

## New Avenues for UFO Research

*By James Carrion, MUFON International Director*

As I have investigated the UFO Phenomena over the years, I often found myself in awe at the dedication of so many Ufologists whose passion for the truth became a lifelong endeavor. For many, this passion became an obsession trying to piece together the puzzle of what is decidedly the greatest mystery of our times. Soon I found myself on the edge of this same obsessive precipice, looking into the vast darkness of UFO data, knowing that there had to be something real to this phenomenon so widely witnessed and experienced.

In Ufology, one quickly recognizes that the range of experiences is so vast it literally boggles the mind. From close encounters, to strange creatures, to spiritual transformation to telepathic communication, the spectrum of experience is overwhelming. Ufologists have from the very beginning strived to categorize the observations of UFO witnesses, hoping to glimpse the true nature of this phenomenon. Some like Ted Bloecher cataloged entity sightings while others like Ted Phillips specialized in trace evidence and David Jacobs, Budd Hopkins and John Mack focused on abductions, each of these pioneers providing important contributions to the field. I have often been asked by new researchers where they should focus their own research efforts in their search for truth.

One area that is still virgin research territory is the role of Government in the UFO field. To avoid accusations of conspiracy mongering, let me first clarify what I mean when I use the word "Government". The U.S. Government like any other large organization is not a single entity but is made up of many agencies and within these agencies various organizational units. Therefore, when I use the word "Government" I do not refer to a monolithic entity but to those agencies or sub organizational units, named or unnamed, official or unofficial, who have involved themselves in the UFO field to meet their own operational goals related to National Security. Also bear in mind that this definition describes a dynamically evolving authority. In 1946, the "Government" would have comprised the intelligence units of the War Department and the Navy, the Central Intelligence Group and the Office of the President. In 1947, the evolving entity would now be comprised of the intelligence units of the U.S. Air Force and the Central Intelligence Agency as well as the National Security Council. When dealing with a moving target, research can get complicated, especially when contending with 60 plus years of UFO history. I could replace the term "Government" with something less conspiracy sounding like "UFO Authority" but this would only serve to create even more confusion.

### **My Research**

Coming from a military intelligence background, I have a particular interest in the role of Government in the UFO field. Unfortunately, when discussing this role with both Ufologists and UFO debunkers, I often hear the same rationales pro and con for Government involvement. These rationales fall into their own spectrum of belief - on the one end is the belief that the Government is riddled with incompetence and couldn't possibly keep secret something as widely

experienced as UFOs and on the other end of the spectrum is the belief that an ultra-secret and efficient cover up of cosmic proportions is being perpetrated by an elite authority. Gomer Pyle is on one end of this spectrum and the mysterious and infamous Men in Black (MIB) on the other end. Perhaps the truth lies somewhere in between.

The competence argument in my opinion is the one that is most easily addressed. If you have ever worked in a large organization or for that matter been a member of our armed forces, you know that there are varying degrees of competence throughout. For example, it would be ridiculous to base an estimate of the readiness of our entire military by observing the maneuvers of a single military unit. On a similar note, elite forces like the Navy Seals or Army Special Forces are capable of doing things normal field units would not even dream of doing. To state this plainly, the level of competency of an organizational unit is directly proportional to the importance of that unit's mission. World War 2 history is replete with examples of special military and government units whose missions were so highly important that their ranks were made up of handpicked men and women who were up to the task. The men and women who broke the German code under the British Project Ultra and the Japanese Code under the U.S. Magic cryptanalysis project were part of such elite organizations.

The secrecy issue can also be dispensed quite easily. It is historical fact that there have been Government projects whose secrecy was so closely guarded that even the presidential chain of authority was broken to maintain this secrecy. The two most notable examples are the Manhattan Project, that President Roosevelt knew about but Vice President Truman did not, until he became President, and the National Security Agency's Venona Project which even the President was not aware of. The level of secrecy of a project is directly proportional to the perceived damage that will be caused by its revealing. Secrecy can be maintained indefinitely if the "need to know" compartmentalization security principle is carefully followed.

### **1946-1947**

To understand the role of the Government in the UFO field, we need to go back to the very beginning when UFOs first became a national security concern. During World War 2 so called foo fighters were cause for alarm, but understanding what they were was not pivotal to the war effort as it quickly became apparent to allied commanders that they were not a weapon of war. It was the 1946 ghost rockets that caused real alarm as the U.S. was worried that perhaps the Soviets were experimenting with recently acquired German weaponry. Although Government concern was evident in 1946, UFOs did not reach the consciousness of most Americans until after June 24, 1947 when newspapers worldwide reported on Kenneth Arnold's famous sighting. As the old adage goes, there is nothing new under the sun, and an equally true axiom is that nothing happens in a vacuum. To put into context the appearance of strange phenomena in the United States in 1947, it is important to understand the socio-political atmosphere of post World War 2 America. Thanks to modern technology and the Internet, you can put yourself into the shoes of the average American of 1947 by reading digitized copies of newspapers from this era online. While skimming the front page daily headlines of spring 1947 using [NEWSPAPERARCHIV.ORG](http://NEWSPAPERARCHIV.ORG), I found some interesting news stories that well serve as a backdrop to the UFO events of June and July of that year, including:

May 16, 1947 – V2 rocket crashes-blamed on “peculiar phenomena”  
May 21, 1947 – Silent plane is developed  
May 30, 1947 – V2 rocket crashes in Juarez, Mexico  
June 3, 1947 – Bell Aircraft XS-1 faster than sound plane completes preliminary tests  
June 3, 1947 – Soviets raiding US atomic secrets  
June 5, 1947 – US warns that atomic race with Soviets is underway  
June 5, 1947 – Soviet agents have infiltrated Oak Ridge atomic facility  
June 13, 1947 – Contract to Douglas Aircraft to build plane that can fly 2,200 miles per hour  
June 20, 1947 – P80 breaks air speed record at 623MPH

But it was the headlines of June 13 – 15, 1947 that really caught my eye - the International Press reported that a secret weapon, that rivaled the atomic bomb had been jointly developed by the US, Britain and New Zealand. This caused a subsequent flurry of press speculation as to what this new weapon could be. I was intrigued by this amazing story that was reported just two weeks prior to Arnold's UFO sighting and I wondered if there may be some connection, so I decided to dig deeper.

### **The June 1947 Secret Weapon Story**

If you piece together the newspaper articles from June 13 – 15, 1947, the story emerges of a secret Anglo-American weapons project that was not the atomic bomb but equally destructive. How the press first got involved with the story is not entirely clear, but someone possibly from the press had questioned why a New Zealand scientist, Thomas David James Leech was receiving a Commandership of the British Empire at the birthday honors of King George VI of England. Someone else then revealed to the press, that the honor was being given to Mr. Leech because he had headed up a secret weapons project during World War 2 that according to the Canadian Press rivaled the atomic bomb, was top secret, and for which research was still ongoing.

June 13, 1947

On June 13, 1947 a number of newspapers covered the story including the *Amarillo Daily News*:  
“*Science Tries for New Weapon Matching Atom Bomb in Power*”

The weapon did not reach the stage of practical application during the war, but work still is being pursued in the strictest secrecy by scientists in the United States, Britain and New Zealand. No hint of the details of the weapon has been revealed but it is stated that one means of application would have some similarity to one method of using the atomic bomb.

The article further elaborated that:

The project was to have been carried out in Florida but was moved to New Zealand and Pacific areas owing to the fears of espionage. Leech was selected to lead the research because he had previously done work distantly related. He had a team of 170 American and New Zealand experts, most of whom were given no idea of the ultimate objective, for security reasons.

The *Gettysburg Times* discussed how:

New Zealanders speculated today on the nature of a new weapon – approaching the atom bomb in importance-which the *New Zealand Herald* described as a joint development of scientists from this country, Great Britain and the United States. The *Herald* said its source of information about the new weapon was most reliable, but could not be disclosed.

The *Coshocton Tribune* quoting the *New Zealand Herald* added:

Had the project been completed in time, it might have played a role as effective as the atom bomb in subjugating Japan.

Wondering who Leech was, I found the answer in the *Wisconsin State Journal* article which revealed that:

Leech is engineering professor at Auckland University. During the war he was chairman of the Zealand munitions advisory board and director of scientific development. Informants said the weapon he helped develop was still a top secret among Allied nations. They gave no clue of its nature, British, American, and New Zealand scientists, engineers and naval officers were said to be associated in the project.

What an intriguing story! A weapon on par with the atomic bomb and as compartmentalized as the Manhattan Project but one that had not been infiltrated by Soviet Intelligence agents. A weapon that could have won the war against Japan had it been completed on time! What could this weapon possibly be?

June 14, 1947

The very next day, on June 14, 1947, the newspapers were rife with speculation. The *Charleston Daily Gazette* in a lengthy speculative article read:

***“Radiation May be Factor in Latest Secret Weapon”***

There is one clue in the reports of the secret Anglo-American weapon said to outrival the atom bomb as credited today to Prof. T. D. J. Leech in New Zealand. That clue points to a ray or radiation of some sort. The sentence reads "One means of application would have some similarity to one method of using the atomic bomb."

There are two methods of using the power of the atom; one in an explosive bomb, the other in the radioactive rays, from common substances that are transmuted into temporary radioactivity. These would form a gas in the same sense as poison war gases. Most of the latter are not gases, but fine dusts or mists. The atomic poison gases would be the same. Their possibility was explained to President Roosevelt by scientists in 1939 and more recently Glenn Martin mentioned them as bombs that American military authorities are studying. Half a mile radius is the generally stated distance for such radioactivity to be effective in war.

No new sources of death rays were reported during the war, but such rays were known to electrical theorists before the war. They were considered useless even as possibilities.

*Plane Check Considered*

Short-wave radio rays were one. It was considered possible to make such a ray that would be effective at four miles, not for killing that far away, but for crashing planes by interfering with the electrical portion of their engines.

The difficulty was, for such a ray, the need of power equal to about 10 times that of Niagara Falls, and the reflector, perhaps of pure aluminum, 200 feet in diameter. Close by, this sort of radiation was expected to be fatal. These engineering dreams were made before the great advances in very short radio waves that came out of the war.

