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ON LOSS PREVENTION IN FIRE AND MARINE CARGO INSURANCE  
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ABOUT CARGO LOSS PREVENTION IN GENERAL

by T. O. Clark

Loss prevention doesn't just happen. You've got to make it happen! And the key word is you.

But you can't do it alone. You need others to make it happen! And the key word is others.

You and others. Or in more general terms, people. Loss prevention is a people effort primarily. People working together to accomplish the successful movement of a cargo from point of origin to point of destination.

Mechanical methods probably will be required to load, move or unload cargo but people will run the machines. Accompanying documentation probably will be required in each case to legalize the movement, for proper identification of who gets what and for secure payment of all charges. Again, people will control all aspects of the documentation. Protection of the cargo throughout its move, during in-transit storage and in any transshipment activities may range from an ultra-sonic alarm system to an ultra-simple canvas cover. And again, people will be responsible for exercising such protection.

So I hope I have driven home the point right from the start that people are the most important ingredient in loss prevention.

In a similar line of thought, a person's knowledge of loss prevention just doesn't happen either. It has to be learned, and then taught to others. I don't think I have to dramatize my second point. Loss prevention

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education is an absolute essential in developing people and in developing countries.

That is why we gather in beautiful Madras. Far from many of the vexing problems elsewhere that bring us together today. Here to discuss various problems and to find solutions to those problems. Especially as they relate to marine cargo loss prevention.

To enable you to assess my remarks in a proper perspective, let me describe where I stand and how my views are shaped.

By profession, I am an underwriter of insurance. I am not an engineer. My engineering experience was limited to being an army engineer in World War II, most of the time building bridges and in no way related to cargo loss prevention.

But as an underwriter of cargo insurance, I have an obligation to understand risks, for that is the heart of insurance. An underwriter takes risks or, more to the point, when an insured buys an insurance policy, he thereby transfers his risk to the insurance company. His risk is now the underwriter's risk. To prevent or minimize his losses, as well as the insureds, the underwriter will try to understand all the perils that could befall his risk and to recommend all the measures possible to avoid loss.

So I address you from the insurance point of view using my working knowledge of cargo loss prevention. The thought I offer is that you need not be a trained technician to understand cargo loss prevention techniques nor to apply them. A commitment and common sense will take you a long way.

I was invited to participate in this seminar in my capacity as chairman of the Cargo Loss Prevention Committee of the International Union of Marine Insurance. Briefly, the International Union of Marine Insurance is a trade association comprised of member associations representing marine underwriters in nearly 50 countries whose activities reach around the world. In its 105 years of existence, IUMI has engaged in the broad dissemination of information about developments in shipping practices, maritime law, insurance law, loss prevention and numerous related subjects.

The Cargo Loss Prevention Committee for many years has assembled technical information on preventable losses in world commerce. The information gathered reflects the knowledge of underwriters throughout the world and is directed toward the adoption of measures to prevent or minimize losses occurring in the shipment or storage of cargoes.

One may raise the question, is the insurance view toward cargo loss prevention compatible with that of the shipper, the carrier, the consignee? In my opinion, yes, it is fully compatible because all interests are seeking the same end result.

In this seminar, other papers on cargo loss prevention are being presented. Some on different aspects of this subject and some from different viewpoints. My part is to consider the shipper but as you will find, it is difficult in working with the cargo loss prevention discipline not to reach out into all other areas.

Frankly, my comments will center on the question of cargo loss prevention issues in developing countries but let me clarify first that developed countries have a host of their own special problems with cargo losses. Their loss situations often are quite complex and quite challenging to overcome. By comparison, developing countries have less complex situations and the interesting challenge is that their problems are capable of solution with beneficial effects.

So let us start with the shipper who quite often is also the manufacturer. Having sold his goods to a foreign buyer, he wants to ship the property to the buyer in a safe and expeditious manner. If the buyer is satisfied, he may place additional sales. Neither party wants the cargo lost or damaged or delayed. Recognizing the value of the cargo, they agree to insure it, but even then they don't want a loss as it creates paper work which is also symbolic of a shipment that didn't make the trip without incident. The carrier, the stevedoring firm, the forwarder, the financial backer, ad infinitum all want a successful cargo trip. So you can see how the interests in a single shipment build and grow. It is a ripple effect and it spreads out relentlessly.

