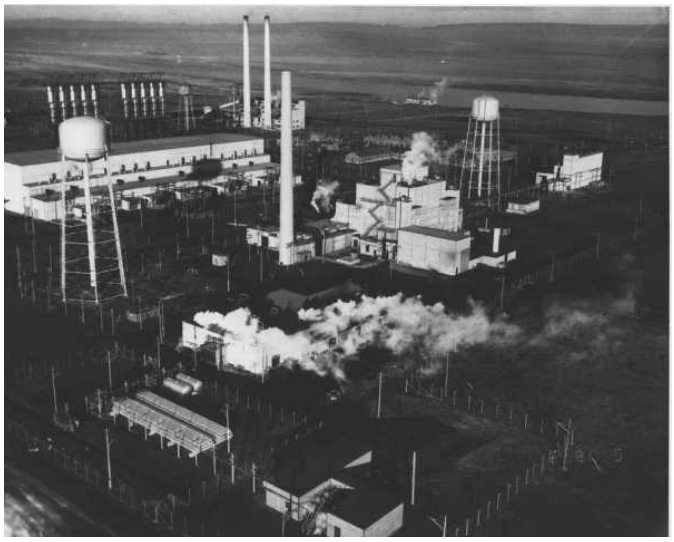
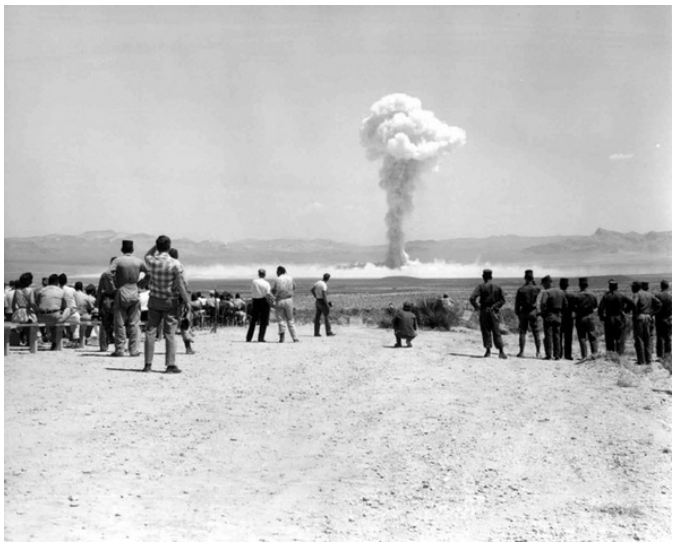
PREFACE

Politics is manipulative, selective, subjective and most of the time not even the reality following.



B Reactor, the world's first industrial-scale nuclear reactor, was built during World War II as part of the top-secret Manhattan Project to develop the atomic bomb.



The first nuclear weapon was tested near Alamogordo, New Mexico on July 16, 1945

The United States was the first country who turned nuclear science into militarization of that science:

B Reactor, the world's first industrial-scale nuclear reactor, was built during World War II as part of the top-secret Manhattan Project to develop the atomic bomb. One of three plutonium production reactors built in total secrecy at Hanford during World War II, B Reactor produced plutonium for the Trinity test at Alamagordo, New Mexico, on July 16, 1945, and for the atomic bomb exploded on Nagasaki on August 9, 1945.

That all made the Jewish first prime minister David Ben Gurion obsessed: "What Einstein, Oppenheimer, and Teller, the three of them are Jews, made for the United States, could also be done by scientists in Israel, for their own people".

Ben-Gurion decided to recruit Jewish scientists from abroad even before the end of the 1948 Arab–Israeli War that established Israel's independence. He and others, such as head of the Weizmann Institute of Science and defense ministry scientist Ernst David Bergmann, believed and hoped that Jewish scientists such as Oppenheimer and Teller would help Israel.

WHAT IS THE VELA INCIDENT?