If there is any possibility of concentrated radar or other short wave length rays that will kill men, no hint of that lethal power has leaked out. Nicola Tesla, the father of induction in electricity, asserted frequently before his death a few years ago, that he knew, how to produce what he called curtains of force that no plane could fly through. He never explained them.

The Germans during the war printed some speculations on how to build a sun gun. This would be a huge burning glass, or plastic, floating several hundred or thousand miles above the earth's surface which could be focused to destroy life by fire in vast areas. The scientific principles of producing such a satellite of the earth, really equivalent to a tiny moon, are known, but there is nothing at all in present scientific developments to overcome the difficulties of launching or even of construction.

Post-war secret weapons have included a cosmic ray bomb. This had its origin in misunderstandings on the part of laymen and never came from any scientific source. A starlight bomb would be easier to conceive of, because total starlight is many times more energetic than the total energies of cosmic rays. A single cosmic ray is millions of times more energetic than any single beam of starlight but there is no known possibility of concentrating them.

#### *Defense Against Bacteria*

Biological warfare frequently has been declared to be as bad as atomic bombs. But these claims omit the fact known to all biologists that man's own body, conditioned for eons of time to germs of all kinds, can be protected rather quickly from any conceivable forms of bacteriological attack.

Death rays in general are almost inconceivable for effective military use because of the well known stopping power of the air for waves that are shorter than light, or the invisible ultra-violet rays. Although scientists have been trying for some time to produce manmade cosmic rays, they have not succeeded, and when the planned great electrical energy machines producing billions of volts are built, it is not expected that they can produce anything more than the very weakest sort of cosmic rays.

The *Daily Capital News* reported that:

#### ***“British Refuse To Talk About Secret Weapon”***

British government ministries declined comment today on New Zealand reports concerning the purported development of a super-secret super-weapon approaching the atomic bomb in importance.

The defense ministry, the air ministry, the war office, the admiralty and the ministry of supply all refused to discuss stories out of Auckland which quoted most reliable sources as saying that research on such an offensive weapon was started in 1944 and still was being pursued in the strictest secrecy by scientists in New Zealand, Great Britain and the United States.

"Had the project been completed in time it might have played a role as effective as the atom bomb in the subjugation of Japan," the *New Zealand Herald*, of Auckland, reported. "Without discounting the effectiveness of the project as an offensive weapon," the paper continues, "it does not offer such a threat to world peace as the atom bomb. This may not be amplified further than saying that things pertaining to it are under control. Scientists were reported thoroughly examining all possibilities. They were said to have exchanged ideas and information. So far as is known, no details of the project have been revealed to countries other than New Zealand, Britain and the United States.

The Herald said it learned that development of the project to the stage of practical application would cost much less than the development of atomic energy production. However, the project was understood to be too complex for a small country like New Zealand to carry out the development unaided. New Zealand, however, was said to have

the necessary equipment and establishment and would be able to make useful contributions.

The *Bismark Tribune* quoted Leech associate W.A. Miller of the Sydney University Civil Engineering Department as saying:

The new secret weapon mentioned in Auckland, N.Z. reports “might be in the nature of an airborne missile such as the German rocket bomb”. Miller further stated that he himself had no indication of the nature of the project and that he made the comment only because he knew Professor Leech to have “an expert knowledge of and enthusiasm for aero-dynamics.”

The *Indiana Evening Gazette* also quoted Miller in an article:

**“New Weapon May Be Airborne”**

Miller said Leech in both aerodynamic and hydrodynamics had made a great contribution to the work of Sydney University’s Civil Engineering Department before he went to New Zealand in 1939.

In Auckland today, Professor Leech said he was “surprised” to hear that a London newspaper headline had stated that the atomic bomb had been rendered obsolete, but made no further comment.

This fascinating story took another strange twist on June 14, 1947 when newspapers identified an American engineer, James Marion Snodgrass as one of the persons who worked on this new weapon’s project in 1944. How newsmen were able to make the connection to Snodgrass is not clear. In interviews with the media, Snodgrass had some interesting observations about his participation.

The *Alton Evening Telegraph*:

**“U.S. Scientist Backs Secret Weapon Tale”**

The *Herald Tribune* quotes a 39-year old American scientist it said shared in the development of the secret Anglo-American weapon reported from New Zealand as saying that the weapon exists and that first reports although exaggerated, are substantially true. The scientist, James Marion Snodgrass of Cincinnati, is further quoted as saying that the weapon was not connected in any way with the atom bomb and that it was not a biological weapon.

Existence of the weapon first was reported by Prof. T. D. J Leech of New Zealand. Later dispatches mentioned a Prof. J. M Snodgrass of the University of California as a co-worker.

Original reports said the secret weapon outrivaled the atom bomb. The *Herald Tribune* says it reached Snodgrass in Cincinnati and quoted him as saying that he worked on the

weapon in New Zealand and that he believed it to be a weapon of tremendous importance.

"But farther than that he would not go," the paper says. "He would not discuss its nature or whether it was for use against personnel or vessels."

The *Herald Tribune* quotes Snodgrass as saying the Navy holds all reports on it "although he recalled having spoken to Dr. Vannevar Bush, wartime scientific leader about it."

An article in the *Daily Inter Lake* elaborated:

Snodgrass gave the only hint as to the nature of the weapon as he disclosed its development started after American forces landed on Tarawa Island in the Pacific. He turned to a reporter and said: "remember there was heavy loss of life." The newsmen asked if the weapon had anything to do with the casualties or some military problem encountered on the Island and Snodgrass replied: "Could be."

Snodgrass who is chief engineer of the motion picture sound division at the Dayton-ACME CO., a Cincinnati consultant engineering firm, said he joined British and New Zealand scientists in the development of the weapon while he was a civilian attached to the National Defense Research Council. Prof. Leech headed the project, he added. He said the weapon was conceived by the British although United States naval officers were not enthusiastic the British pressed the work, first on an obscure Pacific island in 1943 and later in New Zealand.

The *Lowell Sun* had this headline:

***"Is A-Bomb Passe? U.S. Scientist Helped Make New Secret Lethal Weapon. America and Britain Keep Details Hidden But Leave No Doubt Device Exists"***

### **June 15, 1947**

June 15 newspaper articles focused on six major points that reporters were able to extract from James Marion Snodgrass concerning the secret weapon. The *Abilene Reporter* listed these as:

1. It is not connected in any way with the atomic bomb.
2. It is not a biological warfare weapon.
3. Development of the weapon, started during the war, was not completed until after hostilities were ended.
4. Snodgrass was a civilian attached to the National Defense Research Council when he joined British and New Zealand scientists in development of the weapon.
5. The weapon was conceived by the British and although United States naval officers were not enthusiastic, the British pressed the project, first on an obscure Pacific island and later in New Zealand.
6. The U. S. Navy received reports during development.

The *Council Bluffs Nonpareil* also had this to add to the six main points:

***“Confirms New Secret Weapon As Awesome as Atom Bomb”***

Asked about the weapon as an alternate to the atomic bomb, Snodgrass said only: "First reports are substantially true but perhaps they are exaggerated a little." Fears of espionage resulted in centering the experimentation in New Zealand, Snodgrass said, although it had been planned to transfer work on the project to Florida. The U. S. Navy received reports on the weapon, he said.

The *Syracuse Herald Journal* also added:

Snodgrass insisted in an interview he was "in no position to give any detailed clue as to the composition or structure of the development." Questioned about the classification of the development, he said that "under a broad classification" it might be described as a weapon. However, the handsome scientist, now conducting television research, said he had been back in the United States since last July and declared that he "knows nothing of the present stage of its refinement or development."

Snodgrass described the weapon as "top secret" and declined to answer any "leading" question about the research, development, composition or tests.

Oddly enough, in the *Cumberland Times and* adjacent to the Snodgrass article was this story:

***“Supersonic Weapon Is Forecast  
Another Secret Device Greater Than Atomic Bomb”***

Weapons as terrifying as the atom bomb — super sounds that would upset the nervous systems of whole populations, light waves, and shooting clouds out of the sky to control rainfall — were raised as possibilities today in any war of the future by an American Air Force commander.

General George C. Kenney, head of the Strategic Air Force, cited the dog whistle as an example of the effectiveness of sound waves in a prepared address before Massachusetts Institute of Technology graduates. "An airplane equipped with a sort of super dog whistle," he said, "conceivably could fly around a city for awhile and upset the nervous systems of the whole population.

"I believe we need to do some research along this line. It may be just a fantastic dream. It may not." Light waves, he said, offered a similar field. "Below the infra reds and above the ultra violets there may be weapons of future warfare as devastating as the atomic bomb," he asserted. "Other nations may find them. We must keep in pace in order to be able to counter or defend against such threats." General Kenney said that at present clouds could be broken up and start rainfall at a specific place on a limited scale, and added: "Instead of allowing rain clouds to drive past arid and semi-arid sections, we should be able to shoot them down and put the rain where we need it. If we can extend this process we can stop rain from falling where it has been falling for ages."

June 26, 1947

The most astonishing article however I found is that of the *Frederick Post* of June 26, 1947 which has both the secret weapon project and the Kenneth Arnold sighting on the same page and side by side!

