

Date	Time	Group	Question
1-Mar	4:00	EM	EM1. Welcome to the simulation! An Emergency Management (EM) team works together to mitigate crises. As there is no reported volcanic unrest, at this time, you can consider yourselves in 'planning and preparation' mode - The tasks that you must complete together: 1. Introduce each member's role and responsibilities. Each member should talk about their specific strategies and considerations that you have for your individual sector 2. The Controller and Duty Manager should explain the protocols for the flow of communication within the EM, and to the GeoNet Team. 3. All team members should think about how they will contribute to decision making. And record your thoughts and observations on your Data logs. You have 20-30 minutes.
1-Mar	4:00	GeoNet	GeoNet1. Welcome to the simulation! Your job is to assess background levels at the volcano. 1. The Section Manager is advised to visit all of the monitoring stations and briefly (5 mins) introduce yourself, and your role. 2. The Section Manager should explain the protocols for the flow of communication within the EM, and to the GeoNet Team. 3. All team members should think about how they will contribute to decision making. All team members should record your thoughts and observations on background levels at the volcano in your Data logs.
1-Mar	4:00	EM	EM2. Following EM team meeting, the Duty Manager is requested to touch base with the Geonet public information officer and clarify the flow and modes of communication between the GeoNet team, and the EM team. The crisis information manager should be observing the "Newsfeed" at all times. ~ 10-20 minutes
1-Mar	4:00	GeoNet	GeoNet2. The GeoNet Field Team is advised to list and describe all of the methods for monitoring volcanoes in the field. Separate out these data types into - Proximal and Distal categories. Check with the Field Volcanologist Specialist if all of these are possible at Tongariro. Implement a two-week plan of fieldwork that should help to collect more data for the volcano. Fill out the necessary paperwork. You should spend ~ 20-30 minutes doing this
20-Mar	0:00	GeoNet	GeoNet3. The Seismologist(s) are asked to describe the difference between high frequency and low frequency earthquakes. Write down these observations on your Geological Data log (Spend ~ 5 minutes doing this). Inform the Geonet Field team needs to look for other changes in the state of the volcano, based on changes in seismicity.
2-Apr	20:00	EM	EM3. A brief (10 minute) Press Conference will be hosted by the GeoNet team. GeoNet and EM should decide together who is appropriate to speak at this time. The Public Information Officer(s) are asked to explain to the group how they think media should be handled. Each person in the team should consider if there are any impacts to your sector. Discuss, and release a Volcanic Impacts Report (that goes to the National CDEM group), a written Media Release (to the public). You have 20 minutes. All team members should record your thoughts on your Emergency Management Data logs during the conference
2-Apr	20:00	GeoNet	GeoNet4. There has been activity at Tongariro. The whole GeoNet team must prepare a 8 minute (2 minutes for questions), Press Conference to address several questions: a. A brief overview of Tongariro Volcanic Complex (in lay speak) and where the eruption has occurred from (Red Crater); b. Define what a phreatic eruption is (in lay speak), c. Status of Tongariro's Volcanic Alert Level, and d. Confer with EM team on general advisory to the public. Section Manager should work democratically with all GeoNet members, and the Public Information Officers should assist in format, phrases, wording and tone of the message to the public. You have 20 minutes to prepare. GeoNet and EM should work together to decide who should speak at the Press Conference. All team members should participate in this discussion (see GeoNet Volcanic Eruption Meeting Agenda) record your thoughts on your Geological Data log.
2-Apr	20:00	EM	EM4. Ash has fallen on the Tongariro National Park. The Department of Conservation is advised to write a Volcanic Impacts Report describing the impacts that ash could have on the safety of the trampers in the Park (should it remain open?). Discuss longterm plans and shortterm plans with other EM members.
2-Apr	20:00	GeoNet	GeoNet5. Field team is advised to discuss nature and type of field work needed to collect time-sensitive ash data. Fill out the necessary paperwork and depart for fieldwork in the next good weather day.