If a loss occurs, particularly a serious loss, its adverse effect also ripples out. Sellers may lose future sales if, for instance, they

failed to package their merchandise adequately. Carriers may suffer if found negligent in their manner of transporting the cargo. So it is to the advantage of all interests to do what they can to prevent losses. (Incidentally, some call this discipline loss control, loss minimization control, etc. but in this paper we use the most commonly accepted term of loss prevention.)

Perhaps the first rule a shipper must apply is adequate packing or packaging. By adequate packing is meant packing designed to meet conditions of transport and storage and to achieve delivery of goods in sound condition. That is it in a simple direct expression.

One of the most serious failings, however, is the assumption that packing for domestic shipments within a country is suitable for export shipments. This is a very regrettable assumption. The handling, the storage and the transport of export shipments is quite different and more hazardous. Depending on the particular cargo, the specifications will vary. This is where cargo loss prevention recommendations come into play. It is also where the underwriter can exert influence on the shipper. Even if the shipper realizes he has to upgrade the packing, he may try to hold down his increasing costs by skimping on the quality of the packing.

Within the package, the cargo may need additional bracing or cushioning material. The movement of a ship creates forces at a variance with what is encountered in over-the-road movements. Ships will pitch, roll, rock, plunge, etc. In the course of a single trip, a ship and its cargo will experience one or more of these peculiar-to-the-sea motions and such sea action may continue for hours or days without interruption. Imagine an improperly cushioned cargo which may chafe and rub again and again and again.

If it is a heavy item, such as a piece of machinery, with its weight shifting back and forth continuously, it can pick up considerable force. Lacking proper bracing, the machinery could tear loose and smash itself into scrap metal against a bulkhead or other valuable cargo.

Some form of waterproofing is usually required. The degree or extent of the waterproofing would relate to the type of cargo being shipped. Domestic shipments encounter fresh water damage in the form of normal rainfall. Export shipments also are rained upon but they are subject to typhoons, monsoons and hurricanes, much more intensive storms with heavier downpours and intensively driven winds. Further, they can suffer salt water damage due to ocean spray or waves breaking over the deck where the sea water finds its way into the cargo.

There are many kinds of water protection ranging from tightly sealed special containers to shrink-wraps. Shrink-wraps are made of sheets of plastic cloth which are stretched over, under and around a shipment. An impervious wrap is formed which will keep most water out. It may not be suitable for all cargoes, however. It will also keep moisture in. So if there is some moisture inherent to the cargo, or condensation on a metal component, it will not dry out. Therefore, mold may form or rust may set in. In such instances, it is necessary that the cargo be absolutely dry or that a drying agent be inserted within the wrap.

Another consideration about shrink-wrap is that if a tear occurs and water enters, it will hold the water much like a plastic pitcher. Under a driving rain or boarding seas, such a torn cover could literally fill with water with serious consequences to the cargo. Yet, shrink-wrap is very satisfactory to many shipments. Again, it is a question of knowing the peril and the appropriate remedy.

Before going on with further comments about packing, it might be appropriate to inject a thought here about who can create packing requirements. Normally, shippers be they manufacturers or freight forwarders would be adept at knowing the minimum standard of packing to be used for the various types of goods they are accustomed to handling. And their recommendations probably are quite reliable. Yet, as suggested above, there are shippers who will skimp on packing to reduce costs. Although we have not touched on containers, there are ample incidents of container company salesmen urging their customers that export packing standards can be ignored if their shipments are containerized. As we

will discuss later, this is bad advice with bad results.

We cannot deny that expense control is as important as loss control in any shipment. To exaggerate the protection beyond what is widely held as adequate is a waste of money. For the new shipper, especially in a developing country, there are packing engineers and laboratories as well as reliable export packers who can be valuable in establishing levels of packing adequacy for each product shipped.

