# MARINE CARGO RATING ADVISOR AN EXPERT SYSTEM TOOL FOR UNDERWRITERS

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#### PART I The Background

Marine cargo underwriting has always remained and it still remains the most difficult to standardize for the reason that many would seem to control the various unknowns and no-one has total control over any. Consequently, some part of fuzziness of the future is impenetrable, if not intractable.

There are human agencies involved in the manufacture of products, packing, the conveyances, the roads and the storage points; these

same agencies are involved no less in their maintenance. The varying degrees of skills evident in making and maintaining goods and services make it well nigh impossible to accurately estimate probabilities of loss arising from them in different situations. Thus even as Lebanese apples and Kashmiri apples are not the same, neither are Dutch orchids and Indian bouquets. Handling facilities, while sharing a universal nonmenclature, may yet behave differently when handled by workers with different backgrounds, education, training and skills.

manaeer's handbook. Chapman

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The most significant factor, however, would be the nature of the cargo itself in determining the probability of loss in transit. But here, the task appears stupendous indeed. Can someone really catalog all the types of cargo - liquid, solid and gaseous? Could one exhaust the classification, taking help from some early efforts of handbook writers (e.g. A Handbook of Marine Insurance by R.H.Brown), noting cargo susceptibility to breakage, leakage, sweat, spontaneous combustion or vermin; dangerous, explosive, poisonous odorous, inflammable, hygroscopic or shifting nature of cargoes; if cargoes are liable to fermentation, to react chemically with other cargoes or stain other cargoes and so on and so forth?

The process of constantly expanding the cargo list for our system became somewhat similar to killing a bug only to discover two left behind ! Not the least of the determinants of rating is the type of coverage. Is it always a simple Clause A, B or C cover (after 1-1-1982) or is there an endless list of plusses and minuses in coverage? (as when the underwriter would wonder if to give loading and unloading risks or exclude them)

We cannot overlook the usefulness of a sane enough deductible acceptable to the Assured and helpful to the Insurer in reducing liability.

And what about the warranties? Which would fit in? Which may have an overriding effect? How do we avoid redundancy in warranty mention?

We are sure most modern companies would have already developed a system of rating marine cargo. And yet we decided to put to test and use the experience of one of us, the senior author acting as domain expert, aligning with the second author playing the role of a knowledge engineer, to develop an expert system, the results of which we are reporting here.

Underwriting is a decision making activity. We cannot overemphasize the importance of collecting the maximum possible accurate information about the cargo and the voyage. The information must be complete and accurate and must be preferably available before commensement of voyage so that the rate and the coverage with or without limitations may be determined and advised to the client.

#### **User-Friendly Interface**

With this perspective in view

and in an effort to have a verifiable, user-friendly interface to the knowledgebase, we took care to have a fairly comprehensive list and a logical sequence of questions to be put to the underwriter who, at this stage, is expected to have collected as much underwriting information as possible. (Appendix A contains these questions.) Appendix B contains cargoes introduced and tested in the system. This is an alphabetical list. We have intentionally allowed some redundancies, knowing that some articles are referred to in everyday usage in perhaps more than one way. (E.g. Bulbs or lamps or light fittings) to slot and anysic rodus

We tried to simplify the cargo hazard classification, making it threefold, - which is both manageable and reasonable. One reason for this apparent oversimplification is that it may not be always possible to claim the merit of scientificity to having too many categories of hazard unlike what we have used - namely most hazardous, moderately hazardous and least hazardous. On the other hand. having just three categories or four will make the computation of rates less tenuous and more capable of being understood by the vast majority of assureds who have no mind nor time to appreciate the existence of a multitude of rates for what appears to them just one plain risk ! At the same time, we decided to split the moderately hazardous cargoes into two classesone with underwriting warranties imposed to reduce probability of loss and the other without the accompaniment of underwriting warranties.

It is likely that in the final analysis the rates suggested by the system for a moderately hazardous cargo with warranties and the least hazardous cargo, other things remaining equal (such as the scope of cover, mode of conveyance and the nature of packing) are identical. But the similarity is accidental and there are marginal differences by way of possible deductibles and the constraint of having to observe warranties since the claim may become nullified if a warranty is breached.

Appendix C lists the warranties used in the system. Pointers to one or more warranties have been tagged to applicable answers to the questions as well as to applicable cargoes. We have taken steps to avoid inconsistencies in warranties by using simple logic making an exclusion warranty (ie exclusion of an additional peril) take precedence over an inclusion warranty (ie inclusion of an additional peril) whenever the cargo happens to fall into the most hazardous category but when the cargo is moderately hazardous or

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least hazardous, the request for additional peril cover will be granted, as evidenced by the warranty including the said cover.

# **Rationale of Rating**

The rationale of rating has a bearing on the degree of hazard, gleaned from the nature of cargo, the conditions of packing, the qualifications in a Bill of Lading/ Airway Bill/Railway Receipt/Goods Consignment Note, the weather, the Port conditions, the interior transit hazards, the condition of the conveyance, the experience in respect of handling facilities obtaining in a particular situation, and finally should include more particularly, among others, the scope of cover sought and permissible.

#### Base Rate Table

Appendix D contains the Base Rate Table. This is the pivotal point of this research work and any merit or usefulness of the expert system designed by us would depend ultimately on the validity or wisdom of the Base Rate Table. The authors are confident that at the second stage of the software development, it should be possible to suitably modify this Table from experience gained and feedback obtained from different users. At that time, the task will include spelling out further parameters for modifying the rates based on favorable or adverse loss ratios in individual cases whether of insureds or cargoes.

Appendix E contains screen displays of selected sample test cases.

#### **PART II The Expert System**

## Section 1 - Analysis

The problem of rate making involves gathering of underwriting information on many aspects and assessing them in relation to different kinds of posssible risk/ hazard.

This process demands subjective evaluation and personal judgement based on experience and intuition. Expert system software is eminently suitable to handle such a semistructured problem and is superior to traditional data processing software.

In a rule-based expert system one captures the knowledge and experience of the domain expert and encapsulates them in the form of rules. Each rule is a Statement of the form:

IF <conditions> THEN <conclusions> Where <conditions> represent the existing situation that will imply or lead to the <conclusions>. Such a rule forms the building block of a knowledge base\_\_, which is nothing but a suitably organized and linked collection of such rules as are used for reasoning to arrive at the final decision (best alternative solution) to the problem at hand.

The reasoning is carried out in one of two standard ways: in forward chaining, one starts from the existing initial conditions and is led successively to the final decision by traversing through the knowledge base whereas in backward chaining, one starts with the final decision/goal state and verifies if it is logically implied by the initial conditions.

A convenient method of showing the various knowledge areas which have a bearing on the problem domain and which need to be investigated is the Structured Situation Diagram. This diagram also roughly captures the relationships between the different knowledge segments. It is shown in Figure 1 in Appendix 'F'.

To collect information on these various aspects, we have developed a series of questions to be answered by the underwriter/agent. The list of questions is given in the Appendix 'A'. The answers to these questions form the main input to the estimation of hazard level and identification of appropriate warranties to be attached, if cover is to be granted. The nature and flow of questions are presented in a schematic form in Figure2 in Appendix 'F'.

As can be seen, the situations requiring warranties and the conditions leading to exposure of risk arise at different decision points (where the degree of hazard may alter). Each risk-prone situation is indexed with a hazard rating and they are accumulated as the consultation proceeds and finally brought under one of three hazard levels. The net is cast wide enough to identify situations requiring warranties so that nothing slips through as far as possible. It is hoped that the present work is comprehensive enough in this regard. The list of warranties appears in Appendix 'C.'

#### Section 2 - Design

To explore each area of interest in order to convert into appropriate rules we make use of the Dependency Diagram. This is a useful way of showing the details and flow of the decision making process. It clearly shows all the intermediate stages and the various factors on which they depend. This forms the blueprint for the evolving expert system as it shows the chain of inference leading to the final decision. The Structured Situation Diagram forms the input to this stage of the design work. A top level Dependency Diagram is shown in Figure 3 in Appendix 'F.' Each triangle stands for a set of rules (to be refined further during implementation) that produces a fact based on a combination of data from the input fed on its left side.

