

# Douglas B. Nash Biography



**Douglas B. Nash - Class of 1951 - b. 1933** - is a retired planetary geologist, was a research scientist and science manager at Caltech's Jet Propulsion Lab (JPL) in Pasadena from 1962 to 1992, was a Principal Investigator in NASA's Apollo Lunar Sample Analysis Program from 1969-74, has published numerous papers on the reflectance, luminescence, irradiation- effects, and spectroscopic properties of planetary rock materials. **Nash** has extensive research experience in developing techniques and equipment for lab experimental studies, in managing JPL Earth and Planetary science research programs, and providing science support and mission planning for NASA planetary spacecraft missions. He founded a nonprofit science research institute in San Juan Capistrano, California. Mr. **Nash** has formally retired from his positions of an active researcher, Institute Director, and Corporation Chairman and President.

*Promising the Moon : Lunar Rocks to Be Stars of Program by Former NASA Scientist on Anniversary*

*July 17, 1994, Frank Messina and Jeffrey Bean | Special to the Los Angeles Times.*

SAN JUAN CAPISTRANO — In 1969, after global fascination with the first manned lunar landing had cooled, the scientific community still needed a few things explained.

There were questions, legends and myths about the moon that had existed ever since human beings first stood erect and stared in awe at the strange, bright orb hanging in the night sky. How did it get there? Is life on the moon possible? Green cheese or igneous rock?

“There was intense, worldwide interest in the answers held by the moon rocks. It was an extremely exciting time,” said **Douglas Nash**, 61, who was part of an elite group of NASA scientists assigned to answer age-old scientific questions about the moon. “It’s amazing what heroes our scientists were back then.”

As the 25th anniversary of Neil Armstrong’s historic moon walk is observed around the globe this week, Nash, who now directs the San Juan Institute, a San Juan Capistrano-based think tank, clearly remembers the excitement of waiting for the first crate of moon rocks to be released from quarantine in Houston.

But, he also shakes his head and wonders where in the cosmos has Washington’s support for space exploration gone in recent years.

“You couldn’t convince me 25 years ago that we wouldn’t be back to the moon several times,” **Nash** said. “The tragedy is that generations of scientists who have all that knowledge from the early Apollo era are about to retire. All that knowledge will be lost.”

With the July 20 anniversary approaching, however, **Nash** doesn’t have time for bittersweet memories. He is busy preparing a special, free program at the San Juan Institute for Wednesday that will include a display of moon samples from all six Apollo missions. The daylong event will feature lectures from scientists about lunar exploration and a telescopic peek at the moon.

For **Nash**, the program will be a chance to share his experiences during one of the most historic and significant chapters in space exploration.

# Douglas B. Nash Biography

“This was a big, big event for us,” he said. “The Apollo 11 mission was the first to bring back lunar samples, and security was tight. Where the rocks were kept we had motion detectors, special locks and closed circuit television.”

The first time **Nash** took the lunar specimens on a trip, it was like a page from a bad spy novel. “I had escorts,” he said. “The moon rocks were in a suitcase with a chain shackled to my wrist.”

George Mueller, an administrator in NASA’s Manned Space Flight division at the time, said the Apollo 11 launch was the zenith of the country’s technological achievements. He hopes the anniversary will rekindle public interest in the space program, but Mueller wonders if elected officials in Washington would commit more money.

“To me, it’s interesting that we’ve been consigning our space exploration to history before we’ve started,” said the 71-year-old Santa Barbara resident, who is now president of the International Academy of Astronautics. “That first step is a very small first step when you think of space exploration.”

Although much mystery still surrounds the moon, **Nash** and his fellow NASA scientists solved many moon riddles just a few weeks after getting their hands on the lunar samples.

“A couple of the major questions were answered very quickly, such as how old the moon is,” Nash said. “Through radioactive dating techniques, we determined that the moon is about 4 1/2 billion years old.”

