salvage contracts with the shipowner and shipyard were terminated on 26 November 1992, with a SGD7.0 million bill to the shipowner and a SGD1.6 million bill to the shipyard. The extensive cleaning of 'Belorussiya' was completed at end-February 1993 at a cost of SGD2.1 million and the vessel departed from the shipyard on 15 March 1993 and was towed to Sembawang Shipyard for temporary repairs, to facilitate her towage from Singapore to Germany for permanent repairs.

This was a good assignment for Ong Hua Siong, as he learnt about the marine surveyor's role in a major casualty involving several marine surveyors protecting the interests of their principals. Perhaps, this was the completion of his 2.5 year apprenticeship as a non-exclusive marine surveyor; as he left Techmar soon after, to take up a position as a lecturer in marine engineering on training ship 'Singapore'.

### 1993

Although Techmar had its best year ever in terms of revenue in 1992, the signs of a downturn in the marine survey industry surfaced in early-1993. Firstly, the OMIC CISS business, which had been steadily decreasing from 1991, due to the loss of the Pakistan CISS contract, fell to a level which compelled the sale of the Techmar interests to OMIC, Tokyo in early 1993.

The Techmar survey workload decreased significantly and Gerard Pereira left soon after Ong Hua Siong; to join Atlantis Shipyard, as he felt that shiprepair work was what he really wanted to do. Suhairi Othman followed shortly after, when he was offered a position as a classification surveyor with American Bureau of Shipping.

Due to the reduced survey workload in Techmar, I had no option but to let them leave and worked feverishly to try and boost the falling revenue. However, by end-1993, it was obvious that Techmar had to be sold, as the bank overdraft had reached an alarming level.

As I owned two-thirds of the shareholding, I started negotiations with OMIC, Tokyo to sell Techmar in early-1994 and finalised the sale agreement in early-March 1994 in Tokyo. It was agreed that OMIC, Tokyo would take over the entire shareholding and liabilities of Techmar and pay John Savage and me par-value for our respective shares.

OMIC, Tokyo agreed to retain all the Techmar staff and make John Savage, Lewis Liem and James Lee directors of Techmar. I was asked to still lead Techmar as managing director, but I declined; as I wanted to concentrate on marine consultancy and felt that as long as I remained in charge of Techmar, I would not have the time to develop this line of work for myself.

I agreed to be the marine consultant to the OMIC-appointed managing director of Techmar on a retainer; with liberty to carry out marine consultancy work with my personal clients under my wholly-owned company, Tech-mar Consultants Private Ltd. I agreed to liquidate this company should I discontinue my marine consultancy services to Techmar.

### 1994-1996

On 15 March 1994, Capt. Hamada from OMIC, Tokyo became managing director of Techmar and immediately began working on moving Techmar to cheaper office premises in the suburbs of Singapore. My workload was considerably reduced, as it was confined to overseeing the Marine Insurance and P&I Club work, which required my specific input.

Within three months of the takeover, OMIC Singapore and Tech-mar shifted to offices in Kim Keat Road, about 5 km away from the city centre. At the new office premises, I directly supervised the work of Ho Wah Soon, Roy Lee and Capt.Ali and worked on my own marine consultancy assignments.

During the 2<sup>nd</sup> half of 1994 and 1<sup>st</sup> half of 1995, there were no large casualties which required my intervention; so I did most of my work in the office. In early-1995, Roy Lee left Tech-mar to assist his brother, who had secured a MRT signage contract and needed his assistance.

Roy was replaced by an Indian marine engineer, Vijay Rikkaye, who had previously worked as a shipowner's superintendent engineer. I then trained Vijay on the finer aspects of marine surveying and closely edited his reports; in order to convert his style of reporting from the cryptic point-style reporting of superintendent engineers. To his credit, Vijay quickly learnt how to write good reader-friendly reports, which were acceptable to the Marine Insurance companies and P&I clubs.

During 3<sup>rd</sup> quarter 1994, I was approached by a French shipowner from Tahiti to superintend the construction of a steel-hulled catamaran Ro-Ro vessel, which was being built at Southern Ocean shipyard. I took Roy Lee down to the shipyard to conduct the initial survey and found that the twin hull was partly constructed and all the machinery and equipment for the vessel had already been delivered and stored undercover in the shipyard stores.

Roy then followed through the construction of the hull and forward superstructure; I attended, as necessary, to deal with construction and classification problems which frequently cropped up. When Roy left Techmar during 1<sup>st</sup> quarter 1995, Rikkaye took over and having previously been a shipowner's superintendent, he kept the shipbuilder's personnel on their toes and I had to constantly intervene; in order to keep the construction progressing.

During the first quarter of 1996, the vessel was launched and I then faced the problem of having her safely berthed at the congested shipyard seafront, until the final outfitting work was being carried out on-board during 2<sup>nd</sup> quarter 1996 and the vessel delivered to the shipowner. This shipbuilding superintendent's assignment was perhaps the most problematic I had experienced in my career as a marine surveyor and consultant.

In late 1995, I was informed that Woode & Brown, Hong Kong, an OMIC- associated company, had bought Ritchie & Bisset and the proprietor, Capt. Richard Maughn had been tasked to merge Ritchie & Bisset with Techmar and appoint me as the engineering director for both organisations.

I was not agreeable to this proposition, as I felt that both companies had different work cultures and I certainly did not want to be connected with adopting the R&B work culture. I immediately put out feelers to the marine insurance fraternity that I was looking around for something to supplement my marine consultancy work.

As luck would have it, Richards Energy Services were looking around for an energy adjuster; so, I met up with outgoing energy adjuster, Bent Lindberg and Chris Kilbee, who was in charge of the Richards Hogg Group in Singapore.

During the lunch meeting, where it was explained what I would be expected to do, I commented that the energy loss assignments, although of major impact and quantum were few and far between, and I doubted that the work would keep me sufficiently busy; also, I was still passionate about retaining my marine consultant's status. I proposed that I could join the Richards Hogg group to start up a marine consultants and marine survey company and simultaneously cover the energy adjuster's role in Richards Energy Adjusters.

This was readily agreed to and I was given an offer of employment to start work on 1<sup>st</sup> May 1996; only after it was agreed that I could go on six-weeks 'no pay' leave in June and July 1996, as my wife and I had previously planned to attend the University of British Columbia convocation ceremony for our son, Colin, and have a vacation in Vancouver, Canada. I then tendered my three-month notice to Techmar; to take effect at end-April 1996; which coincided with my 55<sup>th</sup> Birthday.

#### **Damage to Heavy-lift vessel in Shipyard**

In mid-January 1996, after I had tendered my resignation to Tech-mar, I was called one evening by Toh Ko Lin, who had just been appointed as the President of the Keppel Subic Shipyard in Subic Bay, Philippines. Toh asked me to be on the first available flight to Manila, as a marine surveyor was urgently required to represent Keppel's interests in connection with a heavy lift ship, which had sustained major damage in the Subic Bay Shipyard graving dock.

I managed to get on the SIA morning flight and was met on arrival at Manila airport and immediately transported on a four-hour road journey to Subic Shipyard. The journey time had doubled, as the road through the San Juan Valley had been covered over with volcanic mud which had flowed out from Mt. Pinatubo when it had erupted several months before.