# **Section 3 - Implementation**

The software is designed using VP Expert System Development tool. The VP Expert System is rule based and employs backward chaining method for inferencing. It provides a limited capability to simulate forward chaining too and this is exploited fully as the present problem involves a mix of both forward and backward chaining strategies.

The developed expert system software divides naturally into three modules. The first module contains the rules necessary to get information from the user such as cargo characteristics, data related to the voyage and other relevant parameters.

A comprehensive list of cargo types is displayed, in eight successive screenfuls, for the user to select from. This information is kept in eight database files (in dBase III Plus) which are linked to the expert system program. In case the user does not find his/her cargo represented in the list, an escape route is provided wherein the user specifies the cargo's properties such as inflammability, brittle nature and so on. Appropriate warranties are identified along the way and hazard-related situations marked in a suitable manner. This module is chained to the second module.

The second module accumulates all the risk-prone features and checks for consistency and finally categorizes into one of three hazard levels viz. most hazardous, moderately hazardous and least hazardous. While summing up the likelihood for hazard the worst case scenario is obtained i.e. maximum of the probability is the one that matters for sunderwriting considerations. Effectively, we are using the following rule for composition :

final\_hazard\_level = max {haz\_1, haz\_2, ...., haz\_n}

where haz\_1 is the likelihood of hazard due to situation 1 and so on.

This type of hazard estimation is decidedly a heuristic one, long used in marine cargo underwriting and arguably not always founded on statistical theories of probability. And in this respect marine cargo insurance presents a markedly different and possibly a challenging scene from that obtaining in other lines of property insurance. It is proposed to explore this gray area further in our second phase of the work which will be a sequel to the present experimental system, making use of concepts from fuzzy set theory and reliability engineering. Also it remains to be seen how the quality of decision is affected when confidence factors are included.

In this second module, the warranties distributed throughout the first module are collected, collated and checked for internal/external consistency. All the warranties are given index numbers, which feed into the warranty table coded in the next module. This module is chained to the third and final module.

The third module is structurally simple. It implements the base rate-table with the appropriate entry being picked up depending on its inputs. The base rates are later adjusted according to the insurance conditions arising from the client's proposal.

The base rate table and the warranty list are encoded into rules in rather straightforward fashion. The appropriate warranty descriptions are selected by the incoming warranty indexes from the previous module. These warranties take into account the deductible too, if deemed by convention to be necessary. The last part of this module finally generates the report for recommendation to the client.

# Section 4 - Verification and Validation

The present software has been subjected to many tests and case studies in an effort to verify the inferencing logic and to validate the correctness and quality of decisions made.

In all our test cases, a few of which are presented, in Appendix 'E', the software appears to work to the satisfaction of selected insureds and underwriters alike.

#### PART III Conclusion

The present effort, it is hoped, will have shown that expert system can be a viable and cost effective tool to the insurance management both at strategic and operational levels, supporting the underwriting task, perhaps even converting the drudgery into a videogame. With the ubiquitous presence of PC's in the workplace, such expert system software should, indeed, become intelligent assistants or *de facto* bosses and thus form an integral part of an underwriter's workbench.

Expert system technology has come a long way so that it is today

perceptibly improving the quality of decision making, while yet remaining a viable and cost effective tool and thus promoting productivity of the manager's time as well.

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"Ours is the age which is proud of machines that think, and suspicious of men who try to."

H. Mumfort Jones

"We have modified our environment so radically that we must now modify ourselves to exist in this new environment."

Norbert Wiener
\*\*\*\*\*\*\*

"Collecting data is much like collecting garbage, You must know in advance what you're going to do with the stuff before you collect it."

Mark Twain

"If there's one pitch you keep swinging at and keep missing, stop swinging at it."

Yogi Berra

"The trouble with doing something right the first time is that nobody appreciates how difficult it was."

Walt West

"All animals are equal, but some animals are more equal than others." George Orwell \*\*\*\*\*\*\*

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# APPENDIX 'A' MARINE CARGO RATING QUESTIONNAIRE

1. Tick the mode of conveyance as applicable: (more than one if necessary)

- a. By Sea
- b. By Air
- c. By Land
- d. By Rail
- e. By Inland Waterways
- f. By Registered Post Parcel
- g. By Pipeline ==> Refer to Home Office
- 2. Is the cargo containerized? : Yes/No

3. Is there any trans-shipment involved? :

Yes/No

4. Type the origin and destination of cargo :

| From | : | an se |     | 24.2 |      | 0011 |     |
|------|---|-------|-----|------|------|------|-----|
| То   | : | 84.3  | 310 | an . | 1180 | Cin  | 241 |

5. Tick the cover required from the point of view of transit :

- a. From Warehouse to Warehouse
- b. From Warehouse to Port of Discharge
- c. From Warehouse to Port of Loading
- d. From Port of Loading to Port of Discharge
- e. From Port of Loading to the final Warehouse

- f. From Port of Discharge to the final Warehouse
- g. Rail/Road Terminal to Terminal
- h. Door to Door delivery

6. If answer to Q.5 above is d/e/f, has survey been arranged prior to shipment?

#### Yes/No

7. If yes to Q.6, has any damage to external package been observed at the survey?

#### Yes/No

8. If yes to Q.7 above,

- a. Has the cargo been repacked after rectifying damage? Yes/No
- b. If damage observed, has any claim been lodged with the previous carrier who might be held liable for the damage? Yes/No

9. Is the consignment professionally packed?

Yes/No

10. If yes to Q.9, specify the nature of packing :

- a. Cardboard cartons
- b. Dealwood boxes
- c. In crates
- d. In pallets

e. Bags

Mention the make of bags :

i. plastic of bis?" a

ii. paper (mention 'ply')

iii. Kraftpaper

iv. polypropylene

v. leather

vi. jute

vii. any other (specify)

f. metal boxes

g. canvas bags/boxes

h. fiberglass boxes

i. nylon bags/boxes

j. cans/tins

k. drum/carbuoys

1. bottles

m.cable/drum

n. any other (specify)

11. If you are not aware of the condition/type of the packing, has any loading survey been arranged at the origin?

Yes/No

12. If yes to Q.11 above, was the packing found to be satisfactory by the surveyor?

Yes/No

13. Tick the form/state of cargo :

a. Solid

b. Liquid

c. Gaseous

d. Powder

- e. Grain
  - f. Granule

14. Tick as far as possible, the

material of which the cargo is made :

- a. Steel
- b. Metal (other than steel)

c. Rubber an booln U bas

- d. Plastic
- e. Wood
  - f. Cast iron
  - g. Fiber
- h. Leather
  - i. Glass

j. Carbon

k. Asbestos

- l. Paper
  - m. Cotton

n. Woollen

o. Silk

- p. Porcelain (vino nono)
- q. Food/Edible items
- r. Chemical
  - s. any other (specify)

15. Mention the type/kind of cargo as applicable :

(SEE APPENDIX B)

16. Is it bulk cargo? Yes/No

17. If yes to Q.16, is it carried in specially built bulk carriers?

Yes/No

18. Tick the nature of cover required:

- a. All risks cover in terms of ICC (A) (1.1.1982)
- b. Cover in terms of ICC (B) (1.1.1982)
- c. Cover in terms of ICC (C) (1.1.1982)

- carrying conveyance.
- e. Clause B including Loading and Unloading
- f. Rail risks/road risks only
- g. Rail risks/road risks including Loading and Unloading

19. Tick any additional covers required :

- a. Theft, Pilferage & Non-Delivery
- b. Breakage from any cause
- c. Leakage from any cause
- d. Rain/Fresh water damage
- e. Country damage (applicable to Cotton only)
- f. Caking/Lumping/Sweating/ Spillage (applicable to cargo in powder form)
- g. War and S.R.C.C.

20. Tick the basis of valuation agreed:

- a. F.O.B
- b. C & F
- c. C.I.F
- d. Not applicable

21. What percentage is agreed to be added to the above basis :

(Type only after agreement)

22. Type the customs duty to be added to the sum insured :

[Q. 23 to 26 APPLICABLE TO OCEAN CARGO ONLY] 23. Is the bill of lading clean ? Yes/No/Not-known

d. Total loss only by total loss of 24. If no to Q.23, tick the adverse remarks noted therein :

- a. "Said to contain"
- b. "Packed at the Suppliers' or consignor's end"
- c. "Shipper to weigh and stow"
- d. "No exact description of cargo"
- e. "Contents Leaking"
- f. "External Packing damaged"
- g. "At owner's risk"
- h. any other -- Specify the adverse remarks noted in the bill of lading.
- 25. Is the carrier a liner ? Yes/No/Not-known

26. Tick special circumstances likely to increase physical/moral hazards.

a. Inadequate berthing facilities at the port of loading/ discharge.

