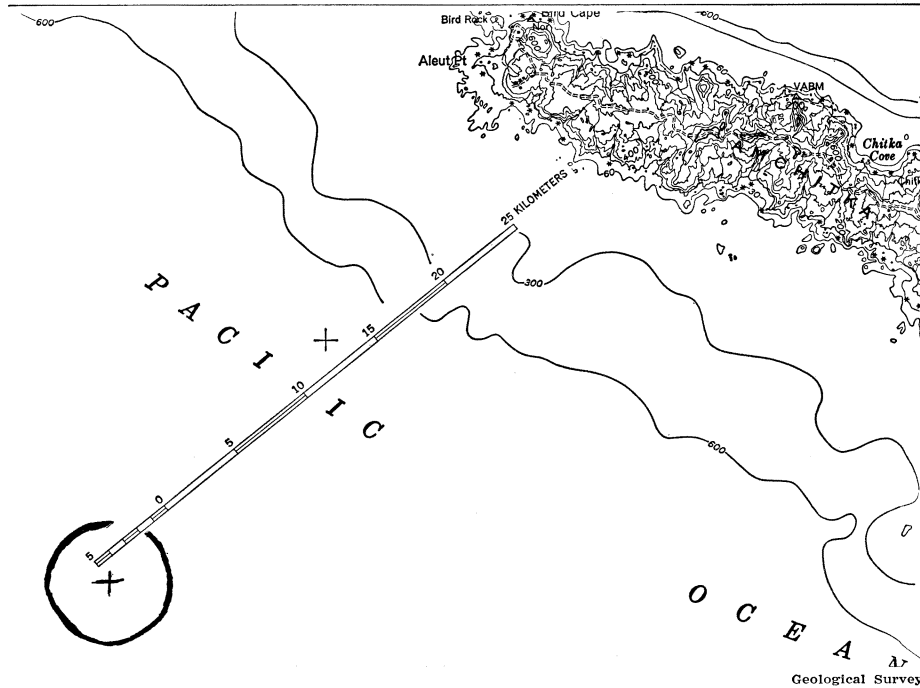


## Kilotons of TNT, 3,500 feet down



Stevenson's hulk is thought to be in circled area, 17 miles from Amchitka.

On August 9 at 8 p.m. local time, an Underwater Explosive Ordnance Demolition Team boarded the explosive-filled hulk of the World War II liberty ship Robert Louis Stevenson, set pressure charges to go off at a 4,000 foot depth and opened her seacocks. Everyone then retired to a safe distance to wait for the explosion, which was to rock the ocean bottom off the Aleutian Islands with a force equal to 10 percent of the atomic blast that leveled Hiroshima.

But, for reasons not yet clear, the Stevenson did not sink as fast as expected. The hulk remained on the surface until 12:40 p.m. the next day, meanwhile drifting with the wind to a point about 17 miles southwest of Amchitka Island, where the water is only slightly over 3,000 feet deep.

There, presumably, it settled to the bottom. The Navy says it knows within a few hundred yards where the hulk is because the entire sinking was followed on radar, but it isn't exactly certain.

Ever since, the Navy has been trying to pinpoint the location of the hulk, poised on the edge of automatic detonation. It has been trying for four weeks; so far it has gotten nowhere.

The reasons why the ship got lost in the first place and why it remains lost are the same—the delicate nature of its cargo.

The Stevenson was destined to end her years of service in a magnificent two-kiloton explosion 4,000 feet beneath the surface of the sea, about 32 miles southwest of Amchitka. Shock

waves from the titanic blast were to have been recorded by stations of the Defense Department's world-wide seismic nuclear test detection network for comparison with an earlier natural earthquake at the same site.

The whole affair was to climax a series of 40 smaller blasts for the same purpose under the Advanced Research Projects Agency's Vela Uniform nuclear test detection program.

Accordingly, Stevenson was loaded up with 2,000 tons of obsolete mines, torpedo warheads and bombs and towed out to the explosion site. The deadly cargo was fused with six Sofar bombs—four-pound charges detonated by pressure-sensitive fuses.

