EARTHQUAKES-FIRES IN GREECE

AND

MEMORANDUM OF ACTIONS FOR THE MANAGEMENT OF SEISMIC <u>RISK</u>

EARTHQUAKES IN GREECE



Earthquakes and volcanoes are two geological phenomena that have common causes. Coexist in areas which call tectonically active zones and which are normally the boundaries of tectonic plates. Showing where lithospheric plates or close-converge (and thus collide) or diverge-removed from each other. Earthquakes often occur where the lithospheric plates move together. In Europe, the earthquake and volcanic activity are located along the Alpine Schuss and mid-ocean ridge in the Atlantic Ocean. Countries with strong seismicity and volcanism are Iceland (which is the most volcanic country of Europe), Italy and of course Greece. In Iceland geothermal phenomena such as the impressive geysers demonstrate the intense volcanic activity in the region. Seismic activity also occurs in Spain, Croatia, Albania and other European countries which face a large or smaller lithospheric plate. Greece is located very near the convergence limit of the Eurasian and African tectonic plates. The movement of these two plates leads to encounter them in a forehead more than two thousand kilometers along the southern Europe! As the distance of Greece from the front of the collision is small, our country has almost daily earthquakes, small or large, while in our country operate several volcanoes. The fact that our country happens to be at that point of the Earth where meet African and Eurasian lithospheric plate as a consequence would be the first in a seismic country in the Mediterranean and across Europe, while it is within the six most earthquake-prone countries of the world! It is characteristic that occur every year in our country earthquakes from those across the rest of Europe, however, it is fortunate for our country that most earthquakes are under the sea. However, all regions of Greece do not have the same seismicity. The area along the imaginary arc that create the Ionian Islands, Crete and Rhodes are the most seismic in Greece. Active volcanoes are Methana, Milos, Nisyros, etc., but the most important of all Greek volcanoes is that of Santorini. All these constitute the Aegean volcanic arc.



Earthquakes (tectonic or volcanic origin) and volcanic eruptions are natural phenomena with serious often impacts both on human lives (deaths, injuries, psychological problems, etc.) and in economy. Europe, despite its small size, is a continent with great economic consequences of seismic phenomena, which due to the significant economic activities developed in this region of the planet. On the other hand, the number of human losses is small in relation to the victims of earthquakes in other parts of planet. In our country earthquakes costing, on average, every year one billion euro, while causing about 15 deaths and 900 collapsed buildings. The fact that most earthquakes in our country are at sea contributes to a very small number of human victims in relation to the intense seismic activity manifested in Greece. In historical times occurred in Europe several volcanoes, with major explosion the volcano of Santorini in 1620 BC about which shook the entire eastern Mediterranean, and the explosion of Vesuvius in 79 AD, left behind thousands dead and

several cities buried in volcanic ash (Pompeii etc.). Since the eruption of the volcano created the largest caldera on Earth! Despite the problems caused by volcanic activity, volcanoes are a source of wealth for residents of the regions where they are located. Tourism, mining volcanic minerals, agricultural crops, thermal spa, geothermal etc. are economic activities that develop both in European countries with volcanic activity and in Greece. As regards the European area, Pompeii receives about two million tourists every year and territories around Vesuvius are very fertile, while Iceland and Italy exploit geothermal energy production (Heat homes and greenhouses, electricity, hot water in houses etc.). Regarding Greece, important is the mineral wealth of Santorini (pumice, etc) and Milos (ben- tonitis etc.), while Santorini is one of the most popular tourist destinations worldwide. Furthermore, in 60 of the 80 officially recognized mineral thermometallic sources of our country develops the medicinal of at tion (Corinth Loutraki, Aridaia, Edipsos, Methana, Traianoupolis Evros etc.). The earthquake is a natural phenomenon that will not stop as the lithospheric plates move. Arises suddenly and most often without warning. The fact that we live in a country with high seismicity not should make us afraid. Instead, you must become familiar with earthquakes, we must learn to live with in- them to realize that they are part of our lives. The seismic construction of houses and other buildings, knowledge of appropriate behavior during an earthquake (avoid panic and remain calm) and, generally, taking all possible means of protection against this natural phenomenon is not limited to, actions that can help to deal humanely and with little economic cost an earthquake. Greece is located at the complex boundary zone in the eastern Mediterranean between the African Plate and the Eurasian Plate. The northern part of Greece lies on the Eurasian Plate while the southern part lies on the Aegean Sea Plate. The Aegean Sea Plate is moving southwestward with respect to the Eurasian Plate at about 30 mm/yr while the African Plate is subducting northwards beneath the Aegean Sea Plate at a rate of about 40 mm/yr. The northern plate boundary is a relatively diffuse divergent boundary while the southern convergent boundary forms the Hellenic arc. These two plate boundaries give rise to two contrasting tectonic styles, extension on east-west trending fault zones with strike-slip tectonics on SW-NE trending fault zones throughout west and central Greece, Peloponnese and the northern Aegean and contractional in the southern Aegean, continuing around to the Ionian islands. The south Aegean is the location of the volcanic arc and is characterised by extension. To the east of Crete along the Hellenic Arc, strike-slip tectonics with some extension become important. The strongest earthquakes historically are those associated with the Hellenic Arc,

although none larger than about 7.2 have been observed instrumentally. The events of AD 365 and 1303 are likely to have been much larger than this. In mainland Greece, normal faulting gives earthquakes up to 7 in magnitude, while in the northern Aegean, strike-slip events with a magnitude of 7.2 have been recorded. Large intermediate depth (>50 km) earthquakes of magnitude >7 from within the subducting African Plate have been recorded but such events cause little damage, although they are widely felt.





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The earthquake of Thessaloniki: before and after

The European-Mediterranean Seismological Centre (EMSC) is a non profit organisation with 84 institutes as members from 55 different countries. It has been established in 1975, at the request of the European Seismological Commission (ESC). Given that the European-Mediterranean region is prone to destructive earthquakes, there was a need for a scientific organisation to be in charge of the determination, as quickly as possible (within one hour of the earthquake occurrence), of the characteristics of such earthquakes. Therefore, the EMSC receives seismological data from more than 65 national seismological agencies, mostly in the Euro-Med region. The EMSC became operational on 1 January 1975, at the Institut de Physique du Globe de Strasbourg. It received its final statutes in 1983. In 1987, EMSC was appointed by the Council of Europe as the organisation to provide the European Alert System under the Open Partial Agreement (OPA) on Major Hazards. In 1993, EMSC statutes and organisation were amended. Its headquarters moved to the Laboratoire de Détection et de Géophysique (LDG) within the Département Analyse, Surveillance, Environnement (DASE) of the French Atomic Energy Commission (CEA), in Bruyères-le-Châtel (Essonne, France). As an international, non-governmental and non-profit organisation, this association focuses also on promoting seismological research. This turns into EMSC participation in many European (FP7) and international projects.



EMSC collects real time parametric data (source parameters and phase pickings) provided by 70 seismological networks of the Euro-Med region. These data are provided to the EMSC either by email or via PDL (Product Distribution Layer). The collected data are automatically archived in a database, made available via an auto DRM, and displayed on the web site. The collected data are automatically merged to produce automatic locations which are sent to several seismological institutes in order to perform quick moment tensors determination.

