Hofstra University

Model United Nations Conference 2021

Special Political and Decolonization Committee (SPECPOL)

David DeWallace, Co-Chair
Rebecca Fulman, Co-Chair

Dear Distinguished Delegates,

Hello everybody! My name is David DeWallace, I am a sophomore from Connecticut and I am studying video/television/and film for a B.S degree. This will be my fifth year participating in Model UN and I couldn't be more excited to be your Co-Chair for this year's SPECPOL committee.

I was the Vice President of my high school's Model UN club and we participated in Yale University's annual conference. In my first year at YMUN, I was a delegate from Peru in UNESCO, in my second year I served as a delegate from Austria in ECOFIN, and in my last year I was the Director of the FBI during a Historical Crisis simulating the Iranian Hostage Crisis. We had some unforgettable experiences trying to solve the problems of the world and made a ton of friends. I chose the topic of space debris and its danger to international satellites because I have always been interested in how the space beyond Earth is governed. Also, due to more and more satellites being launched up into orbit every year, I wanted to examine how the international community responds to the potential threats these satellites might cause and how to stop them.

Outside of school, I love to bike and run, both cross country to track and field. Due to my major, I am certainly a fan of movies and television. My favorites films include *Apocalypse Now* and *Empire Strikes Back.* My favorite television shows include *Game of Thrones*, *Survivor* and the entire *Bachelor* franchise. It's the best television has to offer. I share my passion with my friends from cross country track, setting up outdoor movie nights to share recommended films. Although I have watched a lot, I know there is much more to experience, so in between breaks and sessions don't hesitate to give me a recommendation!

My goal is to create an environment where we can have fun and find creative resolutions to the topic that we at SPECPOL have chosen this year. Let's make this SPECPOL committee one for the history books. Hope to have a great time with you all this spring!

Sincerely,

David DeWallace
SPECPOL Co-Chair
HUMUNC 2021

Dear Delegates,

I am a freshman neuroscience major on a pre-med track. Since participating in high model UN, I loved the concept of being able to simulate what actually happens in world policy making. I eventually became president of my high school's MUN and learned a lot about leadership, public speaking, collaboration, patience, and maintaining a positive mindset. Seeing others debate current pressing topics is certainly stimulating and exciting!

Outside of school, my interests are pretty widespread, with a focus on STEAM related-topics. I am currently participating in a campaign with the Leukemia and Lymphoma Society to raise money for cancer patients' treatment. I'm a volunteer copy editor of two start-up websites created by teens: Cittamind, which is focused on medicine and psychology and Empowher Magazine which is a female empowerment magazine. Furthermore, I am an associate director of an organization called "Med Girls", where my role is website development. Med Girls is a platform to help educate girls of all ages about the medical field and encourage them to pursue their career dreams/education goals. I also work alongside my best friend in creating our very random podcast called "Chipping In" where we share short stories, talk about our feelings, and discuss mental health. In addition to these interests, I pursue several hobbies which include improvisational theater, watching dramas and anime, as well as playing tennis and badminton.

In SPECPOL, we will be debating Improving and Ensuring the Safety of Atomic Energy Production. I chose this topic because I think it's especially relevant today when regions worldwide continue to suffer from: the effects of disasters that occurred years prior and resource management issues.

A word of advice to my lovely participants: when representing your countries, please portray their agendas as accurately as possible. Be in accordance with what resolutions they've supported in the past and continue to support today. Even though this year the conference will be held virtually, I am sure we can still have fun, just as we would in person. I can't wait to meet and work with everyone to facilitate debate which will make this conference experience an exciting and memorable one!

Sincerely,

Rebecca Fulman
SPECPOL Co-Chair
HUMUNC 2021

Introduction to the committee

The Fourth Committee of the United Nations (UN) General Assembly is the Special Political and Decolonization Committee (SPECPOL). The committee is responsible for the annual supervision of the UN's response to topics focused on how decolonization has affected certain countries and regions. These topics include:

> …the effects of atomic radiation, questions relating to information, a comprehensive review of the question of peacekeeping operations as well as a review of special political missions, the United Nations Relief and Works Agency for Palestinian Refugees in the Near East (UNRWA), the Report of the Special Committee on Israeli Practices and International cooperation in the peaceful uses of outer space.[1]

To illustrate SPECPOL's mandate, the committee's 2020 sessions resulted in a call to curb COVID-19 misinformation, the appointment of a Special Envoy for Western Sahara,[2] an update on the effects of atomic radiation, the security of UN peacekeepers, as well as other topics.[3]

SPECPOL's mandate also includes topics that are periodically evaluated. Every two years, SPECPOL examines the assistance provided by the UN for mine removal in former conflict zones. Also, every three years, SPECPOL assesses the operations of the University for Peace, an institution created by the UN.