I was awed by the devastation that the mud flow had caused; the mud completely covered most of the houses up to two stories high in its path and some rooftops could be seen protruding above the mud level. A single-lane laterite road had been built to about four metres above the mud level; to cross the mud filled region. It took about two hours to drive through this stretch of laterite road; as there were constant lengthy stops to allow the oncoming traffic to pass through.

Upon arrival at Subic Shipyard, I was immediately briefed on the events which had led to the major damage to the Dutch heavy-lift carrier 'Fairmast', which had been drydocked together with two Greek tankers in the 515m length x 65m width graving dock about three weeks earlier. Although the drydock had an intermediate gate, the gate had not been used and the three ships had been positioned in such manner that they could be comfortably fitted into the drydock.

However, two weeks after the multiple drydocking had taken place, the two Greek tankers positioned forward of 'Fairmast' had completed all their underwater work and wanted to be undocked; although 'Fairmast', which was undergoing major replacement of her longitudinal bulkheads within the double-bottom tanks, was not ready for the refloating.

The decision to undock the two Greek tankers was made by the shipyard executives, despite protests from the superintendent of 'Fairmast'; who was insistent that his vessel was not ready to be refloated for the purpose of undocking the two Greek tankers.

It was reported that both tankers floated off their keel blocks before 'Fairmast' began to float above the keel blocks in way of her bow section. Cracking sounds were then heard in way of the midships section of 'Fairmast' and the inflow of water into the graving dock was immediately stopped and the drydock pumps operated to lower 'Fairmast' back onto the keel blocks.

Once this was done, the two Greek tankers were repositioned and re-docked. Subsequent underwater inspection of 'Fairmast', revealed that she was heavily hogged in way of her centre of floatation and all the bottom plating in way had deformed over the entire width of the vessel up to the turn of the bilge on both the port and starboard sides.

The joint survey with the shiprepairer's liability underwriter's surveyor, a Salvage Association surveyor who had travelled from Hong Kong and the owners superintendent confirmed that the vessel was hogged up to 600 mm in way of her centre of floatation and the bottom hull plating, the tank top plating and replaced longitudinal bulkheads in way of the midships section were deformed and buckled.

As the two Greek tankers were still in drydock, the immediate task was to reinforce the hogged tank top in way of her longitudinal bulkheads, to enable the 'Fairmast' to be safely refloated and thus allow the two tankers to be undocked. However, the owner of 'Fairmast' had lodged an injunction in the Provincial Court to restrain Subic Shipyard from doing any work on their vessel until such time as a proper study was made to prevent further damage occurring during the unavoidable refloating exercise, which was necessary to release the two trapped tankers from the drydock without further delay.

All work on-board 'Fairmast' was stopped, whilst the lawyers representing both parties presented their cases in court. In the meantime, the surveyors, owners, representatives and

the shipyard engineers attended a meeting to discuss what action had to be taken to reinstate 'Fairmast' to pre-damage condition.

Owner's superintendent stated that the shipowners did not want the permanent repairs to be carried out at Subic shipyard. As such, it was proposed that temporary repairs be carried out to enable 'Fairmast' to be towed to Keppel Shipyard in Singapore; for the permanent repairs be carried out.

The 'stop work' injunction was lifted on the next day and the installation of 'strong back' girders on the tank top directly over the longitudinal bulkheads was commenced, whilst the full welding of the longitudinal bulkheads was continued to completion. In connection with permanent repairs, the steelworks engineer from Keppel Shipyard, Singapore arrived to discuss the full scope of permanent repairs to be carried out.

It was quickly agreed by the concerned parties that the permanent repairs would be carried out by replacing the damaged bottom plating, internal structure and tank top with prefabricated blocks and measurements were taken in the presence of all parties, so that the necessary information could be transmitted to Singapore; to enable Keppel Shipyard to commence pre-fabricating the blocks that were required to affect the permanent repairs.

I returned to Singapore the day after the decision was made in connection with permanent repairs and travelled again to Manila about 10 days later, when I was told that 'Fairmast' had been re-docked at the forward section of the graving dock. This time around, I found 'Fairmast' to be centrally positioned within the forward section of the graving dock; with the bow tip about 1 m from the inner front wall of the graving dock and the stern about 3 m from the inner wall of the intermediate drydock gate.

The joint survey together with underwriters surveyor and owner's superintendent revealed that no further damage had occurred during the re-floating and re-docking exercise; also, all the necessary work recommended by the classification surveyor had been completed. On the following day, the classification certificate was issued to enable 'Fairmast' to be towed to Singapore. I then returned to Singapore to submit my report to the Subic Shipyard and await the arrival of 'Fairmast' at Keppel Shipyard, Singapore.

'Fairmast' arrived safely under tow at Singapore in early-May 1996; by which time I had left Tech-mar. I took Vijay Rikkaye of Techmar to Keppel Shipyard, in order to brief him on the installation of reinforcement bracing, which the shipyard had to carry out before removal of the damaged midships section of 'Fairmast'; in preparation for the installation of the newly fabricated double-bottom blocks.

I then departed for Vancouver, Canada in end-May for the six-week vacation that my wife and I had previously planned. My return to Singapore during the first week of July 1996 was timely; as all the permanent work had been completed according to plan and the reinforcement bracing was about to be removed.

Strange creaking sounds were reportedly heard during the removal of the reinforcement bracing and it was subsequently discovered during laser alignment checks that the side walls of the main deck hatch coaming had shifted slightly. However, all the removable transverse girders could be installed in their respective positions and the main deck hatch cover sections could be closed without posing any problems.

The attending classification surveyor was fully satisfied that the permanent repairs to reinstate 'Fairmast' to pre-damage condition had been satisfactorily carried out, and the condition of class, which had been placed on the vessel since the damage occurred could be removed; this despite the protest of the owner's superintendent.

Keppel shipyard then attempted to deliver the permanently repaired vessel to the owner, but this was rejected on the grounds that 'Fairmast' had not been reinstated to pre-damage condition; despite the SGD 2.5 million cost to Keppel's shiprepair liability underwriters. At this juncture, Tech-mar was requested to submit the report, covering the permanent repairs to 'Fairmast' at Singapore. I then edited and countersigned the Techmar report submitted by Vijay Rikkaye.

Discussions between Keppel shipyard and the 'Fairmast' owners resulted in agreement being reached to conduct a full internal survey of all tanks and compartments located between the forward collision bulkhead and the engine room forward bulkhead of the single-hold heavy lift carrier, which was equipped with 2x500tonne Pedestal cranes positioned at forward portside and after starboardside of the single full-length hatch opening of the cargo hold.

At this juncture, Keppel shipyard decided to appoint a naval architect consultant from UK, Bill Finney and I was appointed to also participate in the joint survey and report separately on my findings in the numerous tanks and compartments located between the forward collision bulkhead and the engine room forward bulkhead.

The detailed internal survey of the tanks and compartments took us three days and we found lots of existing damage, previously repaired damaged and some new damage in the tanks and compartments above tank top level; the newly installed double bottom tanks were found free of damage.

On completion of the joint survey, preparations were made for the vessel to depart from Keppel shipyard. I was subsequently informed that 'Fairmast' then proceeded to Europe via Port Klang, Malaysia.

