

A number of years ago, an e-mail entitled "The Triangle of Life" penned by Doug Copps floated around cyberspace which questioned the concept of "Duck, Cover, and Hold" currently practiced in North American buildings. After a brief absence, that e-mail has re-emerged meaning it's time again for a clarification.

The Delta School District has been advised by the Provincial Emergency Program, Ministry of Education and Delta Fire & Emergency Services to ignore the article and continue current practice, which is described in our District Emergency Preparedness Manual.

The following message from BCPSEA (British Columbia Public School Employers' Association), dated September 22, 2004, best explains our position:

"Many school districts have received an email or a copy of an email claiming to be an extract from an article, entitled the Triangle of Life, authored by a Doug Copps, Manager of the American Rescue Team International. Mr. Copps claims great experience in rescuing people trapped in buildings that have collapsed as the result of an earthquake. The email advances the notion that all earthquakes will lead to structural collapse and the existing procedure for Duck and Cover as presently being practiced in school districts will lead to unnecessary injury and death among students and staff.

After dealing with several of these reports, I contacted the BC Provincial Emergency Program and asked the Manager of Planning for advice. The Manager advised that PEP is very familiar with this email and considers it to be SPAM. PEP advises the following:

"Duck, Cover and Hold" is the most appropriate response to earthquake shaking in British Columbia. In North America, only a small percentage of large structures are likely to collapse in moderate to strong--or even major earthquakes.

The reality is, there may well be a fair amount of non-structural damage such as windows popping, sprinkler system damage, HVAC system damage, even complete failure of non-structural walls - but most large structures are designed to remain standing. Most injuries and deaths from earthquakes in North America are the result of moving, toppling, falling objects. The "Duck, Cover, and Hold" drill, therefore, remains the best method of minimizing casualties for the most number of people effected by an earthquake.

In British Columbia, most of the building stock is made up of single family woodframe homes. These buildings are not engineered (i.e., built to an earthquake code) and may be prone to collapse. They are, however, small buildings, made of relatively flexible and light-weight materials and "Duck, Cover, and Hold" drill remains the most effective means of protecting oneself within these lighter-weight structures. One of the most persuasive photographs in support of "Duck, Cover, and Hold" is a photo taken of an elementary school following its collapse in the 1985 Mexico earthquake. In the photo, the second and third floors of the school have lost all structural support and are "pancaked" down on one another. The collapsed floors are only supported by the school desks which provided about half a metre to a metre of crawl space for safe egress. "Duck, Cover and Hold", is the best and most appropriate advice for minimizing casualties in the event of an earthquake in British Columbia.

The procedure that should be followed is posted on the [PEP website](#). This procedure was developed with consideration to BC and federal building standards by experts, reflects our best knowledge of how buildings will behave in earthquakes and the hazards that will be encountered by building occupants and has been very intensively reviewed and tested.

I also did a web search on names, references and topics raised by the article attributed to Doug Copps. I saw no reason for deviating from advice currently given through the BC PEP web site.

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Please feel free to share this information with your staff and parents.

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