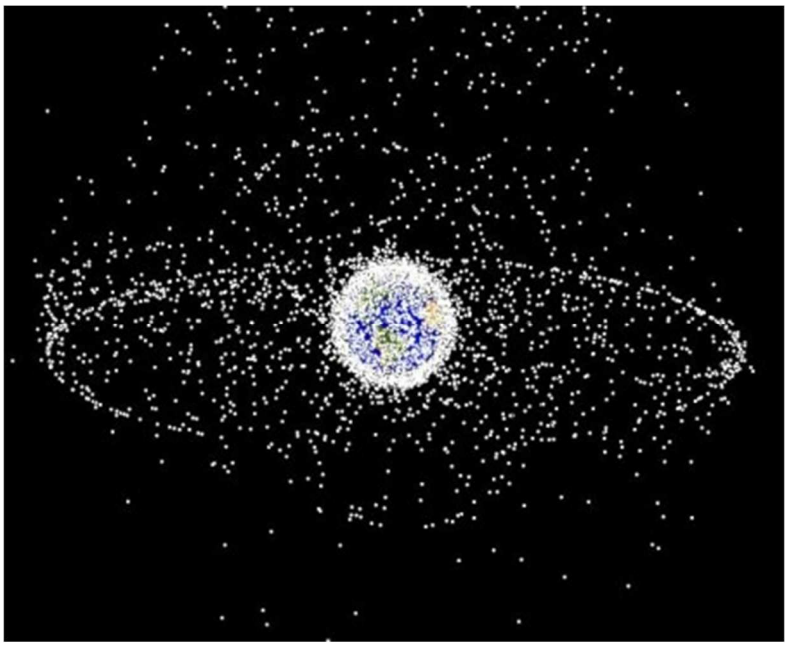
Topic 1: The Dangers Caused by Space Debris

Introduction to the Topic Before the Committee

The origins of the dangers caused by space debris stem from the fact that nations and companies leave the majority of "space junk" (outdated satellites, pieces of spacecrafts, and trash from space stations) in orbit. This allows a high amount of space junk to clutter the orbit of Earth. Quite simply, the more "space junk" that remains in the Earth's orbit, the more likely

collisions are to occur (see *Figure 1*). Stijn Lemmens, Senior Space Debris Mitigation Analyst at the European Space Agency (ESA) explained that the junk has traditionally been destroyed by design, but this may not be the case in the future. “Currently, most space debris [that] comes from explosive break-up events; in the future, we predict collisions will be the driver. It's like a cascade event: Once you have one collision, other satellites are at risk for further collisions”.[4]

Figure 1: Space debris field that surrounds the Earth[5]

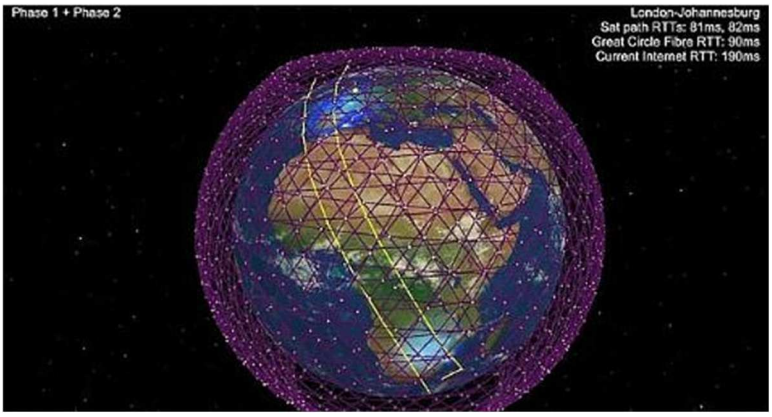


This issue has gained new attention as Starlink, a project launched by Elon Musk’s Space-X, plans to send twelve thousand new satellites into orbit[6] to enable low latency, broadband internet access to everyone around the world.[7] Astronomers are concerned that Starlink satellites will block telescopes observing stars.[8] However, their protests may not gain traction because space debris is not mentioned in any of the five treaties regarding space.

This issue is handled by an agency called Inter-agency Space Debris Coordination Committee (IADC) which includes major space agencies such as NASA, ESA, Roscosmos (Russian), and China National Space Administration[9] as well as JAXA(Japan), ISRO (India),

KARI (South Korea), DLR (German), and CSA (Canada).[10] However, these organizations lack the authority to regulate what other countries launch into Low Earth Orbit, the layer of the atmosphere approximately 160 km to 1,000 km from the surface, where the majority of satellites are launched to orbit.[11] In the case of Musk's plans, no other country besides the United States can regulate SpaceX. If Musk proceeds with these plans, countries will have to coordinate their efforts in the future so that other launches do not get in the way of the SpaceX satellites (see *Figure 2*). Fragments or any other debris within a cluster of satellites are not guaranteed to stay with their original orbit, which can threaten all other constellations of satellites if they cross into the path and collide with another satellite.

