



**IUMI 1996**  
**Oslo**

**General Average - A Statistical Update**

**General Average Presentation,  
IUMI Conference 1996**

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# General average statistics

## A presentation to the IUMI Conference 1996

The IUMI statistics distributed to members in 1994 have now been revised for the Oslo IUMI Conference in September 1996. This paper may be useful to delegates returning to their markets as a reminder of the statistics presented to the conference, and provide some background for any discussions they might hold on general average. It may also act as a point of reference for insurers examining general average claims they receive themselves.

### The data collected

Two main sets of data were assembled for the study:

- 1 summary data of GA cases received by cargo insurers in the London market to which have been added profiles of the vessels involved (about 2000 cases in all, of which it has been possible to analyze over 1700);
- 2 full adjustments received from several sources, mainly London but also Germany, Scandinavia, USA and certain African and Middle Eastern markets. These adjustments include casualties occurring and adjusted all over the world, in all kinds of trades between all kinds of destinations. We believe they are representative of maritime trade as a whole (over 400 adjustments (of which fewer than 20 were extracts), representing about USD 270m in GA claims).

This has allowed us to analyze more than twice as many cases as in 1994. We have also had the opportunity of examining them in greater depth through an exhaustive categorization of every item of expenditure in many of them. It is therefore possible to build up an accurate picture of how different kinds of GA claim are constituted, which should help in any discussions about the kind of reform insurers might wish to see. The findings here only represent a small proportion of what has been learnt from the adjustments in the survey; more data can be provided to insurers interested in other aspects. The one detail which of course has to remain confidential is the identity of any casualty in the survey.

### The findings

The study has reached the same main findings as its predecessor. With about USD 270m in claims and USD 5.6 bn in contributory values, it shows an average of about USD 650,000 per GA claim although this average has to be seen in the context of some very high value individual claims at the top of the range. ("Claim" means the complete claim against all interests, and not the amount sought from a single contributing party.)

Another measure of the size of GA claims is the median, or mid-point by number, which is a better indication of the typical size. The median for GA claims is significantly lower, at about USD 200,000. The following table shows the average and median for the various types of shipping involved in general average claims. It can be seen that, as might be expected, container trade GA claims are easily the largest as regards the median, although because of some very high-value tanker GA claims the tanker average (= arithmetic mean) is as high as that for container ships. By contrast, the average for general cargo is little more than USD

100,000. The table also shows the proportion of all GAs accounted for by the same types of shipping, both by numbers and in terms of ship tonnage.

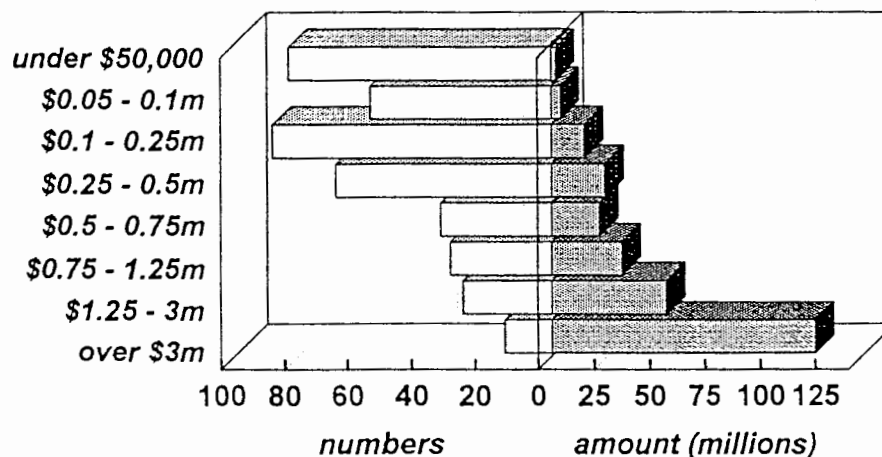
**Table 1 - Average claims values and frequency by type of ship**

type of ship	average claim (USD)	median claim (USD)	% of total claims by numbers	% of total claims by tonnage
bulk	536,000	241,000	17	23.1
tank	1,471,000	205,000	11.1	34.4
container	1,424,000	564,000	14.3	20.7
general cargo	355,000	127,000	57.6	21.9
all	662,000	199,000	100	100