As to its exports, a developing country can have considerable influence in recommending adequate packing. Although it may not have the same level of power in influencing how its imports may be packed, it can specify that purchases of goods abroad be packed properly and be shipped in a manner suitable to its transport system so that on arrival the cargoes can be handled reasonably well.

In developing countries where the governments directly control the sale and purchase of goods in foreign trade and their transport system, influences to observe proper packing can be very effective. In other countries where these functions are in the hands of private industry, the influences may not be quite as direct but governments can still recommend correct procedures through directives and educational programs. Further, industry itself can and should be expected to adopt the best packing techniques consistent with needs and economics.

To return now to the mechanics of shipping, shippers should be mindful of these other features as well. Shippers should inquire of their consignees, underwriters, freight forwarders and carriers about the conditions of transportation (land, sea and air) and storage to which their shipments are exposed. With these basic exposures understood, the shipper can begin to design a packing case able to withstand the hazards to be encountered during its voyage including the handling it will receive.

An ordinary corrugated cardboard carton accepted in domestic trade would be unacceptable in overseas movements. Earlier, I had described the unusual stresses packages undergo aboard ships as well as the extreme weather conditions that often prevail. Many ports lack deep water berths or protected harbors so ships are forced to lay off-

shore and to use lighters to move cargo from ship to shore. Such lightering multiplies the handling of the cargo and substantially increases the risks. So a well-designed packing case is essential.

And the well-designed packing case comes in an increasing variety of forms. There are fibre-board cartons, nailed wood boxes, wood crates, wirebound boxes and crates, cleated wood boxes, steel drums, fibre drums, barrels, casks, kegs, shipping sacks, bales, plastic bags, plastic drums and burlap bags just to mention those more commonly used. Each container has its advantages or disadvantages depending on how it may be used.

To give an example, I have seen reports of caustic chemicals successfully shipped in plastic drums. I have also seen reports where the same shipments proved most troublesome when shipped to a port in the Arabian Gulf. The drums were being held on the deck of a ship under a blazing sun and in time the drums softened and began to leak. In addition to the loss of the cargo in the drums, the ship's deck was suffering considerable damage and as there was no other means of preserving the cargo, the entire shipment was jettisoned.

Even metal drums can deteriorate so it is important to be sure that the contents of a container and the container itself are compatible. It is equally important that the compatibility will continue throughout loading, unloading and movement and as the cargo passes through different climatic zones, temperate to cold to hot to humid. Each temperature or humidity extreme can be a cause of loss. Condensation can form, bulkheads will sweat, and freezing can ruin contents just as easily as high degrees of temperature.

Whatever type of packing is used, it must also be capable of being stacked rather high without the packing collapsing, bursting, or crushing its contents. Simply stated, a keg designed to hold 50 pounds of nails may also have to support 10 kegs stacked on top of it without the 500 pounds causing the base keg to come apart and the whole lot of kegs collapsing.

Additionally, the packing must be able to withstand the onslaught of loading and unloading. Starting with the simple longshoreman's hook which is very useful in securing a grip on a bale of cotton or a wooden box, it is easy to imagine what can happen when the hook pierces a plastic container with a dangerous liquid in it, or a paper bag with sugar in it. At the other end of the pendulum's swing, for example, we will find instances of fragile machinery being lifted with chains instead of canvas-type slings or boxed cargo being pushed off loading docks rather than lifted off.

Designing a new packaging technique in itself is not enough. It should be tested for strength, durability, handling practicality and its resistance to hazards to be encountered in its scheduled trip routes. For instance, how well does it take being dropped on its side, edges, and corners; rolling down a flight of stairs; vibrations; pressures; exposures to weather; etc. Random inspections should be made of the packaging area to establish that proper packing procedures are being followed and the quality of the packing itself is not being compromised. Once a new packing design is utilized, arrangements are often made to have a surveyor at the point of destination examine the unpacking of a cargo so the condition of the cargo will be a clear sign as to the success of the packing. If there has been a failure in any way, its cause can be ascertained and corrective measures taken to improve the packing.