5-Apr	12:00	GeoNet	GeoNet6. Several days after the phreatic activity, discuss among the entire GeoNet team what phreatic activity means. What is happening inside the volcano? Utilize other supporting datasets to help answer this question. All GeoNet members should record your thoughts on your Geological Data log and ask an instructor to assess the quality of your observations. (Spend about 10 minutes doing this)

5-Apr	12:00	EM	EM5a. Public Information Officer(s) should work with Group Controller critique the press conference. How did it go? What went well? What did not go well? Language.. (Spend a maximum of 10 minutes on this)
5-Apr	12:00	EM	EM5b. The Government wishes to know what makes a good location for an evacuation center. The Welfare Manager(s) and the Planning Manager(s) should prepare a short report describing the attributes they look for in an evacuation center. The report should address issues such as location, supplies and transportation. Consider what external agencies might be able to assist at the center. (You have 15min to complete this report and hand to the Group Controller)
22-Apr	8:00	GeoNet	GeoNet7. Have a brief discussion among the GeoNet team to inform the Section Manager the status of each type of monitoring data. The public information officers should assist the Section Manager in preparing for an unscripted Media Interview. Preparation - 10 minutes, Interview 10 minutes. During the interview, the Field team should be planning there next field missions by consulting with the rest of the GeoNet team: Thinking about plans for monitoring ash thicknesses, deformation/eruption visuals? ash dispersal? geochemistry? Preparing risk assessment forms for future field missions. (Field team has 10 minutes to do this)
22-Apr	8:00	EM	EM6. Each member of the EM team gets to submit a question that will be used in a 10-min interview of the GeoNet Section Manager. Pretend that you are a member of the public, with little to no understanding of volcanoes. Vote as a team, and select 4 questions to go to the interview stage. Elect one member of the EM team to pretend to be a famous New Zealand Journalist. You have 10 minutes to prepare. Observe the interview, and critique the Section's Managers responses in your Data logs.
1-May	0:00	GeoNet	GeoNet8. Information requested by the Prime Minister. The Section Manager and the Public information officers write a brief (~100 words) scientific summary, that can be understood by the Prime Minister's scientific advisor. Deadline: May 8th. One of the public information officers should discuss these findings with the Prime Minister and report back.
1-May	0:00	EM	EM7. Local forestry companies are concerned that a larger eruption may cover industrial forested land. The VSAG Agricultural Impacts Manager should consult literature and experts to write a Volcanic Impacts Report on the impacts that ash can have on this important New Zealand industry. Submit report to the Duty Manager, and briefly discuss your findings. (You have 8 minutes to write this)
12-May	20:00	GeoNet	GeoNet9. What kind of eruption is this? Where did it occur? Prepare (10 minutes) for a 15 minute press conference to explain to the public what has happened at the volcano. As a group, elect your representative from your team to give this presentation. Both teams (EM and GeoNet) will present the most important information (5 minutes each) with 5 minutes of questions from the Public.
12-May	20:00	GeoNet	GeoNet10. IMPORTANT: GeoNet and the EM team need a detailed ash dispersal map. The Ash specialist is asked to produce a cumulative isopach map based on the data available. Ask the field team more the most up to date ash thicknesses. Ask your instructors for help if you need it.
12-May	20:00	EM	EM8. An eruption has occurred. The Duty Manager should liaise with the GeoNet team to get the necessary geological information. The EM team should write a list with: a. The impacted areas, b. Basic advice to citizens in impacted areas, c. The worst-case scenario for each sector (agriculture, roads.. etc). Elect at least one representative from your team to give this list during the press conference. Both teams (EM and GeoNet) will present the most important information (5 minutes each) with 5 minutes of questions from the Public.