We do not have much more information on the total numbers of general average cases or on total claims values than was provided in the 1994 report. However, the numbers given there (an annual total of up to 850 adjustments, losses of about USD 300m in total) seem on the basis of our current understanding to be on the conservative side, with actual numbers and totals comfortably higher. As before, it must be emphasised that because many such claims against individual cargo interests are small (even though the claim itself could be large) there is a tendency for them to be absorbed in the general run of claims.

While most claims against individual interests may indeed be small, the total amount claimed in GA is significant because of a relatively few claims of high value. (A problem for insurers, of course, is that the smaller claims can often be disproportionately expensive to administer, and there may be a temptation not to examine the legitimacy of some low-value GAs.) The following chart shows how smaller claims dominate by number and larger claims by volume.

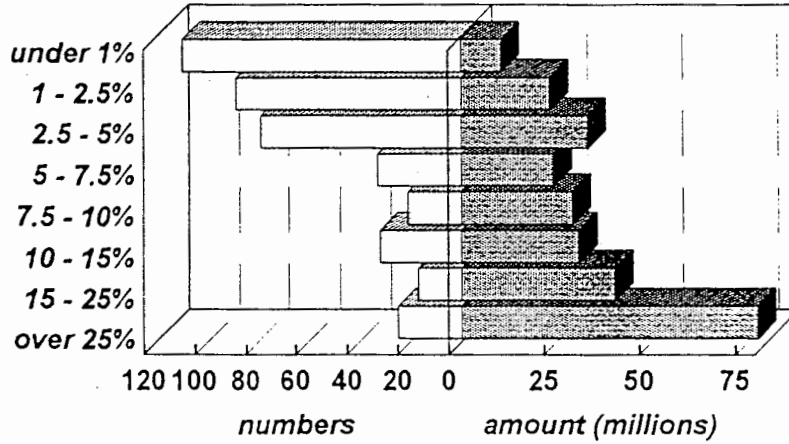
### ***GA claims - numbers and amounts***



*IUMI sample - \$270m GA claims*

A similar concentration may be seen if the claims are examined in percentage terms. However, the concentration is somewhat less marked because some losses which are small compared with total values are nevertheless large in monetary terms and vice versa.

### GA claims - sizes and amounts



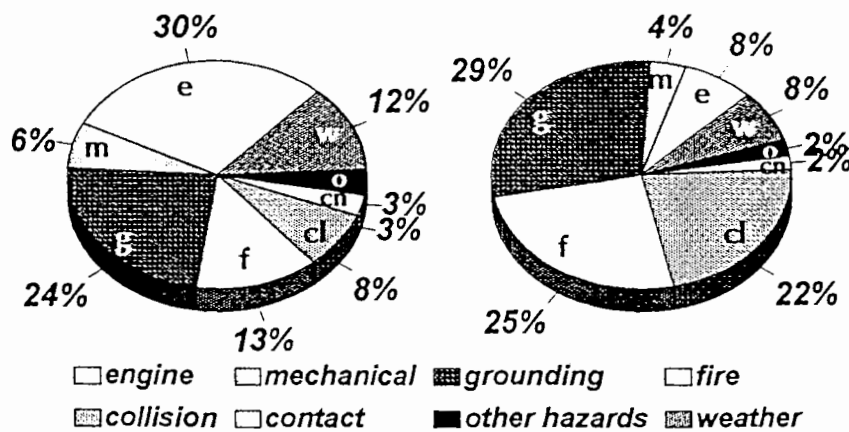
### Cause of loss

What causes a general average loss? The example most usually quoted is that of jettison, where a ship in heavy weather has to throw cargo or stores overboard in order to lighten itself and have a chance of survival. In fact jettison accounts for a negligible proportion of all GAs (less than 1%). The most common type of GA is one caused by engine failure (in some regions there are more groundings, particularly because there is a high proportion of small coastal traffic).