The following is a first person account of meeting **Doug** in August of 2010: **Doug Nash** is a retired NASA geologist and worked on the very first lunar samples brought back by the Apollo program. He was also an expert on Solar wind and the moons of Jupiter as well as being a veteran of the Korean War, where he served several years on aircraft carriers.

*The Sydney Morning Herald - January 9, 2010 - In the harbour of Port Vila, a husband awaits scientific explanation of his wife's agonizing end. Joel Gibson reports.*

**Doug Nash** and Silvia Fink met and fell in love on a yacht. After their 2007 marriage, the Windcastle took them to the still-warm lava of the Galapagos Islands, to Tonga, where they met the Pacific's last king, and on to New Zealand, surviving a “pasting” on the famously rough crossing.

“She was just crew but she ended up staying five years,” **Nash** says. “We had a tremendously successful romance and developed a great partnership. Our goal was a complete circumnavigation, but that came to a screeching halt in August.”

Their boat now floats on a mooring in Port Vila harbour, Vanuatu, riding out the cyclone season. By the time it sets sail again, at least nine months will have passed since it was the scene of 56-year-old Silvia’s sudden and mysterious death. In the meantime, her widower waits, and waits.

**Nash’s** nightmare began after sailing from Vila to the island of Epi, 145 kilometres north, on an August day after the island’s annual canoe-race festival. Lamén Bay was lively when they dropped anchor and Silvia spent an evening playing with village children, teaching them how to dance.

The following day, anchored in the bay, she took MMS - Miracle Mineral Solution, a compound she had bought from fellow sailors, a Belgian and a Californian, who had assured her it would ward off malaria in the Solomon Islands, **Nash** and Fink’s next destination.

# Douglas B. Nash Biography

Nash, 77, is a retired NASA geologist, a man of science, skeptical about the claims on the bottle. But he stayed out of it, he says, because she was “a grown and savvy woman”.

“It went bad from the beginning,” he wrote to friends in the days afterwards. “From almost the moment she drank the mixture of MMS with lime juice that she’d brewed up according to the instructions ... she began to be nauseated, and soon was vomiting and on the toilet having diarrhea.”

“But she thought, because the literature that came with the MMS kit emphasized that these were normal symptoms, that one just had to grin and bear it when first using the substance. How wrong we were. It turned into torture the whole day, with her getting gradually worse and worse, having incredible abdominal pains, then urinary pains.”

“I’d been helping her all day, bathing her, emptying the bucket, comforting her, trying to get liquids down her, all to no avail because she could not keep anything down. Eventually, about the time it was getting dark, she started having feelings that she was going to faint. That’s when I became fully alarmed. I got on the VHF radio and called for assistance.”

“At that moment she suddenly went into a coma. Then I put out another radio call, this time an emergency one for immediate medical help. Fellow cruisers rushed to our boat within minutes to aid me, and for over an hour we conducted emergency CPR and administered oxygen but it, and an adrenaline shot administered by a physician who finally arrived from the village, failed to revive her. She died on Windcastle around 9pm, just 12 hours after she’d taken that fatal drink of MMS.”

Both married before, **Nash** and Fink met after he advertised for crew in San Diego in 2004. “I miss her immensely. Windcastle is empty without her presence.”

VANUATU, a volcanic archipelago supporting 240,000 inhabitants on a latitude with Cape York, looks like paradise to outsiders who dive and sail its turquoise waters. But the death of this vivacious Mexican exposed the full catastrophe of petty island bureaucracy and under-resourcing that bedevils the place.

The 80-odd islands James Cook named the New Hebrides in 1774 have become a purgatory for **Nash** in the months since August, as he waits and waits for an explanation of what happened. He chartered a plane to fly Fink’s body back to Port Vila and reported her death immediately to police, but a three-week investigation appears to have produced nothing. Despite assistance from two of 10 Australian Federal Police officers stationed in Vanuatu, Nash says local police told him they did not even interview the sailors who sold Fink the MMS and who are still in Vanuatu. They have enlisted the product’s creator to defend them in the court of internet opinion.