<p style="text-align: center;"><b>DEATH RAY?</b></p> <p>That new British-American secret weapon alleged to be as terrible as the atomic bomb came to light, seemingly, more or less by inadvertence. Its existence was not publicly announced. Instead, reporters apparently stumbled on the story while seeking to ascertain why King George VI had conferred the Order of the British Empire on Prof. T. D. J. Leech of Auckland, N. Z. Professor Leech let it out.</p> <p>Regardless of whether the revelation was accidental, it should not be regarded lightly. Professor Leech has been quoted as saying that the atomic bomb, by comparison with this new weapon, is "a clumsy method of attack." And Prof. James M. Snodgrass of Cincinnati, the American who worked with the New Zealander in its development, agrees that it is of tremendous importance.</p> <p>As both men appear qualified to speak with authority, laymen are in no position to quarrel with their judgment. Certainly it is wise to proceed on the assumption that this new scourge, whether it is a "death ray" or something else, is a fact.</p> <p>During World War II scientists produced many secret weapons and one of them was the atomic bomb. To assume that all the secrets have been unveiled or that another weapon as devastating as the atomic bomb is unlikely, is to take too much for granted.</p> <p>At any rate, it is not at all improbable that other devices on the order of the atomic bomb will come. Outlawing the atomic bomb may be only one step in the difficult program toward disarmament.</p>	<p style="text-align: center;"><b>Mysterious Objects In Sky Still Unexplained</b></p> <p>Pendleton, Ore., June 25 (AP)—Nine bright, saucer-like objects flying at "incredible" speed at 10,000 feet altitude were reported here today by Kenneth Arnold, Boise, Idaho, pilot, who said he could not hazard a guess as to what they were.</p> <p>Arnold, a United States Forest Service employe engaged in searching for a missing plane, said he sighted the mysterious objects yesterday at 3 p. m. They were flying between Mount Rainier and Mount Adams in Washington State, he said, and appeared to weave in and out of formation. Arnold said he clocked them and estimated their speed at 1,200 miles an hour.</p> <p>Inquiries at Yakima last night brought only blank stares, he said, but he added he talked today with an unidentified man from Ukiah, south of here, who said he had seen similar objects over the mountains near Ukiah yesterday.</p> <p>"It seems impossible," Arnold said, "but there it is."</p> <p style="text-align: center;"><b>WEDDINGS</b></p> <p style="text-align: center;"><b>WILES—HARNE</b></p> <p>The marriage of Doris Harne, daughter of Mr. and Mrs. James Harne, Smithsburg, to Robert Wiles, son of Mr. and Mrs. Wiley Wiles, Middletown, was solemnized in the Mt. Pleasant Church of God, near Smithsburg, on Saturday evening at eight o'clock.</p> <p>Rev. Walter A. Pettit read the single ring ceremony. An embankment of roses and ferns was illuminated by a profusion of pink candles.</p> <p>The bride wore a white linen street-length dress and white accessories. She carried a white satin prayer book graced with a gardenia and showered with rose petals.</p>
--	---

## Researching the Facts

First, let's examine in more detail the lives of the two major players in this story: Thomas David James Leech and James Marion Snodgrass.

### Who was Thomas David James Leech?

Thomas David James Leech was born in Sydney, New South Wales, Australia. He was a lecturer in Civil Engineering at the University of Sydney. In 1940, he was appointed as Professor of Engineering at Auckland University College in New Zealand where he worked as the Dean of the Faculty of Engineering from 1940 – 1949. During World War 2, Professor Leech was also the acting Director of Scientific Developments for New Zealand in support of the war effort and he did work on a secret research project code named Project Seal that explored the use of explosives in triggering artificial tsunamis. After submitting Project Seal's final report in December 1950, Professor Leech vacated his position at Auckland University to work as the Chief Engineer at the Scientific Services Division on the Snowy Mountains Hydro-Electric Authority in Australia. Professor Leech is also the author of an aerodynamic textbook: *The principles of flight: An Introduction to Aerodynamics*.

### Who was James Marion Snodgrass?

James Marion Snodgrass was born in Marysville, Ohio in 1908. He received an Artium Baccalaureatus (A.B.) Degree in Physics from Oberlin College in 1931, and did graduate work at both the University of Pennsylvania as well as at Harvard Medical School. During the war, he served on the National Defense Research Council (NRDC): from 1942 – 43 as a member of the technical staff, Division of War Research, Columbia University and from 1943 – 46 as a Research Associate and Field Representative, Division of War Research, University of California. After the war, he worked as the Chief Engineer, Motion Picture and Sound Division of the Dayton Acme Company before taking a position as a Senior Marine Biologist at the Scripps Institution of Oceanography, University of California, San Diego where he eventually became a Research Engineer and head of the Special Developments Division at the Scripps Institute. Upon his retirement from the University of California in 1974, he became the Senior Technical Director of Ocean Data Systems, Inc.

Professor Snodgrass was awarded a Navy citation by Admiral Nimitz and was authorized to wear the Asiatic-Pacific Area Campaign ribbon for the work he did on anti-submarine warfare from 1943 – 45. In 1968, Professor Snodgrass was also awarded the U.S. Navy's highest civilian honor, the Navy Distinguished Public Service Award for his outstanding contributions to the Navy in the field of oceanographic communications and instrumentation.

Professor Snodgrass was also a member of a number of professional societies including a fellow of the IEEE, was listed in the *World Who's Who in Science*, as well as *American Men and Women of Science*, was the author of more than 50 technical and scientific papers and the holder of many patents.

## Project Seal

So now that we know that both Professor Leech and Snodgrass had the proper credentials to be players in the secret weapon story, let's examine the secret project itself. Project Seal was a secret World War 2 research project that explored how explosives could be used to trigger an artificial tsunami as an offensive weapon. According to the *Final Report on Project Seal* written by Professor Thomas David James Leech himself, dated December 18, 1950 and declassified in 1971:

**Project "Seal"**, or the investigation of the potentialities of inundation by means of artificially produced tidal waves arose from a suggestion made by Wing Commander E.A. Gibson to Lieutenant General Sir Edward Puttick, Chief of General Staff (N.Z.) on the 13<sup>th</sup> January 1944. The former had noted, whilst engaged upon surveys of the Pacific Area during the period 1936 to 1942, that blasting operations upon submerged coral formations occasionally were attended by unexpectedly large waves. General Puttick instructed Colonel C.W. Salmon, the N.Z. Chiefs of Staff Representative in the South Pacific area (Enzedsopac) to place the proposal before Admiral W.F. Halsey, Commander of the South Pacific Area (Comsopac). Arrangements were made for Wing Commander Gibson, **Professor J.M. Snodgrass**, University of California, Division of War Research, who was then in the area investigating certain problems relating to submarine warfare, and **Professor T.D.J. Leech**, who was acting Director of Scientific Developments, New Zealand, to examine the idea at Noumea in February 1944.

### *New Caledonian Experiments*

It was decided to test the suggestion by ad hoc trials under the guidance of a team comprising Captain W.L. Erdman, U.S.N, Colonel Salmon, Wing Commander Gibson, **Professors Snodgrass and Leech**.

The results were incorporated in a report dated 31<sup>st</sup> March 1944, which was approved by Admiral Halsey and transmitted by him to the New Zealand Chiefs of Staff with a request that New Zealand undertake further investigations, as shown by the following extract:

"The results of these experiments, in my opinion, show that inundation in amphibious warfare has definite and far reaching possibilities as an offensive weapon. It would be very desirable to have further developments carried out to establish a practical method and procedure which could be used in offensive warfare. I would be grateful if this development could be continued to completion by New Zealand officers. All practicable assistance of facilities and personnel in this Command will be at your disposal."

Admiral Halsey's request was examined by New Zealand Chiefs of Staff Committee, and proposals for implementation were submitted to and approved by the War Cabinet on the 5<sup>th</sup> May. They provided for the establishment of an Army Research Unit **under the command of Professor Leech**, who would be directly responsible to the Minister of the Armed Forces and War Coordination, Sir William Perry.

The establishment of the Research Unit, known as the 24<sup>th</sup> Army Troops Company was manned primarily by New Zealanders with the US Navy contributing a small number of explosive experts.

The Project Seal final report further elaborates that:

*Experimental Research Station*

The original suggestion for utilizing the fortress site of the Whangaparaoa Peninsula in the Haruaki Gulf, New Zealand was adopted. It was reasonably close to Auckland and the existing Army buildings had recently been reduced to a “care and maintenance” basis. From the viewpoint of security it was favorably situated. Close to the area, there were several sites suitably located in for the larger experiments proposed. To cater for the small scale work, designed to determine the principles involved, an earthen dam was constructed in one of the valleys, which provided an experimental pool approximately 1,200 ft. long, 200 ft. wide and with depths varying in steps to 24 ft.

In addition to provision for basic development at Whangaparaoa, plans were laid for an operational test in New Zealand at Taronui Bay, North Auckland, between the Bay of Islands and Whangaroa. This was later abandoned.

It was originally intended that Leech would be assisted by a senior group comprising **Professor Snodgrass** and two eminent hydraulic engineers, Messrs. T.A. Lang and F. de L. Venables. After protracted negotiations these gentlemen were not able to join the team, and the technical direction of the whole project remained throughout the responsibility of Leech.

The report goes on to detail the assistance provided by British scientists who helped with mathematical calculations but who were overall pessimistic about the project. Project Seal, however ambitious, was short lived as Leech’s report details:

*Some Difficulties*

Shortly after the “SEAL” Unit commenced operations on the 6<sup>th</sup> June 1944, there was a change in the Command of the South Pacific Area. This, combined with the many suggestions by senior officers, resulted in changes of policy, without having due regard to the technical difficulties involved.

It did not appear to be realized that time is required to plan and implement experimental programs. As a result much effort was wasted.

It was also unfortunate that the majority of the U.K. authorities were originally pessimistic. Subsequent events clearly demonstrated that, because of the absence of personal contact, they had based their decisions upon the effects of charges placed at the greater critical depth, and were at the time unfamiliar with the existence of the second and more pertinent critical depth near the surface. These factors, combine with the growing ascendancy of the Allied Nations in the Pacific theatre, reduced the operational priority of the project and caused the New Zealand Government to close it down in January 1945, before the full experimental program was completed and the fundamental scientific problems were solved.

The experimental station at Whangaparaoa was closed down on the 8<sup>th</sup> January, 1945. At this time some 3,700 experiments had been carried out with charges

ranging from 0.06 lb. to 600 in. weight. T.N.T. was used generally, although C.E., nitro-starch and gelignite were employed in some cases.

In 1946 Dr. Karl Compton, Chairman of the Atomic Energy Evaluation Board, visited New Zealand and discussed the Seal project with Leech, who had been invited to represent New Zealand and Australia in a technical capacity at the second Bikini atom bomb trial. The latter was unable to accept the invitation because of the critical conditions at the Auckland University College. However, he supplied data relative to the location of the charge at the critical depth nearer the water surface together with forecasts of wave amplitudes at predetermined points at which wave recorders were to be established. The records were, it was reported subsequently in agreement with the forecasts within the limits of experimental error.

In February 1947, Leech was invited by the Assistant Secretary, U.S. Navy, to work with the Dean M.P. O'Brien, Professor-in-charge of the Department of Engineering, University of California, upon the analysis of records obtained at Bikini. Again, the continuous critical conditions at the Auckland University College forced the Council to withhold its permission. During 1948, the University of California published a number of papers relating to certain phases of the project. Since 1948, several requests for the final report have been made by Dr. E. Marsden, N.Z. Scientific Liaison Officer, London, and the U.S. Embassy in New Zealand.