### Cause of GA

by number

by claims value



Note - "engine" includes any problems with the ship's machinery, generators or electrical equipment while "mechanical" is used here to refer to failure or loss of rudder, propeller,

tailshaft etc. "Grounding" refers ( as in all other categories) to loss caused by the peril, and not to a grounding which follows engine failure or deliberate beaching to save the ship from sinking.

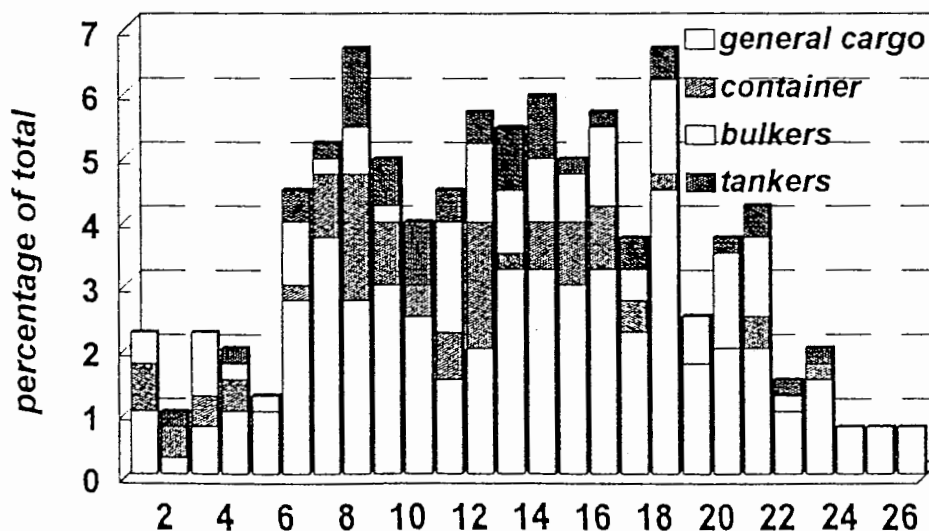
For simplicity, in these statistics we have amalgamated engine fires with fires in the hold or cargo spaces, although in fact GAs from engine fire share more characteristics with engine failure than with other kinds of fire. Similarly we have included a wide range of loss in "weather" - these casualties include losses from listing or cargo shifting, some of which may have occurred in relatively calm weather, and losses from structural failure which seem more related to the condition of the ship than the agitation of the sea. "Collision" is with other vessels, and "contact " with fixed or floating objects other than vessels. "Other hazards" refers to fouling by nets, wires or ropes, and contact with unidentified objects such as wrecks or debris (cases where the condition of the ship or the standard of navigation has little or no bearing on the incident).

It can be seen that engine failures account for the single largest source of GA, though their share of the total claims in money terms is much lower. Instead we find groundings, fires and collisions (particularly those followed by fire) as the most expensive groups. Adding together the casualties which result from the condition of the ship (engine and mechanical failure, those "weather" losses which are more attributable to the ship's own structural failure than the elements, and fire losses which follow poor engine room maintenance or cargo supervision), we find that this type of loss accounts for over half of all GAs by number. A further 35% result from navigation, mostly involving error. About a third of engine failure losses seem to involve unseaworthiness.

#### Age of ships at time of general average

Not surprisingly, the older the ship the more likely it is to be involved in a GA. What is worth noting is the very sharp increase in the number of GAs occurring to ships at around the age of 6 years.