“Police enforcement is ... I don’t know what to say. It’s just not very well done,” says **Nash**.

Noel Woodford, a pathologist from the Victorian Institute for Forensic Medicine, was summoned to Vanuatu to perform an autopsy on August 22, but the results have not been delivered. There was nowhere in Vanuatu to cremate the body, so Fink’s son, Joaquin, and **Nash** had to look to New Zealand. But local law requires bodies shipped out of Vila more than 24 hours after death to leave in a lead-lined casket, and they were asked to pay the Port Vila municipal council \$US5,500 (\$5,960) for a coffin. A \$US1,300 casket was located in New Zealand but prohibited, even though it conformed with Vanuatu regulations. Without the more expensive casket, Fink’s body would not be released. “We felt like we were being conned,” says **Nash**. After negotiating the figure down to \$US4,500 and saying their goodbyes, **Nash** and his son-in-law learnt Fink’s passport had been lost by Vila officials, making another trial of her repatriation to Mexico. Nash is staying in Port Vila until the autopsy results arrive. That means battening down the hatches until at least April, when equatorial storms have subsided. In the

# Douglas B. Nash Biography

meantime, he is helping out at the Department of Geology and Water Resources, improving the monitoring of active volcanoes.

People who drink MMS are consuming chlorine dioxide, a bleach added to drinking water and swimming pools and used to prepare some foods, such as flour. Because it is highly explosive, it must be mixed by adding citric acid to sodium chlorite from an MMS kit on site, before it is imbibed. The product's American creator, Jim Humble, describes himself variously as a scientist, prospector and saviour of the human race who discovered the substance's powers while looking for gold in a South American rainforest in 1996. In 2007, says the promotional blurb, "this man heroically stepped out of the shadows to make this information and natural solution freely available to all humanity. He believes the long-term availability of this substance ... may soon be heavily controlled by 'the powers that be'." At \$US20 a bottle, Humble claims 200,000 Americans are now using it to cure everything from cancer to HIV to swine flu.

**Nash**, meanwhile, has spent his months in Vanuatu warning the world about Humble's elixir. His letter to friends was published by a US magazine and on alternative health websites, sparking a cyberspace barney. Devotees swore by its healing powers. Critics linked it to other deaths.

Then Humble launched an extraordinary counter-attack online, saying Fink must have consumed more than the recommended dose, accusing **Nash** of hiding something and trying "to destroy a chemical that is probably at this time the most important chemical that mankind has". He demanded that **Nash** be investigated. "If I had the money I would pay for it to be done, but my money is, like I have always said, for the people here in Africa. If you think that is unfeeling, I am sorry. It is my job to protect MMS. Thirteen years ago, I stood in the jungle of Guyana and accepted the responsibility to take the cure that I had found to mankind," Humble wrote.

MMS is produced and available for sale online in Australia, but is not registered for sale. Poisons and public health experts told the *Herald* that, in large doses, it can kill and that six people suffered adverse reactions to the drug in NSW last year, including three who were admitted to hospital. A spokeswoman said the Therapeutic Goods Administration was investigating MMS, and the administration has found against some claims made by local distributors.

Humble's whereabouts is unknown. In an email to the Belgian sailor who sold Fink the MMS, he said he stays out of the public light because "I have had threats against my life as there are those who do not want something that will replace drugs".

The Vanuatu coroner, Rita Bill Naviti, was expecting the autopsy results around Christmas, but it is understood Woodford had to send samples to other laboratories and is awaiting those tests. Joaquin Fink says he suspects MMS either killed his mother or reacted with her other medication to do so, but he is awaiting the autopsy results before forming conclusions.

The *Herald* does not suggest MMS was responsible for Fink's death. **Nash** remains stranded in paradise. "Some days I feel like an astronaut," he wrote recently, "stuck in orbit, alone."

Geologist - NASA

Investigator - NASA

Expert On Solar Wind - Jupiter

Director Emeritus - San Juan Institute

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