Crisis Committees

The European Heatwaves of 2019

CHAIR: TBD

GWCIA 30

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Letter From the Chair

Hello Delegates,

My name is Jack. I am currently a freshman studying political science at the George Washington University, and I am looking forward to being your crisis director for this committee! I first got into Model United Nations in my junior year of high school, and have competed competitively ever since. I started late, so I love to see that all of you are getting involved in MUN a lot earlier than I did! This will be my second time being a backroom staffer for a committee. I am so excited to see the ideas and arcs that you all send my way throughout this committee, and I hope you are all equally looking forward to the crisis updates that I will be sending right back at you! I know you will all do great and will have a lot of fun along the way.

See ya there,
Jack Elliott
Crisis Director

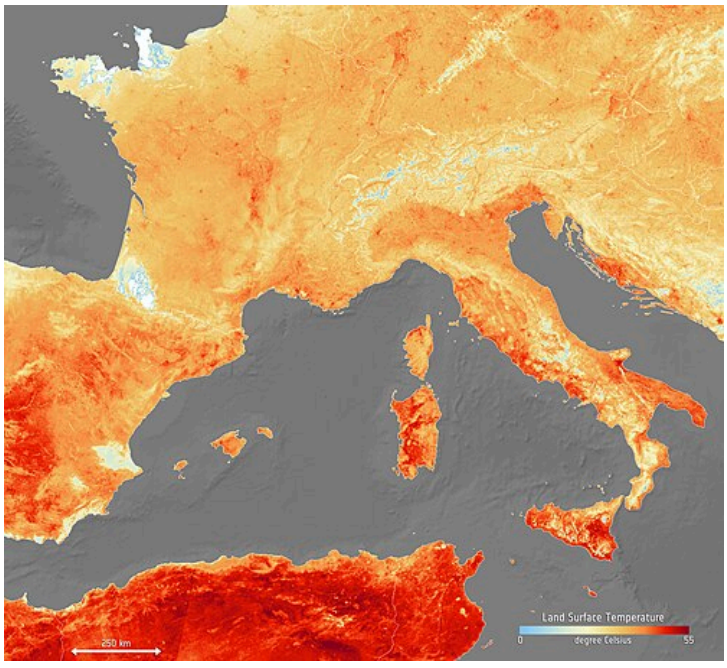
Your Mission

Crisis Response

June 2019- As a destructive heat wave begins taking over much of Central Europe, meteorologists and leaders must begin responding to the crisis at hand. 200 are already dead as temperatures begin rising, especially in Belgium, France, Germany, Luxembourg, the Netherlands, and the United Kingdom.

Cause

According to meteorologists, high pressure and winds from the South and the Saharan Desert are contributing to disastrous temperatures across Europe. Record-breaking temperatures of up to 120 degrees Fahrenheit can now be seen in France, the Netherlands, Belgium, and other countries. An anticyclone, pictured below in the upper troposphere, can be attributed to much of the heatwave at hand.



Crisis

River water temperatures are drastically rising alongside overall temperatures, causing multiple thermal power stations to shut down completely or reduce work overall. Cooling and ventilation systems are failing or down, and animals, as well as thousands of citizens, are at risk. In France, citizens have already died, and citizens in Belgium, Germany, and other European nations face life-threatening temperatures, as well.

Response

While the European Centre for Medium-Range Weather Forecasts (ECMWF) has been able to issue heat alerts to nations and hospitals, alerting government officials to the threat at hand, there are few other institutions created to solve this problem. Heat advisories have been issued by government officials urging citizens to avoid outdoor activities and monitor the elderly, children, and other vulnerable groups. Emergency services and meteorological institutions have begun responding to the crisis.

Future

As emergency services begin responding to heat-related incidents, death tolls are rising as temperatures only increase and systems begin to fail. Many citizens are at risk. Additionally, there are rumors that the ECMWF has concerns regarding a second heatwave beginning to form over the same region currently being affected by the anticyclone.

Background

Heatwave Definition and Categorization

Mild Heatwave: Temperatures are a bit above average. Usually not very dangerous, but citizens are advised to stay cool and hydrated.

Moderate Heatwave: Temperatures are significantly higher than normal. Possible health risks for vulnerable groups, like the elderly or children. Countries may issue heat alerts and advice.

Severe or Extreme Heatwave: Very high temperatures that can cause heatstroke, dehydration, and other health problems. Wildfires and droughts are more likely. Emergency measures are often put into place to protect people and the environment.

The ongoing heatwave can be categorized as a severe heatwave, although further classification and designations for heatwaves does not exist further than “mild, moderate, and severe/extreme”.