### *GA claims - age of ship*

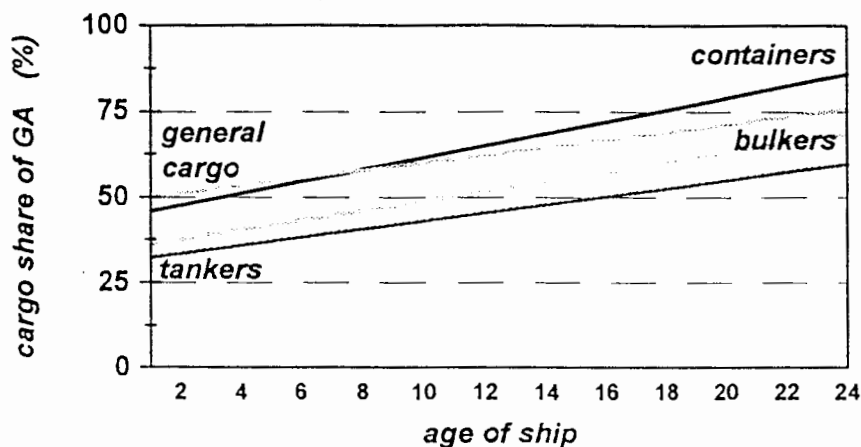


## Distribution of GA losses between cargo and hull

Age also has an effect on the way the GA loss is distributed. The following trend chart shows how different trades are affected by ageing tonnage, with declining values as the ship grows older leading to ever higher shares borne by cargo.

### Cargo contributions in different trades

*cargoes on container ships pay significantly higher contributions at almost any age of ship*



Another factor influencing the distribution of losses between cargo and hull is the size of GA loss. The following table shows that the proportions due from both interests are reasonably similar in the smallest claims, but much higher for cargo in the large claims. The table also shows that losses borne by bunker and freight interests are insignificant (an average of about 0.1% and 0.2% respectively, as is shown in table 3).

**Table 2 - (a) Relative shares of cargo and hull for small and large GAs  
(b) proportion of all GAs represented by small and large claims**

decile	hull %	cargo%	bunkers/ freight %	% of all GA claims	cumulative % of GA claims
smallest 10%	47.4	51.8	0.8	0.2	0.2
2nd	54.6	44.9	0.5	0.6	0.8
3rd	51.1	48.2	0.6	1	1.8
4th	46.4	52.7	0.9	1.6	3.4
5th	44.2	55.6	0.2	2.6	5.9
6th	38.3	61.4	0.3	3.7	9.7
7th	49.4	50.3	0.3	5.4	15.1
8th	42.1	57.8	0.1	8.4	23.5
9th	40.6	59.1	0.3	14.5	38
largest 10%	30.6	69.2	0.2	62	100

Also shown in table 2 is the share of total GA payments taken by claims in the various bands; this echoes the charts on pages 2 and 3. The table explains why cargo's total share by proportion of GA claim is higher than its share according to contributory values, the measure used by average

adjusters in the AIDE (Association Internationale de Dispatcheurs Europeens) survey into adjustments completed in 1991. Table 3 shows the difference between the two measures. Overall, cargo bears almost two thirds of total GA payments though its share of contributory values is 60%. With many more adjustments under investigation, it is interesting to note that here too our revised figures bear a close resemblance to those calculated in 1994<sup>1</sup>).

