

Jet Expert Plans To Fire Missiles Into Outer Space

(Story also on page one)

PASADENA, Calif. (AP)—Discoverer of supernovae, the violent explosions in which stars destroy themselves, a scientist will be ready in a few months to fire missiles from the earth into space that will never return. He is Dr. Fritz Zwicky, astrophysicist of the California Institute of Technology and the Carnegie Institution in Washington, and one of the nation's top authorities on jets and rockets.

Many laboratory tests, by other scientists as well as by Dr. Zwicky, have demonstrated that a certain kind of explosive, shaped in a certain way and lined with a thin sheet of metal, can produce missiles of such terrific speed that they will leave the earth and go on indefinitely into space.

This requires a projectile speed of at least seven miles per second, or 25,000 miles an hour. Speeds greater than this are easily obtainable, Dr. Zwicky says, by improving the design of the explosive charge and the metal liner. He calls the process ultrarapid.

One group of researchers has reported achieving a speed of about 55 miles a second. So there is power and speed to spare.

The shooting probably will not be done in this country, because objections have been raised in some quarters that it might endanger people.

Either the Sahara Desert or Britain's great 3,000-mile rocket range in Australia are likely spots. Dr. Zwicky reported in an interview he has the necessary permission from both French and Australian authorities.

Cone-Shaped Missile

The remarkable explosive, made from commercially available substances, is packaged into a cone-shaped missile which produces a jet effect when set off. The hollow cone is lined with the thin sheet of metal.

The blast breaks this metal into little pieces which form a jet as they come out the big end of the cone at terrific speed. The metal becomes the projectile.

This is not a new idea. Its principle was used during World War II to give the bazooka, a one-man tank killer, its striking power. But the explosive used in bazookas was not potent enough to drive a missile at the escape velocity.

In some instances the faster new explosive may have to be toned down a bit in order to get the most out of it. Anything faster than a speed of about seven miles per second would be wasteful.

Even so, Dr. Zwicky already is talking about a still more powerful explosive. He has made suggestions which may give chemists a means of increasing the power of this wicked blast two hundredfold.

Bigger Missiles

If this ultra-explosive stuff ever becomes available, scientists will be able to hurl bigger missiles with smaller charges. Dr. Zwicky's first projectiles will weigh an ounce or less. With ultra explosives, they might weigh pounds.

Any bullet fired at seven miles per second through the relatively heavy lower part of the atmosphere would burn itself up while traveling a few feet.

So Dr. Zwicky's charges will have to be lifted above the lower atmosphere before they are set off. For this he needs high altitude balloons such as have been used for cosmic ray research.

These balloons go up 20 miles or more. Their cargo of charges would have to be fired automatically or ground.

Above the 20-mile level the air is too thin to heat the projectile to the glowing point but it must glow in order to be observed.

The scientist has solved this problem by fashioning the cone-shaped liners to contain substances which will heat them internally to incandescence by chemical action.

Nature of Atmosphere
The initial shots may give observers an opportunity to learn more definitely the physical and chemical nature of the incredibly thin atmosphere 20 to 200 miles up.

One missile might contain a substance which reacts violently with ozone, a form of oxygen. There is a layer of ozone about 60 miles up which prevents the extremely

long and extremely short rays of the sun from reaching the earth. It probably saves people from being slowly sun-tanned to death.

A bullet that would set fire to a little spot in the ozone layer might tell scientists much about what other substances exist there. All substances when burning give off light of characteristic colors by which observers can identify them.

Also observers for the first time will be able to stand behind a meteor and watch as it speeds in a straight line directly away from them.

Magnetic Field

If it veers a little to one side or the other it will give scientists their first real picture of the workings of the earth's electrical and magnetic fields on the substances which make up the atmosphere.

Any projectile that strays off horizontally from a balloon instead of climbing out of the gravitational field might for a time become a satellite of the earth, but not for long. It would travel in a slightly curved orbit for a few hundred miles and then fall.

To establish a useful earth satellite would require a far larger projectile and it would have to be carried hundreds of miles up before being shot into space. Dr. Zwicky said. A series of powerful rockets would be needed.

A better idea, the astrophysicist added, might be to send out space something that would start a nuclear reaction in some minor planet or asteroid.