While Europe has faced heatwaves before, the worst being in 2003, the extremity of the current heatwave, with temperatures never before seen, raises concerns for the future, and issues like climate change, the strength of institutions, and emergency response capabilities.

Nations impacted include: Austria, Belgium, Czechia, Denmark, Finland, France, Germany, Liechtenstein, Lithuania, Luxembourg, Netherlands, Norway, Poland, Portugal, Spain, Sweden, Switzerland, United Kingdom.

A Message From the ECMWF

Severe Weather Awareness - Heat Waves

European Heatwave and Severe Weather Awareness

Heat Waves

Extreme heat is the number one weather-related killer

Extreme heat and humidity is one of the leading weather-related killers in Europe, resulting in upwards of 175,000 fatalities each year. In the disastrous heat wave of August 2003, more than 50,000 people died, making this the second-deadliest weather event in European history.

Although known for its cool and varied temperatures, Europe is not immune to the tragedies caused by heat waves. The ongoing heatwave presents a threat similar to historical heatwaves, including the August 2003 heatwave.

The elderly and very young are the most vulnerable and face the most risk for heat-related incidents and death.

For more information about heat waves, check the European Centre for Medium-Range Weather Forecasts site.

https://www.ecmwf.int/

- Heat Advisories and Excessive Heat Warnings -

The ECMWF will issue a heat advisory for much of Central Europe when it expects the daytime heat index values to be 100 to 104 degrees Fahrenheit. Additionally, if heat indexes are 95 to 99 for 4 consecutive days, then a heat advisory will be issued.

An excessive heat warning will be issued when the daytime heat index is 105 or higher during the day and 75 or higher at night for at least a 48-hour period. If heat advisory conditions are expected for 4 consecutive days or more (heat indices 100 to 104), then an excessive heat warning will be issued.

Remember, if heat index values reach 105 degrees or more, sunstroke, heat cramps, or heat exhaustion are likely with prolonged exposure and/or physical activity.

Who is at risk?

Keep in mind that the elderly, small children, people on medication, or with weight or alcohol problems are most susceptible to heat-related stresses. This is especially true during a heat wave in areas where a more moderate climate prevails, such as Wisconsin. It's a good idea to periodically check in with those most susceptible to the heat and help them obtain relief from the extreme heat and humidity.

Safety Tips -

Here is what you can do to beat the heat:

Slow down and reduce outdoor activities, especially during the hottest parts of the day

Dress for summer heat: wear lightweight, light colored clothing

Do not get too much sun, it makes it even harder for your skin to cool you off.

Drink plenty of water and stay away from all alcoholic drinks, which will make the heat's effect on your body even worse.

Spend your time indoors. If air conditioning is not available, stay on the lowest floor out of the sunshine. You can also try to go to a public building where air conditioning is available, or sit in a bathtub filled with cool water. In many cases, municipalities will set up cooling shelters.

As with any severe weather, stay tuned to the ECMWF or your local TV or radio stations for the latest forecast and heat index values.

What Went Wrong In 2003?

In 2003, over 50,000 deaths were attributed to a large heatwave in Europe, caused by a long period of intense heat and drought, causing additional environmental damage. There were multiple factors that contributed to the disastrous result of this natural disaster, including a lack of preparedness, a lack of public health response, environmental factors, infrastructure failures, and delayed recognition and response.

1. Lack of preparedness and public health response

    Underestimation of Severity: Public officials initially underestimated the severity and duration of the heatwave, leading to delays in implementing emergency measures.

    Inadequate Early Warning Systems: Existing heatwave warning systems were not effective in alerting vulnerable populations to the dangers of the extreme heat, and public awareness campaigns were insufficient.

    Insufficient Healthcare Capacity: Hospitals and healthcare systems were overwhelmed by the influx of heat-related illnesses, leading to overcrowded facilities, staff shortages, and delays in treatment.

    Lack of Coordinated Response: There was a lack of coordination among different government agencies and healthcare providers, hindering the efficient allocation of resources and support.

    Limited Support for Vulnerable Populations: Elderly individuals, especially those living alone or in poor socioeconomic conditions, were disproportionately affected, and many lacked access to cooling centers, social support, or home healthcare.

2. Environmental Impacts

    Wildfires:Dry conditions and high temperatures led to widespread wildfires, particularly in Portugal, destroying vast areas of forest and agricultural land.

    Water Stress: Many rivers and lakes across Europe experienced record low levels, disrupting navigation, irrigation, and power generation.