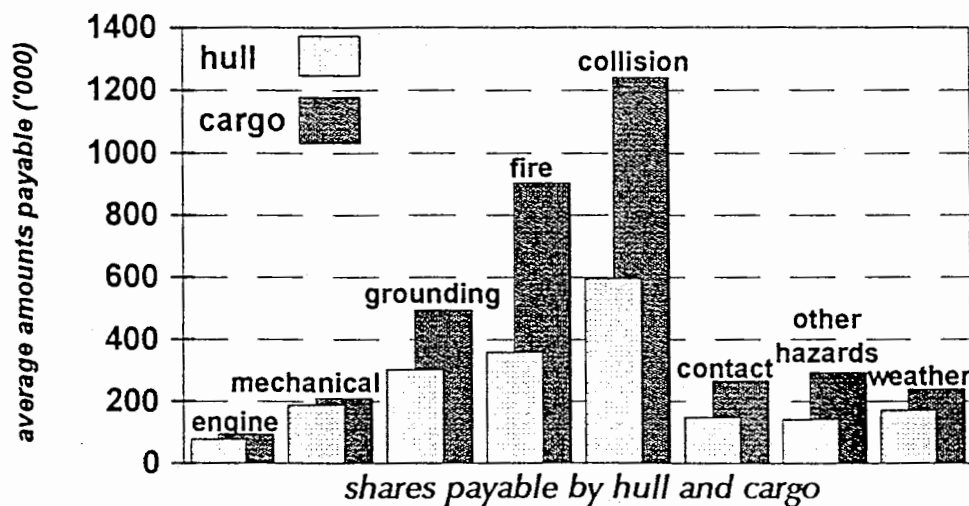
**Table 3 - contributory values and proportions of claims**

interest	contributory value (%)	proportion of GA claims (%)
ship	39.4	35.3
cargo	60.2	64.4
bunkers	0.2	0.1
freight	0.2	0.2
total	100	100

Even the type of GA loss affects the share borne by the different interests. In the chart below we can see how the share of losses met by cargo interests in fire and collision GAs is vastly greater than hull, while in some other GAs it is more or less equal. This is clearly related to such types of casualty tending to lead to larger claims, where we have already seen the higher cargo proportions.

## ***GA claims by cause***

*showing shares borne by hull and cargo*

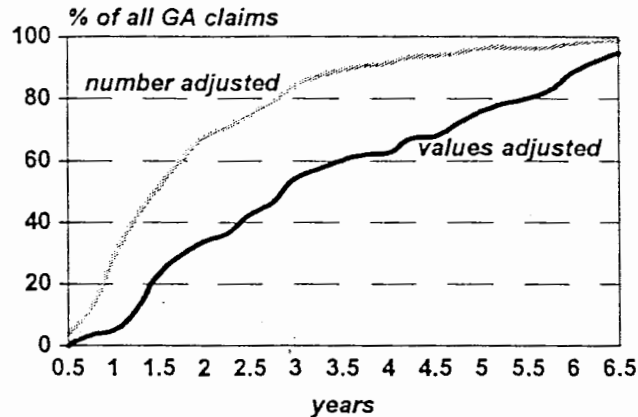


<sup>1</sup> Using the measure of claims proportions, the 1994 split was 33% hull and 67% cargo; using contributory values the split was 41% hull and 59% cargo.

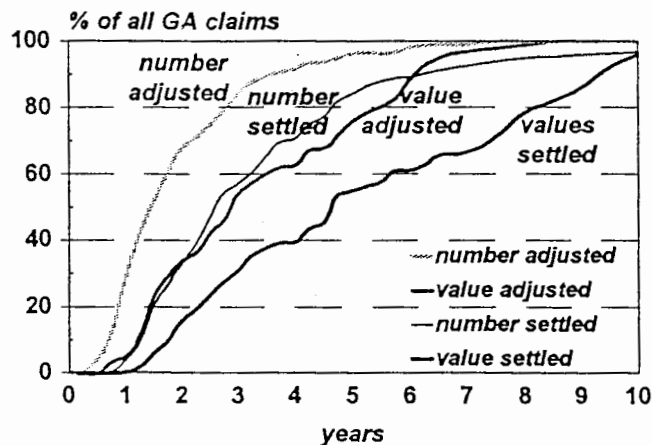
## Time taken to prepare average adjustments

The following two charts show how long it takes to produce and then settle GA claims. Many GA adjustments are produced in under a year (about 30%), and about two thirds are produced within two years of the date of the casualty. However, in terms of the values involved in those claims the production of adjustments is much slower - about 5% in a year, while it takes four and a half years for the two-thirds mark to be reached. The chart adding settlement times, repeated from the 1994 IUMI presentation at Toronto, shows that - in money terms in particular - it can be a long process to settle a GA claim. There are many factors affecting the time it takes to produce adjustments and settle them, not the least of which are insurers' own involvement and occasional tardiness. Nevertheless, while collisions and other such casualties may be expected to take a long time to resolve, the chart demonstrates that GA claims can have a long tail, and do not always lend themselves to ready settlement.

