

# <sup>T</sup><sup>H</sup><sup>E</sup> **Big Splash:**



A Scientific  
Discovery That

Revolutionizes the Way  
We View the Origin of  
Life, the Water We  
Drink, the Death



of the Dinosaurs,  
the Creation of

the Oceans, the Nature  
of the Cosmos, and the  
Very Future of  
the Earth Itself.



**Dr. Louis A. Frank**  
with Patrick Huyghe

To: Alex Dessler  
A principal player  
in this scenario.  
Louis Frank  
5 Dec. 1990

# The Big Splash

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Drink, the Death of the Dinosaurs, the Creation of  
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Very Future of the Earth Itself*

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by

Dr. Louis A. Frank with Patrick Huyghe

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# Disputed comet theory shakes scientific foundations

## Book discusses controversy around UI professor

By Aziz Gökdemir  
The Daily Iowan

Are we the children of comets? Louis Frank, UI Carver-Van Allen professor of physics and astronomy, says we may very well be. In a newly released book titled "The Big Splash," Frank discusses the details of his controversial discovery and the ensuing four-year battle that pitted him against nearly every member of the scientific community.

According to Frank, 20 tiny comets composed of water and ice — the size of a small house — bombard the earth's atmosphere every minute. Furthermore, Frank asserts that this phenomenon, which has existed more than four billion years, created all our oceans and waterways, essentially introducing the substances that started life on our planet.

It naturally follows from Frank's argument that comet showers will one day submerge the Earth in water. (Don't panic: According to Frank's calculations, the level of the oceans rises merely 1 inch every 10,000 years).

If that isn't enough, Frank goes on to say that a periodic increase in the showers millions of years ago could have caused the ice ages and the extinction of the dinosaurs and that some of the larger of these comets could have been responsible for several UFO sightings.

"Of course, (this) will not account for the reports of tiny aliens snatching frightened humans from their homes and taking off from pumpkin patches in flying saucers," Frank wrote.

After reading a draft copy of the book eight months ago, Arthur Clarke, author of "2001: A Space Odyssey," compared the book to Jim Watson's "The Double Helix" — the account of Watson's discovery of DNA, the code of life.

In a message sent to *The Daily Iowan* from his home in Columbia, Sri Lanka, Clarke called the theory "extremely interesting" and said he hopes Frank's research continues.

"I certainly do not endorse Dr. Frank's conclusions and do not know what the current thinking on

he is right, the astronomical importance of such a discovery is obviously very great."

But most scientists will not even acknowledge any validity to his theory.

"No chance, there is no chance," that the theory is correct, Alex Dessler told the *DI* Thursday. Dessler is the chairman of the space physics and astronomy department at Rice University in Texas and was among Frank's early supporters.

"There was no other reasonable explanation."

Louis Frank

Dessler was editing *Geophysical Research Letters*, a scientific journal, at the time of the discovery and published the first article to appear on the debate.

The article was co-authored by Frank, John Sigwarth and John Craven. Sigwarth and Craven are UI research scientists in the same department and were instrumental in conducting the research.

But, Frank said, "I'm the one who takes responsibility for the conclusions. It's obvious I'm the one who risked a reputation."

The years following the introduction of the theory have been quite an ordeal for Frank, who said in the book, "I wondered if this debate would send me to my grave."

The reaction did not come as a surprise to Frank, who said he would not have survived the battle had it not been for his reputation in the academic community. He reportedly has had more projects in outer space than any other scientist in the world.

"It's like going up to a mathematician and saying two plus two is not four," said Frank.

In his book he writes, "The theory cuts across dozens of areas of science. No one plows over everybody's neatly planted gardens without paying the consequences."

If Frank is correct in his conclusions, whole generations of scientists in a dozen different fields will have been working from assump-

tions that are false, he said.

In the face of this, "people go berserk," said Frank.

"(Frank) is prodding a lot of sacred cows, and he may very well be right," said UI Professor Emeritus James Van Allen, Frank's early mentor in astrophysics. "The whole interpretation is, of course, controversial, and I think it's going to be some years before it's settled conclusively."

Frank criticized the methods of several scientists who have commented negatively on his theory without doing research on it.

"So far, everyone except two (scientists) has offered nothing but talk," he said.

The two attempts, which were initially intended to prove the absence of small comets, resulted in actually proving their presence. In one of the attempts, a paper had to be rewritten because a would-be co-author had already written an account of how the research had failed in finding any small comets. This account was written before any research was completed, Frank wrote.

After his term as editor, Dessler attempted to prove that the comets do not exist in an article that Frank calls in his book "a spoof of science written for the entertainment of the reader."

"That's his view," said Dessler, who insists that he is not angry about Frank's book.