During 1950 circumstances changed sufficiently to permit an effort being made to complete the report.

The investigations lead to the conclusion that offensive inundation is possible under favorable circumstances. Given low lying foreshores and a shelving bottom off-shore, wave amplitudes of the order of those for recorded tidal waves, which have been disastrous, can be obtained. While T.N.T. or other explosives can be used, the engineering work especially involved introduces difficulties of considerable magnitude. The use of atomic bombs as multiple charges may be more practical.

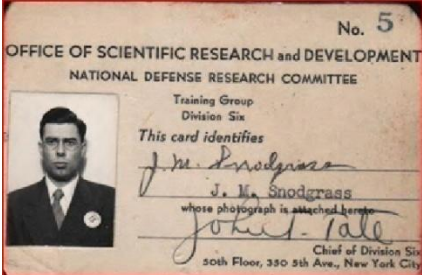
### **A Conundrum**

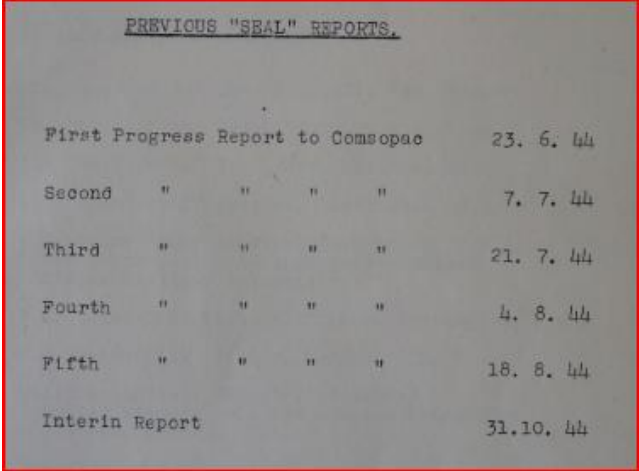
The Project Seal report confirms that a secret weapon story leaked in mid-June 1947 was real, and confirms the participation of our two protagonists. However, when we compare the quoted statements of both Professors Leech and Snodgrass to the historical record, both elements of truth as well as misinformation becomes apparent, as summarized in the following tables:

<i>What T.D.J. Leech was quoted:</i>	<i>Project Seal Report:</i>
<p><i>Existence of the new weapon was disclosed when Prof. T. D. J. Leech of New Zealand was mentioned in the birthday honors list of King George VI in London. Later a dispatch quoted Leech as saying he received the honor for his work in connection with a secret weapon that was an effective alternate to the atomic bomb.</i></p>	<p>Greatly exaggerated. The project explored the generation of waves by means of explosives and led to the conclusion that “offensive inundation is possible under favorable circumstances. Given low lying foreshores and a shelving bottom off-shore, wave amplitudes of the order of those for recorded tidal waves, which have been disastrous, can be obtained.”</p>
<p>Professor, T.D.J. Leech received a commandership of the order of the British Empire. He was identified as the <b>director of research for the weapon project.</b></p>	<p>Confirmed.  “Admiral Halsey’s request was examined by the New Zealand Chiefs of Staff Committee, and proposals for implementation were submitted to and approved by the War Cabinet on the 5<sup>th</sup> May. They provided for the establishment of an Army Research Unit under the command of Professor Leech, who would be directly responsible to the Minister of the Armed Forces and War Co-Ordination, Sir William Perry.”</p>
<p>The weapon did not reach the stage of practical application during the war, <b>but work still is being pursued in the strictest security by scientists in the United States, Britain and New Zealand,</b> the Canadian Press said.</p>	<p>The weapon definitely did not reach the stage of practical application, but all work on the project had stopped in January, 1945.</p>
<p>There is one clue in the reports of a secret Anglo-American weapon said to outrival the atom bomb as credited today to Prof. T.D.J. Leech in New Zealand. That clue points to a ray of radiation of some sort. That sentence reads <b>"One means of application would have some similarity to one method of using the atomic bomb."</b></p>	<p>Newspaper speculation on the radiation ray is not accurate.</p> <p>T.D.J. Leech’s answer is true:  “While T.N.T. or other explosives can be used, the engineering work especially involved introduces difficulties of considerable magnitude. The use of atomic bombs as multiple charges may be more practical.”</p>
<p>In Auckland today, <b>Prof. Leech said he was "surprised" to hear that a London newspaper headline had stated that the atomic bomb had been rendered obsolete,</b> but made no further comment.</p>	<p>T.D.J. Leech knew that Project Seal would not make the atomic bomb obsolete and that this was a ridiculous assertion.</p>

<p>The Winnipeg Free Press article of June 13, 1947 states that T.D.J. Leech was selected to lead the project because he had done work before that was distantly related to it</p>	<p>Leech was the Acting Director of Scientific Developments for New Zealand. He was also an authority on aerodynamics and hydrodynamics and was Dean of the Faculty of Engineering at Auckland University College from 1940 - 1949.</p> <p>It was his expertise in aerodynamics that led to the later speculation that the weapon may be airborne.</p>
--	--

<b>What James Snodgrass was quoted:</b>	<b>Project Seal Report:</b>
<p><i>As awesome in its effects as the atomic bomb.</i></p>	<p>Greatly exaggerated. The project explored the generation of waves by means of explosives and led to the conclusion that “offensive inundation is possible under favorable circumstances. Given low lying foreshores and a shelving bottom off-shore, wave amplitudes of the order of those for recorded tidal waves, which have been disastrous, can be obtained.”</p>
<p><i>1. It is not connected in any way with the atomic bomb.</i></p>	<p>Not entirely true.</p> <p>“While T.N.T. or other explosives can be used, the engineering work especially involved introduces difficulties of considerable magnitude. The use of atomic bombs as multiple charges may be more practical.”</p>
<p><i>2. It is not a biological warfare weapon.</i></p>	<p>Confirmed as true.</p>
<p><i>3. Development of the weapon, started during the war, was not completed until after hostilities were ended.</i></p>	<p>Not true.</p> <p>The project conducted some 3700 experiments between June 6, 1944 and January 8, 1945.</p> <p>“These factors, combined with the growing ascendancy of the Allied Nations in the Pacific theatre, reduced the operational priority of the project and caused the New Zealand Government to close it down in January 1945, before the full experimental program was completed and the fundamental scientific problems were solved.” “The experimental station at Whangaparaoa was closed down on the 8<sup>th</sup> January, 1945.”</p>
<p><i>4. Snodgrass was a civilian attached to the National Defense Research Council when he joined British and New Zealand scientists in development of the weapon.</i></p>	<p>Confirmed. “Arrangements were made for Wing Commander Gibson, Professor J.M. Snodgrass, University of California, Division of War Research, who was then in the area investigating certain problems relating to submarine warfare, and Professor T.D.J. Leech, who acting Director of Scientific Development, New Zealand, to examine the idea at Noumea in February 1944.”</p>

	<p>According to Snodgrass' own papers, the exact itinerary was February 16, 1944.</p> 
<p>5. <i>The weapon was conceived by the British and although United States naval officers were not enthusiastic, the British pressed the project, first on an obscure Pacific island in 1943 and later in New Zealand.</i></p>	<p>Not true:</p> <p>“Project Seal is regarded as a joint United States/New Zealand Project.”</p> <p>“Project Seal arose from a suggestion made by Wing Commander E.A. Gibson to Lieutenant General Sir Edward Puttick, Chief of General Staff (N.Z.) on the 13<sup>th</sup> January 1944. The former had noted whilst engaged upon surveys in the Pacific Area during the period 1936 to 1942, that blasting operations upon submerged coral formations occasionally were attended by unexpected large waves.”</p> <p>“It was decided to test the suggestion by ad hoc trials under the guidance of a team comprising Captain W. L. Erdman, U.S.N., Colonel Salmon, Wing Commander Gibson, Professors Snodgrass and Leech.” Note: Trials took place in New Caledonia.</p> <p>“The results which were incorporated in a report dated 31<sup>st</sup> March 1944, which was approved by Admiral Halsey and transmitted by him to the New Zealand Chiefs of Staff with a request that New Zealand undertake further investigations.”</p> <p>“Contemporaneously with the setting up of the Experimental Station, Dr. E. Mardsen, Secretary, D.S.I.R. and Brigadier R.S. Park were able to discuss the question with U.K. scientists interested in cognate problems. These included Sir Geoffrey Taylor, Adviser to the Admiralty, Professor E.D. Ellis, together with Professor Chapman and Dr. W.G. Penny of the Imperial College of Science and Technology. These scientists had been interested in the study of the effects of firing submerged charges; and with the exception of Sir Geoffrey Taylor, all were pessimistic.”</p> <p>“Somewhat later, Dr. Mardsen discussed the problem with Dr. Vannevar Bush in Washington, and his views were more encouraging.”</p> <p>“It was also unfortunate that the majority of the U.K. authorities were originally pessimistic.”</p>