The incident is named after the satellite that spotted the nuclear activity

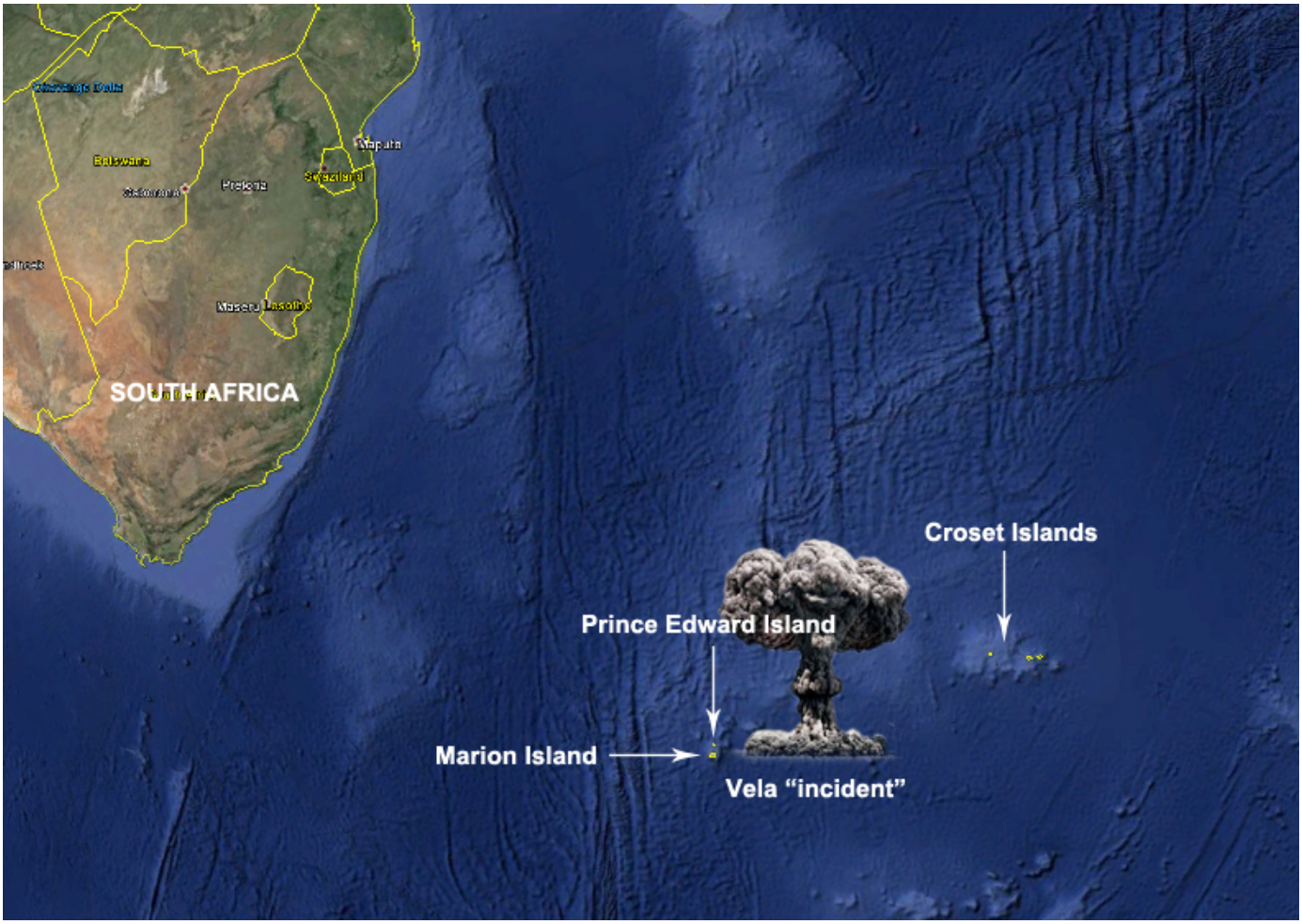
The Vela Incident, also known as the South Atlantic Flash, was an unidentified "double flash" of light detected by an American Vela Hotel satellite on September 22, 1979, near the Prince Edward Islands off Antarctica, which many believe was of nuclear origin. The most widespread theory among those who believe the flash was of nuclear origin is that it resulted from a joint South African and Israeli nuclear test. The topic remains highly disputed today.