12-May	20:00	EM	EM9. The Infrastructure Manager is advised to prepare a short Volcanic Impacts Report, on how the road network and road conditions may be affected by the most recent eruption. (You have 5 minutes to write this)
14-May	12:00	GeoNet	GeoNet11. As a team, discuss expectations (scale, type of volcanism), and what your group thinks could happen. What are the data telling you? Write down observations in your Data Log. (10 minute scientific discussion)
14-May	12:00	GeoNet	GeoNet12. Equipment has malfunctioned. The Field Team should weigh the risk of going into the field to fix this. Which seismic station has malfunctioned? Which seismic stations are safe to repair? Are there areas that are more at risk than others in the Park? Discuss your decision-making with one of your instructors, and fill out the necessary paperwork. Also, what are some time sensitive data that we should collect after the most recent eruption? Should you inquire for volunteers (grad students) to help? Who plans field collection? Who owns this data?

16-May	16:00	EM	EM10a. Ministry of Education requests a Media Release for Teachers in New Zealand from the Public Information Manager(s) . They have many school children who are afraid and excited about volcanoes, but do not fully understand how they work. Hand in and discuss this Media Release with the Group Controller . (You have 5 minutes to do this)
16-May	16:00	EM	EM10b. Welfare Manager and the Planning Manager(s) should work together to practice planning for a large eruption. Use the following information to help plan your response. The eruption is from a vent on Mt. Tongariro and has a 5km high column. There is a strong south west wind. The following locations are receiving ash: Turangi – 50mm, Taupo – 30mm, Mangakino – 20mm, Tokoroa & Rotorua – 10mm, Cambridge and Te Puke – 7.5mm, Tauranga, Waihi, Edgecumbe & Kwarau – 5mm. (You have 20min to complete this task)
16-May	16:00	EM	EM11: Tourism New Zealand requests information from the VSAG team and the Department of Conservation on significant concerns of long term impact to the tourism industry if the volcano continues to erupt. Write a Volcanic Impacts Report, you have 5 minutes to do this.
22-May	8:00	EM	EM12: Some stronger earthquakes have caused local families to consider self-evacuating to another city or perhaps another country. Public Information Manager(s) need to get information from relevant members of the team (particularly the about evacuations) in order to provide realistic scientific advice, and welfare advice on evacuation and impacts related to this.
22-May	8:00	GeoNet	GeoNet13: The Meteorologist should discuss with the Ash Scientist the impacts that weather can have on volcanic products. What would happen if a large eruption occurred during a weather storm? What would this do to the ash distribution and the nature of the ash? Does it alter the impact that ash has on other sectors? Write notes and share with the GeoNet team.
1-Jun	16:00	GeoNet	GeoNet14: The Prime Minister would like to be reassured via a personal, scientific statement from the Volcanology Section Manager on that status of the volcano. You have 10 minutes
1-Jun	16:00	EM	summarizing what to do in the event of a major (Plinian) eruption. Use the literature provided. The Group Controller needs to get the necessary info from the EM team and the Geonet team (via the Duty Manager) so the Public Information Manager(s) can write the report. You have 10 minutes
1-Jun	16:00	EM	EM14: The Mayor of Turangi would like GeoNet and EM to provide scientific and social-political information for or against the evacuation of Turangi, and other local communities near the volcano. The Welfare Manager should lead this investigation in consultations with the VSAG team, Planning Manager(s) and the Infrastructure Coordinator . You have 10 minutes
1-Jun	16:00	GeoNet	GeoNet15. The Field Team is advised to liaise with the Department of Conservation to plan/weigh the risks of rescuing lost backpackers in Tongariro National Park. You have 10 minutes
4-Jun	16:00	EM	EM15: The Infrastructure Coordinator and VSAG - Human Impacts Manager is advised to respond to concerns from Airways New Zealand on the status of the aviation codes in New Zealand. You have 5 minutes to justify the aviation code in a Volcanic Impacts Report.
4-Jun	16:00	GeoNet	GeoNet16: Brief Media Release from the Public Information Officer(s) to address worrying misconceptions in the Media. You have 5 minutes to do this.
4-Jun	16:00	EM	EM16: Federated Farmers at Ohakune and Taupo want information on likely impacts of ashfall and want to know what they should be doing. Brief Volcanic Impacts Report from the VSAG - Agricultural Manager . You have 5 minutes to do this.