### RMP Marine Services Pte Ltd

During the first three weeks in the employment of the Richards Hogg group, I assisted in the formation of RMP Marine Services Pte Ltd, as a subsidiary company engaged in marine survey and marine consultancy . I also commenced the liquidation of Tech-mar Consultants Pte Ltd, in accordance with my previous agreement with OMIC, Tokyo.

Once everything was in place, I left for Vancouver. Upon return to work in early-July 1996, I started my visits to former clients, in order to inform them where it was and basically market myself as a marine engineer consultant with the capability to conduct surveys for H&M underwriters and P&I clubs.

From the onset, the Richards Hogg adjusters kept me busy with 'in-house' work and I soon had to call in a freelance cargo surveyor, Winston De Souza to carry out the cargo surveys. I also looked at the Richards Energy files which were still open, but still being handled by Bent Lindberg.

It was not until October 1996 that I received the first Energy Loss assignment in Vietnam; where a pipeline had been dragged by a ship anchor and ruptured. I attended on-board the production platform off Vung Tau, Vietnam and upon my return to Singapore submitted my preliminary report.

In the meantime, my younger sister June, who had been the office manager in Techmar from 1980 joined RMP Marine Services to look after the administrative and reporting aspects; in order to assist me in servicing the clients.

### 1997

In January 1997, through a Richards Hogg adjuster, I was appointed as the marine consultant for Nam Cheong Dockyard in Miri, Sarawak; to assist them in their Builders Risks claim against the underwriters, in connection with the capsizing of a newly constructed 2000bhp anchor handling tug. Although the tug had capsized at Labuan, Sabah, where she had been sent for the loading and installation of her two Schottel rudder propeller units, I proceeded directly to Miri to discuss the incident with the shipyard executive.

Upon arrival at Miri, I was briefed on the situation at Labuan and informed that the Sabah-based surveyor from Integral Marine Services had attended soon after the capsizing incident had occurred; on behalf of the BAR underwriters.

I immediately realised that the salvage and reinstatement of AHT 'Armada Jebat' to pre-sinking condition would be complex and required an experienced marine engineer surveyor from Integral Marine Services, Singapore, to represent the BAR underwriters. I therefore telephoned Capt. Lee Fook Choon, the proprietor of Integral Marine Services and requested him to send Sio Beng Huat, the most senior marine engineer surveyor in IMS; to attend a meeting in Miri, in order to discuss the salvage and reinstatement of AHT 'Armada Jebat' to pre-sinking condition.

I explained the complexity of the matter and Capt Lee agreed to send Sio to Miri for the preliminary meeting. At the subsequent meetings with the shipyard executives and Sio, it was agreed that the salvage contract should be awarded to a Labuan-based contractor, who had the equipment to turnbuckle the capsized tug and re-float her.

It was also agreed that before the salvage operations commenced, a team of corrosion prevention personnel equipped with the appropriate chemicals would be in position to immediately carry out the corrosion prevention and treatment of the machinery and equipment, as soon as 'Armada Jebat' was safely afloat to do so.

Smit International, Singapore was appointed to carry out this work and the team with their chemicals arrived at Labuan on the day before the salvage operation would commence. The salvage of 'Armada Jebat' was successfully carried out between the evening of 23<sup>rd</sup> January and the evening of 25<sup>th</sup> January 1997.

Thereafter, whilst the vessel was still rigged in suspension by the cranes, the corrosion prevention team carried out the corrosion prevention work on all the designated machinery and equipment. The tug was subsequently towed back to Miri, whilst the two Schottel rudder propeller units, which had been removed during the salvage operation, were shipped to the maker's workshop in Singapore.

At Miri, all the machinery and equipment were removed from the vessel and sent to the respective makers' workshops in Miri and Singapore. The two 'Yanmar' main engines were shipped directly to the makers in Japan.

As the claim for the reinstatement of 'Armada Jebat' was being made against the Builders Risks insurance, it was agreed that all machinery and equipment would be reinstated to a condition which would enable the makers to maintain the 1-year guarantees that would be given to the owners, when 'Armada Jebat' was eventually delivered to them.

In late-February, the dismantled Schottel rudder propeller units were inspected together with the maker's representatives from Germany and it was decided that six planetary gearboxes c/w hydraulic motors would be shipped back to Germany for complete dismantling, repairs, reconditioning and replacement of parts. The rest of the items would be reconditioned at the Schottel Singapore workshop and the units would be rebuilt with new bearings and seals.

During March and April, further inspections of the auxiliary machinery and equipment were carried out in the maker's workshops; to determine what had to be done to reinstate all the items to a condition which would carry the 1-year guarantee upon delivery of 'Armada Jebat' to owners. In the meantime, the two main engines were inspected in Japan and a quotation of RM1.778million was given for their reinstatement, with the 1-year guarantee.

Sio and I immediately requested a meeting at Yanmar Asia Corporation headquarters in Singapore and on 7<sup>th</sup> April after lengthy negotiations agreed with the makers that Nam Cheong Dockyard would trade-in the two engines, which had been sent to Japan for reinstatement for RM 509,000 and purchase two new engines and accessories for RM 1.527million; thus achieving a saving of about RM 770,000.

All the reinstatement work on 'Armada Jebat' was completed by mid- August 1997 and I was later informed that the total reinstatement costs amounted to RM 5.0million. This was a very satisfactory assignment for me; as it demonstrated how co-operation between like-minded surveyors could achieve a successful outcome for an unfortunate incident.

By early 1997, it was obvious that I required an assistant to develop and cope with the marine survey and cargo work that was coming in.

My first choice was Lewis Liem, who had worked with me in Techmar from 1979, but on the very day he agreed to join RMP Marine Services, he received an offer to join a major insurance company; to be their Marine Risk Manager for South East Asia; an offer he could not refuse in terms of remuneration and career development.

I then contacted Suhairi Othman who was still with American Bureau of Shipping and asked him whether he had had enough of classification survey work. Suhairi was immediately interested, because after four years of classifications surveys, he had become bored with the

routine-type classifications surveys and wanted to return to non-exclusive marine survey, where every day was a new challenge.

Suhairi joined RMP Marine Services in June 1997 and Richards Energy Services simultaneously employed an energy adjuster; so I could be free to concentrate on developing RMP Marine Services. During the 2<sup>nd</sup> half of 1997, with the assistance from the Richards Hogg Group and Suhairi to share the workload, RMP Marine Services had a very busy period.

Towards the end of 1997, I was informed that the Richards Hogg Group was being taken over by Charles Taylor, the managers of the Standard P&I Club. This meant that RMP Marine Services would be busier with P&I Club work; although we would be confined to doing work only for the Standard P&I Club.

### **1998-1999**

In mid-1998, the Charles Taylor group acquired another International Energy Adjuster called Rush Johnson and shortly after the entire Richards Hogg Group shifted into PIL building, where the Standard P&I Club office was located. This led to a closer working relationship and RMP Marine Services rapidly became the technical arm of Standard P&I Club, who transferred all the surveys they had previously given to other marine surveyors to RMP Marine Services

Being part of the Charles Taylor Group also meant more work in the liquid, container and dry cargo sectors. I therefore formed a team of marine and cargo surveyors who could do survey work for RMP Marine Services on an 'ad hoc' basis.