HISTORY OF HUGE EARTHQUAKES IN GREECE IN THE LAST 50 YEARS

The earthquake of Thessaloniki 1978

The earthquake of Thessaloniki 20/06/1978 can be in one of the 5-6 largest earthquakes in history city.

The earthquake characteristics:

- The earthquake was made on 20 June 1978 at 23:03.
- The epicenter was 20km east og Thessaloniki between Lake Koronia and Volvi, the village Stivos.
- The size of the earthquake was 6,5 degrees of the Richter scale and lasted for 10sec.



Pre-earthquakes and aftersocks

This followed a series of pre-earthquakes with stronger that of 23/05/1978 and the sizze was 5,8 degrees on the Richter scale of this focal area, which caused sporadic damage to brand building in the city like the Cathedral.Also, followed series of strong aftersocks.





Results of earthquake

Thessaloniki was nocked to its foundations by the earthquake.Furniture inside the houses were moved or overturned,buildings cracked,collapsed walls,collapsed or unusable buildings, citizens were injured or killed.





What happened during the earthquake

People were running scared in the streets and traffic jams created in an attempt to escape all the people in the country side, making it impossible to run the hospital and fire engines.Communications were cut, networks Media stop, and the panic was suported by rumors of many collapses multi-storey buildings and countless dead and wounded.





The city after the earthquake

The next morning found the city with 49 dead, 220 injured and with 800.000 people homeless, either because their homes were destroyed or because they did not dare to use them. Endless caravans of cars moving with citizens to the way out of the city in order to escape to safe destinations. This difficult situation remained unabated for at least one month, and only at tge ens of the August city life normalized.

The only building which collapsed

The main cause of the large city panic for a long time was the only eight-storey building wich collapsed in Gippodrome Square, which killed 29 out of the 49 victims.

So, the State decided to do visual control in buildings in order to be intended to protect citizens from partial or total collapse from aftersocks.

Visual inspection was decided to classify all building in the following categories:

- Non-visible damage to the bearing structure(green)
 Unlimited use.
- ii. Limited damage to the bearing structure(yellow)Limited use by user's responsibility.
- iii. Serious damage to the bearing structure(red)Prohibition of entry and use.







<u>Athens 1999</u>



The earthquake Parnes 1999, widely known as the earthquake in Athens in 1999, with an intensity of 5.9 on the Richter Scale, took place on September 7, 1999, 14:56:50 local time, causing 143-152 deaths and losses reached EUR 3 billion. It is the most costly natural disaster ever happened in Greece and the deadliest earthquake in 50 years. The earthquake, though not particularly strong, while the total duration was only 15 seconds, caused many disasters due to its proximity to Athens, centered 18 kilometers from the city center, between Acharnes Attica and the National Park of Parnitha, and the small focal depth, from 9 to 14 km. On the surface there was little cracks and it was difficult to find the origin of the earthquake. The Geodynamic Institute initially announced that the earthquake was caused by fault 15 kilometers long covering the area between Penteli and Parnitha. Based on the study of satellite data to examine the deformation height of the land was later confirmed by seismological study, and was accepted in 2008 and from the Geodynamic Institute found that there were two earthquakes, intensity of 5.8 and 5.5 on the Richter scale, in different fractures and a difference of 3.5 seconds from each other.

Geology and earthquake characteristics



The earthquake originated from tectonic activity. Its size was estimated at 5.9 to 6.0 degrees on the Richter scale. It took place on September 7, 1999, 14:56:50 local time and lasted a total of 15 seconds. The epicenter was located 18 km from the center of Athens, between Acharnes Attica and the National Park Parnitha. The focal depth of the earthquake was from 9 to 14 km. The new rift created, directed east - Southeast and slope to the southeast, ie inclined to Athens. Burglary reached 1.2 kilometers from the surface of the Monastery Kyprianou area in Breed.

Seismological study and study conditions interferometry that uses satellite data showed that in the case of the Athens earthquake triggered two faults which led to the two earthquakes event. The cracks extended to the Gulf of Elefsina. The ratio of the two seismic events was 5/1. The fact that the two earthquakes finally occurred with an interval of 3.5 seconds contributed To understand an earthquake. The results observed are consistent with the sinking of the Tribe fault and a possible extension to Ano Liosia having length up to five kilometers.

Geophysical results

Near the epicenter observed linear accelerations exceeded 0,5 g close to the city center, but there were no accelerometer closer to the epicenter. Data were extracted based on observations about anapadogyrisma or sliding objects in cemeteries near the center show that the linear acceleration in hard soils exceeded 0,5 g and can be reached up to 0,7 g, while in areas with soil clay yet calculated higher accelerations. The vertical accelerations close to the epicenter was even higher and reached the 1 g. The accelerations may be enhanced by various topographical factors, such as streams or slopes. These factors combined with the geology of the subsoil and the slopes of Parnitha and Mount Aegaleo resulted zones with increased destruction have nearly linear distribution. The oscillations had a frequency of 1.5 to 10 Hz. The areas most affected by the earthquake, was the Ano Liosia, Menidi, the Thrakomakedones and Race Attica, where it is estimated that local earthquake was valid IX (9, with a maximum level of 12) in the Mercalli Intensity Scale, ie it was "very catastrophic".

The rupture did not reach up to the surface. It observed only a small disruption northwest of Race, which was accompanied by rock falls linearly katefnthynsi long hundred meters. This disruption has the same direction as the ground rupturing, but is characterized in that the draft is in the other side with respect to the fracture. Other burglaries that occurred during the earthquake, was the result of local discontinuities in the rock or unstable slopes from soil and not directly related to the earthquake.

The earthquake caused more soil displacement on the side of the fault that sunk, that is to Thriasio and Attica. In Thriasio soil displacement reached seven centimeters to the surface, while in areas in Attica, as Menidi, New Philadelphia, Ano Liossia, the Dove, the Transfiguration, the Thrakomakedones and St Petersburg, the shift was 3- 4/100. For 2.5 years after the earthquake fault continued to slide as a result of static pressure, with a maximum displacement reached three centimeters to the surface. Indeed, the rupture that occurred after the earthquake area was 146.5 km², ie 42% was higher than the disruption caused by the major earthquake. If this burglary took place at once would be equivalent to an earthquake of 5.7 Richter degrees.

Pre-earthquake and aftershocks

Earthquakes centered within 30 kilometers from that of the main earthquake began to occur in 1994. According Gerasimos Papadopoulos, former vice president and director of EPPO Geodynamic Institute's research, recorded precursor earthquakes in fault by November 1997, but then It found that the phenomenon was accelerated because of the earthquake in Izmit in 1999 and so the earthquake took place before expected. Eighteen to two minutes before the main earthquake were recorded four pre-earthquake with intensity of 2.5 to 3.2 on the Richter scale. Over the next 24 hours there were hundreds of aftershocks from the powerful who was the one who broke the September 7, 1999 to 22:44 local time the evening, with magnitude 4.4 Richter. Aftershocks observed the first 20 days in both groups formed earthquake ends, which were then combined. It was estimated that the earthquake was followed by a whole over the next two years 4,000 aftershocks.



There are theories that the Anatolian arc connected the earthquake in Turkey Izmit in 1999 to the Athens earthquake one month after, triggering the (also) due to lack of strong barriers to slip faults on site Aigaiou.O small rise time (0, 1 to 0.3 seconds) shows that the trend that kept the obstacle was eliminated completely.