<p>6. The U. S. Navy received reports during development,</p>	<p>Confirmed: COMSOPAC (Commander South Pacific)</p>  <table border="1" data-bbox="683 233 1317 701"> <thead> <tr> <th colspan="2">PREVIOUS "SEAL" REPORTS.</th> </tr> </thead> <tbody> <tr> <td>First Progress Report to Comsopac</td> <td>23. 6. 44</td> </tr> <tr> <td>Second " " " "</td> <td>7. 7. 44</td> </tr> <tr> <td>Third " " " "</td> <td>21. 7. 44</td> </tr> <tr> <td>Fourth " " " "</td> <td>4. 8. 44</td> </tr> <tr> <td>Fifth " " " "</td> <td>18. 8. 44</td> </tr> <tr> <td>Interin Report</td> <td>31.10. 44</td> </tr> </tbody> </table>	PREVIOUS "SEAL" REPORTS.		First Progress Report to Comsopac	23. 6. 44	Second " " " "	7. 7. 44	Third " " " "	21. 7. 44	Fourth " " " "	4. 8. 44	Fifth " " " "	18. 8. 44	Interin Report	31.10. 44
PREVIOUS "SEAL" REPORTS.															
First Progress Report to Comsopac	23. 6. 44														
Second " " " "	7. 7. 44														
Third " " " "	21. 7. 44														
Fourth " " " "	4. 8. 44														
Fifth " " " "	18. 8. 44														
Interin Report	31.10. 44														
<p>"Development of the weapon started after American forces landed in Tarawa Island in the Pacific" and turned to a reporter and said "You remember there was heavy loss of life." The newsman asked if the weapon had anything to do with the casualties or some military problem encountered on the island and Snodgrass replied "Could be."</p>	<p>Substantially true. The Battle of Tarawa was from November 21 -23, 1943. Miscalculation of tide depths lead to the deaths of many U.S. servicemen. A tsunami weapon could have flooded out the Japanese prior to ground forces attacking. Confirmed by Snodgrass in his personal papers.</p>														
<p>Fears of espionage resulted in centering the experimentation in New Zealand, although it had been planned to transfer work on the project to Florida.</p> <p>"Work was begun on the weapon in Florida but was transferred to New Zealand"</p>	<p>Not true. The project was proposed by and executed by New Zealand in almost its entirety with the U.S. Navy only providing ten explosive experts for the experiments. Espionage was not a factor in the location. Also, there is no mention in the Seal report of moving the work to Florida.</p> <p>Oddly enough, some newspaper articles mention that the project was initiated in Florida and moved to New Zealand, while others claim it was started in New Zealand and would transfer to Florida.</p>														
<p>Existence of the weapon first was reported by Prof. T.D.J. Leech of New Zealand. Later dispatches mentioned a Prof. J.M. Snodgrass of the University of California as a co-worker. "He worked on the weapon in New Zealand and that he believed it to be a weapon of tremendous importance." "But father than that he would not go"</p>	<p>The Seal Report was not declassified until 1971. Contrary to newspaper reports, the Seal Report was classified SECRET, not TOP SECRET.</p>														

<i>What Professor W.A. Miller was quoted:</i>	<i>Notes:</i>
<p>Prof. W. A. Miller of the Sydney University Civil Engineering Department said today a new secret weapon mentioned in Auckland, N.Z., reports <i>"might be in the nature of an airborne missile such as the German rocket bomb."</i></p>	<p>Speculation based on T.D.J. Leech to have been a known expert in aerodynamics.</p>
<p><i>He knew Prof. David James Leech of Auckland to have an "expert knowledge of and enthusiasm for aerodynamics."</i></p>	<p>True: Professor Leech wrote a textbook on aerodynamics titled: <i>The principles of flight;: Or, An Introduction to Aerodynamics</i></p>

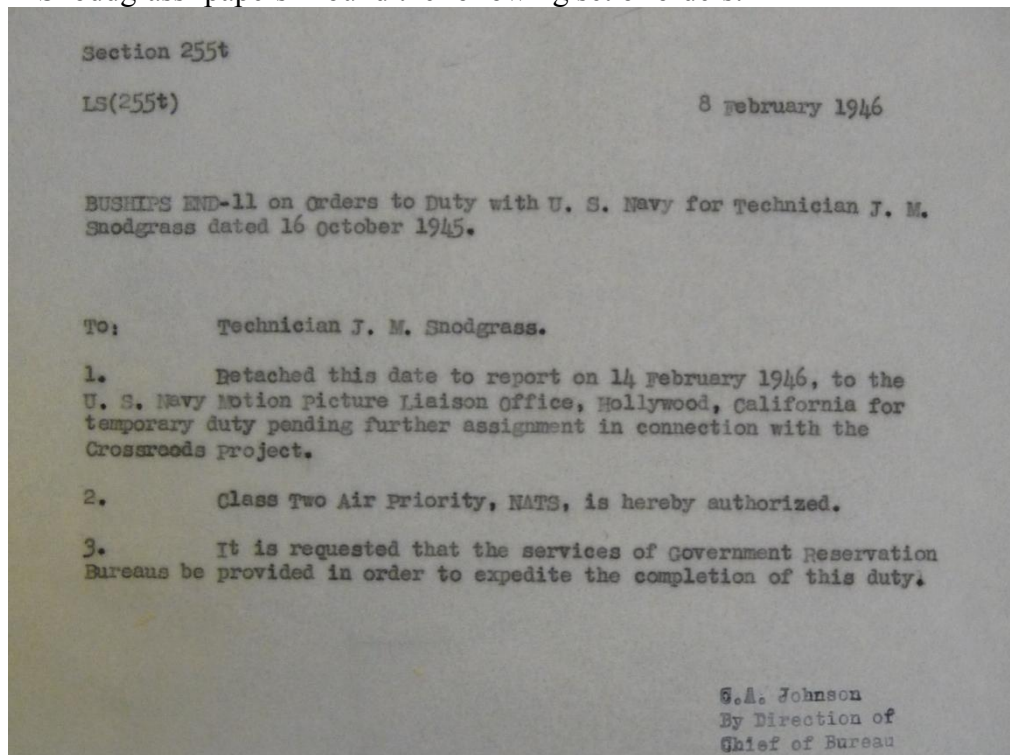
<i>What an Anonymous Source was quoted:</i>	<i>Project Seal Report:</i>
<p>"Research on such an offensive weapon was started in 1944 and still was being pursued in the strictest secrecy by scientists in New Zealand, Great Britain and the United States. <b>Had the project been completed in time it might have played a role as effective as the atom bomb in the subjugation of Japan.</b>"</p>	<p>Hardly. The project was terminated in early 1945.</p> <p>"In 1946 Dr. Karl Compton, Chairman of the Atomic Energy Evaluation Board, visited New Zealand and discussed the Seal project with Leech, who had been invited to represent New Zealand and Australia in a technical capacity at the second Bikini atom bomb trial. The latter was unable to accept the invitation because of the critical conditions at the Auckland University College. However he supplied data relative to the location of the charge at the critical depth nearer the water surface together with forecasts of wave amplitudes at predetermined points at which wave recorders were to be established. The records were, it was reported subsequently, in agreement with the forecasts within the limits of experimental error."</p> <p>"In February 1947, Leech was invited by the Assistant Secretary, U.S. Navy to work with Dean M.P.O'Brien, Professor-in-charge of the Department of Engineering, University of California, upon the analysis of records obtained at Bikini. Again, the continuing critical conditions at the Auckland University College forced the Council to withhold its permission. During 1948, the University of California published a number of papers relating to certain phases of the project."</p>

<p>"Without discounting the effectiveness of the project as an offensive weapon" <b>"it does not offer such a threat to world peace as the atom bomb. This may not be amplified further than saying that things pertaining to it are under control."</b></p>	<p>Speculation. There was no viable weapon to control.</p>
<p><b>"Development of the project was understood to be too complex for a small country like New Zealand to carry out the development unaided.</b> New Zealand was said to have the necessary equipment and establishment and would be able to make useful contributions."</p>	<p>Except for explosive expertise provided by the U.S. Navy and scientific assistance provided by British scientists, New Zealand led the project from its inception to its end phase. "It was originally intended that Leech would be assisted by a senior group comprising Professor Snodgrass and two eminent Australian hydraulic engineers, Messrs. T.A. Lang and F. de L. Venables. After protracted negotiations these gentlemen were not able to join the team, and the technical direction of the whole project remained throughout the responsibility of Leech."          "The New Zealand approach to the problem was essentially experimental. While efforts were made to produce a satisfactory theory to explain the mechanism of wave generation with explosive charges close to the water surface, the mathematical difficulties proved intractable. However, the contributions by Sir Geoffrey Taylor and Dr. Penny (UK scientists) were invaluable in the examination of a number of factors."</p>
<p>The New Zealand Herald said its source of information about the new weapon was most reliable, but could not be disclosed.</p>	<p>The Seal Project report offers no hint on what triggered this news leak in 1947. It is also unclear why James Marion Snodgrass' name was leaked to the press.</p>

### Observances

When doing research for this paper at the Scripps institution of Oceanography, I was able to examine both the *Project Seal Final Report* as well as the James Marion Snodgrass' papers donated to the Scripps Library. It is obvious that Professor Snodgrass was extremely proud of his oceanographic career and his wartime service and this was made very apparent in his rough autobiography which he had started writing but never finished. Notably absent from the biographical record were any newspaper clippings or even a mention of the front page news he had made in mid-June 1947. The single reference to the news blitz of June 1947 was a letter written to Snodgrass by a friend wanting to get reacquainted after seeing him in the newspaper, and this letter was filed all by itself in a folder labeled 1947. I found this to be very odd.

Also absent from his biographical record is any mention that James Marion Snodgrass participated in Operations Crossroads. Operation Crossroads was a series of nuclear weapon tests conducted by the United States at Bikini Atoll in the Marshall Islands in the summer of 1946. Its purpose was to test the effect of nuclear weapons on naval ships. The series consisted of two detonations, each with a yield of 23 kilotons: the first test was Able which was detonated at an altitude of 520 feet on 1 July 1946; the second test was Baker which was detonated 90 feet underwater on 25 July 1946. A third planned burst, Charlie, was canceled. (Wikipedia) In Snodgrass' papers I found the following set of orders:



F16-4/LL/WE:whh  
MPL-WC Serial- 224

USN Motion Picture Liaison Office, West Coast  
1680 N. Vine St., Hollywood, Calif.

25 February 1946

END-12 on Orders to Duty with U. S. Navy for Technician J. M. SNODGRASS  
dated 16 October 1945.

To: Technician J. M. SNODGRASS.

1. Reported at 1200, 18 February 1946.
2. Detached this date at 1600 to report on or about 26 February 1946 to Navy Electronics Laboratory, San Diego, California for temporary duty pending further assignment in connection with the Crossroads Project.
3. Government quarters and facilities for messing were not available and were not provided.

WALTER W. EMERSON  
Comdr. USNR (Ret)  
Officer-in-Charge

Section 255t

LS(255t)

16 May 1946

BUSHIPS END-12 on Orders to Duty with U.S. Navy for Technician  
J. M. Snodgrass dated 16 October 1945.

To: Technician J. M. Snodgrass.

1. Detached this date to report on 17 May 1946 to the U.S. Navy Motion Picture Liaison Office, Hollywood, California, for temporary duty pending further assignment in connection with the Crossroads Project.
2. Class Two Air Priority, NATS, is hereby authorized.
3. It is requested that the services of Government Reservation Bureaus be provided in order to expedite the completion of this duty.