When the workload increased significantly, I brought in former Techmar surveyors, Roy Lee and Chris D'Almeida to assist in the engineering and cargo surveys respectively; to assist Suhairi Othman and Winston De Souza. Gerard Pereira added to the list of available marine engineer surveyors, when he returned from a shipowner's superintendent stint in Indonesia.

I also had an arrangement with a firm of petroleum inspectors; to call upon when liquid cargo inspections were required by Standard P&I Club. I followed my previous practice of working closely with each surveyor and editing all the reports; in order to maintain good quality in all the work carried out by RMP Marine Services.

The 2<sup>nd</sup> half of 1998 and the entire period of 1999 was very busy; but I was still able to continue my marine consultancy and expert witness work in the courts and arbitration hearings. During these two years, I was appointed sole arbitrator in two engineering disputes; I made an award for the first arbitration, but the second arbitration was discontinued when the claimant withdrew; after it became obvious that they would not succeed in their claim.

### **Sinking of a Passenger Vessel**

Towards the end of May 1999, I was called by a maritime lawyer from Drew & Napier to provide technical assistance to the shipmanagers of passenger ship 'Sunvista'; in connection with the sinking of the vessel about 60 nautical miles south of Penang Island on 21<sup>st</sup> May 1999.

I was informed that the entire crew of the 'Sunvista' would be arriving in Singapore on that day and a venue had been arranged for the joint interview of the master and the vessel's officers; in order to obtain all relevant information surrounding the sinking of the vessel.

The master of the vessel was the first person to be interviewed and he revealed that the 472 passengers and 672 crew had been safely evacuated from the ship in the lifeboats and eventually picked up by passing ships and brought to Penang, before 'Sunvista' sank during the early morning of 21<sup>st</sup> May 1999 in 200-ft water depth.

We also learnt that due to malfunction of the engine room switchboard at about 2pm on 20<sup>th</sup> May, a fire had flared up, but was not contained immediately; eventually spreading upwards within the engine room until the master ordered the ship to be abandoned at 6:30pm, whilst there was still daylight for the safe disembarkation of the passengers and crew from the burning vessel.

The details leading up to the sinking of the 'Sunvista' could not be fully established during these interviews; as the Portuguese chief engineer and the first engineer, had returned to Lisbon, Portugal, on the same evening that they had arrived in Singapore; without seeking permission from owner's superintendent, who had organised the interview of the vessel's officers and crew.

About two weeks later, I was informed that both the chief engineer and first engineer had been contacted and the joint interview would be conducted in Lisbon. I then flew to Lisbon with a lawyer from D&N and spent two days interviewing the first engineer and chief engineer separately; together with representatives of the H&M Underwriters and P&I Club.

From the chief engineer, it was established that the fire at the main switchboard had occurred at about 2pm on 20<sup>th</sup> May 1999. At that time, he was in his cabin and upon hearing the fire alarm immediately went down to the bottom of the engine room to manually shut down the steam turbine main engine and electrical generators and switch over to emergency power and lighting.

It took about 15 minutes to do this and by the time he had completed the shutdown, the main switchboard located at mid-platform level was engulfed in thick black smoke. He therefore went out of the engine room to put on the breathing apparatus and garner some assistance to put out the fire.

By then, the black smoke around the main switchboard was too thick to allow effective fire-fighting with portable extinguishers. The chief engineer and fire-fighting crew then retreated from the engine room and the master was informed that the engine room would be battened-down and flooded with carbon dioxide; in order to extinguish the main switchboard fire.

Under the chief engineer's directions, the two watertight doors located at the bottom of the engine room were remotely closed and the engine room skylights and doors at the upper levels were shut; after it was determined by muster that all the crew were out of the engine room. The carbon dioxide charge was then released into the engine room and the master was informed that the engine room had been flooded with carbon dioxide and it would be several hours before that compartment could be re-entered.

However, after about one hour, the chief engineer decided to open an engine room door; in order to find out whether the fire had been extinguished and was immediately confronted with flames from the fire; which had spread to the upper platform. He immediately closed the door and informed the master that he would fight the fire by opening the portside door of the workshop located at engine room mid-level, well away from the fire.

He then sent two engineroom crew down to the workshop in the engine room to release the door from the inside the workshop and then boarded a lifeboat positioned directly above the door with the fire-fighting crew. The lifeboat was lowered to the level of the port side door, which was then opened to allow the chief engineer and the fire-fighting crew into the workshop.

This attempt to extinguish the fire was unsuccessful. The chief engineer then instructed the fire-fighting crew to retreat to the lifeboat and instructed the two engineroom crew to close and secure the portside door in the workshop before leaving the engine room. Shortly after, a fire-fighting tug, which had responded to the emergency call, which was sent out when the engineroom was flooded with carbon dioxide, came alongside the portside of 'Sunvista' and began spraying water through an open skylight into the engine room.

However, a considerable amount of the fire-fighting water missed the open skylight and began accumulating on the port side upper deck, which was enclosed by a steel-plated bulwark. This caused the vessel to list to port and although the hosing of water through the skylight was stopped shortly after, the portside list increased; which suggested that water was entering the vessel's engine room through another source.

Fortunately, by this time, all the passengers and most of the crew had been evacuated from the vessel and the master and officers, then hopefully awaited for the fire in the engine room to burn out and the sinkage and increasing portside list of the vessel to stop.

However, the vessel continued to sink deeper and list heavily towards port and by 11pm on 20<sup>th</sup> May, when it was obvious that the vessel would sink, the master and crew still remaining on board got into the last lifeboat; which had been launched earlier and tethered alongside in anticipation of the final evacuation from the vessel. The lifeboat then pulled away to a safe distance from the sinking vessel; in order to observe the final moments before 'Sunvista' disappeared beneath the waves at about 1:22am on 21<sup>st</sup> May 1999.

The first engineer corroborated the chief engineer's story and it was agreed by the various parties conducting the interview that the workshop port side door had not been properly closed by the 2 engineroom crew, who had been instructed to do so after the chief engineer and fire-fighting crew had left the workshop through the workshop portside door. With the sinkage of vessel's hull and listing to port side, the bottom sill of the portside door had been submerged and this led to the ingress of water into the portside of the engine room, which had ultimately caused the sinking of 'Sunvista'.

Although it seemed obvious that it was negligence on the part of the chief engineer who had committed several negligent acts after electing to flood the engine room with carbon dioxide to put out the main switchboard fire, the claim against the H&M Underwriters was not straightforward; as the ISM files of this 38-year old vessel had revealed that the chief engineer had previously requested numerous necessary repairs to the machinery and equipment in the engine room; but up to the date of the sinking incident, these requests had not been complied with.

The H&M Underwriters used this as a bargaining tactic to reduce the final claim against them by about 30%. This signified the importance of ship managers to comply with the requests of ship officers; to upkeep the necessary maintenance of machinery and equipment and maintain the safety standards of ships under their management.

### General Average Survey on a Bulk Carrier

In October 1999, RMP Marine Services was requested by the average adjusters on behalf of the owners of 86,000 Dwt bulk carrier 'Graceous' to carry out a general average survey in connection with the forced discharge of iron ore pellets from nos. 1, 2 & 6 cargo holds; in order to lighten the vessel to carry out repairs to damage sustained in a collision with another vessel 'Lula L' in the Singapore Strait.