Sometimes the packing is ideal for a shipment but the cargo itself is a hindrance due to its design. A case in point is a machine that was sixteen inches too long to fit inside a 40 foot container. It was necessary to partially dismantle each machine and to send the parts in separate containers thereby increasing costs considerably what with two containers, a good deal of internal bracing to keep the machine parts from moving around in the containers and the expense of reassembly at destination. A study of the machine revealed that rather than its mechanical parts, it was designer-styling panels and fancy trimwork that inflated its size. With some intelligent and inexpensive redesigning

of the cover panels but without changing the basic underlying machine, its overall length was reduced sufficiently so the unit could fit comfortably inside a 40 foot container. The accumulated savings in shipping costs and dismantling expenses quickly paid for the changes in shortening the unit. So it is important to consider in advance the relationship of product design to the packing requirements.

Two key words to remember are susceptibility and damageability. Susceptibility refers to the ease by which a cargo can be damaged. Damageability refers to the extent it may be damaged. Ceramics are easy to damage and tend to suffer extensive damage. Coal is not easy to damage but if spontaneous combustion were to occur extensive damage could happen before the fire is extinguished.

Consider, therefore, the nature of the cargo, its special characteristics. Is it fragile? Can moisture hurt it? Odor? Is it compatible with other cargo or not as is the case when two chemicals may be innocent while separated but on contact will flare up, explode, or produce a toxic gas?

Without going into technical details in this paper, the internal packing within a package requires skilled attention. For the most part, we have been considering the external packing to protect the cargo from damages originating externally. But the inside of a package could be the making of a disaster. Eggs for instance must have separation and cushioning or at destination we would open a box of foul-smelling omelet. Glassware needs super-cushioning. Cement in paper bags usually needs an inner liner of plastic to keep out moisture or the consignee may receive bag-shaped blocks of concrete instead of cement powder.

It is not part of the packing per se, but proper identification of a shipment is an obligation of the shipper. It assures that the cargo will follow the correct pre-determined trip route and on arrival at destination it will enable the consignee to recognize his cargo from that of others. The shipper should set up and follow a reliable system of marking his shipments. In addition to the external markings, the products within each package should be marked, if possible, to facilitate identification if the outer container is destroyed or mutilated. Internal

markings also are a check against inferior products being substituted if the package is opened during transit. Further, if stolen merchandise is recovered they can help to restore it to the rightful owner if they can be accurately established as such by shipping marks.

It is not unusual to find secondhand or used materials used for packing or to find just-received cargoes being reshipped in their original packing. When this occurs, the shipper should remove or obliterate old labels and old marks and apply clear, new markings.

Whether using new or reused packing, the shipper should be sure to advise the consignee and any intervening carriers of the new markings. It might be prudent to make such markings in two languages, one being in particular that of the country of destination. Use of symbols can be more effective than words especially where a shipment may be handled by a series of workers schooled in a variety of tongues or even by some who are largely illiterate. There are a number of picture symbols which are internationally accepted and understood through the work of the International Organization for Standardization. Also, other symbols are officially recognized within certain countries.

When shipments of hazardous materials are involved, there is another set of picture symbols recognized internationally through the United Nations. These symbols are used in connection with poisonous gases, explosives, highly combustible materials and radioactive substances to name a few.

There are many interesting examples of mis-marked or misunderstood identifications on shipments. One chronically bad situation is with products such as rubber or coffee. It is not unusual when unloading a vessel to find that the sacks at the bottom of the load had been subjected to so much weight, pressure, heat and moisture that the markings had become completely illegible. Even though the contents were as sound and pure as those of the top sacks, consignees have been known to reject shipments on the basis of failure to prove they were the same as shown on the pertinent documentation.

In another case, a crate of machinery was definitely known to have been loaded aboard a ship. On arrival at destination, with no other ports of call in between, the crate was not to be seen anywhere in the hold. Six months and twelve voyages later, the crate was found aboard ship in perfect order with all marks clear and correct. It had been placed in one of the ship's storage compartments rather than the hold because someone had thought it was a spare part for the ship's engine room instead of part of its cargo.

Earlier in this paper I had made some brief references to containers. Sometimes it was in connection with a type of packaging but other times I was referring to the big boxes such as those carried on container ships. Containers come in a variety of designs to serve different purposes. They will range from 5 feet to 40 feet in length with capacities of from 12,000 pounds to 55,000 pounds. There are dry cargo containers, refrigerated, dry and liquid bulk, livestock and automotive containers among the more commonly used ones.