- b. Inadequate loading/unloading equipment at port.
- c. Employment of lighter vessels at ports
  - d. Inadequate warehousing facilities at ports
  - e. Congestion at ports
  - f. Recent oil spill not yet controlled
  - g. Presence of icebergs
  - h. Continuing unfavorable weather condition
  - i. Territorial Waters prone to piracy attacks.
  - j. Known pilferage risks en route
  - k. Dock labour strikes at port

1. War/war-like situation m. Any other (specify)

[Q. 27 TO 29 APPLICABLE TO AIR CARGO ONLY] 27. Is the cargo carried in

- a. cargo craft ? or
- b. as accompanied baggage in passenger craft ?

28. If the answer is (b) to the above Question, is the value of cargo declared to the carrier ?

#### Yes/No

29. Tick the special circumstances likely to increase physical/moral hazards.

- a. Inadequate loading/unloading equipment at port.
- b. Inadequate warehousing facilities at ports
- c. Congestion at ports
- d. War/war-like situation

[O, 30 TO 36 APPLICABLE TO INLAND ONLY] 30. Are the known conditions in the interior of the country of import good ?

Yes/No

31. Is there transit by inland waterways?

Yes/No

32. If yes to Question 31, type the mode of conveyance.

33. If by rail, is the cargo carried in closed wagon ? Yes/No

34. If by road, is the cargo carried in closed truck ? Yes/No

35. If No to Question 34, are the trucks covered by tarpaulin? Yes/No

36. If the cargo is in bulk, is it carried in specially designed bulk carriers (e.g. petroleum tankers) ? Yes/No

37. Is the cargo sent by Registered Post Parcel ? Yes/No

38. If yes to the above question, is the cargo insured with the postal authorities ?

Yes/No

# APPENDIX 'B' CARGO LIST

| Cargo- | Cargo Name          | Cargo-            | Cargo-                           |
|--------|---------------------|-------------------|----------------------------------|
| Code   |                     | Hazard            | Warranty                         |
|        |                     |                   |                                  |
| A1     | Acid                | H3 10             | a. clino craft ?                 |
| A2     | AgriculturalEquip   | aled billage in   | w_1                              |
| A3     | Alcohol             | H3                | nil                              |
| A4     | Animal Meal         | H2                | nil                              |
| A5     | Apple               | evods H3 of (d):  | w_21                             |
| A6     | Arms/Ammunition     | ogaso H3 sular    | ddt ei nileitheb                 |
| A7     | Audio Equipment     | H1                | sclaredin the carr               |
| A8     | Auto-Ambulance      | H2                | w_2                              |
| A9     | Auto-Buses          | H2                | w_2                              |
| A10    | Auto-CommercialAuto | H2                | w_2                              |
| A11    | Auto-Fire Engine    | lator H2          | season w_2 visi                  |
| A12    | Auto-Hearse         | H2                | w_2                              |
| A13    | Auto-Heavy Mobile   | H2                | w_2                              |
| A14    | Auto-Motorcycle     | H2                | w_2                              |
| A15    | Auto-Private Cars   | H2                | w_2                              |
| A16    | Auto-Scooter        |                   | w_2                              |
| A17    | Auto-Taxicabs       | H2                |                                  |
| A18    | Auto-Tractor        |                   | w_2                              |
| B1     | Bags_Gunny          | H1                | w_14                             |
| B2     | Bags_Jute           | YJVO (H1 DINIOT E | w_14                             |
| B3     | Bags_Kraft paper    | ni zhcH1bhoqua    | w_14                             |
| B4     | Bags_Leather        | hoqm H1 (thuso    | w_14                             |
| B5     | Bags_Paper          | H1 gestio         | w_14                             |
| B6     | Bags_Plastic        | H1 cent           | w_14                             |
| B7     | Bags_Polypropylene  | H1 trolled        | w_14                             |
| B8     | Bags_Polythene      | bas la H1(dentis) | w_14                             |
| B9     | Bags_any other      | H1                | w_14                             |
| B10    | Bakery_products     | H2                | nil                              |
| B11    | Balance_physical    | H1                | nil                              |
| B12    | Ball_bearings       | ion (31:1Hpc the  | . If ye <mark>lin</mark> o Quest |
| B13    | Ball_playing        | H1                | onnyovanilloobo                  |
| B14    | Bangles_glass       | H3                | nil                              |

| B15         | Bangles_non_glass         | H1 in the Cigar : circle H1 | nil     |
|-------------|---------------------------|-----------------------------|---------|
| B16         | Battery_Ni_Cd             | H2 manif                    | nil     |
| <b>B17</b>  | Battery_dry cell          | H2 H2                       | nil     |
| <b>B18</b>  | Beds : mattresses         | Cleaning (IH pounds         | w_4     |
| <b>B19</b>  | Beedies                   | (ILWA H3 D shol)            | nil     |
| <b>B20</b>  | Beer                      | H2                          | nil     |
| B21         | Bells                     | H1 net laco                 | nil     |
| B22         | <b>Bicycle : Tricycle</b> | H1 O IsoO                   | w_2     |
| B23         | Binoculars                | H2 HadoO                    | nil     |
| <b>B24</b>  | Biscuits                  | H2 80000                    | nil     |
| B25         | Blood                     | H2                          | w_27    |
| B26         | Bone                      | Computer H2                 | nil     |
| <b>B</b> 27 | Books                     | Construct IH Equip          | w_4     |
| <b>B28</b>  | Bootery_Products          | Container IH Empty)         | w_4     |
| B29         | Boxes                     | Cooking IH                  | nil     |
| <b>B30</b>  | Bread                     | H2 190000                   | nil     |
| B31         | Bricks                    | H3 BIGOD                    | nil     |
| B32         | Bulb                      | H3 mod                      | nil     |
| B33         | Bullion                   | H3                          | w_3     |
| C1          | Cables_in_drums           | Cotton V.2H raw             | nil     |
| C2          | Cabs_(Taxi)               | (show H2) motors)           | w_2     |
| C3          | Camera                    | H3 nover                    | w_40    |
| C4          | Candles                   | H1 msar)                    | nil     |
| C5          | Canvas                    | Crockery IH                 | nil     |
| C6          | Caps                      | H1 enu?                     | w_4     |
| C7          | Carbon_black              | H3 estavo                   | nil     |
| C8          | Cardamom                  | (vinder 2Hnoty)             | nil     |
| C9          | Carpet                    | Dates IH                    | w_4     |
| C10         | Cars                      | H2 IstisiC                  | w_2     |
| C11         | Cashewnuts                | H1 southall                 | nil     |
| C12         | Cassettes                 | H1 DocumentH                | nil     |
| C13         | Cells_(Battery)           | Dress model                 | nil     |
| C14         | Cellulose                 | H2                          | nil     |
| C15         | Cament_in_bags            | H3 150 MG                   | w_4     |
| C16         | Ceramic_goods             | H3 H3                       | nil     |
| C17         | Chandeliers               | H3 boot                     | w_27    |
| C18         | Cheese                    | H1 <sub>atimany</sub> O     | nil     |
| C19         | Chicken_frozen            | H3                          | w_8,w_9 |
| C20         | Chilli                    | H1 H1                       | nil     |
|             |                           |                             |         |