The damage in way of portside shell plating of the forecastle and no. 1 cargo hold, which had been holed, was to be temporarily repaired; to enable the partly loaded vessel to continue voyage to Beilun, China. This lightening operation was to be carried out at West Jurong Anchorage and cargo surveyor Winston De Souza spent 12 days on board the damaged vessel; to survey the discharge of the wetted cargo from cargo hold no. 1 and undamaged cargo from cargo holds no. 2 & 6 onto bulk carrier 'Seahorse Alpha'; for on-carriage to destination port.

About 17,500 tonnes of cargo was discharged from 'Graceous' in order to achieve a draft of 17.0m fwd and 16.8m aft, in contrast to her draft of 26.0m fwd and 14.0m aft immediately after the collision incident. This assignment was particularly interesting to me; as it was achieved by deploying just one cargo surveyor, who was willing to stay on board the damaged vessel, in order to conduct the general average survey.

### 2000

Towards the end of 1999, it was suggested by Standard P&I Club that RMP Marine Services should open up a survey office in Kuala Lumpur, in order to carry out marine cargo and P&I Club work in Peninsular Malaysia.

A Malaysian Master Mariner, Capt. James Mohan was hired in January 2000 and was stationed in the RMP Marine Services office for three months to receive training and familiarise himself with the workings of a marine survey office. In the meantime, RMP Marine Services Sdn Bhd was registered and suitable office premises was found in Petaling Jaya, halfway between Kuala Lumpur and Port Klang.

On completion of his three-month training stint, Capt. James went back to Petaling Jaya to set up the survey office with two cargo surveyors and an administrative assistant. Standard P&I club supported this office from the onset, and the workload increased rapidly.

I set up a system whereby I was informed of all survey work received and all draft reports had to be sent to me as e-mail attachments for editing, before being submitted to principals. This ensured that the quality of reporting in the Malaysian office was similar to the Singapore office.

However, In early-2002, when it was felt that RMP Marine Services Sdn Bhd could be further expanded by employing a cargo claims adjuster, some financial irregularities were discovered in the accounts; which ended up with Capt. Mohan being terminated and the incoming cargo claims adjuster taking over as manager of the office; with the employment of Capt. Daren Locke as Marine Surveyor. As Daren had previous marine survey experience, it was only necessary for him to receive marine survey training in Singapore for about one month.

### 2001

In 2001, I was asked to go to Keppel Cebu Shipyard in Cebu, Philippines to investigate a fire which had occurred onboard a ro-ro passenger ferry 'Superferry 3', whilst she was undergoing repairs in drydock at the shipyard.

Upon my arrival there, I noted that the vessel was still in drydock and a large section of the superstructure above second deck level had burnt out. I was subsequently shown the

location where the fire had originated on the second deck level and had spread upwards until it had burnt itself out at the upmost open deck.

I was informed by the shipyard engineers that the fire had been started by the shipowner's contractor, who had carried out steelworks repairs at that location. After taking photos and making a full record of the fire damage sustained by 'Superferry 3', I held discussions with the shipyard executive; in order to obtain the full information surrounding the fire incident and to itemise the repair work and obtain the cost of reinstating 'Superferry 3' to pre-fire condition.

I was informed at this time that the shipowner's claim for reinstatement of the vessel to pre-fire condition would be rejected; on the basis that it had been started by a contractor who had been appointed and paid by the shipowner. I then returned to Singapore and when the information regarding reinstatement costs was sent to me, I submitted my report to Keppel's Shiprepairers Liability Underwriters.

About one year later, I was requested to attend at the arbitration between the shipyard and shipowners in Manila, Philippines. I spent one week together with Keppel's lawyer in Manila and gave evidence at the hearing. I later learnt that the Arbitration Award had been in favour of Keppel Cebu Shipyard; that Shipowner's claim had been rejected.

Also in 2001, I was appointed by Keppel's Shiprepairers Liability Underwriters to attend at Keppel Subic Shipyard, to investigate an explosion which had occurred onboard a LPG tanker; which had killed eight shipyard workers.

The Mundogas LPG tanker had sustained major damage in way of her main deck, which had ripped open like a sardine can; which indicated that a massive explosion had occurred within the void tank, within which one LPG tank was located. During the subsequent inspection within the void tank, where a LPG tank was located just forward of the pump room, it was discovered that an accumulation of LPG gas, which had leaked from the LPG tank had triggered off the explosion.

As the vessel was rather old, it was declared a constructional total loss and I was requested to submit my report to the Underwriters and leave the matter to Shipowners and the Shipyard to resolve. I heard no further news about this incident and concluded that both parties had come to some agreement on the circumstances surrounding the casualty.

#### **'Fairmast' Arbitration**

In mid-2001, I was informed that 'Fairmast' had been rebuilt at a Shipyard in North East England, at a cost of SGD 18 million; by renewing the entire centre-body between the forward collision bulkhead and the forward engine room bulkhead. I was requested to attend the arbitration between Keppel Shipyard and the Owners of 'Fairmast'; which was held in Singapore at end-2001. This Arbitration before a tribunal of three Arbitrators dismissed the Shipowner's claim against Keppel Shipyard.

#### **Collision damage repairs on a trailer suction dredger**

In July 2001, we received an assignment from marine surveyors based in Amsterdam, Netherlands, AJJ Van Den Andel. A trailer suction dredger 'Prins Der Nederland' had sustained severe damage in way of her stern; when she was collided into by a fully loaded coal carrying barge.

As Suhairi and I were fully occupied, I asked Roy Lee to carry out a full survey of the damage and reinstatement of the vessel to pre-collision operating condition. He did an exemplary job and was commended by the Netherlands surveyors, who submitted the RMP Marine Services report to the Underwriters in Netherlands.

## 2002

In early 2002, I was asked to be the marine consultant and expert witness in a Supreme Court matter between Bumi International Tankers, Indonesia and MAN B&W Diesel SE Asia Pte Ltd, Singapore.

Bumi International Tankers were suing MAN B&W for supplying their 6500 Dwt tanker, built in 1994 at Malaysia Shipyard & Engineering with a faulty engine; which had malfunctioned from the time it went on sea trials and subsequently after being operated for three years until 1997, finally broke down completely.

MAN B&W was refuting the claim on the basis that their engine supply contract was made directly with the builders, MSE and further contended that the propeller supplied to the builders by another contractor was not appropriate and had overloaded the 4200bhp diesel engine supplied by them; also, poor maintenance and the usage of poor quality fuel at the wrong temperatures over a period of some three years had caused rapid deterioration of the diesel engine.

After examining all the records made available to the defendants, I made an affidavit as an expert witness. The trial in the Supreme Court, Singapore took 30 days over five sessions between April 2002 and July, 2003. I attended the hearing on about 20 days; as deemed necessary by the advocate for MAN B&W.

The trial judge gave judgement in favour of Bumi International Tankers, but the defendants immediately filed an appeal. The three-judge Appeal Court subsequently overturned the judgement and this was subsequently cited as a landmark judgement.

