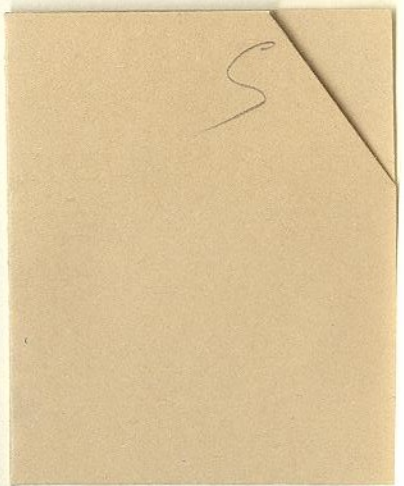


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DSSV-1 going aboard transport aircraft. Courtesy Lockheed Missiles and Space Co., Sunnyvale, California.

اسم

Man Beneath the Sea: A REVIEW OF UNDERWATER OCEAN ENGINEERING.

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1 Introduction

Wherever there are those who would venture, who would dare, there are those who will ask "Why?" Asked in an objective manner the question is, of course, quite proper. Man's resources are limited, and of the many ventures conceived by fertile minds—the healthy and the warped—only a select few can and should be tackled in the next two or three decades.

We shall not discuss the wisdom or folly of war, but rather look at the world as we know it to be and consider how activity in the world's oceans may affect the posture of the power groups relative to each other. An awareness of man's basic nature and a look at five millennia of recorded history indicate that progressively larger groups will confront each other, feel threatened by each other, and seek means to strengthen their offensive and defensive military capabilities.

Organizations concerned with transportation, communications, and exploiting the natural resources of our globe will venture into new areas such as space, the polar ice caps, and the oceans as existing and developing needs indicate. The kind of question they ask is often of the form "What will a ton of this material cost me FOB New York, compared to present sources?" At times, the question is very complex, involving security of supply, a scarce currency, or overloading limited land transport facilities. If it were necessary to transmit television programs from Rome to Tunis the choice between subsea cable, satellite and some third alternative would almost certainly be determined by a combination of first and operating costs. In general, we can say that industrial and commercial organizations will deploy capital equipment and manpower wherever there appears to be a good chance of an attractive income. Although