C. A. JOHNSON (Sgd)  
C. A. Johnson  
By Direction of  
Chief of Bureau

CLIPPER-10-10-10  
BUREAU MAIL 11

F16/LL ----- Motion Picture Liaison Office, West Coast  
MPL-WC 477 1680 No. Vine St., Hollywood, Calif.

18 MAY 1946

End-17 to CHO Ltr. CP20-334-ma  
of 24 June 1944, & Orders dtd 16 Oct 45.

To: Mr. James M. Snodgrass, Technician.

1. Reported 0800 on 18 May 1946.
2. Government quarters and facilities for messing are not available for assignment to you during the period of your assignment at this activity.

WALTER W. EMERSON  
Commander, USNR (Ret)

52 10M 1318

Although these orders don't show an exact deployment date to the Marshall Islands for the Crossroads tests, the June 15, 1947 *Syracuse Herald Journal* article notes that:

Snodgrass insisted in an interview he was "in no position to give any detailed clue as to the composition or structure of the development." Questioned about the classification of the development, he said that "under a broad classification" it might be described as a weapon. However, the handsome scientist, now conducting television research, **said he had been back in the United States since last July** and declared that he "knows nothing of the present stage of its refinement or development."

Here Snodgrass alludes to being out of country in July, 1946 and the only logical location would be at Bikini Atoll.

So why does Snodgrass not mention his temporary notoriety in 1947 or his participation in Crossroads in any of his autobiographical writings? It is possible that he took his secrecy oath very seriously and since his involvement in these projects was of a classified nature, he decided to stay mum. That would be a clean cut answer, but the only wrinkle is that he *does* mention his participation in Project Seal on more than one occasion in his writings. Even in media interviews of 1947, Snodgrass was obviously reserved, but he did manage to let slip some details about Project Seal. This is completely out of character for someone of Snodgrass' classified project experience.

*James Marion Snodgrass Autobiographical Note:*

**WWII, South Pacific, Noumea, New Caledonia:** While on special top secret project (Code; "SEAL PROJECT") for Adm. Halsey. Working with an Australian scientist/engineer, New Zealand Air Group Commander, work force of New Zealand Army officers & men with U.S. Navy ordnance Chief warrant officer and his team of petty officers. Assigned entire island of Isle Ne, situated just outside the harbor entrance. Developing methods of reducing the relatively high casualty rates we were encountering in amphibious warfare, especially the effort of clearing the enemy from the beaches. Basically trying to develop controllable artificial tidal waves to inundate the beaches before the landing phase of an attack. We were devising and carrying out the tests employing scale models. One time we were utilizing about 50 to 100 pounds of black powder packaged in a cylindrical container about 5 inches in diameter and 30 feet long. The explosive package was moored in about 4 feet of water. cameras were set

**Summary**

Two weeks before Kenneth Arnold's sighting on June 24, 1947 the news media reported on a top secret Anglo-American weapon, on par with the Atomic bomb, possibly airborne and outside the reaches of Soviet espionage. The two major protagonists of this story are real people, with real credentials, who are indeed working on a real secret project, yet they misrepresent many aspects of this project. This leaves us with many unanswered questions:

- Why would the Seal Project be leaked to the press in the first place if it was still allegedly an ongoing classified project?
- Why would TDJ Leech leak any information about the project including the name of a previous colleague if the project was still being worked on in strict secrecy?
- Why is the British role in the project played up while the New Zealand role is played down, when the opposite was true?
- Why are the British portrayed as the optimists and the Americans as the pessimists when the opposite was true?
- Why would Leech or Snodgrass claim that work was ongoing when they both knew that the project was killed in its infancy?
- Why would Snodgrass claim that the secret weapon is not related to the atomic bomb, when atomic weaponry would have to be used to generate the tsunami waves in order to be effective?

### Many Questions - Some Possible Answers

Is it possible that this weapons project which was already defunct in 1947 was leaked to the press for effect as part of a Government deception operation? Is it possible that the goal of this deception operation was to convince the Soviet Union that the United States was in possession of an airborne weapon that rivaled the Atomic Bomb and wanted the Soviets to believe that UFOs were this weapon? Is it possible that James Marion Snodgrass did not mention his 1947 notoriety in his autobiography because he was still under oath for this deception operation?

This strange weapons story does bear all the hallmarks of a deception operation where many truths are carefully wrapped in lies for the purpose of influencing an enemy. If so, what behavior did the deception operation hope to induce on the part of the Soviet Union? Let's revisit the time period for possible answers. In 1945, it became apparent to the United States that Soviet espionage had infiltrated every aspect of American society, from the White House to the

#### RED SAUCERS:

##### *Soviets Curious*

Those flying disks were fun while they lasted, but by this time everybody has practically forgotten them.

Well, almost everybody.

Latest report having to do with the aerial chinaware is that Soviet agents in the United States have been ordered to solve the mystery of the disks. Presupposing the report to be true, it means, at least, that the saucers were not of Russian origin.

Soviet espionage agents here are said to have been advised that the Kremlin believes the flying saucers might have some connection with army experiments on methods of knocking out enemy radar.

Manhattan Project. Although by 1946, steps taken by the FBI and other Government agencies, uncovered many Soviet spy rings, and put policies in place to curb this activity, there were still untold numbers of Soviet agents who had not yet been identified. A counter-intelligence operation could have been organized around this deception operation and the subsequent UFO events of 1947 to try and smoke out these agents. U.S. counter-intelligence forces could quietly monitor any persons who suddenly took interest in the subject of UFOs as potential Soviet agents. On August 28, 1947, a short article in the *Pomeroy Herald* echoed that possibility.

Whether the UFOs witnessed in 1947 were manmade or from somewhere else does not matter, as they could be used either way for counter-espionage purposes to induce the belief that they were a secret weapons program of the United States. Joint Air Force-Navy Air Intelligence report 100-203-79, *Analysis of Flying Object Incidents in the United States*, dated December 10, 1948 revealed that the United States had documented UFO incidents early in 1947, even prior to Kenneth Arnold's sighting. However, a *Report on Flying Disks*, dated July 25, 1947 from HQ, Air Defense Command, Mitchel Field to the Commanding General, Army Air Forces concluded that:

- (a) This "flying saucer" situation is not all imaginary or seeing too much in some natural phenomenon. Something is really flying around.
- (b) Lack of topside inquiries, when compared to the prompt and demanding inquiries that have originated topside upon former events, give more than ordinary weight to the possibility that this is a domestic project, about which the President, etc. know.

This same point of view was echoed by a FBI Memo dated August 19, 1947 from E.G. Fitch to D.M. Ladd, *Subject: Flying Disks* where:

Special Agent (S.W. Reynolds) of the Liaison Section, while discussing the above captioned phenomena with Lieutenant Colonel (K.C. Garrett) of the Air Forces Intelligence, expressed the possibility that flying disks were in fact, a very highly classified experiment of the Army or Navy. Mr. (Reynolds) was very much surprised when Colonel (Garrett) stated it was his personal opinion that such was a probability, but confidentially stated that a Mr. (X) who is a scientist attached to the Air Forces Intelligence, was of the same opinion.

Colonel (Garrett) stated that he based his assumption on the following: He pointed out that when flying objects were seen over Sweden, the "high brass" of the War Department exerted tremendous pressure on the Air Forces Intelligence to conduct research and collect information in an effort to identify these sightings. Colonel (Garrett) stated that, in contrast to this, we have reported sightings of unknown objects over the United States, and the "high brass" appeared to be totally unconcerned. He indicated this led him to believe that they knew enough about these objects to express no concern. Colonel (Garrett) pointed out further that the objects in question have been seen by many individuals who are what he terms "trained observers," such as airplane pilots. He indicated also that several of the individuals are reliable members of the community. He stated that it his conclusion that these individuals saw something. He stated the above has led him to the conclusion that there were objects seen which somebody in the Government knows all about.

It is intriguing that both Air Force Intelligence and Air Defense Command personnel were puzzled by the obvious lack of concern from upper echelons and were convinced that someone at a higher level was in the "know". Neither questioned the reality of the sightings. If UFOs were indeed being used for counter-espionage purposes, it makes sense that higher authorities would not be alarmed over these UFOs violating U.S. airspace.

This brings up another interesting question - could some of the objects witnessed in late June and early July 1947 have been staged in support of a deception/counter-intelligence operation? A FBI memo dated July 30, 1947 alludes to this possibility:

FLYING DISCS – The Bureau, at the request of the Army Air Forces Intelligence, has agreed to cooperate in the investigations of flying discs. The Air Force have confidentially advised that it is possible to release three or more discs in odd numbers, attached together by a wire, from an airplane in high altitudes and that these discs would obtain tremendous speed in their descent and would descend to the earth in an arc. The Army Air Forces Intelligence has also indicated some concern that the reported sightings might have been made by subversive individuals for the purpose of creating a mass hysteria.

### **Kenneth Arnold**

After his famous June 24, 1947 sighting, Kenneth Arnold was interviewed by Army Air Forces Counter-Intelligence Corps (CIC) agents from Hamilton Field and these CIC agents took correspondence that Arnold had received from the public. Arnold noted in his book *The Coming of the Saucers* that:

Before leaving that night (CIC agents) Davidson and Brown went through all the mail I had received outside of what various newsmen had helped themselves to. I noticed the mail they selected to take was mostly of the nature of societies or organizations that had written me asking for full accounts of my original experiences. I was happy they did go through my mail as I didn't feel capable of evaluating much of the contents of the letters I had received.

The interest on the part of these CIC agents in which organizations were attempting to contact Arnold regarding his UFO experience is consistent with a counter-espionage explanation.