In May 2002, 17150 Grt bulk carrier 'Çaribbean Frontier' collided with tanker 'Kuo Spirit' in the open sea and then proceeded to the OPL Anchorage off Singapore for an assessment of damage and repairs. It was determined that the vessel would have to carry out hull repairs; in order to do this, the bulk cement cargo in nos. 1, 3 & 5 cargo holds, would have been discharged, in order to lighten the vessel.

General average was declared and the vessel was transferred to the Karimun Anchorage, south of Singapore. Upon being appointed to conduct the GA survey, I assigned Winston De Souza to go on board the vessel on 14<sup>th</sup> May to conduct the survey, when the transhipment vessel 'Tengka' went alongside the starboard side of 'Carribbean Frontier'.

However, due to the freeboard difference between the loaded vessel and the empty 'Tengka', the transfer of the bulk cement could not be commenced after the receiving vessel's cargo holds were inspected and found to be fit to receive the transferred cargo.

Two hoppers had to be immediately fabricated and placed on board 'Caribbean Frontier' to facilitate a two-stage method of transferring cement cargo out on the cargo holds into the hoppers and the cranes on 'Tenka' to transfer the cement into her cargo holds. This was a slow process which was aggravated by the inclement weather; it eventually took 17 days to discharge about 21,250 tonnes of cement.

Here again, Winston remained on board the 'Çaribbean Frontier' throughout the entire period and demonstrated that one cargo surveyor was all that was required to carry out the general average survey, provided he was willing to stay on board for an extended period to complete the survey.

This survey was particularly interesting, as there was a lot of spillage of cargo and intermittent rain storms which called for careful monitoring; in order to ensure that the cement cargo was clean and free of wettage; also, accurate draft surveys had to be carried out to determine the transfer losses and the amount of bulk cement transferred to 'Tenka'.

In December 2002, RMP Marine Services received an assignment to conduct H&M and general average surveys on a Japanese car carrier, 'Procyon Leader'. I attended together with Roy Lee (to conduct the H&M insurance survey) and Chris D'Almeida (to carry out the general average survey).

This assignment was interesting, as it demonstrated the capability of the RMP Marine Services 'ad hoc' marine and cargo surveyors and the ability of the company to expand and contract it's activities without financial risk.

### Charles Taylor Consulting Services (S) Pte Ltd

At the beginning of 2002, the Charles Taylor Group decided to rename RMP Marine Services Pte Ltd; Charles Taylor Consulting Services(S) Pte Ltd came into being and Stephen Foster from the Indonesian office of Richards Hogg International was transferred to Singapore to head CTCS as managing director.

I was appointed as technical director for CTC SE Asia; to oversee the technical reporting and assist the Jakarta, Petaling Jaya and Manila offices with their technical survey assignments. I also continued with my consultancy services to the Richards Hogg adjusters and the Standard P&I Club claims executives.

By mid-2002, a Master Mariner, Capt. Ramli was employed to expand the capability of the Singapore office to conduct ship inspection and petroleum inspection for the Standard P&I Club. This had an immediate impact on the work carried out by the freelance cargo and petroleum surveyors and my supervisory workload increased accordingly.

However, I still had the time to take on marine consultancy work. In my capacity as technical director of CTC SE Asia, I had to periodically travel to Petaling Jaya, Jakarta and Manila. This suited me, as I enjoyed a variety of technical work and wanted to set good technical standards for CTC SE Asia.

However, the sudden introduction of two senior personnel into CTC Singapore had an immediate impact on the financial position and at financial year-end in mid-2003, there was a significant deficit, which immediately prompted CTC UK to start looking into cost-cutting.

This was the first year since RMP Marine Services commenced operation in June 1996 that financial losses had occurred; ironically the axe fell on me in June 2004, when I was told that the retirement age in the Charles Taylor Group was 62 years old and I had already exceeded it by one year. I was asked to reduce my work input to three days a week with commensurate adjustment to my remuneration.

I readily accepted the proposal, as I wanted to do things that I had always wanted to do, but never had the time to do. I continued my trips to the other Southeast Asian offices, as and when necessary, and still gave more than three days of work to keep up the technical survey standards of CTC South East Asia. I did not further develop my marine consultancy side of the business, as the three-day week did not allow me sufficient time to carry out the work that was required in that sector.

However, between July and September 2003, Suhairi, Roy and I were involved in the risk assessment survey for the shiprepairers liability underwriters of the Keppel Group shipyards in Singapore. This was followed up by general condition surveys of floating docks nos. 2 & 4 at the Keppel Singmarine Shipyard; which was carried out by Roy Lee.

In September 2004, two Keppel-owned Power barges sustained significant damage during their towage from Philippines to Singapore. Roy Lee was again asked to carry out a full survey of the damage sustained and reinstatement of the power barges' machinery and equipment to pre-damage condition. I subsequently determined the repair costs and included this information in the final report to the marine underwriters.

In mid-2004, I took on a marine consultancy assignment in connection with major damage sustained by the diesel propulsion engine of a Malaysian-flag cargo vessel. Against my better judgement, I accepted to appear as an expert witness in the Supreme Court hearing of the dispute between the shipowner and the vessel's H&M Underwriters, who had declined the shipowner's claim for machinery damage.

I had several reservations with regards to the chief engineer's testimony and also felt that the ship owner's case against the H&M underwriters had several weaknesses; which could cause them to lose the case.

As it so happened, these very weaknesses were highlighted by the defendant's lawyer and I had to agree under cross-examination that such was the case. The judge cited my evidence as being one of the main considerations for dismissing the shipowner's claim.

This prompted the shipowner to subsequently threaten to enter a claim against CTC Singapore for my negligence in the particular matter. I was assured by the CTCS appointed lawyer that the negligence claim against me would not succeed in court; as I was acting in my professional capacity and was under oath to tell the truth. However, during discussions between the lawyers representing the parties, CTC Singapore decided to pay an undisclosed sum of money, in order to settle the matter.

Perhaps, this was the reason for the further cut to my remuneration which was proposed in June 2005, which I considered unacceptable; bearing in mind, the time I would still have to spend in order to continue giving the same level of service to keep up the survey reporting standards of CTC South East Asia.

I decided to retire from CTC Singapore, but agreed to continue editing all the surveyor's reports within the timeframe of 25 hours per week; it being agreed that any additional time required to complete my editing workload could be charged at an hourly rate consistent with the agreed remuneration package.

I left CTC Singapore at end-June 2005 and immediately teamed up with an ex-colleague, James Ong, who I had formerly worked with in Herring & Company; to form Maritime Consultants & Engineers Pte Ltd.

### **Maritime Consultants & Engineers Pte Ltd**

I chose to join James Ong, as he was the major shareholder of Ocean Maritime Consultants Pte Ltd, who were the correspondents of Steamship Mutual P&I Club.

The formation of Maritime Consultants and Engineers Pte Ltd had mutual advantages; I could do the Marine Surveys required by the Steamship Mutual P&I Club and develop the Marine Survey and Consultancy business with my team of freelance marine and cargo surveyors who had worked with me for a considerable period. Ocean Maritime Consultants also had two Master Mariners, who mainly carried out the Steamship Mutual P&I Club cargo work and MCE could call upon their services, should they be required.