While a "double flash" signal is characteristic of a nuclear weapons test, the signal could also have been a spurious electronic signal generated by an aging detector in an old satellite, or a meteoroid hitting the Vela satellite. No corroboration of an explosion, such as the presence of nuclear byproducts in the air, was ever publicly acknowledged, even though there were numerous passes in the area by U.S. Air Force planes specifically designed to detect airborne radioactive dust. Other examiners of the data, including the Defense Intelligence Agency (DIA), the U.S. Naval Research Laboratory (NRL), and defense contractors, have come to the conclusion that the flash was not a result of a nuclear detonation. Much information about the event remains classified.

How was it (or not) detected?

The "double flash" was detected on September 22, 1979, at 00:53 GMT, by the American Vela satellite 6911, which carried various sensors designed specifically to detect nuclear explosions that contravened the Partial Nuclear Test Ban Treaty. In addition to being able to detect gamma rays, X-rays, and neutrons, the satellite also contained two silicon solid-state bhangmeter sensors that could detect the dual light flashes associated with an atmospheric nuclear explosion: the initial brief, intense flash, followed by a second, longer flash.

The satellite reported the characteristic double flash of a small atmospheric nuclear explosion of two to three kilotons, in the Indian Ocean between the Crozet Islands (a very small, sparsely inhabited French possession) and the Prince Edward Islands which belong to South Africa at 47°S 40°E Coordinates: 47°S 40°E. The previous 41 double flashes the Vela satellites detected were all subsequently confirmed to be nuclear explosions.



There was, and remains, much doubt as to whether the satellite's observations were accurate. The Vela Hotel 6911 satellite was one of a pair that had been launched on May 23, 1969, over ten years before the "double-flash" event, and this satellite was already more than two years beyond its so-called "design

lifetime". This satellite was known to have a failed electromagnetic pulse (EMP) sensor, and it had developed a fault (in July 1972) in its recording memory, but that fault had cleared itself by March 1978.

Additionally, early technical speculation also examined the possibility that the Vela had recorded a combination of natural phenomena, such as lightning in conjunction with a meteor strike. Other early media reports of the time discussed the possibility of a near-Earth object (NEO) superbolide, such as by

an asteroid, occurring. The Vela satellite's flash detectors were sensitive to lightning superbolts, which resulted in two scientists, John Warren and Robert Freyman from the Los Alamos National Laboratory (then called the Los Alamos Scientific Laboratory), immediately flying to and investigating a rare, overland superbolt occurrence on Bell Island, Newfoundland, in April 1978. Their observations of the

event, called the 'Bell Island Boom', noted building structural damage, dead farm animals and destroyed electrical devices amongst other evidence (the superbolt's blast was heard 55 kilometers away in Cape Broyle, Newfoundland).[12][a] The Bell Island Boom was among some 600 "mystery booms" that occurred along the North American eastern seaboard from late 1977 to mid‑1978.

Nonetheless, the initial assessment by the United States National Security Council (NSC), with technical support by the Naval Research Laboratory in October 1979 was that the American intelligence community had "high confidence" that the event was a low-yield nuclear explosion, although no radioactive debris had ever been detected, and there was "no corroborating seismic or hydro-acoustic data." A later NSC report revised this position to "a position of agnosticism" about whether a test had occurred or not. The NSC concluded that responsibility for a nuclear explosion, if any, should be ascribed to the Republic of South Africa.

Several U.S. Air Force WC-135B surveillance aircraft flew 25 sorties over that area of the Indian Ocean soon after the "double flash" was reported, but they failed to detect any sign of nuclear radiation. Studies of wind patterns confirmed that fall-out from an explosion in the southern Indian Ocean could have been carried from there to southwestern Australia. It was reported that low levels of iodine-131 (a short-half-life product of nuclear fission) were detected in sheep in the southeastern Australian States of Victoria and Tasmania soon after the event. Sheep in New Zealand showed no such trace.

The Arecibo ionospheric observatory and radio telescope in Puerto Rico detected an anomalous ionospheric wave during the morning of September 22, 1979, which moved from the southeast to the northwest, an event which had not been observed previously by the scientists.