It would be relatively easy to find and detonate the Stevenson if ships could pass directly over it, but for weeks the Navy feared that extra pressure from a passing ship might set off the sensitive Sofar fuses. In desperation, apparently, they decided to try bombing the estimated hulk site from the air.

Two "Intruder" jets were to drop a total of 12, 2,000-pound bombs into the water in the hope that their shock waves would detonate the Sofars.

The jets screamed over August 24, neatly plunking three large bombs right on target. Navy brass gnashed their teeth as the bombs splashed into the sea and settled, unexploded, to the bottom. The attempt was called off and a statement issued blaming the failure on a new fuse on the bombs.

Electronic probing, from a safe distance of at least 4,000 yards (2.3 miles), was resumed, as the Navy turned to a policy of pinpointing the Stevenson and identifying bottom topography before any further attempts to detonate the cargo.

This month, the Navy relaxed its caution and has ordered the Silas Bent, an oceanographic research ship, to seek Stevenson with magnetometer sweeps throughout the area—chancing passes over the cocked and loaded liberty ship.

This phase of the operation is being observed by a Soviet trawler, number GS 34, that arrived on the scene September 3 and took up a position where it could watch without danger. A Soviet minesweeper that was nearby when Stevenson was scuttled left early and did not come back, according to Navy reports. ♦

### HIGHER EDUCATION

## To foot the bill

The greatest dilemma facing higher education, which has become since World War II more of a right than a privilege, is that colleges cannot afford to operate and students cannot afford to attend. In a kind of uneasy compromise, institutions bill their students for only about 60 percent of the actual cost of their education, looking to Government and private sources for the rest; but even that 60 percent outstrips the income of the average family.

Government backed loan programs somewhat alleviate the financial burdens of a bachelors degree, but for poor students from minority groups that money is often hard to come by. And in spite of general philosophical agreement that higher education benefits society as well as the student, society has not been overanxious to support that philosophy with taxes sufficient to provide high quality education at a low price.

To cope with this burgeoning problem, a prestigious government panel last week put its weight behind a proposal that has been around in various forms for decades: namely, that tuitions be raised and the students pay the price after graduation. Specifically, the Panel on Educational Innovation, which works under the aegis of the President's Office of Science and Technology, called for creation of an Educational Opportunity Bank to lend any student any amount of money he needs to attend any college that accepts him, regardless of his financial resources. In return, the student would commit himself to repaying that loan over the course of 30 or 40 years by turning

over to the government one percent of his annual income for every \$3,000 borrowed. Thus the burden of cost shifts from parent and society to the student who borrows what he needs and pays back what he can. Although low-income individuals would never repay the full amount, highly paid workers would make up the difference.

**The panel estimates** total bank loans at less than \$1 billion during the first year, with volume rising sharply as the idea of borrowing catches on. If every undergraduate were to borrow enough to pay the full price of attending college, the Bank would have to lend about \$7 billion the first year.

Supporters see the Ed Op Bank as a miracle drug for the ills of education, race relations and poverty, granting colleges the right to charge a fair price, giving poor students freedom to choose their school and eliminating prejudicial barriers Negroes often face when asking for money from wealthy but conservative banks. Putting money directly in the hands of the students instead of institutions might also lead to improved educational quality, they say, giving students a solid platform from which to bargain with administrators, even to the point of forcing colleges into innovations and improvements in order to attract a talented student body. Theoretically, quality would also go up, because if operational costs were met by tuition and fees, government and foundation grants, as well as endowments, could go to better programs of study.

**Opponents** of the Bank charge that it is designed solely to preserve the elite private colleges which, in spite of blue chip endowments, are operating in the red. They are quick to point out that all seven members of the educational panel, appointed by Presidential science advisor Dr. Donald F. Hornig, come from private schools including Harvard, MIT and Brown. The net effect of the Bank, according to spokesmen for the public colleges, would be to force their institutions to raise tuition. They feel that although the panel says that move would have no effect on legislative expenditures for education, the political reality is that state legislatures would back away from educational spending, thus leaving colleges no better off than they are now, but forcing students into life indebtedness.