The Greece is a highly seismic country, is located in a complex tectonic zone between the African, the Eurasian tectonic plate and the Anatolian, and part of southern Greece located in the Aegean plate. The Anatolian plate pushes the Aegean plate towards the southwest with 3/100 speed time relative to the Eurasian plate and the African plate sinks beneath the Aegean plate at a rate of 4 centimeters a year.

The seismic activity in central Greece is considered less intense as earthquakes with intensity greater than 7 degrees on the Richter scale is rare, and according to data from the last 500 years no such earthquake has not occurred in the region. Attica considered hitherto area without significantly active seismic faults and strong background, and thus placed in seismic zones I and II based on tetravathmia scale was used then, although Galanopoulou identified faults around Parnes Penteli and Hymettus diafonouse.Oi earthquakes that have taken place in central Greece usually have moderate strength and short focal depth and for this reason only cause local disasters. The Athens itself has not undergone major disasters such as earthquakes, as most had focus away from the city, at least 40 kilometers. Of these, most destructive considered the earthquake that took place on February 24 1981 with epicenter near Halcyon, on the eastern edge of the Corinthian Gulf. Contrary to all these, the earthquake of 1999 was centered near the foot of Mount Parnitha, just 18 km from the center of Athens. The previous earthquake centered in Attica caused considerable damage, occurred in 1938, north of Mount Parnitha, near Oropos.

On the southern slopes of Mount Parnitha recognized based on geological and satellite observations three parallel faults: the fault of Aspropyrgos that separates the limestone layer of sediment which is Athens and F2 and F3 faults, known as rupture of the Tribe. The rift gave the Parnitha earthquake is an extension of the oldest and extends from the castle Race to the Ano Liosia in the past has not given reactivate so powerful earthquake. The previous earthquake centered in Parnitha rift took place in 1705. area has a complex geological terrain, where the Athenian schist dominates. Casualties



Monument to victims of the earthquake in factory Rikomex-Hearth Merchant. The headstone contains the names of 39 people who died in the factory and called 'The monument of shame."

The number of earthquake victims estimated 145, which ranks the earthquake as the most deadly took place in Greece in the last 50 years. Based on autopsy in 111 victims of the earthquake, 36 people died of wounds, 38 people had injuries of whom risked their lives while 31 died from suffocation. Most of the deaths (102/111) due to collapsing buildings,

three of these mills. Of the remaining six died due to myocardial infarction, two wounds when jumped off the building where they were and when one was hit by an object. It was estimated that at least 85 others were saved through the debris, 2,000 were injured and 50,000 left homeless. The camps created for the temporary housing of homeless still be used 10 years after.

In the six-storey building Rikomex, Menidi, which housed the Rikomex and Hearth companies trade, 39 people died, among them two pregnant women. The company filed for bankruptcy in 2004. The trial of the case in 2007, of the 33 accused in the collapse of the factory all acquitted by fuzzy reasoning. In relatives of some of the victims was given compensation reached \notin 17,000 for a dead brother, \notin 30,000 for a dead parent and \notin 40,000 for each dead child. In May 2010 it was decided by the State Council that the District has distinct responsibilities, and not carried correctly their preventive and repressive controls on the construction of the plant and must compensate victims to EUR 18 million. Finally in 2012 it was decided by the Regional Council of Attica payment of \notin 13 million to relatives of victims of the region's resources.

Other failures cases decided was the building collapse in New Philadelphia, where other seven people lost their lives. To collapse blamed technical representatives of DIA and the Continent (department stores of the time), who were acquitted in a degree. The owner of FIALOPLAST where 3 women died, was found guilty in a degree manslaughter, eight months in prison, but died before it takes place. For the collapse of Faran factory, which killed four people, the four defendants were acquitted. For the building collapse in Psychari street, Transfiguration in the barred offenses. There, eight people died and firefighters live pulled two small children in the arms of their dead father. The prosecution of the owner, civil engineer and the architect Fourlis factory, which killed six workers for manslaughter with intent to possible fraud, was deposed in 2001 after the Ordinance of the Council Misdemeanors.

Disasters

The earthquake of 1999 was the most destructive and costly natural disaster to ever hit Greece, with property damage valued at 3 billion USD. Besides its proximity to mitropoliki Athens area, the earthquake was small focal depth, combined with unusually high ground accelerations. The greatest damage occurred within 10 km from the epicenter, with local differences due to various factors topogeografikous. The areas that were affected most by the earthquake was the Ano Liosia, Menidi, the Thrakomakedones and Race Attica, where it is estimated that locally the earthquake IX force (9) on the Mercalli Intensity Scale, while local arrived and strength X (10, with a maximum level of 12), with 30% of well-constructed buildings have collapsed, that was "highly destructive" while large accelerations observed in Adames area because of the clay soil and proximity to the bed of Kifissos. There were reported significant material damage to the Municipality of Athens and southern and eastern suburbs.



The next day of the earthquake, the Ministry appointed teams consisted of two engineers to investigate the disasters in the areas affected by the earthquake. After visual survey buildings classed green if the supporting structure was not damaged, yellow if the supporting structure had suffered repairable damages and red if the buildings had suffered so many losses that could not be repaired and so had to be demolished. At Thrakomakedones for 84% of the houses marked red or yellow, in Ano Liosia 64% and Tribe 56%. Most "red" buildings were in Acharnes and Ano Liosia. Large factories were in the area were severely damaged by the earthquake was of Ricomex SA Fourlis Bros SA, Papoutsanis Paran SA and SA, all of which have significant economic losses due to seismou.O earthquake caused major damage to the Casino Mont Parnes, in Parnitha, leading the club to be demolished, while half the building was shut down because of displacement from the vertical. The building was finally decided to be demolished and in its place erected a new one. [26] Nikos Goumas Stadium in New Philadelphia, home of AEK suffered many losses, especially in ports 3 and 16, the earthquake that had to be demolished. Overall the earthquake collapsed buildings 110, 5222 considered demolished and 38.165 repairable.

The Acropolis and other monuments of Athens were either intact or had minor damage. The Parthenon and the Erechtheion slight rotation of some columns without significant results. Several of the buildings with brick walls dating from the 19th century is not damaged, although some of these buildings were marked red, some listed buildings (ie buildings should not be demolished) .The Athens Cathedral, which was damaged and the earthquake of 1981, had to be restored. Monuments which caused considerable damage from the earthquake was the Daphni Monastery and the castle of the Tribe, dating from the 5th century BC, where the walls appeared large cracks.

As regards infrastructure, a landslide and several cracks were reported along the road leading to Parnitha top and was near the epicenter, but otherwise the damage to the road and rail network was small and no damage occurred to the Athens metro. Small losses are also reported in the water supply near the epicenter, with small leaks in high-pressure pipes. The natural gas supply network and sewerage not stricken. In the ports of Elefsina and Piraeus losses were small, and the only observed were moving at 10 centimeters of some walls on the docks because precipitated, resulting in a slight deformation of crane rails and some holidays to the mains.