11-Jun	8:00	EM	EM17: You are going to have a 15 minute Joint Meeting between the GeoNet Team and the EM Team. The purpose of this meeting is to share information and ask questions to one another. Ash impacts the water quality in the area. Major public health concerns for air quality and for water quality where ashfall has occurred. VSAG - Human Impacts Manager should write brief Volcanic Ash Report to address these issues. You have 10 minutes to write it, and provide this information at the meeting.
11-Jun	8:00	GeoNet	GeoNet17: You are going to have a 15 minute Joint Meeting between the GeoNet Team and the EM Team. The purpose of this meeting is to share information with each other about the current situation. This is to discuss the status of the volcano, volcanic activity, and draft a Media Release to be given out on general advisement to the Public. Topics to cover include: a. eruption type, b. what can we expect?, c. will the activity continue, will it subside?, d. what does your data tell you, what does it prove? You have 10 minutes to prepare

11-Jun	8:00	EM	EM18: You are going to have a 15 minute Joint Meeting between the GeoNet Team and the EM Team. This is to discuss the status of the volcano, volcanic activity, and draft a Media Release to be given out on general advisement to the Public. Topics to cover include: a. Impacts of ash on health, electricity, roads, buildings, agriculture. b. How much ash before an evacuation is called? c. Which issue do you tackle first? What is priority? You have 10 minutes to prepare
12-Jun	20:00	EM	EM19: Based on the meeting between groups, the Group Controller is asked: When does he/she expect the National CDEM group take over? Who makes this decision? Ask instructors for help if you get stuck.
12-Jun	20:00	EM	EM20: Domestic electricity fails north of Tongariro National Park. This includes ALL major city centers north including Auckland, Taupo, Rotorua, Hamilton, etc. VSAG - Human Impacts Manager and Infrastructure Coordinator is advised to write a brief Volcanic Impacts Report on suggestions to the public. You have 5 minutes to write this.
12-Jun	20:00	GeoNet	GeoNet18: The Field Team is asked to collect water samples to assess water quality. Request information from the Duty Manager (EM team) regarding impacts to forestry, water quality, planning, how many samples you need, how long it will take, mark on the map the sample localities. You have 5 minutes .
12-Jun	20:00	GeoNet	GeoNet19: Within your teams, decide if some personnel are allowed to return home to their families. How many people should remain? What are the criteria for these decisions?
15-Jun	8:00	EM	EM21: 5-min PAUSE - Both teams are advised to STOP and watch the remaining Media and Community Response info for the remainder of the simulation.
15-Jun	8:00	GeoNet	GeoNet20: 5-min PAUSE - Both teams are advised to STOP and watch the remaining Media and Community Response info for the remainder of the simulation.
19-Jun	20:00	GeoNet	GeoNet21: A 15 minute press conference will be used to summarize the most recent events. Section Manager should report on: a. Scale of eruption, b. Whether the team believes further eruptions will occur, c. Ash Dispersal, and liaise with EM team on list of affected regions, d. equipment conditions, and plan to repair. Remember to speak in plain speak - this is for the public, not volcanologists. You may invite team members to speak about their specialties. You have 15 minutes to prepare
19-Jun	20:00	GeoNet	EM22: A 15 minute press conference will be used to summarize the most recent events. Group should report on: a. List of effected regions (and populations), b. requests for international or national assistance?, c. long term recommendations to farmers, d. recommendations for homeowners, e. evacuated zones and evacuation routes (which roads are closed?), and recommendations on how long evacuations will take place. f. Communications are down in some areas, what do you recommend? Remember to speak in plain speak - this is for the public, not scientists. You may invited the members of your team to speak about their specialties. You have 15 minutes to prepare
19-Jun	20:00	GeoNet	GeoNet22: IMPORTANT: GeoNet and the EM team need a detailed ash dispersal map of this recent eruption, and a cumulative ash map should be produce for all of the magmatic eruptions. The Ash specialist is asked to produce an isopach map based on the data available. Ask the field team to ground check locations and ash thickness. Your instructors can help you figure out how we would collect this information in real life. You have 10 minutes to prepare and give this info to both teams