### **Overseeing the construction of a large self-propelled coal transfer barge**

MCE got off to a rapid start and by October 2005, I had secured a regular contract to oversee the construction of a 65,000 Tonne Deadweight self-propelled barge for the transfer of coal onto panamax-size bulk carriers. This large self-propelled barge was to be constructed in a graving dry dock, which would be dug out and constructed simultaneously.

The construction of this barge, which had commenced some six months earlier in a Batam, Indonesia shipyard and was significantly behind time, required MCE's intervention to speed up the construction pace and ensure that the classification requirements were being complied with. This entailed visits to the Batam Shipyard on one day of every week, to do a survey on the construction status during the morning and then hold a meeting with the shipyard engineers and contractors during the afternoon; to identify the problem areas and seek solutions and plan the work co-ordination between the various parties; thereafter submitting a report to the shipyard executive.

I brought in Roy Lee, who had considerable experience in the construction of ships, to assist me during my weekly visits to the Batam shipyard. This project was novel and interesting, as the vessel was being built in tandem with the construction of the graving drydock, which would eventually launch her for the final fitting out work and sea trials.

The securing of this contract gave me the confidence to resign from my part-time occupation as technical editor of the CTC Singapore surveyors' reports. It took 18 months of weekly visits until the massive self-propelled coal transfer barge was completed and handed over to the owner in Balikpapan, Indonesia, in April 2007.

In the meantime, I continued developing MCE and conducted several survey assignments for H&M underwriters and the International clients who I had previously serviced when I operated Tech-mar

### **2006**

2006 turned out to be a very good year; which started in March with an assignment from Steamship Mutual P&I Club, whose member had time-chartered a container feeder vessel 'Tiger Cliff', where the container crane had sustained major damage whilst in operation. Roy Lee, who attended on-board on several joint surveys with owner's surveyor, was able to show that the damage had been caused by the heavily worn components of the poorly-maintained crane.

In July, MCE was appointed by Ace Insurance to witness the load out of four quay container cranes from the PSA container port onto a large flat top barge and to conduct the towage approval survey for the voyage to Jakarta, Indonesia.

These two assignments which took about two weeks to complete, were carried out by Winston De Souza and Roy Lee; the former doing the load out and towage approval surveys and the latter ensuring that the four cranes were properly secured to the deck of the barge, in accordance with the plan that had been submitted by the shipper's naval architects and agreed to by the cargo underwriters. Although several problems and delays were encountered, the flotilla finally departed from Singapore on the six-day voyage to Jakarta and the quay container cranes were delivered in sound condition to that port.

In August, Roy Lee was appointed to survey the main engine on-board 'Bianco Picadores', which had sustained damage due to consumption of 'off-spec' fuel oil. This was an assignment from Steamship Mutual P&I Club, whose member was attempting to make a claim against the fuel oil supplier. This entailed several joint surveys with the vessel's H&M underwriter's surveyor and the surveyor representing the fuel suppliers.

Finally in November, MCE was appointed to conduct a survey on-board a survey vessel 'Surveyor', where the main engine, thruster and rudder had sustained major damage during operations. This assignment, obtained from MCE's Netherlands associate surveyors, required attendances at a Singapore shipyard over a period of two months, before the vessel was reinstated to good operating condition.

In September, I was requested to be an expert witness on behalf of a major diesel engine manufacturer in an Arbitration between a Bulgarian shipowner and the diesel engine manufacturer, whose Singapore agents had allegedly carried out defective repairs on a loaded bulk carrier, which had called into Singapore for repairs to the main engine gear drive.

The hearing, which was highly technical in nature, called for the two marine engineering experts to closely examine some gear drive components; in order to render opinions in connection with the shipowner's allegation that the diesel engine manufacturer's Singapore agents had been negligent in carrying out the repairs of the loaded bulk carrier's main engine gear drive.

However, in mid-2007, after three hearing sessions, the arbitration proceedings were abruptly terminated when the diesel engine manufacturer's repairers liability underwriters and the vessel's H&M underwriters mutually agreed to discontinue the arbitration.

## 2007

For the first four months of 2007, MCE was fully involved with the completion of the 65,000 Tonne Deadweight coal transfer barge; which required numerous passenger ferry trips to Batam, located about two hours south of Singapore; each visit taking at least eight hours. The final visit to Balikpapan, where the coal transfer barge was delivered under tow to the owners took two days; as a defects list had to be drawn up with the vessel's master, in order to complete the delivery protocol.

In March, MCE was appointed by H&M underwriters to attend on-board Chemical Tanker 'World Dynasty' which was on a loaded voyage from United Arab Emirates to Merak, Indonesia. Due to the breakdown of the main engine turbocharger, the vessel had to call in at Singapore to replace the turbocharger.

In April, MCE's Netherlands associate surveyors requested MCE to assist a shipowner from USA; whose bulk carrier 'Huron Maiden' had run aground in Indonesia and had sustained severe damage to the bottom hull, with significant structural damage & misalignment within the cargo holds.

The shipowner was of the opinion that the cost of reinstating the severely damaged vessel to classed condition would exceed her insured value and required MCE's assistance to

convince the H&M insurer's surveyor that she was a constructional total loss. In order to achieve this, two major shipyards in Singapore were invited to submit repair quotations and this entailed two separate detailed surveys of the cargo holds and double bottom tanks; to enable both shipyards to submit their lump-sum quotations in conjunction with the repair specifications, which had been drawn up in consultation with the classification surveyor.

The repair quotations received from both shipyards showed that the vessel was beyond economical repair; as her insured value was exceeded by both the submitted repair quotations.

In August, the Malaysian H&M underwriters of trailer suction dredger 'Inai Selasih' appointed MCE to conduct survey on-board the vessel lying in drydock; as her portside suction dredge pipe, whilst being lifted into the stowage position had fallen onto the drydock floor, after the support davits had collapsed.

This had caused severe damage to the dredge pipe and support davits; however, as the vessel was urgently required to carry out a dredging contract, the owners had decided to operate her as a trailer suction dredger operating with only the starboard suction dredge pipe; whilst the replacement portside suction dredge pipe and support davits were being fabricated at the shipyard.

This assignment was completed at end-2007, when the vessel returned to the shipyard for the installation of the new portside suction dredge pipe.

## 2008

During the 1<sup>st</sup> quarter of 2008, the two master mariners and administrative assistant of Ocean Maritime Consultants Pte Ltd left the company in quick succession, leaving MCE without any administrative and master mariner support.

I asked James Ong what he was going to do about the situation and was told that both OMC and MCE could carry on with just the two of us; that he had no intention to employ replacements for the three staff who had left OMC. I disagreed with this decision and decided to resign from MCE; as I did not want to do the administrative work connected with issuing reports and invoices.

I then tendered my resignation from MCE to take effect on 31<sup>st</sup> May 2008 and went ahead with winding down my work in MCE and making arrangements to shift my operational base to Merid-Argo Maritime Services Pte Ltd, a one-man firm of naval architects & marine engineers, which was operated by my nephew, Rodney Pereira. I joined as a director and immediately set up my office in my home. I was therefore able to resume my marine survey & consultancy activities without interruption on 1<sup>st</sup> June 2008.