In Dream Stage

Experimenters, he said, might count upon the nuclear blast to burn up a small part of the asteroid, and in doing so give it a kick that would change its orbit and cause it to move closer to earth. This is all in the dream stage so far, however.

Any projectile large enough to produce an observable blast on Jupiter would have to be fairly bulky, but Dr. Zwicky said one of his larger creations might do it. Traveling at 25,000 miles an hour it would need about two years to get there.

The atmosphere of Jupiter is mainly methane and ammonia, both combustible gases. But since there is no oxygen there to support combustion the missile would have to carry its own supply.

At that, the fire would go out as soon as the little oxygen was used up, but Dr. Zwicky said it could make a flash big enough to be seen through large telescope.

Aiming at such distant targets would require very high precision. A shot at the moon would be pretty easy, Dr. Zwicky said, but the projectile to be seen would have to land on the darkened part of its face, during the new moon or first quarter. It should reach its destination about 10 hours after firing.

Amateur astronomers with good-sized telescopes would be asked to watch for the landing flash. This projectile also would have to contain something to produce incandescence. So far as known there is nothing on the moon's surface that will burn, and there is no oxygen.

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Investigation Plea Made By McCarthy

(Story Also on Page One)

WASHINGTON (AP)—Sen. McCarthy (R-Wis.) Saturday wrote to the American Society of Newspaper Editors suggesting they investigate his charges that James Russell Wiggins, Managing Editor of the Washington Post, has "prostituted and endangered" freedom of the press.

Wiggins, who recently was a member of an ASNE group which investigated McCarthy's closed-door questioning of James A. Wechsler, editor of the New York Post, issued a minority report saying the senator's action was a threat to freedom of the press.

The letter McCarthy made public Saturday was addressed to the seven members of the ASNE committee who did not sign the minority statement — Paul Block Jr., co-publisher of the Toledo (Ohio) Blade and the Pittsburgh Post-Gazette; Raymond L. Crowley, managing editor of the St. Louis Post-Dispatch; William H. Fitzpatrick, associate editor of the Wall Street Journal; George W. Healy Jr., editor of the New Orleans Times-Picayune; L. D. Hotchkiss, editor of the Los Angeles Times; Joseph W. Lee, editorial director of the Topeka (Kan.) State Journal, and James S. Pope, executive editor of the Louisville Courier-Journal and Times.

Joined Wiggins

Editors who joined with Wiggins in criticizing McCarthy were Herbert Brucker, editor of the Hartford (Conn.) Courant; William M. Tugman, editor of the Eugene (Ore.) Register-Guard, and Eugene S. Pulliam Jr., managing editor of the Indianapolis News.

Enclosed with McCarthy's letter to the seven editors was an Aug. 13 editorial from the Washington Post referring to the ASNE report and to the questioning of Wechsler last April 24 and May 5 by the Senate investigation subcommittee headed by McCarthy.

The editorial said Wechsler was summoned before the subcommittee "under the pretext" of questioning about books of his in the state Department's overseas libraries but that he "was subjected to intensive interrogation about editorial criticism of McCarthy."

"Deliberate Falsity"
McCarthy's letter to the seven editors said that, since they had examined the testimony they would "readily recognize the complete and deliberate falsity" of his charge.

"Obviously, it would have been improper to call an editor for the purpose of questioning him about editorial criticism of the chairman of the committee," McCarthy wrote.

The Wisconsin senator has maintained that Wechsler, one of his severest critics, was summoned for questioning as part of the subcommittee's probe of the overseas information program.

McCarthy said in St. Louis, Managing Editor Crowley of the Post-Dispatch speaking for himself and not the committee said:

"It is quite obvious that Sen. McCarthy, if he did intend, through the Wechsler inquiry, to silence the voice of editorial criticism and to intimidate editors, has failed miserably.

"For him to demand that the ASNE make itself in effect a subcommittee of McCarthy's group for the purpose of accomplishing this suppression and intimidation is too ridiculous for words."

In Toledo, Ohio, Paul Block Jr., co-publisher of the Toledo Blade and Toledo Times, issued this statement:

"If Mr. Wiggins had one-tenth

Church Comes To Terms With Evolution Idea

By GEORGE W. CORNELL

NEW YORK (AP)—With the bitter words far behind, American churches today have finally come to terms with an old bugaboo — Darwin's theory of human evolution. It's been a gradual, quiet process in recent times, that only lately has reached a general accord.

