

TABLE OF CONTENTS

<u>Section</u>		<u>Page</u>
I	INTRODUCTION . . . . .	1
II	THE VEHICLE . . . . .	3
III	THE SONAR SYSTEM . . . . .	10
IV	THE MICROCOMPUTER . . . . .	10
V	SOFTWARE . . . . .	18
VI	SYSTEM SPECIFICATIONS . . . . .	28
VII	OPERATIONAL TESTING . . . . .	29
VIII	CONCLUSIONS AND RECOMMENDATIONS . . . . .	43

APPENDIX

A	SOFTWARE FLOW CHARTS . . . . .	A-1
B	TASK STATEMENTS . . . . .	B-1

Figure

1	UNH VEHICLE . . . . .	8
2	SYSTEM WIRING DIAGRAM . . . . .	9
3	THE VEHICLE'S MICROCOMPUTER SYSTEM . . . . .	13
4	THRUSTER ORIENTATION . . . . .	25
5	TEST FACILITY . . . . .	34
6	TEST DATA . . . . .	41
7	TEST DATA . . . . .	42