Another scientist who Frank said spent a year trying to destroy the small comet hypothesis without sufficient grounds was Professor Thomas Donahue of the University of Michigan.

Donahue said Thursday that he was not interested in discussing the subject.

The theory began when satellite images from the Dynamic Explorer revealed black specks on the Earth. Frank told Sigwarth, a graduate student at the time, to find out what was wrong.

They tried and tried and finally came to the conclusion that the specks that appeared with great frequency — dismissed by many scientists as data fluctuations — had to be real objects.

"The Big Splash" goes into great detail on how Frank's team came



The Daily Iowan/Michael Williams

Physics Professor Louis Frank describes ice falling from the sky while talking about his controversial new book, which describes how comet showers hitting the earth may have introduced the first elements of life to the planet.

up with answers to questions like, "Why can't we see a shower of comets?" (The portion of the sky we are able to see is so small that even at the rate of 20 comets per minute, it would take 100 straight hours to see one) and "Why hasn't the moon accumulated water from the comets?" (It does not have sufficient gravity to hold on to water.)

In the end, Frank agrees, it comes down to fictional detective Sherlock Holmes' classic argument. "If you disprove all other explanations, the remaining one — no matter how crazy — has to be correct," Holmes often told Watson.

There was no other reasonable

explanation," Frank writes with confidence.

"I could have locked all the research in a drawer, but it was not the moral thing to do," said Frank. It means that thousands of hours of research would have been wasted on false assumptions, he said.

Throughout the book, Frank stresses that he is a conservative person, both politically and personally. So how, one wonders, does Frank reconcile his theory with the biblical account of creation?

"I'm religious in my own, private way," said Frank, "and you can't figure it out from the book one way or the other."

# Vietnam vet warns against war with Iraq

By Jessica Davidson  
The Daily Iowan

The United States should get out of the Persian Gulf for the same reasons it should have stayed out of Vietnam, according to Vietnam veteran Barry Romo.

About 100 people gathered Thursday night to listen to Romo, founder of Vietnam Veterans Against the War, who spoke in graphic detail about his experience in Vietnam. He said soldiers in the Middle East are headed for a similar situation if the U.S. and Iraq go to war.

Romo, who was president of the Young Republicans in school and joined the military at 18, said he had wanted to go to Vietnam to "kill communies." But he said he later discovered the government misled him about the reasons for the war.

He said the same thing is happening in the Middle East.

Romo also compared the jammed M-16s that killed American GIs in Vietnam to the gas masks distributed to troops in the gulf, which he said don't filter hydrogen cyanide, a chemical the Iraqis might use.

"And if they didn't give a fock about me in 1967, what makes you think they care today about an army that's mostly minority in the field and absolutely working class throughout?" he asked.

He said a continued U.S. presence will probably result in "a bloody battle against an army that lasted nine years against Iran, not the Panamanian defense force."

"You go to war because you want to do something good for your country," he said. "I went to Vietnam because I thought what I was doing was right. ... But war is not something that is in the interest of the majority of people."

Romo said the audience should become active in the peace movement and "stop the killing before it starts."

He said the U.S. public doesn't use its democratic right to make decisions about

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# Reviews of Geophysics

## The Small-Comet Hypothesis

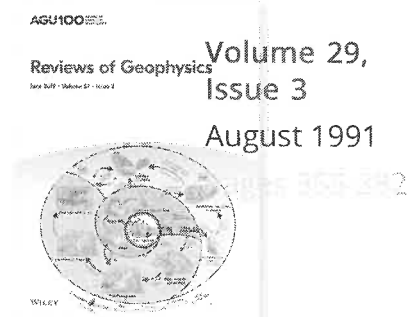
A. J. Dessler

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### Abstract

According to the small-comet hypothesis, small comets strike the Earth approximately 20 times per minute, each small comet nominally containing 100 tons ( $10^5$  kg) of water-ice. The primary observations interpreted as evidence for these small comets are dark spots in the Earth's atomic-oxygen UV dayglow seen by the UV imager on the Dynamics Explorer (DE) satellite. These small comets must disintegrate near Earth and then sublimate within a few seconds, the water vapor expanding to form clouds of water vapor, nominally 50 km in diameter, that temporarily block the spacecraft's view of the dayglow, thus producing the dark spots. In this review we examine problems in basic mechanisms underlying the small-comet hypothesis. These include inconsistencies with known geophysical phenomena, conflicting results from independent searches for evidence of the presence of small comets, and inconsistencies within the small-comet hypothesis itself. No other geophysical interpretation that can account for the DE dark spots has been advanced. The only viable alternative in the literature is a nongeophysical one—the



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