Generally, the plan has received little enthusiastic support in Washington. A spokesman for the U.S. Office of Education says the idea "is being floated now just to see what happens." Little has. Congressional interest in college financing is being spurred by middle income families whose screams for help are getting louder and louder, but so far, at least, no excitement for the Bank has been shown on Capitol Hill.

## Abortion Gets Its First Thorough U.S. Airing

The centuries-old prohibition against abortion would appear to be crumbling before the combined force of the sexual revolution, the world population crush and advancing knowledge of genetics. England passed a new law this month, following Scandinavia, Eastern Europe and Japan to a more liberal abortion practice. In this country, two states recently adopted a law broadening slightly the grounds for abortion; others will probably follow suit (SN: 6/3).

But the religious objection to destroying any form of human life has still to be reckoned with, in the United States at any rate. In Washington, D.C., at the International Conference on Abortion, the subject received its first thorough U.S. airing this month, and the religious objections were much in evidence.

**It was** an academic-intellectual-ethical airing, with the emphasis on the ethical. On the conference's final day, in open session, debate flowed between the theists and the humanists—one defending the fetus' right to life; the other urging the right of the already born to protect themselves against unwanted pregnancies.

Sponsored by the Joseph P. Kennedy Jr. Foundation and the Harvard Divinity School, the conference drew together priests, ministers, doctors, lawyers and social scientists. Predictably, the meeting produced no consensus or resolution. But it did open up the question of abortion.

"It made the unthinkable thinkable; the unspeakable speakable," says Dr. Christopher Tietze, a medical director at the Population Council in New York and a strong advocate of open abortion, or abortion on demand.

To some extent, says Dr. Tietze, it is now possible to discuss the issue "without questioning the other fellow's intelligence and moral integrity or calling him names." But, he added half-seriously, the debate shows that "most of the other participants have no answers."

**Facts** on abortion in the United States are few. What facts do exist hint at the need for new answers.

There are about 10,000 legal therapeutic abortions performed yearly and anywhere from 200,000 to 1.2 million illegal abortions, which means the law is seriously out of phase with practice.

Of those 10,000 legal operations, about 93 percent are done on whites, according to an 11-year New York survey, and money is the key. In short, the rich get abortions for health reasons, while the poor get more children.

"If you're middle income or high

income and you're white, you can get taken care of," says Dr. Mitchell I. Ginsberg, commissioner of New York social services. "But if you're poor and you're Negro or Puerto Rican, you're not going to be taken care of. . . . We ought to be honest about it."

But if the Negro woman suffers from abortion laws, she also suffers at the hands of the illegal abortionist.

More than 90 percent of the deaths from illegal abortions are Negro, though authorities believe whites, most of them married women, get by far the majority of criminal abortions.

**Many of the advanced** nations have already liberalized their laws. In Eastern Europe and Japan, the practice is open and available upon request. Scandinavian countries exercise more control, but nevertheless will often allow an abortion to the poor, the unwed, the woman pregnant through rape, and to the mother in danger of bearing a seriously defective child.

Actually, Scandinavia is considerably more conservative than is commonly believed. The number of legal abortions per 100 live births is between three and seven. In Eastern Europe and Japan the figure ranges between 30 and 140. At the higher estimate of U.S. illegal abortions, the country has 20 to 25 per 100 births.

Two weeks ago, England joined the ranks with a new law, more restrictive than the others, but still more liberal than any under consideration in this country. Besides allowing abortions in the case of rape, substantial risk of a seriously deformed child, or danger to the mental and physical health of the mother, the English statute adds a key clause: The health risk may take into account the mother's "total environment."

Such latitude for judging the mother's social condition is so far unknown in the United States.

**Two states** have now adopted a model abortion code, drafted by the American Law Institute and resembling the first three points in the English law. Other states will probably follow.

Yet, that law is a very conservative one. It makes only a "mild compromise" with antiquated, 19th century views, says Dr. Louis B. Schwartz, law professor at the University of Pennsylvania and a drafter of the model code. Dr. Schwartz favors broader grounds for abortion, based on the mother's "well-being," rather than her health alone.

At most, says Dr. Bayless Manning, Dean of the Stanford University Law