Turkish help

The earthquake occurred less than a month after a (much larger scale) earthquake in Turkey. This peculiar succession of earthquakes and mutual assistance between the two countries, gave rise to discussions which became known as the "Greek-Turkish earthquake diplomacy" with the hope of a significant recovery in bilateral relations, which were marred by decades of mutual hostility. Turkey retaliated aid came from Greece immediately after the earthquake on August 17, 1999 in Izmit. The Turkish aid was first arrived in the affected areas, with the first eikosameli rescue team arrives in Athens within 13 hours after the earthquake hit.



Cephalonia

Cephalonia is the biggest and the most mountanious island of Ionian and the third in population after Corfu and Zakinthos ! It is held north of Zakinthos , south of Lefkada and west of Ithaca !



Cephalonia's Earthquake

The very strong earthquake of 5,9 R that happened on Sunday afternoon 26-01-2014 had caused a big concern to Cephalonia's residents and some earthly damages People did not want to go home and they prefered to spend the night at their vehicles or at any other place where they would feel safe





Continuous aftershocks

At 16:06 followed in the same area aftershock 4,4 R., at 16:22 noted a vibration 3,6 R and two minutes after the seismographs recorded a vibration of 4,2 R. According with the current evidence at least 12 aftershocks had been noticed with range over than 3,5 R, while 5 of them had been measured over than 4 R.!

Damages

A lot of information had been gathered, revealed damages in old buildings, closed roads because of landslides, power outages which in their biggest part were rehabilitated. There were closed roads damaged houses and old buildings in different villages of district!



The first Earthquake

According to Euromediterranean Seismological Institute an earthquake of 5,9 R. was noted at 15:55. The same institute after a couple of minutes noted that it was 6 not 5,9 R. Specifically, the earthquake that was noted 2 kilometers north from Liskouri, was also noticed in Peloponnesus, and in many other cities in continental Greece, in Athens, in Karditsa and Larisa. Earthquake's focal depth was found at 2 kilometers!





Cephalonia's seismic wave

Cephalonia's area is characterized from tremendous highly rated seismic waves. As it was noted from the past for example: At 1953 on August, earthquakes who were noted with a range of 6, 5 / 6, 8 / and 7, 2 had destroyed Cephalonia , Zakinthos and Ithaca while they caused the death of almost 480 people !!





1953 Ionian earthquake

The First big earthquake!!

The **1953 Ionian earthquake** (also known as the **Great Cephalonia earthquake**) struck the southern <u>Ionian Islands</u> in <u>Greece</u> on August 12. In mid-August there were over 113 recorded earthquakes in the region between <u>Cephalonia</u> and <u>Zakynthos</u>, and the most destructive was the August 12 earthquake. The event measured 7.2 on the <u>surface wave</u> <u>magnitude</u> scale, and it raised up the whole island of Cephalonia by 60 cm (24 in), and caused widespread damage throughout the islands of <u>Cephalonia</u> and <u>Zakynthos</u>.







But now





Fires in Greece



Fire Parnitha National Park



One of the first big and important fires, was that the National Park of Parnitha on June 28.

The fire started in the Dervenochoria on the north side of the mountain and quickly expanded on the slopes of the mountain. Initially the extinguishing operation involved 40 firefighters and 16 vehicles, with the assistance of a total of 12 firefighting aircraft and helicopters. The fire but could not be reduced before the evening, at a time when the aerial fire fighting unable to fly.

So, until the night, the ground forces faced an uncontrollable state, and between 21:00 and 21:30, the flames passed through the National Park and reached a threatening distance from its facilities Casino , the antennas Park and the Air Force . These facilities were evacuated. At the same time, two battalions of the Greek Army from nearby camps were put on alert for possible assistance in extinguishing.

The next morning (June 29), with the help of more and airborne instruments, fire fronts in Buffy the Flambouri and close to the PA came on gradually brought under control. At this point, aid from the adjoining counties, as well as 300 soldiers arrived to reinforce existing forces, the final strength consist of 130 firefighters, 50 vehicles and military forces. Significantly, how important was the contribution of adult members of Scouts of Greece with the help and guidance of which (they knew too well all the paths of Parnitha) led the dismounted soldier fire services in inaccessible areas to try extinguish. The Contribution of Scout those days were great and decisive, since the firemen had them as guides in rough paths of the park.
Fire Aigio Achaia

On 24 July 2007 broke out a big fire in Achaia , in the region of Aegio , which burned forest and agrotodasikes land and houses, until July 27 , claiming the lives of three people. Specifically, the afternoon of July 24 fire broke out in Kounina area, incinerating agrotodasiki area. In point rushed powerful forces of fire with two aircraft and a helicopter . The next day the fire reached the village Pirgaki while evacuation order was given to the villages Melissia, Pear, Mavriki, Pteri and Kounina, where many homes were delivered in floges. In the village Mamousia a 75 year-old was found charred who chose to remain near his home to protect his sheep, although he was asked to leave. In villages Pirgaki Melissia and many residents were removed by helicopter Super Puma of the Air Force , while the fire reached and around the Monastery Archangels. The fire reached the new national road Athens - Patras in the height of the switch and the circulation was stopped for not in danger transit drivers and to facilitate the movement of fire engines .



On July 26 they identified two women dead in Ano Diakopto Achaia while the fire continued to burn areas in eastern and central Aigialeia and in various parts of municipalities Aigio and Diakopto were scattered foci. The areas between Aigio, Diakofto and Kalavryta declared a state of emergency and all hospitals in Achaia were ready. The same day also sought the assistance of Russia to extinguish fires that burned across the country, a request to which Russia responded by sending aircraft Beriev Be-200 and helicopters Mil Mi-8.

Fire Penteli (Ntrafi - State)

The fire of Penteli as it spreads, the afternoon of August 16

Map of Fire Penteli

The morning hours (about 10:30 a.m.) of August 16, flames and dense smoke was visible from the northwestern part of the terms of Penteli, in the area of Rachi Dionysus. The fire started from four fronts, which burned forests, homes and cottages along the axis Penteli - State and Penteli - Ntrafi. One of the fronts descend to the municipality of Melissia where also burned small woodland.

Although the fire did not cause casualties, however, two firefighters were injured and a fire truck destroyed by the flames. Many residents of the northern suburbs also need medical help, mainly because of respiratory problems. The smoke covered much of northern Athens, aided by the hectic southern winds. Unfortunately the same winds prevented aerial firefighting resources to immediately rush to the area. Together with the first fire fighters arrived and two firefighting aircraft but which has not been possible to make water drops initially. The first significant of these were made with helicopters later in the afternoon of August 16.



Some small pockets of fire remained active and in the evening of the same day, but by the next morning were extinguished. This fire, coupled with greater scale fire in the National Park of Parnitha leading scientists to estimate that the microclimate of Athens will deteriorate, since two natural lungs and regulators ambient temperature were destroyed.

Fire Ilia Prefecture

The deadly blow from the great disaster of August 2007, occurred in Ilia . The fire broke out in the early hours of August 24, in Zacharo . The fiery forehead to Ilia destroyed an area of more than 100 square kilometers, based on unofficial sources, katakaiontas a butt area. The villages Hawk the municipality of Zacharo, the Andritsaina , the Klindia the Mouzaki , the Lantern and variety of smaller settlements affected, destroying forests and residential areas. Still, threatening up to the archaeological site of Olympia . But the destruction and related cost in human lives. Until August 26, they recorded 37 deaths of which 25 in the same village in Artemida and expresses concerns about more missing.