## **Merid-Argo Maritime Services Pte Ltd**

I spent my 1<sup>st</sup> week with Merid-Argo Maritime Services informing my clients of my resignation from MCE and this almost immediately resulted in an appointment from my long-time Netherlands associate surveyors, AJJ Van Den An del; surveying bow thruster, gearbox and main engine damage on-board the trailer suction dredger 'Markab'.

This vessel underwent repairs in a Singapore shipyard for about five months and Roy Lee attended, as and when necessary to monitor the repairs carried out. From early July, Ace Insurance started appointing Merid-Argo Maritime Services to conduct towage approval and warranty surveys for cargo shipments of heavy equipment and machinery from Singapore; which kept Winston De Souza busy.

Fortunately, both Roy and Winston could send me their draft reports for editing on 'Word' format and I was able to issue the reports and invoices from my home office. As luck would have it, my sister June retired from Charles Taylor Marine Services in October 2008 and the administrative support for Merid-Argo Maritime Services was then carried out by her; which relieved me of this chore.

From July 2008 onwards, work started coming in on a regular basis from my clients and by August, I had to ask my brother Gerard, to assist Roy in conducting marine surveys.

By mid-November, Merid-Argo had already carried out 12 significant surveys, when I received the news that Capt. Ramli had left Charles Taylor Marine Services and they were without marine & cargo surveying capability in Singapore. I was immediately approached by Charles Taylor Marine Services to conduct all their marine and cargo surveys in Singapore and submit the reports directly to them for onward issuance to their clients on their company letterhead; so from mid-November, the survey workload increased significantly.

## **Survey of a Refinery Cooler damaged during road transportation**

The third appointment that we received from CTMS was in early December 2008; when I was requested to attend during the weekend to inspect a damaged Cooler, which had fallen off a trailer, whilst being transported to the storage centre.

As this large Cooler was designated for installation at the Shell Refinery at Pulau Bukom, Singapore, it had to undergo stringent checks and tests supervised by the manufacturers and refinery engineers and replacements & repairs had to be carried out before it was accepted by the refinery engineering department for installation purposes. This assignment took about six months to complete; as the inspections required the attendance of all interested parties; which was at times difficult to arrange

## **Surveys on behalf of Netherlands-based marine surveyors**

In mid-November 2008, Merid-Argo Maritime Services were appointed to conduct a survey on a semi-submersible heavylift vessel 'Mighty Servant 1'; whose stern anchor winch had sustained damage to the gearing system. This survey was significant, as it came from another firm of surveyors based in the Netherlands, Van der Bos & Boon Enterprise.

On 24<sup>th</sup> December, we received another interesting assignment from AJJ van den An del in connection with the round-the world Volvo Ocean Race; where they had been appointed as the official marine surveyors for the Ocean racing yachts participating in this 10-leg round-the-world race.

The mono-hull race yacht 'Delta Lloyd' during the 3<sup>rd</sup> leg of the race from Kochin, India to Singapore had sustained damage to her canting keel system and supporting structure; which had severely affected her racing capability and necessitated repairs when she arrived at Singapore. Merid-Argo Maritime Services were called in to monitor the repairs; which

entailed lifting the yacht out of the water for placement on a cradle; in order to repair the internal bulkheads and reinstall the hydraulic canting system, which had been sent back to the manufacturers in Italy for necessary repair and testing.

The repairs were carried out by the original boatbuilders in consultation with the designer of the canting keel system and completed on 15th January 2009; in time for the 4<sup>th</sup> leg of the Volvo Ocean Race from Singapore to Qingdao, China, which commenced on 18<sup>th</sup> January 2009

## 2009

The first quarter of 2009 was significant; insofar that Merid-Argo Maritime Services received two appointments from Seaborne Agencies, the correspondents of Skuld P&I Club; in connection with the crane grab bucket damage on-board bulk carrier 'Ocean Prefect' and crane damage on-board bulk carrier 'Sparrow'. Both appointments were in connection with protecting the charterers' interests and required close monitoring; in order to expedite repairs so that the vessels could continue on charter without undue delay.

In the meantime, Charles Taylor Marine Services stepped up their cargo and marine survey appointments and Merid-Argo Maritime Services had to bring in Chris Mitchell to assist Winston De Souza to conduct cargo surveys; making it a total of four freelance surveyors assisting me to cope with the survey work that was coming in.

In late-January, we were requested to conduct an investigation on-board LPG carrier 'Gas Emperor', which had been experiencing numerous main engine stoppages; allegedly caused by 'off spec' fuel oil. This required Roy Lee's attendance on-board the vessel lying in the Special Anchorage on 3 separate occasions within a period of 3 weeks; to conduct investigations and monitor the repairs being carried out on the main engine.

During this period, we were also requested to attend on-board an oil tanker 'Pro Victor' which has sustained severe damage to her starboard boiler. The boiler repairs took about two months to complete and this necessitated several attendances on board to monitor the repairs.

Also in January, I was requested by Charles Taylor Marine Services to accompany their Malaysian-based marine surveyor, Capt. Siva to conduct a shiprepairers liability underwriter's risks survey at a shipyard in Penang, Malaysia; in order to familiarise him with the pertinent aspects of this type of marine insurance survey.

I experienced an emotional setback during the 2<sup>nd</sup> quarter of 2009, when my youngest sister, Maggie succumbed to lung cancer, although she was a non-smoker. This prompted serious thought about retirement and by July, I had already commenced informing my International clients about my retirement and my Singapore and Malaysian clients that I would not be taking on any new contentious work; which was the source of work stress that I felt was beginning to affect my general health.

However, I continued to carry out the Charles Taylor Marine Services surveys, which were being conducted by the freelance surveyors. In late-May, with the assistance of Winston De Souza, Merid-Argo Maritime Services carried out the loading, stowage and securing of a flexible pipe laying spread and associated equipment on-board the heavy-lift cargo vessel 'Beluga Facility'; for transportation to Exmouth, Australia.

This entailed the loading of the numerous and large components of the flexible pipe laying spread onto a flat top barge and transportation to the Anchorage for the loading onto the heavy-lift cargo vessel; which included monitoring the securement of the numerous items of equipment on-board the carrying vessel.

The workload during the 2<sup>nd</sup> half of 2009 was significantly reduced; as it was confined to cargo surveys and CTMS surveys. This trend continued throughout 2010 and although the towage approval and warranty work conducted for Ace Insurance was done on a regular basis, I noted that Charles Taylor Marine Services were also winding down their marine survey services in Singapore.

#### **Retirement in December 2010**

In December 2010, I officially announced my retirement after 44 years in the Singapore Maritime Industry. This was the culmination of 53 years in the Maritime industry, which began when I started as an apprentice engineer in January 1958; an occupation which I have cherished and has kept me comfortable and in good health throughout my working life.

I am now fully engaged in my retirement activity of enjoying the company of my wife Rita, son Colin & his wife Susan and spoiling my grandchildren, Sam & Chrissie. I also continue with my Rotary work and engaged in social work to keep me ageing actively.

I also continue to attend the Singapore Maritime Industry events to keep up with its progress, occasionally giving lectures on marine insurance topics and keeping in touch with all my Friends in the Singapore Maritime Community.

**Recorded for posterity by Ron Pereira  
July 2012/February 2014**