Kenneth Arnold's experiences in Tacoma, Washington in late July and early August of 1947 also point to a counter-intelligence operation. Many UFO enthusiasts do not realize that Kenneth Arnold not only had the distinction of kick starting the UFO age but also for all intents and purposes was the very first Ufologist. Commissioned by the publisher of a pulp magazine to research the Maury Island incident in late July 1947, Arnold soon found himself in a twilight zone of events that made his initial sighting seem mundane in comparison. Arnold wrote extensively about these strange events in his book and his account was confirmed by later released FBI memos. This paper will not be able to examine these events in detail but to mention a few:

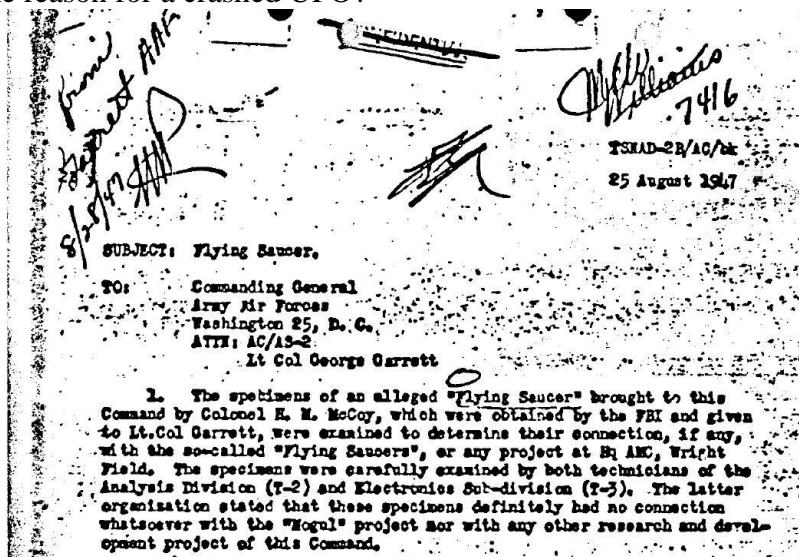
- Arnold flew in his private plane to Tacoma, Washington and did not tell anybody of his trip. When he arrived in Tacoma, every hotel in town was booked. He continued calling around just in case there was a vacancy. When he contacted the Winthrop Hotel, there was already a reservation under his name that Arnold did not make.

- While interviewing the principal witnesses of the Maury Island Incident in this hotel room, he was contacted by a local newspaper reporter who told Arnold that a mysterious caller was informing him (the reporter) of all of the conversations going on in the hotel, word for word. Arnold believed the room was bugged because all of the parties to those conversations were present in the room at the time the anonymous caller was talking to the reporter.
- One of the first “Men in Black” incidents occurs in the Maury Island incident to primary witness, Harold Dahl
- Fred Lee Crisman, alleged secondary witness to the Maury Island incident is later in life implicated in the JFK assassination (a conspiracy theory in its own right).

### Roswell

Even Roswell could have been part of this deception operation. Some of the unanswered questions about Roswell that could be explained by Government deception include:

- Why would the 509th Bomber Group, an elite military unit who knew better than any other unit the importance of secrecy in intelligence matters, put out a public press release on something so incredibly significant to National Security as the crash of an alleged extraterrestrial craft or for that matter the crash of a top secret balloon project?
- Why would Colonel Blanchard who was made to look foolish and rash in the eyes of the World go on to become a four star General and hold important Air Force commands?
- Why were none of the other 509th Bomber Group personnel reprimanded for their role in the Roswell events? Manhattan Project documents show that the 509th was reprimanded for something as simple as incorrectly classifying a document.
- If Mogul was the Top Secret Project involved, why would the Air Force unnecessarily draw attention to this project by using a balloon explanation for the Roswell event? Why not just blame it on an errant V2 like the one that crashed earlier in Juarez, Mexico that made the papers?
- If Mogul was Top Secret, why is it mentioned in an Air Force Document that is only classified confidential and was provided to the FBI and why is Mogul explicitly denied as the reason for a crashed UFO?



### **Other Possibilities**

With the Cold War heating up in 1947, there are other reasons for which a deception program could have been initiated, none of which are mutually exclusive. Nick Pope and I had a long discussion on what these other possibilities could be, including:

- Deterrence – Make the Soviets believe we had a weapon greater than the atomic bomb to forestall a feared Soviet attack.
- Code-breaking – Control the stories leaked to the press. If you control the plain text, and this plain text is encoded for transmission back to Moscow, you can attempt to break the code.
- Unmasking of spies (through watching for people expressing an interest in UFOs or through springing a canary trap, a method for exposing an information leak, which involves giving different versions of a sensitive document to each of several suspects and seeing which version gets leaked).
- Tying up Soviet Research and Development efforts on chasing a non-existent program.
- Discrediting Soviet officials who were (obviously) not going to be able to come up with any details of a non-existent program.

### **Further Research is Needed**

Are these Government scenarios speculative? Yes, but in Ufology there are no sacred cows, and every possible new lead needs to be explored to its fullest in our search for truth. In my opinion, Ufologists have only scratched the surface of potential research on the role of Government in the UFO field, especially as it relates to counter-intelligence, code breaking, psychological warfare, and Cold War operations.

Addenda:

## Rivals A-Bomb?



Sharing credit for development of a secret new British-American weapon said to be the equal of atomic bomb in deadliness, is James Marion Snodgrass, engineer for a Cincinnati, O., company. Work on the weapon was begun in Florida but transferred to New Zealand. (International)



**WORKED ON SECRET WEAPON**—James Marion Snodgrass (above), 39-year-old Cincinnati bio-physicist, said he aided British and New Zealand scientists in the development of a secret weapon he said was "as awesome in its effects as the atomic bomb." (AP Wirephoto).

# Confirms New Secret Weapon "As Awesome as Atom Bomb"

CINCINNATI, AP—James Marlon Snodgrass, 39-year-old biophysicist, confirmed Saturday in an interview he was one of a group of scientists that developed a secret Anglo-American weapon he said was "as awesome in its effects as the atomic bomb."

Reluctant to discuss the weapon, Snodgrass said it was not connected in any way with the atom bomb and was not a biological weapon. He would not comment when asked whether it was for use against humans, aircraft or sea vessels.

### Gives Only a Hint.

Snodgrass gave the only hint as to the nature of the weapon as he disclosed development of the weapon started after American forces landed on Tarawa Island in the Pacific and turned to a reporter and said: "You remember there was heavy loss of life."

The newsman asked if the weapon had anything to do with the casualties or some military problem encountered on the island and Snodgrass replied:

"Could be."

Existence of the weapon was disclosed when Prof. T. D. Leech of New Zealand was mentioned in the birthday honors list of King George VI in London and a news dispatch reported Dr. Leech as saying the weapon was an effective alternate to the atomic bomb.

Asked about the weapon as an alternate to the atomic bomb, Snodgrass said only: "First reports are substantially true but perhaps they are exaggerated a little."

### Conceived By British.

He said the weapon was conceived by the British and although United States naval officials were not enthusiastic the British pressed the work, first on an obscure Pacific island in 1943 and later in New Zealand.

Fears of espionage resulted in centering the experimentation in New Zealand, Snodgrass said, although it had been planned to transfer work on the project to Florida.

The U. S. navy received reports on the weapon, he said.

# Supersonic Weapon Is Forecast

## Another Secret Device Greater Than Atomic Bomb

CAMBRIDGE, Mass., June 14 (AP)—Weapons as terrifying as the atom bomb — super sounds that would upset the nervous systems of whole populations, light waves, and shooting clouds out of the sky to control rainfall — were raised as possibilities today in any war of the future by an American Air Force commander.

General George C. Kenney, head of the Strategic Air Force, cited the dog whistle as an example of the effectiveness of sound waves in a prepared address before Massachusetts Institute of Technology graduates.

"An airplane equipped with a sort of super dog whistle," he said, "conceivably could fly around a city for awhile and upset the nervous systems of the whole population."

"I believe we need to do some research along this line. It may be just a fantastic dream. It may not."

Light waves, he said, offered a similar field.

"Below the infra reds and above the ultra violets there may be weapons of future warfare as devastating as the atomic bomb," he asserted. "Other nations may find them. We must keep in pace in order to be able to counter or defend against such threats."

General Kenney said that at present clouds could be broken up and start rainfall at a specific place on a limited scale, and added:

"Instead of allowing rain clouds to drive past arid and semi-arid sections, we should be able to shoot them down and put the rain where

we need it. If we can extend this process we can stop rain from falling where it has been falling for ages."

### Secret Anglo-American Weapon Also Developed

CINCINNATI, June 14 (AP)—James Marion Snodgrass, 39-year-old bio-physicist, confirmed today in an interview he was one of a group of scientists that developed a secret Anglo-American weapon he said was "as awesome in its effects as the atomic bomb."

Reluctant to discuss the weapon, Snodgrass said it was not connected in any way with the atom bomb and was not a biological weapon. He would not comment when asked whether it was for use against

humans, aircraft or sea vessels.

Snodgrass gave the only hint as to the nature of the weapon as he disclosed development of the weapon started after American forces landed on Tarawa Island in the Pacific and turned to a reporter and said: "You remember there was heavy loss of life."

The newsmen asked if the weapon had anything to do with the casualties or some military problem encountered on the island and Snodgrass replied:

"Could be."  
Existence of the weapon was disclosed when Prof. T. D. J. Leech of New Zealand was mentioned in the birthday honors list of King George VI in London and a news dispatch reported Dr. Leech as saying: (Continued on Page 2, Col. 3)

## British Refuse To Talk About Secret Weapon

LONDON, June 13—(AP)—British government ministries declined comment today on New Zealand reports concerning the purported development of a super-secret super-weapon approaching the atomic bomb in importance.

The defense ministry, the air ministry, the war office, the admiralty and the ministry of supply all refused to discuss stories out of Auckland which quoted "most reliable" sources as saying research on such an offensive weapon was started in 1944 and still was being pursued in the strictest secrecy by scientists in New Zealand, Great Britain and the United States.

"Had the project been completed in time it might have played a role as effective as the atom bomb in the subjugation of Japan," the New Zealand Herald, of Auckland, reported.

"Without discounting the effectiveness of the project as an offensive weapon," the paper continues, "it does not offer such a threat to world peace as the atom bomb. This may not be amplified further than saying that things pertaining to it are under control."

First reports that such research was under way followed the award of the rank of commander of the British empire to Prof. David James Leech in the latest royal birthday honors list. Reports in Auckland said Leech had taken a leading part in the coordination and development of research on the project.

The New Zealand high commissioner's office here, when queried about the Auckland reports, said it had "never heard of" Prof. Leech.

**Speculative**  
AUCKLAND, N. Z., June 13—(AP)—New Zealanders speculate

today on the nature of a new weapon—approaching the atom bomb in importance, but cheaper—which the New Zealand Herald described as a joint development of scientists from the country, Great Britain and the United States.