| C21 | Cigar : cigarette    | H3_edgad          | nil         |
|-----|----------------------|-------------------|-------------|
| C22 | Cinema_Equipment     | H2                | nil         |
| C23 | Citrus_Fruits        | H3 H3             | nil         |
| C24 | Cleaning_Compounds   | H2                | nil         |
| C25 | Clock (Tower/Wall)   | H2 solbool        | nil         |
| C26 | Cloth                | H1 1008           | w_4         |
| C27 | Coal_tar             | H3                | nil         |
| C28 | Coal : Coke          | Bicycle: EH yole  | w_20        |
| C29 | Cobalt               | H3 Bloom E        | nil         |
| C30 | Cocoa : Coffee       | H2 ational E      | w_4         |
| C31 | Coconut : Products   | H3 boold          | nil         |
| C32 | Computer : Equipment | H2                | nil         |
| C33 | Construction_Equip   | H2 alooE          | w_1         |
| C34 | Containers_(Empty)   | Bootery_IfH ducts | w_6         |
| C35 | Cooking_Oil          | H2 Esxol          | nil         |
| C36 | Copper               | H2 band           | nil         |
| C37 | Copra                | H3 adoint         | w_20        |
| C38 | Corn                 | H2 dba            | <b>w_10</b> |
| C39 | Cosmetics            | H1 noille         | nil         |
| C40 | Cotton_yarn : raw    | H2 H2             | w_22        |
| C41 | Crackers_(Fireworks) | H3 Bade           | w_27        |
| C42 | Crayon               | H1 Camera IH      | nil         |
| C43 | Cream                | H1 candles IH     | nil         |
| C44 | Crockery             | H3 Revis          | w_27        |
| C45 | Curio                | H3                | w_27        |
| C46 | Cycles               | H2 model          | w_2         |
| C47 | Cylinder_(Empty)     | CardamontH        | w_6         |
| D1  | Dates                | H2 H2             | nil         |
| D2  | Digital_Equipment    | H2                | nil         |
| D3  | Diskettes            | H2 H2             | nil         |
| D4  | Documents            | Cassettes 1H      | nil         |
| D5  | Dress_materials      | Cells_(BaltH V)   | w_4         |
| D6  | Drums_(Empty)        | Cellulose 1H      | w_6         |
| D7  | Dry_Cell             | H2 H2             | nil         |
| D8  | Dry_Fruits           | H3_DimereO        | nil         |
| D9  | Dyes_Chemicals       | H2 Isbasi         | nil         |
| D10 | Dynamite             | H3 ecod           | w_7,w_27    |
| E1  | Eggs_in_shell        | H3 H3             | w_39        |
| E2  | Elect : Electr_Equip | H2                | nil         |

| E3  | Esparto_Grass        | H3         | w_20      |
|-----|----------------------|------------|-----------|
| E4  | Explosives           | H3         | w_7,w_27  |
| F1  | Facial_Makeup_Matrl  | H1         | nil       |
| F2  | Fan                  | H1         | nil       |
| F3  | Farm_Equipment       | H2         | w_2       |
| F4  | Farm_Products        | H2         | nil       |
| F5  | Fertillizers         | H3         | nil       |
| F6  | Fibers               | H2         | nil       |
| F7  | Fig                  | H2         | nil       |
| F8  | Films                | H3         | w_32      |
| F9  | Fireworks            | H3         | w_27      |
| F10 | Fire_Fight_Equipment | H1         | nil       |
| F11 | Fish                 | H3         | w_8,w_9   |
| F12 | Fish_meal            | H2         | nil       |
| F13 | Fishing_Equipment    | H2         | w_2       |
| F14 | Flour                | H2         | w_4,w_10  |
| F15 | Flower               | H3         | w_21      |
| F16 | Food_Prod_non_frozen | H2         | nil       |
| F17 | Foodgrains           | H2         | w_4,w_10  |
| F18 | Frozen_Foods         | H3         | w_8,w_9   |
| F19 | Fruits               | H3         | w 21      |
| F20 | Furniture            | H1         | w_2       |
| F21 | Fuses                | H3         | w_27      |
| G1  | Garlic               | H2         | nil       |
| G2  | Garments             | H1         | w_4       |
| G3  | Gates                | H1         | nil       |
| G4  | Gauge_(Wire)         | H1         | nil       |
| G5  | Gauges_(Measuring)   | H1         | nil       |
| G6  | Gelatine             | H2         | nil       |
| G7  | Ginger               | H2         | nil       |
| G8  | Glass_Items          | H3         | w_27,w_39 |
| G9  | Gloves               | H1         | nil       |
| G10 | Golf_Equipment       | H2         | nil       |
| G11 | Grains               | H2         | w_4,w_10  |
| G12 | Gram_(Pulses)        | H2         | w_4,w_10  |
| G13 | Gramophone           | H2         | nil       |
| G14 | Granite Slabs        | H3         | w_2,w_39  |
| G15 | Graphite             | H3         | w_39      |
| G16 | Grills               | H2         | nil       |
|     | NUES (EGELE)         | .awn-mower |           |

| 20 | G17        | Gum_Arabic            | Esparto Grass<br>H1 | nil     |
|----|------------|-----------------------|---------------------|---------|
|    | G18        | Gun_Powder            | H3                  | w_27    |
|    | G19        | Guns_and_Rifles       | H3                  | w_27    |
|    | H1         | Hair_dress_Equipment  | H2                  | nil     |
|    | H2         | Handicrafts           | H2                  | w_27    |
|    | H3         | Hat                   | H2                  | nil     |
|    | H4         | Hay                   | H3                  | w_20    |
|    | H5         | Hides and Skins       | H3                  | w_4     |
|    | H6         | Honey                 | H3                  | nil     |
|    | H7         | Hosieries             | H1                  | nil     |
|    | H8         | Hospital_Equipment    | H2                  | nil     |
|    | H9         | Hotel_Equipment       | H2                  | nil     |
|    | H10        | Household_Goods_used  | H2                  | w_11    |
|    | H11        | HumanBlood (Hospital) | H3                  | w_27    |
|    | [1         | Indust_Machin : Equip | H2                  | w_1     |
|    | [2         | Industrial_Gases      | H3                  | w_27    |
|    | [3         | Ink_Writing/Printing  | H1 Towold           | w_17    |
|    | [4         | Insecticides          | H3                  | w_27    |
|    | <b>J</b> 1 | Jacks_(Screw)         | H1                  | nil     |
|    | 12         | Jam                   | H2                  | nil     |
|    | 13         | Jeans                 | H1                  | w_4     |
|    | 14         | Jelly                 | H2                  | nil     |
|    | 15         | Jewellery             | H3                  | w_40    |
|    | 16         | Jigs_and_Fixture      | H1 Oddard           | nil     |
|    | 17         | Jugs_Non_Glass        | H2                  | nil     |
|    | 18         | Juice                 | H2                  | w_17    |
|    | K1         | Ketchup               | H2                  | w_17    |
|    | K2         | Kit_and_Tools         | H2                  | nil     |
|    | K3         | Kitchen_Equipment     | H2                  | nil     |
|    | K4         | Kites                 | H2 TORMED           | nil     |
|    | K5         | Kraft_Paper           | H2                  | nil     |
|    | 1          | Laboratory_Equipment  | H2                  | nil     |
|    | _2         | Lacquer               |                     | w_20    |
|    | _3         | Ladder                | H1                  | nil     |
|    | 4          | Lamb_(Frozen)         | H3                  | w_8,w_9 |
|    | _5         | Laminates             | H1                  | nil     |
|    | _6         | Lamp Light_Fittings   | H3                  | nil     |
|    | .7         | Laundry_Equipment     | H2                  | nil     |
|    | 28         | Lawn-mower            | H2 allinO           | nil     |