### How long to prepare a GA adjustment?



### How long to settle GA claims?



The time it takes overall to adjust GA claims has not accelerated since the mid-1980s. It seems likely that the task of adjusting large container ship GAs has been helped by computerized handling, but many aspects of adjustment do not lend themselves to much



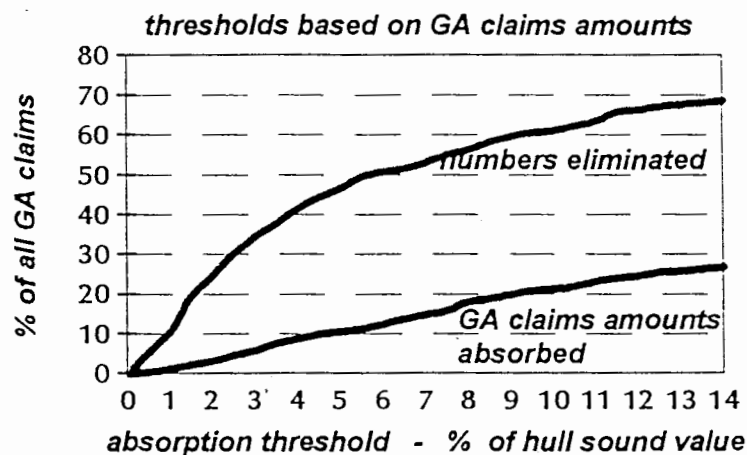
more speeding up than has been possible for some years, and given the complexity of many claims it is unlikely that much greater speed will be possible in future. One change to the York Antwerp Rules in 1994 may have a marginal effect - the introduction of a time limit for production of documents, after which adjusters will be able to estimate the relevant values.

### Absorption clauses<sup>1</sup>

The charts produced in the 1994 report remain valid, and their data is reproduced below. The first chart shows the effect of absorption clauses on GA claims as a whole, comparing the number of claims that would be eliminated at any given threshold with the claims amount that would be absorbed. This includes hull's proportion (already borne by hull insurers).

### **Potential impact of absorption clauses - 1**

*showing how many GAs they could eliminate and the cost*



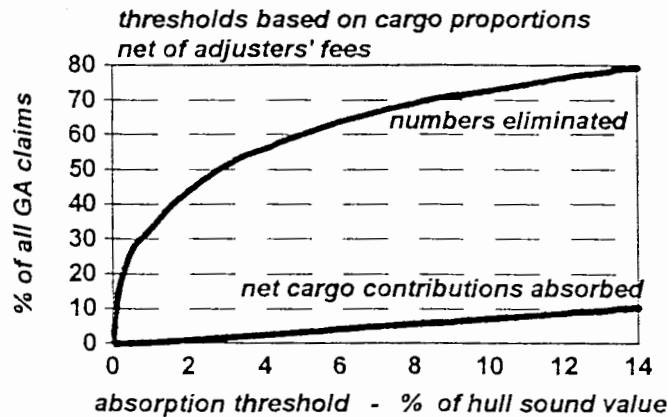
The second chart shows the net effect of such absorption clauses, with the measure this time based on cargo's proportion and net of adjusters' fees. Simply because an absorption clause comes into play does not automatically mean that no adjustment will be produced, but many absorption wordings do provide that where losses are estimated to be below a certain level then no adjustment need be produced. More detailed observations on the operation of absorption clauses are contained in the 1994 IUMI GA report, which is available on request.