Office of Science and Technology evaluation

The Carter Administration asked the Office of Science and Technology Policy (OSTP) to convene a panel of instrumentation experts to re-examine the Vela Hotel 6911 data, and to attempt to determine whether the optical flash detected came from a nuclear test. The outcome was important to Carter, as his presidency and 1980 re-election campaign prominently featured the themes of nuclear nonproliferation and disarmament. In particular, the SALT II treaty had been signed three months earlier, and was pending ratification by the United States Senate.

An independent panel of scientific and engineering experts was commissioned by Frank Press, who was the Science Advisor to president Carter and the chairman of the OSTP, to evaluate the evidence and determine the likelihood that the event was a nuclear detonation. The chairman of this science panel itself was Dr. Jack Ruina of the Massachusetts Institute of Technology, and also the former director of the U.S. Department of Defense's Advanced Research Projects Agency. Reporting in the summer of 1980, the panel noted that there were some key differences in the detected optical signature from that of an actual nuclear explosion, particularly in the ratio of intensities measured by the two detectors on the satellite. The now-declassified report contains details of the measurements made by the Vela Hotel satellite.

The explosion was picked up by a pair of sensors on only one of the several Vela satellites; other similar satellites were looking at different parts of the earth, or weather conditions precluded them seeing the same event. The Vela satellites had previously detected 41 atmospheric tests—by countries such as France and the People's Republic of China—each of which was subsequently confirmed by other means, including testing for radioactive fallout. The absence of any such corroboration of a nuclear origin for the Vela Incident also suggested that the "double flash" signal was a spurious 'zoo' signal of unknown origin, possibly caused by the impact of a micrometeoroid. Such 'zoo' signals which mimicked nuclear explosions had been received several times earlier.

Their report noted that the flash data contained "many of the features of signals from previously observed nuclear explosions", but that "careful examination reveals a significant deviation in the light signature of the September 22 event that throws doubt on the interpretation as a nuclear event". The best analysis that they could offer of the data suggested that, if the sensors were properly calibrated, any source of the "light flashes" were spurious "zoo events". Thus their final determination was that while they could not rule out that this signal was of nuclear origin, "based on our experience in related scientific assessments, it is our collective judgment that the September 22 signal was probably not from a nuclear explosion".

Victor Gilinsky (former member of the Nuclear Regulatory Commission) attempted to cast doubt on the science panel's findings, arguing that its members were politically motivated. There was some data that seemed to confirm that a nuclear explosion was the source for the "double flash" signal. There was the "anomalous" traveling ionospheric disturbance that was measured at the Arecibo Observatory in Puerto Rico at the same time, but many thousands of miles away in a different hemisphere of the earth. A test in Western Australia conducted a few months later found some increased nuclear radiation levels. However, a detailed study done by New Zealand's National Radiation Laboratory found no such evidence of excess radioactivity, and neither did a U.S. Government-funded nuclear laboratory. Los Alamos National Laboratory scientists who worked on the Vela Hotel program have professed their conviction that the Vela Hotel satellite's detectors worked properly.

Leonard Weiss, at the time Staff Director of the Senate Subcommittee on Energy and Nuclear Proliferation, has also raised concerns about the findings of the Ad-Hoc Panel, arguing that it was set up by the Carter administration to counter embarrassing and growing opinion that it was an Israeli nuclear test.[29] Specific intelligence about the Israeli nuclear program was not shared with the panel whose report therefore produced the plausible deniability that the administration sought.

Who's responsible?

If a nuclear explosion did occur, it occurred within the 3000-mile-wide (4,800 km diameter) circle covering parts of the Indian Ocean, the South Atlantic, the southern tip of Africa, and a small part of Antarctica

Well before the Vela Incident, American intelligence agencies had made the assessment that Israel probably possessed its own nuclear weapons. According to journalist Seymour Hersh, the detection was the third joint Israeli-South African nuclear test in the Indian Ocean, and the Israelis had sent two IDF ships and "a contingent of Israeli military men and nuclear experts" for the test.

Author Richard Rhodes also concludes the incident was an Israeli nuclear test, conducted in cooperation with South Africa, and that the United States administration deliberately obscured this fact in order to avoid complicating relations with South Africa.