| L9         | Light_Engg_Equipment   | H2 ma and f         | w_1          |
|------------|------------------------|---------------------|--------------|
| L10        | Liquor                 | H3 AcolyM           | nil          |
| L11        | Livestock              | H3 and              | w_12         |
| L12        | Logwood                | H2 21sO             | w_15         |
| L13        | LPG_Cylinders          | H3 ComO             | w-27         |
| L14        | Lumber Discontinue     | H2000 10            | nil          |
| <b>M</b> 1 | Machinery_Spares       | Oil Seed SH         | w_1          |
| M2         | Machine_Tools          | H2 nemtniO          | w_1          |
| M3         | Makeup_Materials       | H2 noinO            | nil          |
| M4         | Mango                  | H3 damagO           | nil          |
| M5         | Maps                   | Optical CHds        | w_4          |
| M6         | Marine_Prod : Sea_Food | H3                  | w_8,w_9,w_27 |
| M7         | Massager               | H2 000              | nil          |
| M8         | Match_Boxes            | H3 mmmO             | w_27         |
| M9         | MeasuringEquip : Gauge | Oxygen- <b>2H</b> y | nil          |
| M10        | Meat_(Frozen)          | H3 ministra         | w_8,w_9      |
| M11        | Medals_&_Medallion     | H2                  | nil          |
| M12        | Medical_Equip Goods    | H2                  | nil          |
| M13        | Medicine               | Pampers IH          | w_27         |
| M14        | Melamine_Products      | H3 mg               | nil          |
| M15        | Metal/Metal Goods      | H2 T) atms          | w_1          |
| M16        | Milk/Milk Products     | H3                  | nil          |
| M17        | Mineral _Oil           | H2                  | nil          |
| M18        | Mineral _Water         | H1                  | nil          |
| M19        | Minerals               | H2 H2               | nil          |
| M20        | Mining_Equipment       | H2 HINGO            | w_1          |
| M21        | Mint                   | H2                  | nit          |
| M22        | Mirrors                | H3                  | w_27,w_39    |
| M23        | Molasses               | H3 190091           | nil          |
| M24        | Money-Cash/Draft etc   | H1 minor            | w_3          |
| M25        | Mopeds/Motor Cycles    | H2 Integ            | w_2          |
| M26        | Mosaic Tiles           | H3                  | w_39         |
| M27        | Musical Equipment      | H2                  | 1            |
| N1         | Naphtha (Liquid)       | H3                  | w_27         |
| N2         | Naphthalene Balls      | H2                  | nil          |
| N3         | Narcotics              | H2                  | w_41         |
| N4         | Nickel                 | H2                  | nil          |
| N5         | Nitre                  | H3                  | nil          |
| N6         | Nuts (Edible)          | H2                  | nil          |
|            |                        |                     |              |

| N7  | Nuts and Bolts         | H2             | nil          |
|-----|------------------------|----------------|--------------|
| N8  | Nylon/Nylon Products   | H2 100pi       | nil          |
| 01  | Oars                   | H1 botzevi.I   | nil          |
| 02  | Oats                   | H1 Oowgol      | w_4          |
| 03  | Office Equipment       | LPG_C/IH lens  | nil          |
| 04  | Oil (Cooking/Mineral)  | H2 reduced     | nil          |
| 05  | Oil Seeds/Cakes        | H3 H3 H3       | nil          |
| 06  | Ointment               | Machine IHols  | nil          |
| 07  | Onion Shi              | H3 H3          | nil          |
| 08  | OperationTheaterEq     | H2 ogasM       | w_1          |
| 09  | Optical Goods          | H3 2gsM        | nil          |
| O10 | Oranges                | H3 onnsM       | <b>w_2</b> 1 |
| 011 | Ores                   | H2             | nil          |
| 012 | Ornaments              | H2             | w_40         |
| 013 | Oxygen-in-Cylinders    | H3 H3          | w_27         |
| P1  | Packing_Materials      | Meat_(Filtra)  |              |
| P2  | Paddles                | Medals_IH Med  | nil          |
| P3  | Pads abood             |                | nil          |
| P4  | Pampers                | Medicine1H     | nil          |
| P5  | Pan                    | MelamintH rod  | nil          |
| P6  | Pants (Trousers)       | Metal/MIH Go   | w_4          |
| P7  | Paper : Paper_Products | H2             | w_4          |
| P8  | Parachutes             | H2             | nil          |
| P9  | Paraffin_wax           | H3             | nil          |
| P10 | Paster(Edible) : gum   | H2 H2          | nil          |
| P11 | Peanut_butter          | H2             | nil          |
| P12 | Peanuts                | H1 miM         | nil          |
| P13 | Pears                  | H3 H3          | w_21         |
| P14 | Pepper                 | H2 See OM      | nil          |
| P15 | Perfume                | H2             | w_27         |
| P16 | Petrol : Petro_Product |                | w_27         |
| P17 | Pharma, Goods          | H1 Disso M     | w_27         |
| P18 | Phosphorus             |                | w_27         |
| P19 |                        | H1 schlas /    | nil          |
| P20 |                        | Maphthal IH Ba | nil          |
| P21 | Pipes_Cast_Iron        | H3 month       | w_13         |
| P22 | Pipes_Cement           | H3 Isloid      | w_13         |
| P23 | Pipes_Ceramic          | H3 STALL       | w_27         |
| P24 | Pipes_Glass            | (H3 bel) and 4 | w_27         |
|     |                        |                |              |

| P25        | Pipes_PVC              | Hi midusi      | w_27        |
|------------|------------------------|----------------|-------------|
| P26        | Pipes_Steel            | H2 blos2       | w_13        |
| P27        | Pipes_Wooden           | Safe 1H        | w_27        |
| P28        | Plantain_Fruits        | H3             | w_21        |
| P29        | Plants                 | H2             | <b>w_21</b> |
| P30        | Plastics : PlasticGood | H3             | nil         |
| P31        | Plumbing_Equip         | H2             | w_1         |
| P32        | Portacabins            | H1 ews2        | nil         |
| P33        | Potassium Salts        | H2             | nil         |
| P34        | Poultry                | H3             | w_12        |
| P35        |                        | H3             | w_17        |
| P36        |                        | H2             | w_27        |
| P37        | Powder_Edible          | H3 stood 2     | w_17        |
| P38        | Powder_Medical         | H3 coold       | w_27        |
| P39        | Powder_Spices          | Sile (varilH o | w_17        |
| P40        | PowerGeneratingEquip   | H2             | w_1         |
| P41        | PrintingEquip Machin   | H2             | w_1         |
| P42        | Pulses                 | H1 gso2        | w_4,w_10    |
| Q1         | Quicksilver            | H3             | w_27        |
| Q2         | Quilt                  | Soft drin IH   | w_4         |
| Q3         | Quinine                | Software IH    | w_27        |
| R1         |                        | Spares (MHhi   | nil         |
| R2         | Racks                  | Spices 1H      | nil         |
| R3         | Radar_Equipment        | H2             | w_27        |
| R4         | Radio (Two_in_one)     | H2 Beroge      | nil         |
| R5         | RadioactiveProd : Isot | H3             | w_27        |
| R6         | Radiology : X_rayEquip | H2 mixbot?     | nil         |
| R7         | Rails                  | H2             | w_27        |
| <b>R</b> 8 | Razor                  | H2 H2          | nil         |
| R9         | Ready_made_Garments    | Tableau 1H     | w_4         |
| R10        | Resin                  | H2 musisT      | nil         |
| R11        | Rice                   | H2 2-colosT    | w_10        |
| R12        | Rice_Powder            | H2 out ogsT    | w_17        |
| R13        | Rig                    | H1 eogsT       | w_1         |
| R14        | Roadlaying_Equipment   | H2             | w_1         |
| R15        | Rock                   | H2             | nil         |
| R16        | Rockets                | H3 H3          | w_27        |
| R17        | Rolling_Stock          | H2 BOT         | w_1         |
| R18        | Ropes : Coir_Products  | H3 H3          | w_32        |

| R19        | Rubber  | H2/9_asqi9              | w_27        |
|------------|---|-------------------------|-------------|
| S1         | Sacks   | Pipes StdIH             | nil         |
| S2         | Safe  | Pipes_W1Hen             | nil         |
| <b>S</b> 3 | Salt EH   | Plantain EHits          | w_4         |
| S4         | Saltpetre   | H3 analy                | w_27        |
| S5         | -   | Plastics : EH stick     | w_39        |
| <b>S6</b>  |   | Plumbing <b>IH</b> quip | w_21        |
| S7         | Saws  | H2 deserved             | nil         |
| <b>S8</b>  | Seafood   | H3                      | w_8,w_9     |
| \$9        | Security Equipment  | H2 yoluo9               | w_1         |
| S10        |   | Powder CH mic           | nil         |
| S11        | O a sea a | Powder 12 met           | w_1         |
| S12        | Sheets  | elcH2 rebwo9            | nil         |
| S13        |   | Powder IH lical         | w_4         |
| S14        | Silk (yarn/goods)   | Powder 2H es            | w_4         |
| S15        | Slabs granite/marble  |                         | w_39        |
| S16        |   | MaH3 Ignitaria          | w_39        |
| S17        | Soap  | H2 sozio                | nil         |
| S18        | Socks   | OuicksilvIH             | nil         |
| S19        | Soft drink  | H1 IluO                 | nil         |
| S20        | Software  | H1 onininO              | nil         |
| S21        | Spares (Machine)  | H2 H2                   | w_1         |
| S22        | Spices  | H2 alon 9               | nil         |
| S23        |   | H2                      | w_27        |
| S24        | Sports Equipment  | H2 Doibs 9              | nil         |
| S25        | Springs-Metal/plast   |                         | nil         |
| S26        |   | Radiolog IHX ra         | nil         |
| S27        | Sugar   | H3 alia S               | w_4,w_17,w_ |
| S28        | Synthetic Fibers  | H2 1056 S               | nil         |
| <b>T</b> 1 | Tableau   | H2 ybso                 | nil         |
| T2         | Talcum Powder   | Resin 1H                | w_27        |
| T3         | Tanks-Steel/plastic   | НЗ ооіЯ                 | nil         |
| T4         | Tape recorders  | H2 Of sois              | nil         |
| T5         | Tapes   | H1 giA                  | nil         |
| <b>T6</b>  | Tapestry  | Roadlavit <b>H</b> Equ  | w_4         |
| T7         | Tar/Tar Products  | H3 Joo A                | nil         |
| <b>T8</b>  | Tarpaulin   | Rockets 1H              | nil         |
| <b>T9</b>  | Tea   | H2                      | w_4         |
| T10        | Telecom/phone   | H2 Ropo A               | w_1         |