Moreover, the fire reached the site of ancient Olympia , putting at immediate risk the archaeological treasures of the region. After the destruction of electricity benefits to the water pumps of the room fire system, the fire burned the forest environment and only averted when concentrated in large space fire power. In this venture in ancient Olympia, participated six firefighting planes and 4 helicopters, as well as a track-laying vehicle. The operation of the fire but did not manage to prevent disasters in Kronio Hill .

For fire sentenced the culprits were found Charalambos Kafyras, former prefect of Ilia, Pantazis Chronopoulos, former mayor of Zacharo, Panagiotis Tsouras, former Minthi fire observatories, and 84chroni Sophia Nikolopoulou for arson challenge. The penalties imposed was 10 years for each defendant, which were redeemable for of $5 \in$ per day.



Internal regulation of School & Memorandum of actions for the management of seismic risk

School year

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1. Introduction.

The.....(school) is characterized according to the provisions of Law 17/1974 as Public Independent Institution, in implementing the directive num.107/1/158/174of Directorate for civil Emergency Planning(CEP), required to draw up an internal regulation .In implementation of this plan is prepared this internal regulation. It's mission is to protect employees and students of this school, the protection of the building , equipment and archival material in exceptional circumstances.

In this direction, in our school, for this school year, we will implement the following:

-drafting or updating the Emergency Plan

-organizing work preparedness earthquake or another emergency

-updating of staff, students, parents and relevant actors, who are required to assist in project implementation .

2. Drafting emergency plan for an earthquake or other incident.

The emergency plan of....., which locates in the building(floors....), drafted in September of with the responsibility of School Master from the group preparing the draft(chief and deputy chief of Defence Policy) according the instructions of the ministry of education and is related to the school year

This plan will be will be updated during this school year whenever necessary

It should be emphasized that the actions relating to risk management of our school associated with the respective energies the following co-location in this building schools:

a.....

b.....

Therefore the responsibility of the Directors will discuss the relevant contingency plan and will be taken, where it is necessary, decisions on joint operations and exercises.

2.1. Actions before earthquake or other emergency situation.

2.1.1. General data.

- 1. The Schoolmaster has the responsibility to preparate this plan and coordinate the actions for the implementation of the plan, who, subsequently, will send in the primary/ secondary education department of his county a substantiation of its redaction. The Schoolmaster is ex officio the leader of the Public Independent Institution (PII) with deputy commander the deputy schoolmaster, where there is, or other person of the school's staff.
- 2. The teachers' party is responsible for the checking of the plan's implementation and mainly for these actions, which they must do before, during and after the fact or the exercise of readiness.
- 3. The teachers' party participates in the trial applications of the plan and makes proposals for its updating and improvement.
- 4. The teachers' party approved after the Schoolmaster's proposal the composition of working groups, which are described to the next paragraph and will take care of our school's risk management actions.

2.1.2. Delegation of responsibilities to the school staff.

Teachers and other administrative staff of the school

- are informed of the project and study it to know their duties,
- are educated and trained students on the steps provided for implementing the emergency plan by participating in the projected drills,
- ensure for the improvement of the Plan by making their proposals.

School staff

- a. Schoolmaster (Leader of PII):....
- b. Deputy schoolmaster (Deputy commander PII):.....
- c. Staff. Men:.... Women:.... Students:....
- d. Staff of defense policy. Men:.... Women:..... Total:.....

1.General manager

<u>General manager:</u> Schoolmaster with alternates the deputy schoolmaster.....

Responsibilities:

- responsible for establishing the project,
- coordination all the related actions,
- responsibility for training, preparation and coordination of staff and students,
- submission of an assurance of the project to the relevant Primary/ Decondary Education department after its approval from the educational staff during the relevant meeting,

- making decisions which are concerned the shortcomings that were observed during the inspection by the Editorial Team of the Plan (more in the next paragraph), as and proposals of the other working groups,
- notification to the parents and guardians of students that after an event should collect their children from the refuge of the school, if the closure of schools is decided by the competent bodies.

2. Editorial Team of the Plan.

Members:

- a. Schoolmaster (Leader of PII)
- b. Deputy schoolmaster (Deputy commander PII)
- c. Teachers' party

Responsibilities:

- Developing the plan,
- Regular checks of premises of the building during the school year and record of the deficiencies are observed on basic requirements for implementing the plan as:
 - Suspension of the Plan in the halls, the corridors, the school's entrance area e.t.c.
 - Labeling of the escape routes and of the exits of the building
 - Procurement of necessary supplies such as radio with batteries, loudspeaker, basic types of first aid, etc.
 - o labeling and removing of hazards in the school area.
 - Selection of the refuge's area of the students.
 - Informing teachers students and parents.
 - Updating of the contact information with the parents and the guardians of the students. Creating of relevant lists and placing them in every classroom (e.g. in the book of curriculum).
 - Care for the seamless and rapid access to main switches of the electricity, of the heating boiler and of the water supply .
 - Continuous updating of the updated protection measures by the EPPO (Earthquake Planning and Protection Organisation) and the General Secretariat for Civil Protection .

The Foundation's Civil Defence Chief record on events calendar what actions he has taken on for the Organisation of the Institute's Defence Policy, the supply of materials, the training of personnel, and any other important event that takes place at school.

3. Group of Security - Approach Control of the students in dangerous places . <u>Members:</u>

a. b. c. d. e.

Responsibilities:

- to confine the students in the area which has been designated as a safe place of refuge.
- to prevent the students to approach at the danger points (building facades, posts, electrical wires e.t.c.).

4. Group for first aid

<u>Members:</u>
a.
b.
с.
d.
e.

This Group is composed by the teachers of Physical Education, and even by the teachers and the administrative staff who have been trained on.

Responsibilities:

- Update the storage of medicinal material of school.
- Ensure completeness of pharmaceutical material and information of the Director for the need to supply necessary materials.
- Informing members of the Group, primarily in first aid issues.
- Care to inform themselves and their colleagues in first aid issues (with the consent of the Director), organizing workshops or seminars with the competent institution of the State to related topics.
- First aid to students or members of the school staff in case of injury.

As the site of First Aid facility defined the space:

We will work with the other co-located IPI, if there are available.

5. Fire Safety Team Members:

	a.
	b.
	C
	d.
• • • • • • • • • •	
	e

The Fire Safety Team is responsible for ensuring, arranging the fire fighting system and suppressing a fire in its initial stage, if, initially, the building is evacuated or during the evacuation if the conditions permit that.

Responsibilities:

- Information about the extinguishing measures of school.
- Suggestion for the supply of the necessary fire-fighting equipment and care for their placement in the school building.
- Regular review of the state of the fire fighting appliances and of the central heating burner.
- Knowledge of the use of fire-fighting equipment in case of emergency.
- Care to inform themselves and their colleagues in firefighting issues co-organizing workshops with the competent institution of the State, as well as training in the use of firefighting equipment through practical application.

It is suggested:

- In education places (classrooms, corridors, etc.) every 15 m and a dry powder extinguisher 6 klg.

- To the sites of the laboratories and of the gymnasiums a dry powder extinguisher 12 klg.

- In the area of the boiler room a dry powder roof extinguisher 12kg over the burner and a carbon dioxide fire extinguisher 6 kg to the entrance of the boiler room.