    Glacier Melt: The heatwave accelerated glacier melt in the Alps, contributing to rock and ice falls in the mountains and potentially impacting future water resources.

Agricultural Losses: The extreme heat and drought caused significant crop failures, impacting food production and livestock farming.

3. Infrastructure Failures

Power Outages: High demand for electricity, combined with reduced power generation from nuclear plants due to high river temperatures, led to power outages in some areas.

Transportation Disruptions:Low river levels and heat-related damage to infrastructure caused disruptions to transportation networks, including inland waterways and roadways.

4. Delayed Recognition and Response:

Underreporting of Deaths: The true extent of heat-related deaths was initially underestimated, with many deaths attributed to other causes or not immediately recognized as heat-related.

Long-term Health Impacts: The heatwave had long-term health consequences, including increased risk of cardiovascular and respiratory problems, particularly among the elderly.

Guiding Questions

Please consider the following questions as you prepare for this committee, allow the following to guide your research.

1. How can the disaster from the 2003 heatwave be used to prevent similar events now?
2. How can infrastructures be improved to solve the crisis at hand?
3. What organizations can be improved or created to help solve the crisis at hand?
4. How can nations collaborate across Europe and the world to create feasible solutions to the ongoing heatwave?
5. How can this natural disaster be tackled alongside other ongoing issues facing Europe in 2019?
6. Can ongoing issues like climate change begin to be fixed to prevent further heatwaves?

Character List:

1. Brigitte Bierlein- Austrian Chancellor during 2019 who served as an independent, and previously as the President of the Constitutional Court from 2018-2019. She was the first woman to hold either office.
2. Charles Michel- Belgian Prime Minister during 2019 (2014-2019), as a member of the Reformist Movement.
3. Andrej Babiš- Czech politician who served as the Prime Minister during 2019, previously serving as the Minister of Finance of the Czech Republic from 2014-2017. Babiš is also the founding member of the ANO political party.
4. Mette Frederiksen- Danish Prime Minister who took office beginning June 2019, and leader of the Danish Social Democrats since 2015.
5. Sanna Marin- Finnish Prime Minister elected in 2019, and serving as a member of parliament since 2015.
6. Emmanuel Macron- French President elected in 2017, as well as the Co-Prince of Andorra. From 2014-2016, Macron served as the Minister of Economy, Industry, and Digital Affairs.
7. Angela Merkel- German Chancellor elected in 2005, she was the leader of the Opposition from 2002-2005, and leader of the Christian Democratic Union from 2000-2018.
8. Prince Alois- Liechtenstein hereditary prince and the eldest son of Hans-Adam II, who is the official Head of State. Alois's father, Hans-Adam II, transferred power to Prince Alois in 2004, and he now serves as the Regent of the nation.
9. Gitanas Nausèda- Lithuanian president elected in 2019, serving as the ninth president of the nation.

10. Xavier Bettel- Luxembourg's Prime Minister during 2019, elected in 2013, as a member of the democratic party.
11. Mark Rutte- Dutch Prime Minister in 2019, elected in 2010. He also serves as the leader of the People's Party for Freedom and Democracy beginning in 2006.
12. Erna Solberg- Norwegian Prime Minister during 2019, elected in 2013, and leader of the Conservative party since 2004.
13. Andrzej Duda- Polish President serving since 2015. Formerly served as a Member of the Sejm (Parliament) from 2011-2014 and as a member of the European Parliament from 2014-2015.
14. Marcelo Rebelo de Sousa- Portuguese President during 2019, elected in 2016. Before his presidency, he was a member of the Social Democratic Party.
15. Pedro Sánchez- Spanish Prime Minister during 2019, elected 2018. Previously, he served as the Secretary-General of the Spanish Socialist Workers' Party.
16. Stefan Löfven- Swedish Prime Minister during 2019, elected in 2014. Leader of the Social Democratic Party, and Swedish politician.
17. Ueli Maurer- President of the Swiss Confederation from 2013-2019. Member of the Swiss Federal Council, as well as the Swiss People's Party. Formerly head of the Federal Department of Defence, Civil Protection and Sports from 2009-2015, and head of the Federal Department of Finance since 2016.
18. Boris Johnson- British Prime minister elected in 2019 and leader of the conservative party. Former foreign secretary and mayor of London.
19. Dr. Florence Rabier- Director General and leader of the ECMWF in 2019 after serving 2 years leading the ECMWF's forecast department. She is a French meteorologist.

20. Alain Ratier- Director General and leader of EUMETSAT in 2019, which delivers meteorological news and data around the world to many countries, including European nations, especially during weather crises like the 2019 European heatwave.

Works Cited