Between them the charts show that the net cost to insurers of absorption clauses which were set at a low proportion of ship values (and insured values tend to be around a third higher than actual values) would be very low, and yet achieve a significant reduction in the number of GA claims that would have to be pursued against cargo interests (in many cases, insured by a different part of the same market or even the same company).

<sup>1</sup> Clauses in hull policies which allow a claim to be made for the entire GA loss up to a specified size to be claimed from hull rather than requiring the owner to seek cargo's proportion from cargo interests.

## Potential impact of absorption clauses - 2

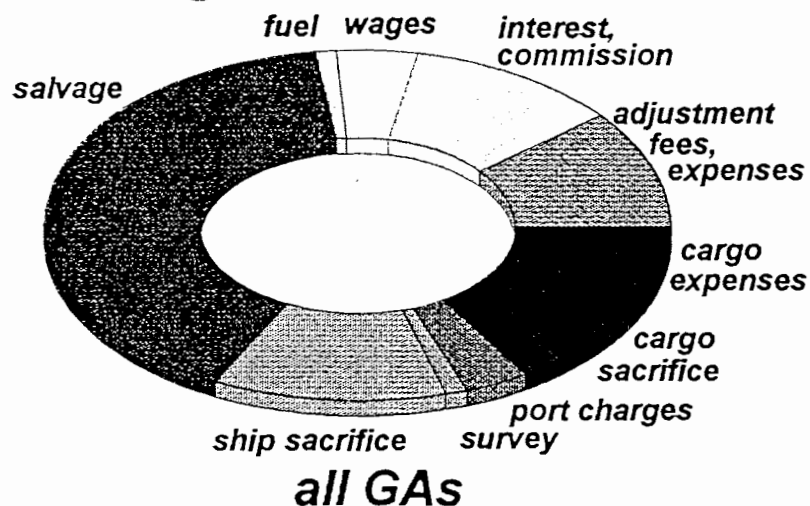
showing how many GAs they could eliminate and the cost

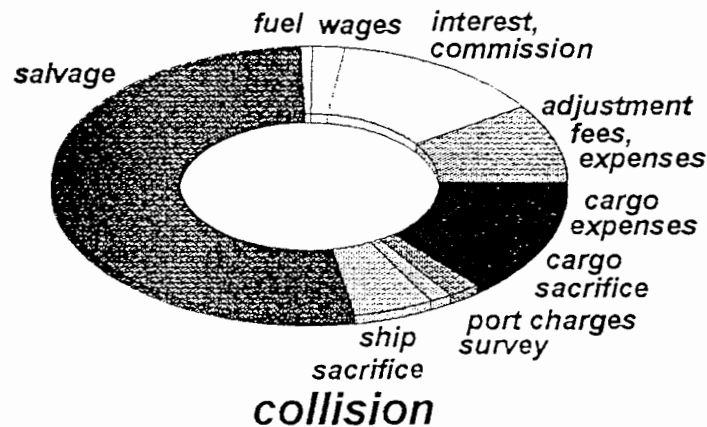
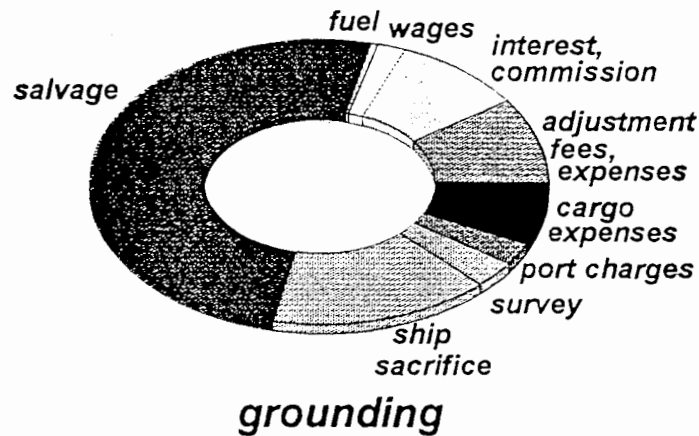