6. Network Control - Recovery of Damages Group <u>Members:</u>

Responsibilities:

- Knowledge of the position of the central electricity and of water switches, and how to make the interruption in electricity and water supply in the school safely.
- Drafting proposals to the Director to supply appropriate insulation equipment (if there is not already): insulated gloves and boots, etc.

7. Search Group of People who have not occurred in the refuge.

Members:

a.		
b.		
 C		
d.		
••••••	••	

Responsibilities:

- Search of the school floor's plans and information for all areas of the school building.
- Engineering controls to obtain the Group full knowledge of individual areas to be effective in case you need.

8. Guard Group of school's Archive.

Members:

c. d.

Responsibilities:

- Knowledge of the storage space and of the items that the school's Archive contents.
- Update on the information that is contained on the computers of the school's secretariat, and on the means for storing the backup of the database.

- Data processing and establishing of the procedure that will be followed, if it is necessary, to secure the transfer of the Archive.

9. In charge of communication with the competent institutions. Members:

- a. Schoolmaster :....
- b. Deputy schoolmaster:

Responsibilities:

- Recording of phone numbers of the involved operators services in the management of emergency, so as to enable communication with the competent bodies after the onset of an emergency and the evacuation of the school.
- Edit alternative communication solutions (e.g. messenger) if the phone lines are turned off.
- Informing the involved services about the way of communication that has been established in case of emergency.

Supporting Persons with Disabilities

Members:

All the teachers and the administrative staff of the school.

In an earthquake, the Group will be consisted by the administrative staff of the school and the teachers who don't teach in the event of the earthquake.

Responsibilities:

All the teachers and the administrative staff of the school must know in which classroom there is a Person with Disabilities, so as to head in this classroom to help him to evacuate it. Also, they must know the needs of the Person with Disabilities.

Below the Action Memorandum for Managing particular seismic risk

The Greece ranks first in terms of seismicity in Europe and sixth worldwide. It is generally acknowledged that the reduction of the effects of earthquakes can be achieved if people are informed about the seismic protection measures to be taken before, during and after an earthquake. As for the school community, crucial is the development earthquake awareness and behavior among teachers and students with the constant awareness, information and education.

2.1.3. Student's participation

The students:

- Informed about earthquakes and appropriate protective measures before , during and after an earthquake .

- Informed of the Contingency Plan school needs.

- Participate in exercises and training in the application of School Emergency Plan for an earthquake.

2.1.4. Labelling & Removal Risks

The Plan of the Editorial Team is responsible for identifying and preparing proposals to eliminate any hazards that exist in the spaces of the building and the courtyard of the school.

By this is meant the necessary pre-earthquake interventions to be made in order to avoid injuries of students and school staff, which can be caused by damage to non-structural elements of the building and its equipment.

Classrooms , laboratories , auditoriums , Gyms	Mark	Remov al
Removal desks and chairs from the windows and exits		
Loading the library away from the students' positions		
and their fixing appropriate walls		
Placing heavy and fragile items at low		
and safe places		
Fixing with closed hooks of tables and frames		
Securing adequate lighting, loudspeakers, etc		
Security for doors and drawers of cabinets to		
not open		
Storage of toxic and flammable materials in closed		
cupboards		
Escape routes		
Conservation corridors free from closets, desks or other furniture		

Fixing with metal corners on walls, libraries,	
display stands , shelving	
Installation in open libraries and special belts racks	
front of the books	
Ensure that exit doors opening outwards	
Suitable fastening of suspended ceilings, partitions, pipes etc. along	
the escape routes	
Supporting rails staircases, balconies etc.	

2.2. Actions During the Earthquake

Services , Networks , Devices , First Aid	
Fixing suitable for radiators, air-conditioning	
fans, etc.	
Information on the location and operation of electrical switches, water or gas	
Position extinguishers -with instructions to use;	
appropriate positions and their support with elastic straps	
Placement of computers or televisions	
where safe and appropriate support them over the offices etc	
Installing the pharmacy in a safe and easily accessible place	
Courtyard School, Banquet shelters	
Fixing all hanging items on the exterior walls of the building, such as	
marbles, eaves, speakers, lights, signs, etc.	
Ensure adequate support and maintenance	
basketball shoes, poles, cables, shelters, hydrants, etc. located in the schoolyard	

2.2.1.

Actions of teachers

- maintain their composure.
- They want their students to be covered under their desks while keeping their hand foot bench, giving the instruction: "Guys Take cover Earthquake ." They are protected under the seat
- Protected appropriately depending on the position located at the time of the earthquake , according to the instruction: " I live in the area where I am , I bend , I covered , the state" , if not in the classroom at the time of vibration . More specifically, if there is not strong , wooden table or desk to fill in the space located , close to the floor and cover your head and neck with their hands .
- Remain sheltered for the duration of the earthquake .

2.2.2. Actions of Students

- Covered immediately under their desks keeping with their hand in foot bench, if the time of the earthquake are in the classroom.
- protects properly depending on your position at the time of the earthquake (eg, hallway, toilet), in accordance with the instruction: "I live in the area where I am, I bend, I covered, the state", if not in their classroom. If the environmental conditions that are there solid, wooden table or desk to cover, close to the floor and cover your head and neck with their hands.
- Remain sheltered for the duration of the earthquake
- main in the courtyard , away from the sides of the building , if located in the courtyard during a seismic event .

2.3. Actions After the Earthquake

2.3.1. Actions of Schoolmaster/ Deputy Schoolmaster

- They keep their cool and ensure lifting morale students and staff.
- Oversee the implementation of contingency plans, ie the safe evacuation of the halls and the concentration of students in the schoolyard.
- Contact Head Authority and other relevant bodies to inform or update any problems resulting from the earthquake .
- Receive, at their discretion, any measure to ensure the life and the integrity of students and teachers, as well as publicly owned.

2.3.2. Actions of teachers

- They keep their cool and ensure lifting morale their students and colleagues
- After the seismic event, getting up and ask the students to prepare for the evacuation of the hall.
- They open the door of the room , check for any risk ,monitor the evacuation of rooms ahead of their own and are leading the way of evacuation when the series of this room , according to the Emergency Plan of the School (AnnexA) .
- They take with them apousiologio, book matter and the situation with the information of parents and guardians of students there in the room prior to evacuate
- Satisfy themselves that there was no student in the classroom.
- Satisfy themselves that there was no student in the classroom.
- Count their students in the pool.
- Act in accordance with the responsibilities assigned to them in the Plan.

2.3.3. Actions of Students

• After the seismic event, out of the desks below which had guard, and prepared for the evacuation of the room according to the instructions of their teacher.

- Evacuate the school building , in accordance with the Emergency Plan School without running quickly and orderly .
- Follow their instructions given by teachers .
- Grouped by department in the central courtyard and help the teacher to get instances
- Follow their instructions given by teachers .
- They remain in a refuge until they are collected by their parents or guardians, if announced decision to cease operation of the School.
- If students find themselves in the school building eg corridor, toilet (outside the hall of instruction), appropriately protected according to the space located at the time of the earthquake and evacuate the school building after the seismic event in accordance with the Plan of the School, that are directed to the schoolyard and incorporated by section them.
- If during evacuation manifest new seismic—vibration, students appropriately protected according to the position located (stairwell, hallway, etc.), always in accordance with the directive:" I live in the area where I am, I bend, I covered, the state". After the earthquake that continue normal evacuation of the school building.