The Herald said its source of information about the new weapon was most reliable, but could not be disclosed.

There was no hint of the nature of the project. One authority said that on completion, it could be given practical application a variety of ways. One of the applications, it was stated, would have some similarity to one of the applications of the atom bomb.

Scientists were reported to be roughly examining all possibilities. They were said to have exchanged ideas and information. So far as is known, no details of the project have been revealed in any country other than New Zealand, Britain and the United States.

The Herald said it learned the development of the project the stage of practical application would cost much less than development of atomic energy production. However, the project was understood to be too complex for a small country like New Zealand to carry out the development unaided. New Zealand however, was said to have the necessary equipment and establishment and would be able to make useful contributions.

**Establishes Residency**  
PHILADELPHIA, June 13 (AP)—Mrs. Eugene Ormandy wife of the internationally known conductor and music director of the Philadelphia orchestra, has established residence in Rer Nev., and will file suit for divorce, her attorney, John Thatcher disclosed here. Mr. Ormandy is the former Stephan Goldner, a native of Vienna. T Ormandy's were married in 19 and separated last October. They have no children.

The highest free leaping water fall in the world is the Yosemite Fall in Yosemite Valley which drops 1,430 feet.

8\*—The Charleston Gazette Saturday, June 14, 1947

## Radiation May Be Factor In Latest Secret Weapon

ATLANTIC CITY, N. J., June 13.—(AP)—There is one clue in the reports of the secret Anglo-American weapon said to outrival the atom bomb as credited today to Prof. T. D. J. Leech in New Zealand.

That clue points to a ray or radiation of some sort.

The sentence reads: "One means of application would have some similarity to one method of using the atomic bomb."

There are two methods of using the power of the atom: one in an explosive bomb, the other in the radioactive rays, from common substances that are transmuted into temporary radioactivity. These would form a gas in the same sense as poison war gases. Most of the later are not gases, but fine dusts or mists. The atomic poison gases would be the same.

Their possibility was explained to President Roosevelt by scientists in 1939 and more recently Glenn Martin mentioned them as bombs that American military authorities are studying. Half a mile radius is the generally stated distance for such radioactivity to be effective in war.

No new sources of death rays were reported during the war, but such rays were known to electrical theorists before the war. They were considered useless even as possibilities.

**Plane Check Considered**

Short-wave radio rays were one. It was considered possible to make such a ray that would be effective at four miles, not for killing that far away, but for crashing planes by interfering with the electrical portion of their engines.

The difficulty was, for such a ray, the need of power equal to about 10 times that of Niagara Falls, and the reflector, perhaps of pure aluminum, 200 feet in diameter.

Close by, this sort of radiation was expected to be fatal. These engineering dreams were made before the great advances in very short radio waves that came out of the war.

If there is any possibility of concentrated radar or other short wavelength rays that will kill men, no hint of that lethal power has leaked out.

scientific principles of producing such a satellite of the earth, really equivalent to a tiny moon, are known, but there is nothing at all in present scientific developments to overcome the difficulties of launching or even of construction.

Post-war secret weapons have included a cosmic ray bomb. This had its origin in misunderstandings on the part of laymen and never came from any scientific source. A starlight bomb would be easier to conceive of, because total starlight is many times more energetic than the total energies of cosmic rays. A single cosmic ray is millions of times more energetic than any single beam of starlight but there is no known possibility of concentrating them.

**Defense Against Bacteria**

Biological warfare frequently has been declared to be as bad as atomic bombs. But these claims omit the fact known to all biologists that man's own body, conditioned for eons of time to germs of all kinds, can be protected rather quickly from any conceivable forms of bacteriological attack.

Death rays in general are almost inconceivable for effective military use because of the well-known stopping power of the air for waves that are shorter than light or the invisible ultra-violet rays.

Although scientists have been trying for some time to produce man-made cosmic rays, they have not succeeded, and when the planned great electrical energy machines producing billions of volts are built, it is not expected that they can produce anything more than the very weakest sort of cosmic rays.

## Boycott Notice Given by Arabs

LAKE SUCCESS, June 13.—(AP)—The Arab Higher Committee for Palestine formally notified Secretary-General Trygve Lie today that it would boycott the United Nations Holy Land inquiry. Lie immediately transmitted the

## New Weapon May Be Airborne

SYDNEY, Australia, June 14 — (AP)—Prof. W. A. Miller of the Sydney University Civil Engineering Department said today a new secret weapon mentioned in Auckland, N. Z., reports "might be in the nature of an airborne missile such as the German rocket bomb."

Miller emphasized to reporters, however, that he himself had received no indication of the nature of the project and that he made the comment only because he knew Prof. David James Leech of Auckland to have "an expert knowledge of and enthusiasm for aerodynamics."

Hints about the purported new weapon, shrouded in super-secrecy, were first heard after Leech was named this week in the king's birthday honors list as a commander of the Order of the British Empire for his war work.

Miller said Leech in both aerodynamics and hydrodynamics had made a great contribution to the work of Sydney University's Civil Engineering Department before he went to New Zealand in 1939.

Leech has been credited with being a central figure in the coordination of research in which New Zealand, British and United States scientists are reported to have developed the super-weapon. The New Zealand Herald of Auckland has compared the new development of the atomic bomb.

In Auckland today, Prof. Leech said he was "surprised" to hear that a London newspaper headline had stated that the atomic bomb had been rendered obsolete, but made no further comment.

## Super 'Whistles,' Light Waves May Become 'A' Bomb Rivals

CAMBRIDGE (Mass.), June 14. —(AP)—Weapons as terrifying as the atom bomb were raised as possibilities today in any war of the future by an American air force commander.

General George C. Kenney, head of the Strategic Air Force, cited the dog whistle as an example of the effectiveness of sound waves in a prepared address before Massachusetts Institute of Technology graduates.

"An airplane equipped with a sort of super dog whistle," he said, "conceivably could fly around a city for awhile and upset the nervous systems of the whole population."

Light waves, he said, offered a similar field.

"Below the infra reds and above the ultra violets there may be weapons of future warfare as devastating as the atomic bomb," he asserted. "Other nations may find them. We must keep pace in order to be able to counter or defend against such threats."

Kenney said that at present clouds could be broken up and start rainfall at a specific place on a limited scale, and added:

"Instead of allowing rain clouds to drive past arid and semi arid sections, we should be able to shoot them down and put the rain where we need it . . ."

It is not inconceivable that the nation that first learns to plot the paths of air masses accurately and learns to control the time and

place of precipitation will dominate the globe.

### 'Exaggerated But True'

NEW YORK, June 14.—(AP)—The Herald Tribune quotes a 39 year old American scientist who it says shared in the development of the secret Anglo-American weapon reported from New Zealand as saying the weapon exists "and that first reports, although exaggerated, are substantially true."

The scientist, James Marion Snodgrass of Cincinnati, is further quoted as saying the weapon is not connected in any way with the atom bomb and that it is not a biological weapon.

Existence of the weapon first was reported when Professor T. D. J. Leech of New Zealand was mentioned on the birthday honors list of King George VI in London. A news dispatch reported Leech as saying his weapon was an effective alternative to the atomic bomb.

Later dispatches mentioned a Professor J. M. Snodgrass of the University of California as a co-worker.

Original reports said the secret weapon outvalued the atom bomb.

The paper says Snodgrass was a biophysicist and had done work on the effect of electric currents on the human body in the years which preceded the wartime work. At present he is chief engineer of the motion picture sound division of the Payton-Acme Company of Cincinnati.

IS A-BOMB PASSE?

# U. S. Scientist Helped Make New Secret Lethal Weapon

America and Britain Keep Details Hidden But Leave No Doubt Device Exists

NEW YORK, June 14 (AP)—The Herald Tribune quotes a 39-year-old, American scientist it says shared in the development of the secret Anglo-American weapon reported from New Zealand as saying that the weapon exists "and that first reports, although exaggerated, are substantially true."

The scientist, James Marion Snodgrass of Cincinnati, is further quoted as saying that the weapon was not connected in any way with the atom bomb and that it was not a biological weapon.

Existence of the weapon first was reported when Prof. T. D. J. Leech of New Zealand was mentioned on the birthday honors list of King George VI in London. A news dispatch reported Dr. Leech as saying his weapon was an effective alternative to the atomic bomb. Later dispatches mentioned a Prof. J. M. Snodgrass of the University of California as a co-worker.

Original reports said the secret weapon outrivaled the atom bomb.

The Herald Tribune says it reached Snodgrass in Cincinnati and quoted him as saying that he worked on the weapon in New Zealand and that he believed it to be a weapon of tremendous importance.

"But farther than that he would not go," the paper says. "He would not discuss its nature

or whether it was for use again personnel or vessels."

The Herald Tribune quotes Snodgrass as saying the Navy holds all reports on it "although he recalled having spoken to E. Vannevar Bush, wartime scientific leader about it."

The paper says Snodgrass was a biophysicist and had done work on the effect of electric currents on the human body the years that preceded the wartime work. At present he is chief engineer of the motion picture sound division of the Pathe-Actone company of Cincinnati.

Possible Clue

SYDNEY, Australia, June 14 (AP)—Prof. W. A. Miller of the Sydney university civil engineering department said today a new secret weapon mentioned in Auckland, N. Z., reports "might be in the nature of an airborn missile such as the German rocket bomb."

Miller emphasized to reporters, however, that he himself had received no indication of the nature of the project and that he made the comment only because he knew Prof. David James Leech of Auckland to have "an expert knowledge and enthusiasm for aerodynamics."

# Death Ray May Be New Weapon

ATLANTIC CITY, N. J., June 13 —(AP)—There is one clue in the reports of the secret Anglo-American weapon said to outrival the atom bomb as credited today to Prof. T. D. J. Leech in New Zealand.

That clue points to a ray or radiation of some sort.

The sentence reads: "One means of application would have been similarity to one method of using the atomic bomb."

There are two methods of using the power of the atom; one in an explosive bomb, the other in the radioactivity rays, from common substances that are transmuted into temporary radioactivity. These would form a gas in the same sense as poison gases. Most of the latter are not gases, but fine dusts or mists. The atomic poison gases would be the same.