"Nearly all ministers have come to see that there is no conflict between evolution and divine creation," said Dr. Robert T. Handy, professor of church history at Union Theological Seminary.

"They recognize that any real contribution to knowledge or to understanding of life is an addition to the truths of God."

As the reconciliation grew, Pope Pius XII in 1950 issued an encyclical, "Humani Generis," giving church recognition for the first time to the possibility of physical human evolution.

"The church has an open mind on the subject," said Father Roger G. Franklin of St. Joseph's (Roman Catholic) Seminary, Yonkers, N.Y.

'Taps' Leaves Empty Flats

RIO DE JANEIRO (AP)—The new American embassy office building in Rio de Janeiro has eight lovely apartments which apparently aren't going to see much use — thanks to red tape. The eight apartments occupy two upper floors of the 12-story, \$2,800,000 building, which was opened for use in April. They were intended to be used by newcomers who were looking for apartments of their own, or by touring guests or diplomats.

But soon after the opening, a ruling came down from somewhere about the use of the apartments. For "security" reasons, couples with children would not be allowed to use them—only single persons or childless couples.

So about the only occupants for the apartments, aside from an occasional visitor, have been a few newly-arrived secretaries. The story goes that they would prefer a hotel near one of Rio's famous beaches.

of Senator McCarthy's political astuteness, and if Senator McCarthy had any part of Mr. Wiggins' concern for our American ways, I don't believe we would be continuing this investigative farce with another publicity stunt concocted for our Sunday newspaper readers."

"At first, it was only a small minority of liberals who had the vision to see above the dogmatism on both sides," Handy said. "Their leadership grew into a general trend in our present century."

Men like the poet Emerson and writer Thoreau were early mediators, arguing no superficial mir-

cles were needed to prove God's pre-eminence. Ministers like Henry Ward Beecher and Lyman Abbott emphasized the idea of an ever-present spiritual force in any natural truth. Philosopher John Fiske provided the oft-quoted explanation: "Evolution is God's way of doing things."

Neither all church leaders — nor all scientists — accept Darwin's theory on toto. But whatever their views, what once seemed a blunt, head-on clash of beliefs has melted away.

No Contradiction
"There is no contradiction, as we see it," said Rabbi Dr. John Tepler, of Hebrew Union College-Jewish Institute of Religion.

"Evolution itself may be part of God's indirect revelation. It does not detract from the Bible as an inspired ethical document, whose every utterance of wisdom and thought was revealed by the Deity."

The religious scholars said only a few intense fundamentalists and traditionalists still view evolution as directly inconsistent with the scriptures.

The present attitude represents a change not only among religious leaders, but also among scientific expounders of Darwin's theory, some of whom at first claimed it upset the idea of divine creation.

"Evolution begins and ends with the purposes of God," writes noted zoologist Henry Fairfield Osborn. "It destroys the bad and favors the good."

In Sharp Contrast
But the general amity that has evolved between the two fields is in sharp contrast to the controversy that raged, and then simmered for years.

As historian Bert J. Lowenberg put it, "Charles Darwin fired a shot heard round the theological world."

His theory, first published in 1859, that man evolved through natural selectivity and adaptation to conditions, was seen as a slap at the account of creation in the Book of Genesis.

"It seemed that all the foundations of religion were being shaken," Handy said.

Protestant, Jewish and Catholic leaders denounced what they called the "infidel doctrine." Some scientists, in turn, made attacks on established religious institutions.

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70-Year-Old Likes Golfing To Keep in Trim

TARPON SPRINGS, Fla. (AP)—Thirty-five years a mailman, Charles E. Renfro, 70, frequently plays 36 holes of golf before making his daily 15-mile round. "That's to keep in trim," he explains. He uses a bicycle to cover his mail delivery route and believes he was the first bicycle mailman in the United States. He is to retire soon because of age. That's when he plans to play a lot of golf because he will miss his postal activity.

Burglary Case Suspect Jailed

KIAMATH FALLS (AP)—A man accused by state police of a \$200 grocery store holdup Thursday night and a tavern burglary earlier this week was arrested Saturday. He was identified as Richard Lewis Bridwell, 23, alias Raymond Jerome Young, Oakland Calif. Officers said that when arrested in a cafe at Chemult, 60 miles north of here, Bridwell had \$100 loot from the tavern burglary.

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