2.3.4. Actions of working groups

General Manager for actions of the Management of Seismic Risk or other emergency. The Schoolmaster with vice gerent the deputy schoolmaster undertakes:

- The coordination of all actions for the safe evacuation of the school building in accordance with the Emergency Plan for Earthquake.
- The communication with the Head Authority to inform and be informed relatively, and other agencies when it is deemed necessary.
- The care to retain students in the refuge until he is informed for the further actions by the competent. Where it is announced the decision to cease the operation of schools he ensures the safe stay of students in the refuge until their parents receive them.

Group for First Aid

- Provides first aid to anyone who has a need.
- Collects the wounded who can be moved to an appropriate point for transport, near to the exit of the central schoolyard, while they assist the heavily injured in position where they are, until the ambulance arrives.

Fire Safety Team

- Intervenes to extinguish small fire outbreaks.
- Also, checks the condition of the central heating boiler and informs the Schoolmaster for any problems or damages.

Network Control – Recovery of Damages Group

- Controls the Networks.
- Ensures to stop the power and water supply of school.

Search Group of People who have not occurred in the refuge

- Locates the students or the teachers who have not occurred in the refuge and they are probably injured or trapped.
- Collaborates with the Group for First Aid.

Guard Group of school's Archive

- Ensures for the safekeeping of the Archive and of the portable assets of the School (e.g. computers, projectors e.t.c.) until the restoration of their safety or their transfer to a safe place.

Group of Security- Control of approach students in dangerous places.

- Undertakes to avoid the students to approach the dangerous points (facades of buildings, columns, power lines e.t.c.) to prevent any injuries.

Support Group of Persons with Disabilities.

- The members of this Group are directed in the room where the Person with Disabilities is.
- They help the Person with Disabilities to evacuate the classroom and the school building after the earthquake.
- They care to cover any needs in refuge.

3. Organizating Readiness Exercises

The Readiness exercises enable the students, teachers and administrative staff to get the appropriate seismic attitude and behavior and also give them the opportunity to improve their skills. The first school readiness exercise will take place in the beginning of each school year and will be followed by two more, one per quarter, according to the relevant circulars and the corresponding documents. The exercises that will be carried out would be written down on the diary drills (Appendix F).

The onset and the end of the exercise/ simulation of the vibration is defined by the specific sound . In case of an actual earthquake the specific sound would be the onset of the relevant actions.

3.1. Exercises during the lesson

- The teacher must keep himself dispassionate and ask the pupils to protect themselves staying under their desks and holding the leg of it. They must stay at this position until the end of the earthquake. The teacher protect himself under his desk as well.
- > The pupils and the teachers who are located in a classroom that tables and desks are not available must bend and approach the ground far away from dangerous spots protecting their heads and their necks with their hands.
- When the specific sound indicating the end of the earthquake is heard the teacher ask the students to stand up and he heads for the entrance of the classroom to check out the corridor.

- ➤ When it's the classroom turn to evacuate the building (according to the plan), the teacher asks the students to be calm and careful, and encourage them to follow the preplanned course in order to go out to the yard. The teacher is the last to evacuate the classroom and he must take the book where the taught lessons are written ,the attendance and absence book and the list of the names and the contact details of the parents.
- If during the evacuation of the school building a new earthquake occurs, it should be followed by all again the self-protection instruction: "I live in the area where I am , I bend , I covered and I remain in my post until the end of the earthquake ." After the earthquake is finished they will continue the evacuation procedure.
- When students gather in the courtyard, the teacher count them.
- ➢ If the yard is not the appropriate place for refuge the students must be moved to another default place of refuge , in groups of about 30, accompanied by their teachers.
- > The groups should act according the responsibilities assigned to them in the Plan
- ➢ In case that the function of the school would be terminated the students must be received by their parents by the predefined in the school plan refuge areas.

3.2. E xercises during the break

□ Students and teachers who are in the courtyard remain there. There are close to the facades of the building and other risk .

 \Box The teachers on duty on floors, editors and any existing students apply the relevant self-protection instructions according to the space where they are.

□ Just heard the aforementioned password expiration sound of the earthquake , the teachers on duty and editors evacuate the building in accordance with the Plan of the School. The curators take with them the apousiologio and state the details of the parents and guardians of students .

□ The pre-earthquake on duty teachers will ensure daily for mandatory evacuation of the halls during the break , so that there are students in the halls .

3.3. Evacuation process

With respect to the evacuation process all teachers are responsible for the evacuation of the room in which teaching time of the earthquake according to the instructions below.

At the end of the halls evacuation process per floor seismic vibration is applied as described in Appendix A, following the principle of proximity of screens compared with the output, ie emptied first segments and the wings that are closest to each staircase

More specifically:

- Portions will leave the main entrance exit school with the order given.
- Portions from exit the sequence.
- Portions from exit the sequence.
- The School pool is after the earthquake is:.....

- Students in the event of an earthquake are alone in the corridors, in the gym or in the toilets, after the earthquake should go out in the yard and directed to said space with great care, avoiding to approach the facades of the building.
- Immediately after the exit of students from the building and collect them in the default pool (Appendix A), the teacher of each section will measure the students to ensure that all students present in the room are in the courtyard. In case of an earthquake at the time of the break, the teacher will make the count of students is the teacher the next time exactly.
- Then each teacher will report to the Director and the Group People Search any student absence from the refuge to control the corridors, halls and toilets to find absent students.
- ➢ Groups acting in accordance with the powers vested in them in Plan.

Attention : Students will not take away their bags during the evacuation of the building , only appropriate for the season clothes etc.

3.4. Evaluation of Exercises

After each exercise followed by evaluation of the participating teachers in order to identify any problems or weaknesses in the paper- School Plan and propose improvements. It is at the discretion of the Director of student participation in the evaluation exercise.

4. Update Students - Teachers - Parents

For the consolidation of the above must be informed of

students and teachers about appropriate in the event of earthquake protection guidelines , to avoid panic and injuries .

Parents and guardians should be aware that if announced closure of schools must pick up their children from the default refuge of the school.

Appendix A Process discharge of building

Ground floor: Evacuate in the following order:

Classroom 1 Classroom 2 Classroom 3 Computer classroom

1st Floor: Evacuate in the following order: Classroom Classroom Classroom Classroom 2nd Floor: Evacuate in the following order: Classroom Classroom Classroom

3rd Floor: Evacuate in the following order: Classroom Classroom Classroom

Refuge

Bounded between

The evacuation process is illustrated in the following floor plans. In each classroom will be posted the corresponding plan of the floor. Ground floor plan

1st floor plan

2nd floor plan

3rd floor plan

Refuge plan

Appendix B Tablet of seismic protection measures for suspension to the classrooms

Actions for Seismic Protection

During the earthquake

- Keep your temper
- Follow the teacher's instructions
- Cover yourself immediately under your desk holding with your hand its foot, if during the earthquake you are in the classroom.
- Beware appropriately depending on the position where you are during the earthquake (e.g. hallway, toilet), according to the directive: «I stay in the place where I am, I bend, I protect myself, I hold myself», if you are not in the classroom. If there isn't a sturdy wooden table or a desk to protect yourself in the place where you are, approach the floor and cover your head and your neck with your hands.
- Stay sheltered during the earthquake.
- Remain in the courtyard, away from the building's facades, if you are in the courtyard during the seismic event.