The advantages of containers are numerous but primarily they permit point-to-point shipments of cargo with the cargo well protected and secure within the containers and permitting ease of handling and uniformity of units for compact stowage on vessels.

Containerization does not eliminate the need for cargo protection. Any assumption that the container is a substitute for adequate packing, or for safe stowage and handling, is an invitation to difficult times. The perils discussed heretofore about packing in general and what follows in the main apply to containers as well. Naturally, containerization is not suitable in every trade. It is a more sophisticated form of cargo handling requiring very special equipment to lift up and put down the big boxes and to transport them on sea and over the road.

Where containers are employable, the shipper should inspect each container before use for cleanliness, soundness of construction, security of doors and sufficient tightness to prevent water from entering. Cargo must be export-packed, carefully stowed in the containers and put under seal.

A few brief remarks about seals. They come in a number of types but the most common are simple plastic or metal wires which are run through the bolting mechanism of container doors with the ends of the wires being fused together in a sealing lock. The seals are numbered and the principal purpose of the seal is to show if anyone has attempted to enter the container. If the seal has been broken or if the seal's number differs from the recorded number (indicating the original was broken and replaced with a new one) there should be suspicion that a theft may have occurred. It is an important rule, therefore, to examine seals carefully on arrival. It also enables the consignee to make claim against the carrier for delivering cargo with outward evidence of tampering.

In recent years, new high security seals have been introduced. These are either of a very heavy cable lock type or bear the appearance of a padlock. They can only be used once since at trip's end they are cut off with large bolt cutters and thrown away. They cost about \$5.- to \$10.- each but are considered worth it when used on a container carrying highly valued cargo. Unlike the simpler wire seals, these high security seals also protect the container from being opened too easily. Unfortunately, professional thieves have developed methods of entering containers through the doors with almost no visible evidence of such penetration. Again, it is essential that consignees examine containers carefully before accepting them from shippers.

My last remarks on packing are to touch on air cargo. Foreign air cargo insurance often is underwritten by marine underwriters. In the main, the same recommendations apply to air cargo, however, air shipments encounter some unique conditions. Turbulence, air pressure changes as altitudes vary, and extreme pressures of acceleration or deceleration as aircraft take-off or land.

The foregoing comments cover a wide range of services that a shipper may offer or that he should be expected to perform. Within the limitations of this paper, it is impractical to mention every service or to write about them in depth.

Addressing, further, the role of the shipper, he must select the right carrier to move his cargo. Carrier services and operating practices vary. Those who are interested in cargo protection, good handling and stowage merit a shipper's support. A superior shipper should have a positive program for cargo protection and should conduct periodic inspection of their cargo-handling procedures. They should maintain regular guard service on piers and in guarded areas where valuable or damaged cargo is stored.

There should be special stowage aboard ship for valuable cargo. Modern loading and discharging equipment should be available for any cargo that needs special handling. Their ships should have adequate ventilating equipment to prevent condensation of moisture in the holds that might cause sweat damage to cargo.

The carrier should issue and accept proper and reasonable receipts for goods which it receives and delivers. They should exercise their responsibility to take exception to obviously damaged cargo prior to loading. A reasonable claims policy should be an ingredient of a good shipper. Do they accept responsibility for loss or damage attributable to improper handling, stowage or inspection while the goods are in the carrier's custody?

Losses. The unwanted but inevitable set-backs to many cargo shipments. Prevention. The necessary and beneficial steps toward minimizing losses. In essence, the theme of this week's seminar. How effective is cargo loss prevention? That remains to be seen for many of us but take note that a number of studies show that nearly 70% of cargo losses are preventable! So we have our work cut out for ourselves.

Of preventable losses, almost 50% are theft related! It is clear, therefore, that security must play a principal role in loss prevention activities. The theft of cargo is a serious threat to the reliability, efficiency and integrity of a country's commerce. These losses erode industry's profits, result in higher prices for consumer goods and provide support for unlawful activities.

