Preface

The formal organisation of ocean drilling to recover core samples from the floor of the ocean has been operating now for 50 years. Samples from the sea bed reveal much of the way the Earth works—its climates past and present; its active nature, including the origin of destructive earthquakes; and the evolutionary history of much of its biology. This is now the world’s largest international geoscience program.

The first sea-going vessel specifically designed for this program was the Glomar Challenger, the subject of this book. Glomar Challenger was launched in 1968 as part of the Deep Sea Drilling Project. After 1983, when that ship was scrapped, other vessels and other programs followed, becoming increasingly international and with improved technical capabilities. The dedicated drilling ships were the Resolution and the Chikyu; other vessels, other drilling platforms, were co-opted as necessary. Of the newer programs, the Ocean Drilling Program ran from 1983 to 2003; the Integrated Ocean Drilling Program from 2003 to 2013 when its successor, the International Ocean Discovery Program, replaced it. With time, the programs have become increasingly focused on particular problems in Earth science, contrasting with the early programs that were more broadly exploratory—a more ‘looking to see what’s there’ approach.

As the pioneer vessel of this early phase in our understanding of the oceans, the Glomar Challenger has achieved something of iconic status. It has been called ‘famous’, ‘pioneering’ and ‘a ship that revolutionised Earth science’. The present volume is just one story of that iconic vessel, on which I was privileged to sail in the southern summer of 1972/73 on its first and most successful voyage into the waters close to Antarctica.