

ÀLEX S. CASANOVAS

THE SNOWMOBILE BIBLE

**PROGRESSIVE SAFETY
OVER DANGEROUS
TERRAIN**

ILLUSTRATED GUIDE

THE SNOWMOBILE BIBLE, PROGRESSIVE SAFETY OVER DANGEROUS TERRAIN

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The Disclaimer...

... I and my collaborators have tried hard to give the best advice we can in this book based on our collective and individual experience and opinions. All the enclosed data is as good as we could make it. However, the use of snowmobiles on the terrain referred to in this book is **intrinsically** dangerous, and any accident or injury resulting from the use of snowmobiles and the techniques expressed or illustrated in this manual are entirely the responsibility of the person or persons involved in said activities. **No blame whatsoever** can be attributed to the author of, or anyone associated with this publication. You have been warned... **good luck!**

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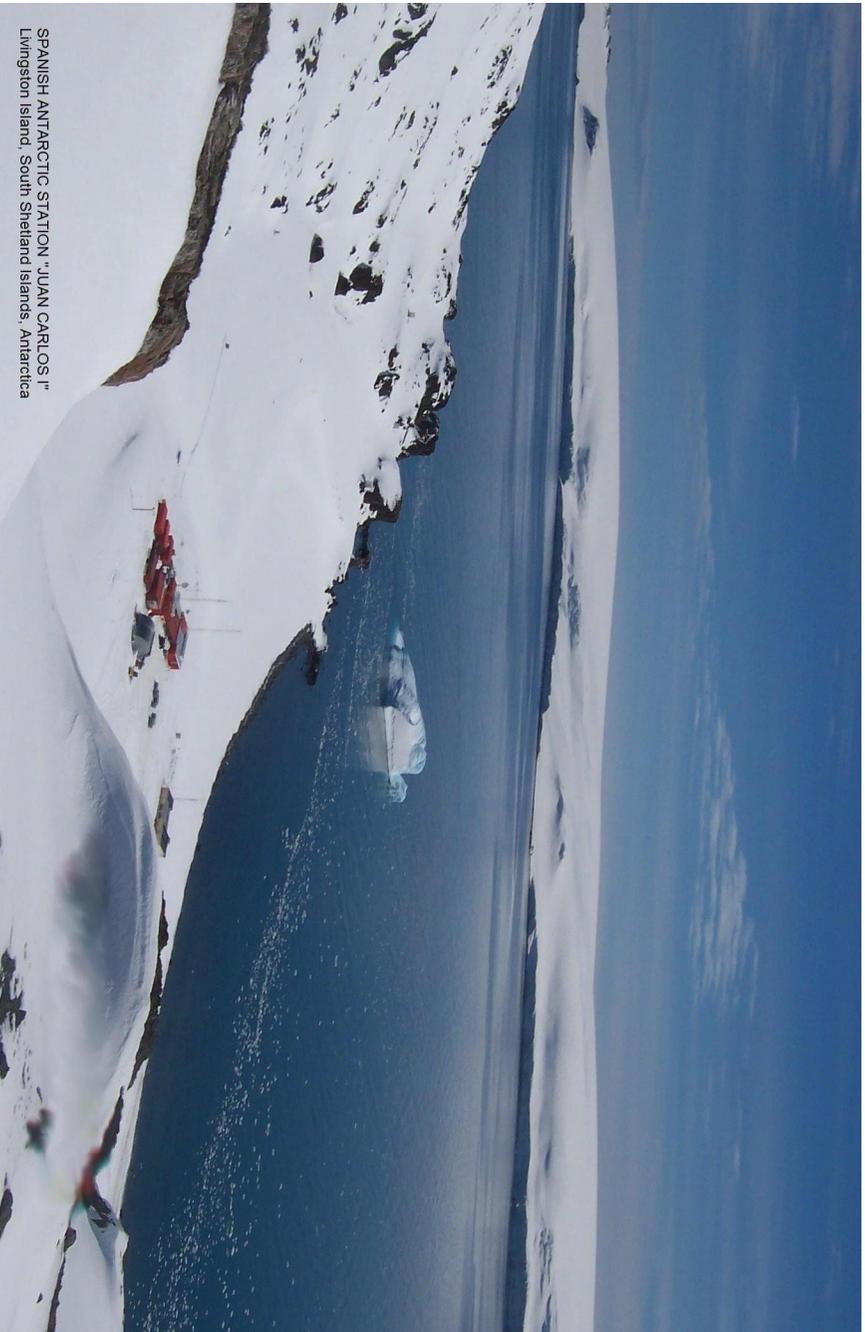
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ÀLEX S. CASANOVAS
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SPANISH ANTARCTIC STATION "JUAN CARLOS I"
Livingston Island, South Shetland Islands, Antarctica