Certainly, a developing country is in no better position to withstand such economic set-backs and to the maximum extent possible should undertake an effective anti-theft plan. As is true of so many recommendations you will discuss during this week's seminar, it is for each country's authorities or industry leaders to determine which means would be beneficial to their areas of concern and within their financial abilities to afford.

Each situation requires analysis since varying conditions present varying problems. There are, however, a number of basic considerations which should be the starting point of any reliable security program. They are offered here as generalized topics since a full blown technical report would require volumes. For a more detailed explanation of security measures, there are ample reference works, voluntary consultative organizations or professional security advisers throughout the world.

Premises usually entail storage areas, transshipment terminals, loading and unloading points where cargoes are being moved in the course of transit or held temporarily. They may be open, unroofed areas, shed-like structures with roofs but no walls or fully-enclosed buildings. If a building, it should be constructed of materials sufficient to keep out thieves. All entries should be equipped with locks and windows with wired glass or bars as well. The stronger the protection, the more secure the premises will be. Premises alarm systems might be considered.

It probably is always a wise decision to install chain link fences of sufficient height around all premises to deter thieves and to top them off with several strands of barbed wire. Barriers should be placed along the fence areas to prevent vehicles from crashing into it and damaging it. Provisions should be made also to prevent trucks from backing up against the fence and providing an easy method for using the truck roof as a step-ladder over the fence. Every fence requires one or more gates. As few gates as possible improve the security and control of the premises within. The more gates installed, the more difficult it is to supervise all entries and departures. Gates should be of strong construction and kept closed except when actually used. Heavy duty locks should be used.

Large or busy terminals usually have full-time uniformed guards at the gates and house them in gate houses. The gate houses should allow the guards to have unobstructed views of the gate area. They should be equipped with adequate communications equipment. All vehicles or pedestrians passing through the gates should be stopped, examined and cleared before being allowed to pass. It is important to maintain clear separations between parking areas for authorized vehicles, employees and customers. Generally, customers' cars should not be permitted within the fenced area. If employees are allowed to park in the area they should be kept at a reasonable distance from the truck loading area to prevent misappropriated property from being transferred to private cars.

The entire security area should be well lighted at night and all lighting fixtures should be protected against damage by vehicles and vandals. Key control is as important as good locks if not more so. A key in the hands of a thief is an open invitation to losses. Distribution of keys should be severely restricted. Only those who need keys should receive them and, presumably, they have been found trustworthy. All keys kept on the premises should be safeguarded and kept in secure, locked compartments.

Just as all things are relative, the extent of security is relative to the value of the property involved. As the value of a cargo increases (such as money, bullion, and precious metals would represent target risk properties) a highly secured space becomes vital to its safekeeping. In such instances, specially built rooms or vaults would be basic needs. They should be resistant to attacks from all sides, including tops and bottoms. Electrically operated alarms and sensors would be highly recommended. Reliable, armed guards and the strictest controls over access to the safe area would be important. Careful scrutiny of all persons claiming property from the vault would need to be observed unfailingly.

Assembling the physical equipment for a security program is only half the job. The establishment of responsive operating procedures is necessary to get the most protection from the equipment. All personnel who have any connection, directly or indirectly, to cargo areas or

matters must be thoroughly screened for reliability and trustworthiness. Their histories should be known and verified, especially as to any past criminal activities. The screening process must be even more demanding of employees who will be put into positions directly related to the security of the cargoes, especially those who are members of the security force. The security staff should be trained and closely supervised at all times in order to maintain high standards. All employees should be educated about the importance of security and instructed to comply with all security rules as well as cooperating with the security staff.

Communications between the security chief and his staff, among the staff, and the various guard stations, and with local police authorities are essential to control of the protected areas and quick responses to trouble spots. The communication equipment might be telephones, walkie-talkies, radios, public address systems, signal devices such as sirens, gongs or flashing lights or closed circuit television equipment.

A means of quickly recognizing authorized personnel would be identification cards or badges. They should contain enough information to prevent their use by unauthorized persons. For instance, photographs, physical descriptions, age, signature, etc. There should be a master list against which such I.D. cards can be compared in order to identify counterfeit cards, or cards that have been revoked. I.D. cards should be worn at all times while at work as they help spot quickly persons without cards.