### Composition of GA claims

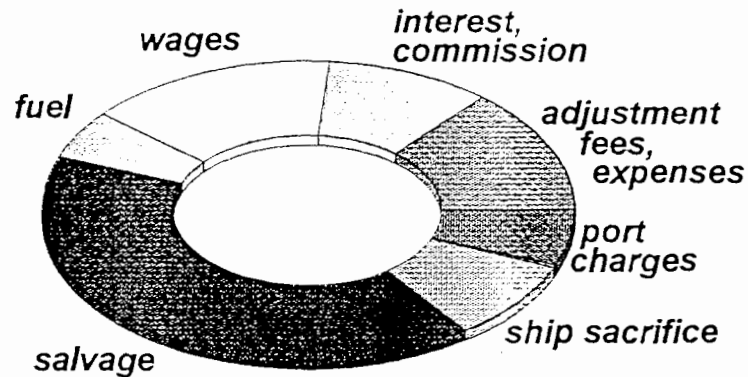
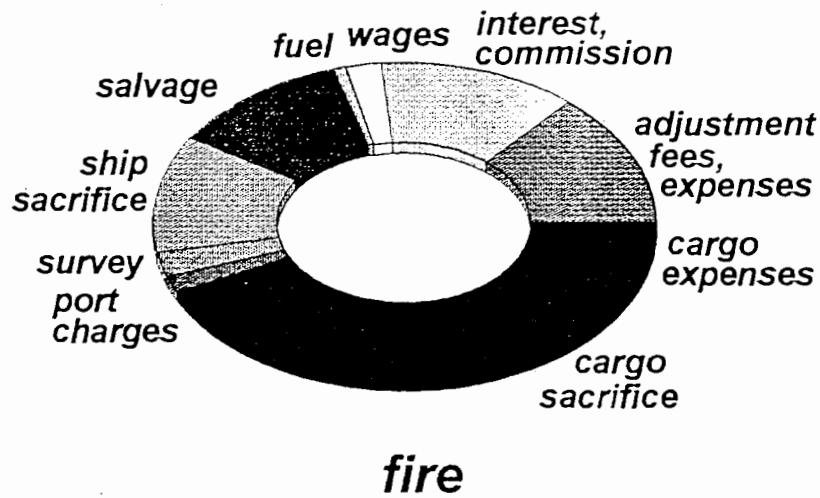
The following charts show the ingredients of general average claims. Different types of claims contain different proportions of the various items that are included in adjustments. It is worth looking at them individually because of the light they shed on GA as a whole. As might be expected, salvage - which takes place regardless of GA - occupies the most significant part overall, and represents over half of total claims in collision and grounding cases, while in fire losses it is relatively restricted.

### The ingredients of a GA claim





There is almost no cargo sacrifice at all in cases of grounding, (meaning that cases of jettison after a grounding are extremely rare), with expenses concerning cargo mainly restricted to lightening the ship or discharge and storage after the ship has reached a port of refuge. The expenses characteristic of GA (wages and maintenance, fuel and stores, interest and commission, and adjustment fees and expenses) amount to about a quarter of these types of claim, whereas they would largely be absent from a corresponding partial loss (particular average) claim. "Ship sacrifice" includes all items relating to repair of the ship, including temporary repairs, which form part of the GA claim. Some port charges would be within a GA claim only, while others would also be found in a partial loss claim.



The make-up of engine failure GA claims is particularly interesting. With almost no cargo sacrifice or expense, getting on for half of this type of claim comprises amounts which would be largely absent from a corresponding partial loss claim. Expenses such as wages and maintenance and fuel and stores would also be absent if GA were restricted to activities to reach common safety rather than also including safe prosecution of the voyage.

Here is not the place to discuss in detail all the implications of these breakdowns. However, they should give food for thought over the coming months and allow insurers to have some understanding of the financial impact of some possible types of reform.