Likewise, Leonard Weiss offers a number of arguments to support the test being Israeli, and claims that successive US administrations continue to cover up the test to divert unwanted attention that may portray its foreign policy in a bad light.

In the 2008 book The Nuclear Express: A Political History of the Bomb and its Proliferation Thomas C. Reed and Danny B. Stillman stated their opinion that the "double flash" was the result of a joint South African-Israeli nuclear bomb test.

David Albright stated in his article about the "double flash" event in the Bulletin of Atomic Scientists that "If the 1979 flash was caused by a test, most experts agree it was probably an Israeli test".

In 2010, it was reported that, on February 27, 1980, President Jimmy Carter wrote in his diary, "We have a growing belief among our scientists that the Israelis did indeed conduct a nuclear test explosion in the ocean near the southern end of Africa."

Leonard Weiss, of the Center for International Security and Cooperation at Stanford University writes: "The weight of the evidence that the Vela event was an Israeli nuclear test assisted by South Africa appears overwhelming."

Thomas C. Reed writes that he believes the Vela incident was an Israeli neutron bomb test. The test would have gone undetected as the Israelis specifically chose a window of opportunity when, according to the published data, no active Vela satellites were observing the area. Additionally, the Israelis chose to set off the test during a typhoon. However, the Israelis and their South African partners had miscalculated as the over a decade-old Vela satellite which detected the blast had been officially listed by the US government as 'retired', although nonetheless was still able to receive data. By 1984, according to Mordechai Vanunu, Israel was mass-producing neutron bombs.

The Republic of South Africa did have a nuclear weapons program at the time, and it falls within that geographic location. Nevertheless, it had acceded to the Partial Test Ban Treaty in 1963, and since the fall of apartheid, South Africa has disclosed most of the information on its nuclear weapons program, and according to international inspections and the ensuing International Atomic Energy Agency report, South Africa could not have constructed such a nuclear bomb until November 1979, two months after the "double flash" incident. Furthermore, the IAEA reported that all possible South African nuclear bombs had been accounted for. A Central Intelligence Agency (CIA) report dated January 21, 1980, that was produced for the United States Arms Control and Disarmament Agency concluded that:

In sum, State/INR finds the arguments that South Africa conducted a nuclear test on 22 September inconclusive, even though, if a nuclear explosion occurred on that date, South Africa is the most likely candidate for responsibility.

The United Nations Security Council Resolution 418 of November 4, 1977 introduced a mandatory arms embargo against South Africa, which also required all states to refrain from "any co-operation with South Africa in the manufacture and development of nuclear weapons".

Sasha Polakow-Suransky, writes that in 1979, South Africa was not yet advanced enough to test a nuclear device: "By the first week of October, the State Department had realized that South Africa was probably not the guilty party; Israel was a more likely candidate."

In 1979, the DIA reported that the test might have been a Soviet test done in violation of the 1963 Partial Nuclear Test Ban Treaty. The USSR had twenty years earlier in 1959 conducted a few secret underwater tests in the Pacific in violation of the 1958 bilateral moratorium between the Soviet Union

and the USA (cf. List of nuclear weapons tests of the Soviet Union) before the 1958 moratorium was unilaterally and officially abrogated by the Soviet Union in 1961.

India had carried out a nuclear test in 1974 (codenamed Smiling Buddha). The possibility that India would test a weapon was considered, since it would be possible for the Indian Navy to operate in those waters so far south, however, this was dismissed as impractical and unnecessary (given the fact that India had signed and ratified the Limited Test Ban Treaty or LTBT in 1963, and had complied with it even in its first test).

An interagency intelligence memorandum requested by the United States National Security Council and entitled "The 22 September 1979 Event" analyzed the possibility of Pakistan wanting to prove its nuclear explosive technology in secret.

Since the "double flash", if one existed, could have occurred not very far to the west of the French-owned Kerguelen Islands, it is possible that the French were testing a small neutron bomb or other small tactical nuclear bomb.

Publication:


Evaluation of Some Geophysical Events on
22 September 1979

Evaluation of Some Geophysical Events on 22 September 1979 - Los Alamos Scientific Laboratory