Employees of all outside firms who provide services within the protected areas should be controlled as to their movements. This could include firms authorized to serve meals to employees, cleaning and maintenance crews, plumbers, electricians, painters, etc. Their movements should be restricted to allow only the performance of their tasks. They should be subjected to searches on leaving the plant. All persons and vehicles entering the protected areas should be recorded as they enter and again as they depart.

All documents covering goods entering or leaving the areas should be examined as to their genuineness and when possible should be photo-

graphed along with the I.D. of the persons presenting the documents. Security seals should be attached to all boxed shipments and as explained earlier should be examined on all arriving cargoes to reveal if their security has been compromised during transit.

The part of a shipment most vulnerable to thieves is while it is in transit. Then it is out of the protected areas, moving from carrier to carrier, left unprotected and unsupervised at times and exposed to a variety of attacks. Attacks can range from minor pilferage to theft of the entire load.

Reliable carriers who employ secure transit practices are to be preferred. Close tallies or counts of what goes into each shipment should be kept and checked upon discharge to pinpoint losses and where they may have occurred. Depending on the value of shipments, appropriate safeguards should be applied. With particularly valuable cargoes, alarm devices could be attached to vehicles. Trucks should bear identifying marks on their roofs so they might be identified by police helicopters.

Shipments should be held when necessary during the course of transit in protected storage facilities or parking areas. Vehicles carrying cargoes should never be left unattended on streets.

And we could go on and on with our detailing of cargo loss minimization recommendations and graphic examples of events related to the subject. Keep in mind that this so-called detailing is really a superficial review of a huge treasury of information. I have not told the whole story of cargo loss prevention by any means but I believe that by the time all the other speakers have presented their papers the whole subject will have been well covered and you will be the wiser for it.

I have tried to discipline myself to stay within my assigned topic of The Shipper but nearly everything I have addressed will overlap with other papers but that condition is better than leaving you with gaps in your knowledge. I also put the mark of the underwriter on my views and you should understand fully how underwriters can be of help to you whatever your particular interest in our seminar may be.

We underwriters work hard at promoting world commerce by insuring ships and their cargoes which, in turn, gives confidence and security to the owners of the vessels and of the cargoes carried. Through the International Union of Marine Insurance, through our own individual national organizations and through the companies each of us represent, we actively support all phases of cargo loss prevention efforts. We consolidate our own programs in special committees made up of high-ranking, experienced members of our business. We cooperate with all local commercial and governmental groups and undertake joint programs with them. Each year, the Cargo Loss Prevention Committee of IUMI conducts an expansive survey covering all parts of the world on every aspect of this subject in order to keep up-to-date on changing trends and new developments. Through this work we encourage underwriters to share their knowledge and experience with one another as well as with the entire community of those concerned with stopping the vast and senseless waste of property and resources.

At the start of this paper I placed strong emphasis on the human element, the people factor, that must be the first step in any loss prevention program. Then I stressed the need for knowledge, the educational process. Throughout this paper I have stated directly or hinted that each phase of a loss prevention program must be analyzed, the plan of action. So with the right people, the appropriate information and a plan of action you are ready to operate. One thing you must always remember is that this is a constantly developing condition with new technology, new safeguards and new compromises or attacks on those safeguards.

It is vital that you constantly review your cargo loss prevention plan, consider your options and weigh carefully when, where and how to update it. The economic issue will always be part of your considerations; can you afford this or that new device, more personnel or additional facilities?

This can be a vexing problem for a developing country. Especially when it is starting its cargo loss prevention program for the first time or it realizes that the program it had is outdated or inadequate but

certainly not working. The big question for such countries is not whether they can afford to improve their program, but can they afford not to?

Remember you are not alone! There are many others involved with you in each and every shipment be it export or import who are equally interested in avoiding losses. The secret may be to get all these interests together and to channel all their knowledge, resources and enthusiasm into a common effort for the good of all and the good of each.

Step by step. Most of us have come a long way to be in Madras today. We have taken the first step. . .