

## Where H-Bombs Fell, Spaniards Still Worry

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**PALOMARES, Spain** — Antonia Flores remembers the day her brother saw fire falling from the sky.

It was nearly 20 years ago — Jan. 17, 1966, at 10:16 A.M., villagers say with precision — and Miss Flores was 8 years old. She was playing in a field when her brother looked up and screamed that pieces of fire were falling.

The two frightened children made it as far as their backyard before stumbling among some cows. The pieces did not hit any people or houses — a miracle, the villagers say. Miss Flores remembers how, minutes later, she played curiously with a broken metal cylinder that had hit the ground.

What she did not know was that it was part of a hydrogen bomb. It was one of four that had fallen from a collision miles above between an American B-52 bomber and its refueling plane. She and the rest of the nearly 1,000 residents of this village on Spain's southern Mediterranean coast also did not know that they were being exposed to radiation.

### Delayed Effects Feared

Today, worried about the delayed effect of radiation in creating cancer, many of the villagers fear that the contamination of their bodies may become apparent soon.

It is a fear heightened, they say, by nearly 20 years of being kept in the dark by the Spanish authorities.

Feeling pressure from a growing political clamor, the Nuclear Energy Board only last month let the more than 500 villagers who had been studied see their medical reports for the first time. The board proclaimed that radiation danger was negligible.

But many villagers distrust the findings after the years of secrecy. Adding to their fear is the board's admission that residual contamination remains in Palomares. And then there is Spanish law. According to town officials, Spanish and American liability legally ends after 20 years.

"The board just tells us to believe," said Miss Flores, who is now the vil-

lage's Mayor. "But we want to know exactly what our health situation is."

Statements by the United States Embassy also contribute to the villagers' concern about compensation.

"As far as we are concerned, the case is already closed," an embassy spokesman said, noting that the United States paid compensation in the first months after the accident.

In the warm winter sun outside the Bar Valero, the community center here, Lorenzo González, a 77-year-old tomato farmer, spoke in a growling voice with his friends when the subject of the Americans came up.

"The Americans should still pay us for endangering our lives," he said, "and then our tomatoes."

### Only Tomatoes Will Grow

Palomares, a mile off the coastal highway, is a collection of tidy, white-washed houses. The village got running water only last summer.

Almost every yard sports tethered goats and plastic hothouses growing the strong-tasting local tomatoes, about the only crop that will survive. The region is so hardscrabble in places that "Lawrence of Arabia" was filmed nearby.

Three bombs fell on the village, and a fourth, which took three months to find, fell into the sea. Their nuclear cores had not been activated, preventing explosions.

But two of the bombs that hit land underwent "chemical explosions" on impact. That spread a light shower of plutonium that Francisco Mingot, a physicist with the Nuclear Energy Board, said "will last in the soil forever."

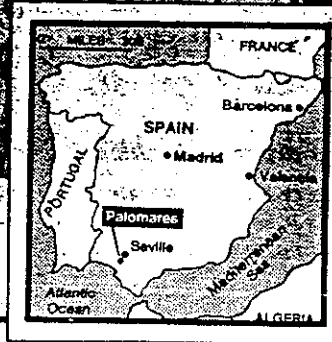
### Animals Slaughtered

Bomb-grade plutonium is considered far more toxic than the uranium common in most nuclear reactors. Thus Palomares has become what American and Spanish scientists say is a living laboratory, the only civilian population to be exposed to a plutonium accident.

In the days after the accident, American soldiers wearing gas masks burned tomatoes, slaughtered animals and dug up tons of contaminated topsoil



Mayor Antonia Flores of Palomares, Spain, talking about possible radiation contamination with Lorenzo González, left, José Flores, at center with hat, and Cipriano Martín, third from right, outside Bar Valero, a community center.



that was sent in drums to a site in South Carolina for burial. Villagers scrubbed their bodies and burned their clothes.

After three months, the Americans turned monitoring responsibility over to the Spaniards. Although legal liability for illnesses has been unclear, the United States still provides consultants and about \$200,000 a year in partial financing for the Spanish monitoring. One consultant, Chester R. Richmond, a biomedical researcher at Oak Ridge National Laboratory in Tennessee, said in a telephone interview that the financing was budgeted at least through next year.

"It's an obligation," he said. "So far there has been no real cause for concern, but this is a unique situation. There is always the possibility of re-exposure."

The Nuclear Energy Board has shuttled nearly 600 villagers to Madrid for intensive tests over the years. Only about 80 showed signs of contamination, and only one came close to exceeding international safety levels, Mr. Mingot said. He said someone would have to eat "millions of tomatoes" for them to be dangerous. "There is no risk," he said.

### Board's Findings Questioned

But some scientists question the board's findings. Dr. Eduardo Rodríguez Farré, a radiobiologist with the state-run Board of Scientific Research in Barcelona, said in an interview that testing had been insufficient and that some recent blood samples suggested recontamination, probably from dust.

Mr. Mingot said new tests had been drawn up. Calling the past secrecy a mistake, he said it was a result of initial American pressure and later fear by the Franco dictatorship of causing alarm.

Many villagers still prefer keeping things quiet. "The complainers are ignorant about science," said Francisco Navarro Vicente, a former Civil Guard commander, as he led a reporter to a radiation monitoring station outside the cemetery. "Besides, no one will buy our tomatoes if they think they are radioactive."

Miss Flores, 25 years old, disagrees. The Mayor said she had thought little of contamination until she encountered the board's resistance. "I won't be satisfied now until we get an outside study," she said.