| T11      | Television             | H2       | nil             |
|----------|------------------------|----------|-----------------|
| T12      | Testing Instrument     | H2       | w_1             |
| T13      | Textile-Readymade      | H2       | w_1<br>w_4      |
| T14      | TextileNon-ReadyMade   | H2       | w_4<br>w_4      |
| T15      | Thermocole             | H1       | w_4<br>nil      |
| T16      | Timber                 | H2       | w_5,w_27        |
| T17      | Tin/Tin Products       | H2       | w_3,w_27<br>nil |
| T18      | Tires and Tubers       | H2       | nil             |
| T19      | Tobacco-raw/products   | H3       | nil             |
| T20      | Toiletries             | H2       | nil             |
| T21      | Tools                  | H2       | w_1             |
| T22      | ToothPaste/Brush       | HI       | nil             |
| T23      | Torch Light            | H1       | nil             |
| T24      | Toner                  | H2       | w_17            |
| T25      | Торее                  | H1       | nil             |
| T26      | Tower Cranes           | H3       | w_3             |
| T27      | Toys                   | H1       | nil             |
| U1       | Umbrella               | H1       | nil             |
|          |                        | H1<br>H2 |                 |
| U2<br>U3 | Underwater Equipment   | H2<br>H1 | nil             |
|          | Upholstery             |          | w_4             |
| U4       | Urea/Urea Products     | H2       | w_10            |
| U5       | Urethane Foam          | H2       | nil             |
| U6       | UsedPers.Goods/Effects | H2       | w_11            |
| U7       | Utensils               | H1       | nil             |
| V1       | Valuable Item (Any)    | H3 e     | nil             |
| V2       | Varnish                | H2       | nil             |
| V3       | Vase (flower)          | H2       | nil             |
| V4       | Vegetable Oil          | H3       | nil             |
| V5       | Veg./Veg. Products     | H3       | w_21            |
| V6       | Velvet                 | H2       | w_4             |
| V7       | Video Equipment        | H2       | nil             |
|          | Washing Machine        | H2       | nil             |
| W2       | Watches                | H3       | w_40            |
| W3       | X-ray Instr./Film      | 112      | IIII            |
| W4       | Wines/Whisky-Beverag   | H3       |                 |
| X1       | Xerox Machine          | H2       | nil             |
| X2       | Xmas Tree              | H2       | nil             |
| X3       | X-ray Instr./Film      | H2       | nil             |
|          |                        |          |                 |

| X4          | Xylophone                  | TelevisidH       | nil          |
|-------------|----------------------------|------------------|--------------|
| Z1          | Zoo. Goods/Equipme         | nt H2            | w_1          |
| Z2          | Zoo. Research Equip        |                  | w_1          |
| M W         | fade H2 flag               |                  |              |
| N.B.        |                            |                  |              |
| H1 - Least  | Hazardous                  |                  |              |
|             | erately Hazardous          |                  |              |
|             | Hazardous                  | Tires and Tubers |              |
| $W_1$ - War | ranty 1 (etc., Ref. Append |                  |              |
|             |                            |                  |              |
|             |                            |                  |              |
|             |                            |                  |              |
|             |                            |                  |              |
|             | Shoe SH                    |                  |              |
|             |                            |                  |              |
|             |                            |                  |              |
|             | Slate IH                   |                  |              |
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|             |                            |                  |              |

# APPENDIX 'C' LIST OF WARRANTIES

1. Warranted cover excludes loss of or damage to subjectmatter insured, directly or indirectly caused by rust, oxidation and discoloration.

Warranted machinery shipped in C.K.D. (Completely Knocked Down) condition, (as far as possible).

2. Warranted cover excludes loss of or damage to subjectmatter insured, caused by denting, scratching, spotting, chipping or bruising.

If in bulk, warranted shipped in Ro-Ro vessel/s and surveyed prior to shipment.

Warranted that vehicles are properly pegged at the wheel-base during transit, where applicable.

In the event of the subjectmatter not being surveyed prior to shipment, warranted excluding known damage and warranted glass parts packed separately.

3. Warranted bullion/money carried in steel safe and accompanied by armed escort.

Warranted value declared to carriers and their acknowledgment obtained.

4. Warranted cover excludes rain/ freshwater damage.

5. Warranted trade packing and/or minimum 3-ply bags used and empty

bags kept for recoopering en route.

6. Warranted empty cans, containers, cylinders, drums etc. kept under deck.

7. Warranted explosives deactivated prior to commencement of transit.

8. Cover subject to Institute Frozen Foods (Meat) Clause and 24 hour Breakdown Clause in use.

9. Warranted Freezer/Frozen compartment maintained in good condition.

For cargo other than by air, or sea, and for interior transit Warranted subject-matter insured carried in refrigerated truck/containers and a stand-by generator kept ready for commissioning in emergencies.

For frozen foods in reefer containers, Warranted temperature recordings as per ship's log made available to underwriters in the event of claim for spoilage resulting from breakdown of refrigerating machinery.

10. Warranted, if in bulk carrier, subject-matter insured not kept in holds adjoining the engine room.

Warranted, loading/discharge done through automatic suction chutes from/to silos located at the port of loading/discharge, as applicable. Warranted for bulk cargo storage silos located at Port of loading/ discharge, as applicable.

11. Warranted used goods assessed for value subject to depreciation.

Warranted cover excludes natural deterioration in transit.

12. Warranted cover excludes death due to fright/sudden panic caused by vibrations in transit or disease *en route*.

13. Cover subject to Cutting Clause as attached and agreed.

Warranted that when subjectmatter is damaged, undamaged portions are to be cut and used as appropriate and agreed with surveyors/underwriters.

14. Warranted cover excludes hook damage. If, however, additional premium as agreed is paid for including hook damage, claim is subject to deductible of 1% of the total value for loss or damage from hook(s) during handling.

15. Warranted subject-matter insured kept under deck.

16. Warranted subject-matter insured surveyed prior to commencement of transit covered under the policy and cover is issued subject to satisfactory survey report and further,

Warranted cover excludes known

damage (i.e.) existing prior to commencement of transit.

17. Warranted excluding spillage/ leakage and/or contamination and if this exclusion is removed by payment of additional premium as agreed, claim for spillage/leakage is subject to deductible of 1% of the total value of cargo.

18. Warranted goods carried in new bags/drums/containers.

19. Warranted full description and value of article declared to carriers and cover subject to Air freight inventory and valuation clause as applicable.

20. Warranted, if by rail, goods carried in closed wagons and cover excludes spontaneous combustion.

21. Warranted excluding loss from loss of market caused by delay, even if delay is caused by operation of an insured peril.

22. Cover subject to Picking Clause as attached and agreed.

Warranted cover excludes country damage.

23. Warranted excluding known damage (i.e.) existing at commencement of transit.

24. Cover subject to Institute

Classification Clause.

25. Cover subject to War Risks Clauses as attached at prevailing Scale rates of premium and also to Special Apprehensive Rates as applicable.