After the earthquake

- Be prepared to evacuate the classroom according to the teacher's instructions.
 Evacuate the classroom and the school building quickly and orderly, when the relevant directive will be given, according to the Emergency Plan of your School, without running.
- □ Stay with your department in the courtyard and help the teacher to get presences. In the event that it will be announced the decision of shutdown the School you will remain in refuge, until your parents or your guardian come to receive you.
- If you find yourself on your own inside the school building e.g. corridor, toilet (out of classroom), and there isn't a sturdy wooden table or a desk to protect yourself, approach the floor and cover your head and your neck with your hands. After the seismic event evacuate the school building according to the Plan of School, ie go to the schoolyard in order to find your department.

- □ If during the evacuation of the building a new earthquake occurs, protect yourself appropriately according to the position where you are (staircase, corridor e.t.c.), according to the directive : *«I stay in the place where I am, I bend, I protect myself, I hold myself ».* After this earthquake continue properly the evacuation of the building.
- □ Follow the instructions of your teachers and don't approach dangerous points (facades of the building, columns e.t.c.).

Appendix C

S/N	Teachers	They are noted

Tablet of teachers and administrative staff of the school

S/N	Administrative staff	They are noted

Appendix D

Tablet of working groups

1.	General Manager
	a. Schoolmaster
	b. Deputy schoolmaster
	or their deputy
2.	Editorial Team of the Plan
	a. Schoolmaster
	b. Deputy schoolmaster
	or his deputy
	c. Teachers' party
4.	Group for first aid
	a.
	b.
	c.
	d.
5.	Fire Safety Team
	a.
	b.
	c.



Group actions

General Manager for actions of the Management of Seismic Risk or other emergency.

The Schoolmaster with vice gerent the deputy schoolmaster undertakes:

- The coordination of all actions for the safe evacuation of the school building in accordance with the Emergency Plan for Earthquake.
- The communication with the Head Authority to inform and be informed relatively, and other agencies when it is deemed necessary.
- The care to retain students in the refuge until he is informed for the further actions by the competent. Where it is announced the decision to cease the operation of schools he ensures the safe stay of students in the refuge until their parents receive them.

Group for First Aid

- Provides first aid to anyone who has a need.
- Collects the wounded who can be moved to an appropriate point for transport, near to the exit of the central schoolyard, while they assist the heavily injured in position where they are, until the ambulance arrives.

Fire Safety Team

- Intervenes to extinguish small fire outbreaks.
- Also, checks the condition of the central heating boiler and informs the Schoolmaster for any problems or damages.

Network Control – Recovery of Damages Group

- Controls the Networks.
- Ensures to stop the power and water supply of school.

Search Group of People who have not occurred in the refuge

- Locates the students or the teachers who have not occurred in the refuge and they are probably injured or trapped.
- Collaborates with the Group for First Aid.

Guard Group of school's Archive

- Ensures for the safekeeping of the Archive and of the portable assets of the School (e.g. computers, projectors e.t.c.) until the restoration of their safety or their transfer to a safe place.

Group of Security- Control of approach students in dangerous places.

- Undertakes to avoid the students to approach the dangerous points (facades of buildings, columns, power lines e.t.c.) to prevent any injuries.

Support Group of Persons with Disabilities.

- The members of this Group are directed in the room where the Person with Disabilities is.
- They help the Person with Disabilities to evacuate the classroom and the building after the earthquake.
- They care to cover any needs in refuge.

Appendix E Diary of readiness exercises

S/N	Date of exercise	Time of exercise	Valuation*

* To evaluate the discharge times of school.

Evaluation of the Exercise

After each exercise following evaluation by the participating teachers in order to identify any problems or weaknesses in the School Plan and to propose improvements. It is at the discretion of the Director the participation of the students in the evaluation of the exercise.

Appendix F Tablet of useful telephone numbers

Single European Emerge	ncy Number	112
Fire department		112
Police		
National emergency cent	100 er	166
Municipality		
Hospital		
Port		Authority
Public	power	corporation
•		

Appendix G Relevant circulars documents

□ □ Document of EPPO 824/11-4-2012: «Management of Seismic Risk in Schools» (www.oasp.gr)

- □ □ Document of G.G.P.P. 2450/9-4-2012: «Design and Civil Protection actions to address risks from the event of seismic phenomena» (www.gscp.gr)
- □ □Circular of G.G.P.P. 4648/6-7-2009: «Design and Civil Protection actions to address risks from the event of seismic phenomena». (<u>www.gscp.gr</u>)
- Document of SEPED/ Department of Health Education and Environmental Education / Ministry of Education, 148037/14-11-2008: « Measures for the overcoming of the earthquakes - firesfloods».

□ □ Document of PAM/PSEA/ Ministry of Education, 180/18-11-2008: «Organisation of School's Civil Defence »

Document of PAM/PSEA/ Ministry of Education, 137/17-3-2011: «Reminder of the implementing organizational measures civil protection all general educational institutions»

Appendix H

Schedule of staff training

a) Periodically, First Aid training is made by a doctor of Health Division of Regional Unity or other health unit.

b) Every......(half year, year, e.t.c.) fire safety training is provided by the Fire Service.

The leader of PII is responsible for organizing the educational programs.

Appendix I

Tablet with projected material

Manual siren Electric bell Battery flashlight Whistles **Fire safety team**

Portable fire extinguishers of carbon dioxide or dry powder (depending on the areas)

Shovels Axes or iron crowbars Hoes with handle
SCHOOL PHARMACY

- 1. Alcohol.
- 2. Saline solution (500ml) and amp for the cleaning of the wounds and of the eyes.
- 3. Betadine for disinfection wounds.
- 4. Antihistamine ointment (e.g. fenistil) for insect bites.
- 5. Ointment for burns.
- 6. Cotton.
- 7. Plaster roll (5cm).
- 8. Handsaplast in various sizes.
- 9. Steri-strips.
- 10. Ice packs.
- 11. Rubber gloves (Latex).
- 12. Cold spray.
- 13. Elastic bandages (5, 7 and 10cm).
- 14. Haemostatic bandages.
- 15. Triangular bandage for immobilizing an upper end.
- 16. Sterile gauzes in packets of 5X5 and 10X10 cm.
- 17. Haemostatic rubber, scissors, syringes, thermometer, tweezers, safety pins.
- 18. Ointment (Rhinolex) for nosebleeds.
- 19. Analgesic medicines (e.g. Depon, Ponstan) tablets and syrup.
- 20. Cortisone (Solu-Cortef) for treating allergic Shock.
- 21. Braces and cervical collar for immobilization of the skeletal traumas.

Appendix K

Alarm system of the Independent Public Institution (IPI)

The alarm signal is given by the Department of PSEA of the Peripheral Unity through the Directorate. The motto of the alarm to the staff is assigned by the Chief, who shall immediately notify the Personnel expecting to sound the sirens of the Municipality. The Foundation's position is such that it will definitely hear the sirens of the Municipality.

Alarm signaling means:

- a) With electric siren.
- b) In the event of a power failure with whistle.