<u>CLAIMS RESERVING MANUAL</u>

<u>Note for GISG Conference, Windermere, October 1986</u>

Enclosed is the draft plan for the Manual. Sections 1 & 2 are preliminary, and main headings only are shown. Sections 3 to 5 contain the meat of the work, and subheadings are shown as well.

It is intended that the discussion at Windermere should centre around two particular aspects of the work which are of great importance. These are dealt with in turn below.

1) <u>PRACTICAL PROBLEMS</u>

The Manual is not intended to be just a theoretical exercise. The aim is that it should show the many reserving methods in action - ie, applied to practical problems from the working field of General Insurance. To this end, we are seeking actual examples from GISG Members' experience - illustrated with the data, and showing how the problem was diverted or overcome.

One case which has already been offered is that of Safety Legislation, and its effect on Motor reserves. Other areas in which examples are particularly sought are:

* Missing Data (eg: empty cell in the triangle)

* Inconsistency in Case Reserves

* Seasonal Variations in Loss

* Surges of Claims (eg: winter storms & frost)

* New Lines of Business (no run-off data available)

* Claims Administration Problems

* Rapidly Increasing Business Volume

* Changes in Retention Limits

(Note: Any data offered can be suitably disguised, if necessary, before actual publication)

2) <u>TRACKING THE ESTIMATES</u>

One of the distinctive features of the actuarial approach is, or should be, to examine the performance of our estimates. The best way to improvement in quality is to check the estimate against the reality which subsequently emerges. Frequent correction can then be made, and parameters changed to fit the new conditions. (In effect, this is what Redington meant by 'homing' in his last essay, 'Prescience & Nescience'). Perhaps the most common example is the practice of making a quarterly update to the annual reserving figures. But for the purposes of the Manual, we need to know more about the practice that GISG Members actually employ in these respects. Contributions from the floor at Windermere will be greatly appreciated.

CLAIMS RESERVING MANUAL

Outline of Proposed Contents

Preface

Introduction

Acknowledgements

Part I: THE INSURANCE BACKGROUND

   A. Purposes of Claims Reserving

   B. Classes of Business

   C. Company Influences

   D. External Influences

Part II: THE APPROACH TO CLAIMS RESERVING

   A. Basic Concepts

   B. Data Considerations

   C. Preliminary Choices

   D. Simple Projections

   E. Estimates Themselves

   F. Tracking the Performance

   G. Discounting of Claims Reserves

Part III: SIMPLE RESERVING METHODS

A. Elementary Methods

1) Case Estimates & C/E Adjustment
2) Standard Cost per Claim/ Fast Track
3) Standard Table
4) Standard Cost by Accident Year

B. Methods Based on Claims Development

1) Paid Loss Development - Grossing Up
2) Projection of Paid Loss - Triangle Method
3) Projection of Incurred Loss
4) Projection of Case Reserves
5) Special Case: The Chain Ladder

C. Loss Ratio Methods

1) Static Ratio
2) Loss Ratio Development (Paid/ Incurred)
3) Bornhuetter-Ferguson Method

D. Methods Based on Counts & Averages

1) Projection of Average Paid Loss
2) Projection of Average Incurred Loss
3) Stepwise Average Paid Loss Projection
4) Bennett & Taylor (Method A)
5) Projection of Average Developing Loss

E. Methods for IBNR

1) Definitions of IBNR
2) Exposure Bases (Premiums/ Claims/ Reserves)
3) Delay Table Method
4) Tarbell's Method
5) Ibnr Claim Set & Emergence Data
6) Projections of Ibnr Loss Emergence

F. Other Topics

1) Reserves for Reopened Claims
2) Treatment of Claims Expense

G. Strengths & Weaknesses of Methods

1) Underlying Assumptions
2) Sensitivity to Distorting Influences
3) Using a Variety of Tests
4) Role of Subjective Judgment

Part IV: PRACTICAL PROBLEMS

A. Dealing with Inflation

1) Indices of Inflation
2) Factoring Out Past Inflation
3) Forecasts of Future Inflation
4) Effect on Projections

B. Change in Underwriting Variables

1) Volume of Business
2) Mix of Business
3) Premium Rates
4) Changes in Deductibles
5) Changes in Retention Limits
6) Developments in Policy Cover

C. Change in Claims Handling Variables

1) Claims Processing Rate
2) Inconsistency in Case Reserves
3) Claims Closed with Nil Loss
4) Partial Payments on Open Claims

D. Shortage/ Incompleteness of Data

1) New Lines of Business
2) New Companies/ Small Companies
3) Missing Data

E. Legal & Social Influences

1) Claim Inflation through Social Awareness
2) Motor Safety Legislation
3) Court Judgments in Industrial Disease

F. Unpredictable Natural Events

1) Storm/ Frost Damage
2) Drought & Subsidence
3) Major Earthquake & Flooding

G. Interim Reporting of Reserves

1) Monthly/ Quarterly Updating Methods
2) Dealing with Seasonal Variations of Loss