26. Warranted transshipment held covered at nil or additional premium to be agreed.

27. Warranted Trade Packing.

28. Warranted excluding War risks.

29. Warranted including Theft, Pilferage and Nondelivery.

30. Warranted excluding damage by Loading/Unloading.

31. Warranted excluding Strike & Riot damage.

32. Warranted including loss/damage by spontaneous combustion.

33. Warranted cover includes breakage from any cause not excluded and claim subject to an excess of 1% of sum insured.

34. Warranted cover includes leakage from any cause not excluded and subject to excess of 1% of sum insured. 35. Warranted including fresh water/ rain water damage.

36. Warranted cover includes country damage.

37. Warranted cover includes lumping and caking.

38. Warranted excluding lumping and caking.

39. Warranted excluding breakage by excluded perils.

40. Warranted excluding Theft, Pilferage and Nondelivery.

41. Warranted cover subject to carriage of the particular cargo being permitted under law.

| Mode                       | Containerized &<br>Non Containerized                                  | Clause | Rate Per Cent |      |      |      |
|----------------------------|---|--------|---------------|------|------|------|
|                            |   |        | Raileda       | 2    | 3    | 4    |
| A<br>I<br>R                | C   | A      | 1.00          | 0.40 | 0.60 | 0.40 |
|                            |   | B      | 0.50          | 0.20 | 0.30 | 0.20 |
|                            |   | С      | 0.25          | 0.15 | 0.20 | 0.15 |
|                            | N.C.  | А      | 1.25          | 0.60 | 0.70 | 0.50 |
|                            |   | В      | 0.75          | 0.30 | 0.35 | 0.25 |
|                            |   | C      | 0.30          | 0.20 | 0.25 | 0.20 |
| O<br>C<br>E<br>A<br>N      | subject to Cutting C<br>Ini Di 193 C batasris<br>QrevilaBkoVI Bas agi | A      | 1.25          | 0.60 | 0.80 | 0.50 |
|                            |   | B      | 0.75          | 0.30 | 0.40 | 0.25 |
|                            |   | С      | 0.30          | 0.15 | 0.20 | 0.20 |
|                            | N.C.  | Α      | 1.50          | 1.00 | 1.25 | 0.70 |
|                            |   | В      | 1.00          | 0.50 | 0.75 | 0.30 |
|                            |   | C      | 0.50          | 0.25 | 0.30 | 0.20 |
| I<br>N<br>L<br>A<br>N<br>D | nted cover excludes<br>11, how C - addit<br>as agreed is paid         | A      | 0.60          | 0.30 | 0.40 | 0.20 |
|                            |   | В      | 0.30          | 0.12 | 0.15 | 0.08 |
|                            |   | C      | 0.15          | 0.07 | 0.10 | 0.04 |
|                            | N.C.  | A      | 1.00          | 0.40 | 0.50 | 0.25 |
|                            |   | В      | 0.50          | 0.20 | 0.25 | 0.15 |
|                            |   | C      | 0.25          | 0.10 | 0.15 | 0.05 |

# APPENDIX 'D' BASE RATE TABLE

C - Containerized

NC - Non Containerized

1- Hazardous

2- Moderately Hazardous with warranties

3- Moderately Hazardous without warranties

4- Least Hazardous

# APPENDIX 'E' RECOMMENDATION 1

Your cargo is << glass Lamp/Light Fittings >> Transported from << Belgium >> to << Dubai >> Modes of conveyance being: Sea and Inland Per TBA

The sum insured is declared at <Dh.:1000000>

Press Course Course Course

\*\* Press Space-bar to continue \*\*

Including the following additional covers :

Theft, Pilferage & Non-delivery

\*\* Warranted cover INCLUDES breakage from any cause not excluded and claim subject to an excess of 1% of sum insured.

Subject to the following warranties :

\*\*\* press space-bar \*\*\*

\*\* Cover subject to Institute Classification Clause
 \*\* Warranted INCLUDING Theft, Pilferage and Nondelivery
 \*\* Warranted cover subject to clean B/L or Air Way Bill.
 <press Space-bar>

The recommended premium rate is: Dh. 0.8400%

\*\*\* \*\*\*

Premium Amount to be paid: Dh. 8400.00

(Subject to a minimum premium of US\$10 or its equivalent, in case the recommended premium falls short of it.)

Theft, Pilferner

## **RECOMMENDATION 2**

Your cargo is << chemical Acid >> Transported from << BOSTON >> to << MIAMI >> Modes of conveyance being: Air and Inland The sum insured is declared at <\$:40000>

\*\*\*\*\*\*\*\*\*\*\*\*

The cover suggested is Clause A cover

\*\* Press Space-bar to continue \*\*

Including the following additional covers :

Theft, Pilferage & Non-delivery

The extension of cover viz. Breakage from any cause can't be given ! ! So:

\*\* Warranted EXCLUDING breakage by excluded perils. Leakage from any cause.

<Press Space-bar>

The recommended premium rate is: 1.5000%

<\*\*\*\_\*\*\* < 160-50662 2251</pre>

Premium Amount to be paid: \$ 600.00

(Subject to a minimum premium of US\$10 or its equivalent, in case the recommended premium falls short of it.)

# **RECOMMENDATION 3**

Your cargo is <<food/edible item Cooking Oil>> Transported from << Kuala Lumpur >> to << Qatar >> Modes of conveyance being: Sea and Inland Per TBA

The sum insured is declared at <\$:200000>

\*\*\*\*\*\*

The cover suggested is Clause A cover

\*\* Press Space-bar to continue \*\*

Including the following additional covers :

Theft, Pilferage & Non-delivery Leakage from any cause.

Subject to the following warranties :

\*\*\* press space-bar \*\*\*

\*\* Warranted subject-matter insured surveyed prior to commencement of tramsit covered under the policy and cover is issued subject to satisfactory survey report and further

Warranted cover excludes known damage (i.e.) existing prior to commencement of transit.

<Press Space-bar>

\*\* Cover subject to Institute Classification Clause

\*\* Warranted transshipment held covered at additional premium to be agreed

\*\* Warranted Trade Packing

\*\* Warranted INCLUDING Theft, Pilferage and Nondelivery

\*\* Warranted cover includes leakage from any cause not excluded and claim subject to an excess of 1% of sum insured.

\*\* Warranted cover subject to clean B/L or Air Way Bill.

<Press Space-bar>

The recommended premium rate is: 1.2000%

\*\*\*\_\*\*\*

Premium Amount to be paid: \$ 2400.00

(Subject to a minimum premium of US\$10 or its equivalent, in case the recommended premium falls short of it.)

THANK YOU FOR USING THIS SOFTWARE !! <Press Space-bar>

revoc langitudes gnivelies on gnibilism
 Including the following additional covers:

Warranted cover excludes known damage (i.e.) existing prior to commencement fransit as any mulmang behaviorant of Ceress Space-bar>

\*\* Cover subject to institute Classification Clause minor?
 \*\* Warranted transshipment held covered at additional premium to be
 \*\* Warranted Trade Recking monitor a of togida?)
 \*\* Warranted IncLUDING Theft, Pilferage and Nondelivery
 \*\* Warranted cover includes leakage from any cause not excluded and
 \*\* Warranted cover subject to an excess of sum insured, UOY MAHT
 \*\* Warranted cover subject to clean B/L, or Air Way Bill.

## **RECOMMENDATION 4**

Your cargo is << glass spectacles>> Transported from << Zurich >> to << Chiangmai >> Modes of conveyance being: Air and Inland The sum insured is declared at <Swiss Francs:100000>

\*\*\*\*\*\*\*\*\*\*

The cover suggested is Clause A cover

\_\_\_\_\_

\*\* Press Space-bar to continue \*\*

Including the following additional covers :

Theft, Pilferage & Non-delivery

\*\* Warranted cover INCLUDES breakage from any cause not excluded and claim subject to an excess of 1% of sum insured. Breakage from any cause.

Subject to the following warranties :

\*\*\* press space-bar \*\*\*

Warranted cover INCLUDING breakage from any

\*\* Warranted transshipment held covered at additional premium to be agreed

\*\* Warranted Trade Packing

\*\* Warranted INCLUDING Theft, Pilferage and Nondelivery <Press Space-bar>

The recommended premium rate is: 0.6000%

\*\*\* \*\*\*

\*\*\*\_\*\*

Premium Amount to be paid: Swiss Francs 600.00

(Subject to a minimum premium of US\$10 or its equivalent, in case the recommended premium falls short of it.)

