



Headquarters

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z. Hd. Herr Jürgen Przybylak

Köln, den 02.09.2010

## Letter of Reference

Dear Mr. Przybylak,

From many personal conversations with the population about the main earthquake on the 12th of January 2010, the overall impression arises that the affected people were completely surprised by the earthquake and that it lasted several seconds until they realised at all that this had to be a mayor tremor.

When they finally realized the gravity of the seism, it had already reached a strength which made it difficult for many keep themselves on their feet. Some managed to leave the buildings hastily. Many of those who were trapped inside started panicking. At the same time cupboards and other pieces of furniture fell over, no matter whether people stayed in earthquake-proof built buildings or not.

In retrospect everybody agreed: "If we had known only a few seconds before that an earthquake was approaching, we would have been able to immediately take suitable precautionary measures in a conscious and controlled way because it took at least a few more seconds until the tremor developed from a light vibration to its strongest motions. We could also have used this time in a sensible way".

Furthermore people said that the mere knowledge about a functioning earthquake early-warning system is psychologically of enormous relevance as fears of aftershocks and their impacts are tremendous and highly incriminating. The knowledge to be pre-warned is reassuring as the concern to be completely surprised once more is completely taken away.

That was the reason why the advanced earthquake early warning system "secty lifePatron ®" has been installed in the Office of Malteser International in Port au Prince and employees were briefed in detail about the nature of earthquakes and the function of the early warning system "secty lifePatron ®". Moreover, all employees were trained how to behave during an earthquake. Beyond that the surrounding population was informed that the warning system was taken into operation using the loudspeakers of the siren. A test alarm was carried out and explained in all relevant languages.





The aim was to set up a mechanism that would warn both, employees and the surrounding population (approx. 5000 people) in case a future earthquake is taking place. According to the request of Malteser International's employees the sensitivity (threshold) of the earthquake sensor (01) was adjusted to a "very sensitive" level.

Some perceptible aftershocks had taken place before already, but the system had not given alarm - which was also correct. In the night of 2/23/2010 a larger aftershock with the strength of 4.7 on the Richter scale occurred. The epicentre was at a distance of approx. 20 km to the system location. Due to the alarm the employees arose from their sleep and - thanks to the previous training - were able to carry out recently rehearsed codes of conduct. For this case it was foreseen that everybody should leave the building immediately.

The lesson learned from this aftershock is - although the alarm was activated almost at the same moment the destructive so-called "S-wave" arrived - that the employees were not woken up by the earthquake but by the alarm and could react immediately as the system took over the decision if this quake was to be considered to be a minor or mayor one. As a consequence the response time could be used to safeguard themselves.

**System description:** The advanced earthquake early warning system consists of two earthquake detectors and one electronic high-capacity siren with a caption area of more than 1.5 km.

We would recommend a spatially inclusive and comprehensive use of the advanced earthquake early warning to any other organization. At the same time we would like to use this opportunity to congratulate secty electronics GmbH for this innovative, very helpful and life-saving fabrication.

With best regards,

Roland Hansen

Head of Asia Department and Haiti

