

Recent Nevada Atomic Tests Provide Wealth of Information for Designers

By JOSEPH L. MYLER
United Press Correspondent
Washington — (AP) — Weapon designers are reaping a jackpot of information from the recently concluded atomic tests in Nevada.

An authoritative source told the United Press this information will:

— Make possible more compact and efficient hydrogen warheads for long-range missiles.

— Refine still further the host of special purpose small atomic warheads for use on the battlefield or in anti-aircraft missiles.

— Anti-Missile Development

— Speed development of an effective "anti-missile missile" for defense against enemy intercontinental rockets with hydrogen warheads.

— Hasten perfection of pigmy H-bombs — the so-called "clean" small weapons — about which U.S. officials have been dropping hints of late.

The 1957 Nevada tests began May 28 and ended Oct. 7. In all, 24 weapons or experimental devices were exploded, 10 more

than in the previous record year of 1955. Their power in terms of TNT ranged from around 1,000 tons to around 75,000 tons. The bomb which destroyed Hiroshima in World War II was a 15,000-tonner.

This year's shots included the first test firing of an operational air-to-air atomic missile. By operational is meant that this was a completed weapon, not merely a test model. It is now being stockpiled in quantity. A similar warhead is being produced for the Nike-Hercules ground-to-air missile which will defend U.S. cities from enemy bombs.

Unknown Results

The tests also included the first U.S. explosion of an atomic charge deep under the ground. This shot fascinated scientists.

Seismologists expect it and similar shots planned for the future to provide new information about the earth's crust. Geologists speculate that, when the subterranean radioactivity has diminished enough to permit drilling, an Aladdin's cave of gem-like materials created by

the atom's multi-million-degree heat will be found.

Although the power of the underground blast was only 1,000 to 3,000 tons, its shock waves were recorded on seismographs 350 miles away.

An atomic authority said lessons learned in Nevada will be proof-tested in the 1958 program starting next April at Eniwetok in the Pacific.

"The Nevada tests," he said, "are extremely valuable for the Pacific tests. The two programs are interrelated. Many of the Nevada shots are pilot experiments whereas many in the Pacific are actual weapons."

He made these other general points:

— Information obtained this year in Nevada already is being reflected in weapons going into the stockpile.

— The Nevada experiments produced a tremendous pool of data which will be of vital importance to weapons development for years to come.

— The information thus gained proves there is no substitute for field testing in the U.S. effort to "maintain its superiority" in atomic weapons.

Less Fallout

Because of the worldwide furor over radioactive fallout from tests, the Atomic Energy Commission used some novel techniques this year to reduce the radiation hazard.

It fired 13 of the 24 shots from platforms raised by balloons to heights up to 1,500 feet. This kept the fireballs from touching the ground and thus minimized fallout. Nine explosions were from steel towers higher than any ever used before. The other two shots were the air-to-air test and the underground explosion.

The air-to-air missile exploded at 15,000 feet, and practically all of its radioactive particles were dissipated in the atmosphere. All of the radioactivity in the underground tests was

confined 900 feet below the surface.

The warheads of today are still big and heavy enough to require missiles of giant size to carry them. There are grounds for believing that the Russians are making less progress than this country in refining and shrinking hydrogen warheads.

Some of the Soviet intercontinental missile motors are said to develop more than twice the thrust of the largest American rocket engines.

Little Difference

It is doubted, however, that the Russian hydrogen warhead packs any more violence than those the U.S. possesses and is developing.

Nothing has been said about what kind of nuclear warhead is planned for the anti-missile missile. But whatever it is, it will incorporate design information obtained in Nevada.

The missile itself is still in the development stage. That it is considered even possible is a tribute to recent developments in long-range radar and to perfection of electronic brains capable of calculating enemy missile trajectories in a split second and almost simultaneously triggering the anti-missile missile's electronic fire controls.

Apparently an anti-missile missile, possibly a pigmy H-bomb, will be tested in the forthcoming tests. The AEC and Defense Department have said the new atomic tests "will advance the development of weapons for defense against aggression whether air-borne, missile-borne, or otherwise mounted."

Trouble at Home

Sandy, Utah — (AP) — Roused from their beds by a siren, local members of the volunteer fire department rushed to the fire house, found smoke billowing from a shorted motor on a refrigerator.

Try and Stop Me

By BENNETT CERF

A PURSE-PROUD patroness of the arts asked a dealer, "Do these artists whose pictures cost so much learn to paint when they grow up, or do they inherit their talent?"

"My dear lady," the dealer replied patiently, "this hereditary business is nonsense. Truthfully, did you ever hear of the mothers and fathers of Picasso and Rouault?"

"No, I didn't," admitted the patroness, "and to tell you the truth, I never heard of Picasso and Rouault, either."

The late Emile Henri Gauguin, live wire editor in his day of some flamboyant papers and inags, stoically summed up his career in this sententious sentence: "I was part of that strange race of people, aptly described as spending their lives doing things they deem to make money they don't want to buy things they don't need to impress people they dislike."

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EXPENSIVE COMIC BOOK

Evansville, Ind. — (AP) — Hollis Green, owner of a barbershop here, is searching for a \$275 comic book. Green told police he hid the money in one of many comic books stacked in a back room of his shop. Some youngsters came in to trade comic books, and after the swap, Green discovered the book containing his money was missing.

The Roman Catholic Church gives the date of the crucifixion of Jesus as April 1, 30 A.D.

DINNERS INSURED

Mt. Holly, N. J. — (AP) — The late Charles H. Griscom liked to think of Thanksgiving as a family affair. To maintain the tradition, the Medford Township farmer left a \$1,000 trust fund to defray the expense of an annual family turkey dinner each Thanksgiving.

Fossil footprints, relics of the pre-historic era when dinosaurs roamed the land, have been discovered at Gill, Mass.

OACHID FOR DRIVER

Midvale, Utah — (AP) — Seeking to uphold the city's safety record, the Midvale Business and Professional Women's club joined with local police to select the best woman driver of the week and presented her with an orchid corsage.

Syracuse, N. Y. — (AP) — James

Roper and Willie Scott picked the wrong place to violate a city ordinance by setting off firecrackers. Both were booked by police after being called by Deputy Sheriff Leonard Crane, who said the pair popped the crackers outside his window.

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