THANK YOU FOR USING THIS SOFTWARE !! <Press Space-bar>

#### **RECOMMENDATION 5**

Your cargo is << Elect:Electr Equip >> Transported from << Holland >> to << Dubai >> Modes of conveyance being: By sea Per TBA The sum insured is declared at <<\$: 25000>>

\*\*\*\*\*\*\*\*\*\*\*

The cover suggested is Clause A cover

P<u>CD</u>

\*\* Press Space-bar to continue \*\*

Including the following additional covers :

Theft, Pilferage & Non-delivery Breakage from any cause.

\*\*\* press space-bar \*\*\*

\*\* Warranted INCLUDING Theft, Pilferage and Nondelivery
 \*\* Warranted cover INCLUDING breakage from any cause not excluded and claim subject to an excess of 1% of sum insured.
 <Press Space-bar>

ned DiCLUDDHC Theft, Difference and Nondeli

The recommended premium rate is: 2 0.9600%

\*\*\*\_\*\*\*

Premium Amount to be paid: \$ 240.00

• (Subject to a minimum premium of US\$10 or its equivalent, in case the recommended premium falls short of it.)

88

### **RECOMMENDATION 6**

Your cargo is << wood Furniture >> Transported from << SWEDEN >> to << BANGKOK >> Modes of conveyance being: Sea and Inland Per TBA The sum insured is declared at <Baht:5000000>

\*\*\*\*\*\*\*\*\*\*\*

The cover suggested is Clause A cover

\*\* Press Space-bar to continue \*\*

Including the following additional covers :

\_\_\_\_\_

Theft, Pilferage & Non-delivery

\*\* Warranted cover INCLUDES breakage from any cause not excluded and claim subject to an excess of 1% of sum insured.

Breakage from any cause.

Wat and S.R.C. Subject to the following warranties :

\*\*\* press space-bar \*\*\*

\*\* Warranted cover excludes loss of or damage to subject-matter insured, caused by denting, scatching, spotting, chipping or bruising.

Warranted that vehicles are properly pegged at the wheel-base during transit, where applicable.

In the event of the subject matter not being surveyed prior to shipment, warranted excluding known damage and glass parts packed separately.

<Press Space-bar>

\*\* Cover subject to Institute Classification Clause

\*\* Warranted transshipment held covered at additional premium to be agreed

\*\* Warranted Trade Packing

\*\* Warranted INCLUDING Theft, Pilferage and Nondelivery

\*\* Warranted cover subject to clean B/L or Air Way Bill.

<Press Space-bar>

\_\_\_\_\_

The recommended premium rate is: 0.7200%

\_\_\_\_\_

\*\*\*\_\*\*\*

Premium Amount to be paid: Baht 36000.00

(Subject to a minimum premium of US\$10 or its equivalent, in case the recommended premium falls short of it.)

THANK YOU FOR USING THIS SOFTWARE ! ! <Press Space-bar>

Including the following additional downs

Theft, Pilferage & Non-delivery visvilab-nol 25 agaraftiff, find \*\* Warranted cover INCLUDES breakage from any cardenatexchided and claim subject to an excess of 1% of sum insured. Breakage from anyicanses withoutlot eff of rot toticidus

Subject for the following warranties :

vrovitable of our set space bes \*\*\* 0.1001 betrarraw
 babulaxe ton asuap yaa mori egeskend DVIICULD/01 revop betrarraw
 \*\* Warranted cover excludes loss of of damage to subject hatter instruct, caused by denting, scatching, spotting, chipping or bausing?
 Warranted that vehicles are properly pegged at the wheel-base during transit, where applicable.
 In the Green of the subject multicer more being surveyed prior to shipment, warranted excluding known damage and glass parts packed scparately.

Premium Arabant to be paid and Solid 2 22019>

\*\* Cover subject to Institute Classification Clause
 10% Wartaneed Badishlipment held covered at additional premium to be agreed
 (11 to mode alled meaning babasiminger out seas
 \*\* Warranted Trade Packing
 \*\* Warranted Bade Difference and Marchinger

\*\* Warranted cover subject to clean B/L or Air Way Bill.

#### **RECOMMENDATION 7**

Your cargo is << ANY OTHER Household Goods used >> Transported from << Paris >> to << Singapore >> Modes of conveyance being: Air and Inland The sum insured is declared at <baht:199990>

\*\*\*\*\*\*

The cover suggested is Clause A cover

\*\* Press Space-bar to continue \*\*

Including the following additional covers :

Theft, Pilferage & Non-delivery

\*\* Warranted cover INCLUDES breakage from any cause not excluded and claim subject to an excess of 1% of sum insured.

Breakage from any cause.

Rain/Fresh water damage.

War and S.R.C.C.

Subject to the following warranties :

\*\*\* press space-bar \*\*\*

\*\* Warranted used goods assessed for value subject to depreciation. Warranted cover excludes natural deterioration in transit.

\*\* Warranted subject-matter insured surveyed prior to commencement of transit covered under the policy and cover is issued subject to satisfactory survey report and further

Warranted cover excludes known damage (i.e.) existing prior to commencement of transit.

<Press Space-bar>

\*\* Cover subject to War Risks Clauses as attached at prevailing scale rates of premium and also to Special Apprehensive Rates if applicable

\*\* Warranted Trade Packing

\*\* Warranted INCLUDING Theft, Pilferage and Nondelivery

\*\* Warranted COVER INCLUDES freshwater/rainwater damage.

\*\* Warranted cover subject to clean B/L or Air Way Bill.

<Press Space-bar>

The recommended premium rate is: 0.7800%

Premium Amount to be paid: baht 1559.92

(Subject to a minimum premium of US\$10 or its equivalent, in case the recommended premium falls short of it.)

## **RECOMMENDATION 8**

Your cargo is << food/edible item Corn >> Transported from << USA >> to << DAMMAM >> Modes of conveyance : By sea The sum insured is declared at <\$200000>

\*\*\*\*\*

The cover suggested is Clause A cover

\*\* Press Space-bar to continue \*\*

Subject to the following warranties :

\*\*\* press space-bar \*\*\*

\*\* Warranted loading/discharging done through automatic suction chutes from/to silos located at the port of loading/discharge, where applicable.

Warranted storage silos located at Port of loading/discharge, where applicable.

<Press Space-bar>

\*\* Warranted subject-matter insured not kept in holds adjoining the engine rooms.

\*\* Cover subject to Institute Classification Clause.

\*\* Warranted cover EXCLUDES rain/freshwater damage.

\* Warranted cover subject to clean B/L or Air Way Bill.

<Press Space-bar>

The recommended premium rate is: 1.0000%

\*\*\*\_\*\*\*

Premium Amount to be paid: \$ 2000.00

(Subject to a minimum premium of US\$10 or its equivalent, in case the recommended premium falls short of it.)

#### **RECOMMENDATION 9**

Your cargo is << Sports Equipment >> Transported from << London >> to << Bombay >> Modes of conveyance being: Sea and Inland Per TBA The sum insured is declared at <Pounds Stg. :10000>

\*\* Press Space-bar to continue \*\*

Including the following additional covers :

Theft, Pilferage & Non-delivery Breakage from any cause. War and S.R.C.C.

Subject to the following warranties :

\*\*\* press space-bar \*\*\*

\*\* Cover subject to War Risks Clauses as attached at prevailing scale rates of premium and also to Special Apprehensive Rates if applicable

\*\* Warranted transshipment held covered at additional premium to be agreed \*\* Warranted INCLUDING Theft, Pilferage and Nondelivery

\*\* Warranted cover INCLUDES breakage from any cause not excluded and claim subject to an excess of 1% of sum insured.

<Press Space-bar>

piect to a minimizer premium of US\$10 or its equivalent, in

The recommended premium rate is: 0.7200%

\_\_\_\_\_

\*\*\*\_\*\*\*

Premium Amount to be paid: Pounds Stg. 72.00

(Subject to a minimum premium of US\$10 or its equivalent, in case the recommended premium falls short of it.)





#### SCHEMATIC DIAGRAMS OF

#### DECISION SITUATIONS

#### PRESENT IN THE QUESTIONNAIRE



96





FIGURE 2

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