

CAUSING EARTHQUAKES?

By John Stillwell

Here's another thing to add to the list of ways we're harming the only planet we have to live on.

Underground nuclear tests may be causing an increase in the number of earthquakes and volcanoes.

Dr. Gary Whiteford, a geography professor in UNB's Faculty of Education, has assembled data on the relationship between underground nuclear explosions and earthquakes over the past thirty-five years. He finds a "frighteningly high coincidence" but admits that so far, there is no causal theory explaining the connection.

Dr. Whiteford, who spent a sabbatical year at NASA-Ames working in remote sensing, advocates close public awareness of all underground nuclear testing.

"We've gone underground with nuclear war", commented Dr. Whiteford during

a recent interview. "I'm not hopeful that we can save ourselves from ourselves."

Since 1945, there have been an estimated 1754 nuclear tests, primarily by the U.S., U.S.S.R. and France. In 1987, 46 nuclear tests were conducted.

In many of these cases, earthquakes followed within days or even hours of these tests. Although it is to be expected that some earthquakes would follow nuclear tests, given that they both occur, other experiments indicate that triggering earthquakes is easier than we think.

Experiments conducted in the U.S. found that small earthquakes can be turned on and off by certain types of oil production.

The U.S. Army Arsenal in Denver dumped toxic wastes down a 2 1/2 mile deep well. This produced earthquakes measuring up to 5 on the Richter.

The U.S. Geological Service and Chevron USA conducted further investigation and found that they could actually turn earthquakes on and off simply by pumping water into the ground and then stopping.

Dr. Whiteford is concerned not only with the immediate effects of nuclear tests, but with the cumulative effects as well: "We may be headed for an era of a killer mega-earthquake," he commented. The recent earthquakes in China and the Himalayas closely followed nuclear tests.

Of the three major testers, only the U.S. announces their tests, primarily because the explosions at the Nevada test sites produce tremors in Las Vegas. The Soviet Union usually admits after the fact, while France rarely acknowledges their tests. The U.S.S.R. also claims at some nuclear explosions are for agricultural, industrial and economic purposes.

The table that accompanies this article shows some earthquakes that followed nuclear tests. It should not be inferred from this table that all test produce earthquakes, since the data could be arranged to show that quakes produce nuclear tests.

However, it is possible that this table shows that we may

have a reason to be concerned about the relationship.

Individuals and groups in the U.S., as well as in other parts of the world, are becoming increasingly concerned over not only the relationships between the test and earthquakes, but over the possibility that tests also contribute to an increase in volcanic activity.



Chris Penney, winner of IBM PS12 Model 25

Don Legge, Account Manager, IBM

NUCLEAR TESTS

Friday, Nov. 25

Happy Hour All Night Long



Band Extravaganza

Saturday Nov. 26

"Hip Deep"

AKA. Redeye, Scott Myers, Joe Fahey

Starting at 3 pm

Upcoming Thursday Nov. 24

"Wackatune"

AWARDS FOR EXCELLENCE IN TEACHING

THE AWARD is dedicated to the late Dr. Allan P. Stuart and is to honour persons who are representative of outstanding teaching achievement at the University of New Brunswick.

ELIGIBILITY: A candidate must teach at one 3 credit-hour undergraduate course during each term of the academic year at the University. It is not expected that the nominees should excel in all criteria listed on the nomination form, but they should be qualified in most categories. Individuals are not eligible if they have been previous recipients of the Award.

NOMINATION: Candidates for the Award are proposed and recommended to the Senate Committee on Quality of Teaching by students and faculty of the University.

The basic information required is contained on the Nomination Forms, which are available from the University Secretary, Fredericton; the Dean of Faculty, Saint John; the Student Council, Saint John or Fredericton; and Faculty offices. No one may nominate or support more than one candidate.

Send nominations to the University Secretary, Room 110, Old Arts building, UNB Fredericton, or to the Dean of Faculty, UNB Saint John.