INTRODUCTION

“... whoever wants to learn to fly must first learn to stand and walk and run and climb and dance: -one cannot fly into flying!”

FRIEDRICH NIETZSCHE (1844-1900)

“Thus Spoke Zarathustra”

Towards the end of AD 2000 I became part of the U.T.M (Maritime Technology Unit) seconded to the C.S.I.C (The Upper Department for Scientific Advice and Investigation): in charge of, amongst other things glacier safety planning and logistics for the Spanish Antarctic Station “Juan Carlos I” attached to the Ministry of Education and Science. One of the divisions is comprised of a group of a mountain guides whose role is to accompany the scientists studying the glaciers and terrain around the Antarctic station. Snowmobiles are employed in 95% of the field trips undertaken.

The Spanish Antarctic Station sits on Livingston Island, a little more than 62 degrees south and is part of an archipelago known as The South Shetland. For Antarctica this area has an extremely humid maritime climate more comparable in part to that of a temperate rain forest than the dry frozen atmosphere of the icy continent proper. The glaciers, where most of the work is carried out, are submitted to continuous climatic changes which can occur very suddenly. This can mean that during a single day many different types of snow can form and fall which characterizes the changeable nature of the glaciers in this zone.

During my first Antarctic trip I noted a paucity of information regarding the safety of snowmobile travel on glaciers. The knowledge I had gleaned of their use was obtained from general information on the subject, the guides who preceded me traditionally passing on their knowledge and experience by word of mouth.

Baring in mind how exceptional this activity is, the lack of documentation is understandable, a fact which motivated David Madueño and me to start collating data. We began by following the recommendations given in a report from the British Antarctic Survey (B.A.S) written by Pete Marquis, then head of the British Antarctic Station at Rothera. We photographed the glaciers where the bulk of our work is carried out with the intention of compiling a dossier.

As we progressed, our experiments gathered momentum, and various old and new techniques were alloyed together to meet the increasing requirements of the scientific remit.

David Madueño left the station, some time later David Hita and Vicente Castro arrived and we continued to carry out tests and logged the information until we had so much material it became obvious that we had more that could be contained in a report. This knowledge precipitated the idea of producing a book, making accessible the knowledge gained to date and providing a solid framework for future development.

Over six Antarctic summers we carried out numerous trials. Systems for attachment, manoeuvres for braking, touring, circumventing, lapping, ascents and descents, high speed travel and emergency stopping.

Scares and shocks included, invaluable experience was gained and methodically improved upon in the ever changing open air glacial laboratory that was our home for over 24 very intense months.

The final product is this book, aimed more at mountain guides and expert alpinists –professionals who by the nature of their work, use the snowmobile to access glaciers, icecaps, and other areas of frozen terrain.

The information contained here is concrete and has not been described in any other technical manuals I have been able to find. All that is written here is a result of the tests carried out by David Madueño, David Hita, Vicente Castro, and the author, mountain guides and members of the team of guides at the Spanish Antarctic Station Juan Carlos I. Of course this information can never guarantee total security in the event of accidents and mishaps.

As in all cases the manner in which one overcomes difficulties depends upon the knowledge, experience and ability of the guides, and a not insubstantial amount of good fortune. The rationale behind this book is to make available the techniques which at the present time I consider to be the most secure and reduce the relevant risk by the largest amount.



Just another breathtaking vista! Note the snowmobile tracks and position of the MSL