Figure 2: Space X 3-D model of Starlink satellites[12]



The threat that faces our satellites is called the Kessler Syndrome. Within our Low Earth Orbit there are thousands of pieces of space debris can be damaging whether they are as large as a TV, or as small as nuts and bolts.

There are more than 20,000 pieces of debris larger than a softball orbiting the Earth. They travel at speeds up to 17,500 mph, fast enough for a relatively small piece of orbital debris to damage a satellite or a spacecraft. There are 500,000 pieces of debris the size of a marble or larger. There are many millions of pieces of debris that are so small they can't be tracked.[13]

Pieces of space junk can initiate a catastrophic chain of events as they can collide with a satellite, destroy it, and create more dangerous particles that can collide with additional satellites.

This threat of cascading collisions endangers every satellite in orbit, as well as the future space travel, as space launches would have to travel through an ever-growing field of debris. The cycle also affects satellites: As more satellites are destroyed by existing debris, more will need to be launched to replace them while also creating more potential space junk.

The international community, through the Space Debris Mitigation Guidelines of the Committee on the Peaceful Uses of Outer Space (see Table 1), has tried to coordinate a response to the problem of space junk. Despite designing a series of guidelines, the problem has only grown over the years.[14] It'll be up to the committee to discover and create new solutions for this ever-growing threat to space organizations and space travel.

Table 1: The Space Debris Mitigation Guidelines of the Committee on the Peaceful Uses of Outer Space[15]

Guideline	Description
1	Limit debris released during normal operations.
2	Minimize the potential for break-ups during operational phases.
3	Limit the probability of accidental collision in orbit.
4	Avoid intentional destruction and other harmful activities.
5	Minimize potential for post-mission break-ups resulting from stored energy.
6	Limit the long-term presence of spacecraft and launch vehicle orbital stages in the low-Earth orbit (LEO) region after the end of their mission.
7	Limit the long-term interference of spacecraft and launch vehicle orbital stages with the geosynchronous Earth orbit (GEO) region after the end of their mission.

Case Study

On September 22, 2020, at around 6:21 pm, NASA monitored a large piece of space junk that would be passing the International Space Station (ISS). Eventually, the object passed within only 0.9 miles of the station, or 1.39 kilometers.[16] This was too close for comfort, despite the fact that its trajectory was calculated in advance of the incident, and it was expected that the space junk would miss. Still, when even small objects move about 17,500 miles per hour, or nearly ten times faster than the speed of a bullet, great caution must be taken.[17]

NASA took preemptive safety measures by ordering the three astronauts living in the ISS, Anatoly Ivanishin, Ivan Vagner, and Chris Cassidy to seal themselves off within a Soyuz spaceship, which is attached to the ISS and can serve as an escape vehicle. The Soyuz was available as a precautionary measure in case there was an impact with the fast-moving space debris. Having the crew stationed aboard the Soyuz would have given them a better chance to launch away from the space station if it suffered significant damage during the storm of space junk passing close to the ISS.[18]

Since 1999, the ISS has had 29 situations where they had to make similar maneuvers to avoid space debris. In 2020 alone, the space station had to make avoidance maneuvers three times. In addition, in September 2020 there were three instances of high-risk collisions with space debris.[19]

As space travel launched by world governments and private companies becomes more active, the danger that the ISS faces from space junk and debris grows higher. It is in the international community's best interest to put measures in place to prevent a potential catastrophe from taking place.

Bloc Positions

The United States has led the way with setting standards to reduce the creation of space junk. “In 1995 NASA was the first space agency in the world to issue a comprehensive set of orbital debris mitigation guidelines. Two years later, the U.S. Government developed a set of Orbital Debris Mitigation Standard Practices based on the NASA guidelines.”[20] Since that time, “[other] countries and organizations, including Japan, France, Russia, and the European Space Agency (ESA), have followed suit with their own orbital debris mitigation guidelines.”[21]

These efforts led to the creation of the Inter-Agency Space Debris Coordination Committee (IADC) in 2002. It was created as a joint effort between multiple countries and organizations to help fight against the threat of space debris.[22] In order to help its members limit the amount of space debris IADC created a set of guidelines (see Table 2). When the United Nations' Committee on the Peaceful Uses of Outer Space (COPUOS), created its seven guidelines in 2007, they largely mirrored the IADC guidelines.[23]

Table 2: The Space Debris Mitigation Guidelines of the Committee on the Peaceful Uses of Outer Space[24]

Limit Debris Released During Normal Operations	Spacecraft and orbital stages should be designed not to release debris during normal operations. Where this is not feasible, any release of debris should be minimized in number, area and orbital lifetime. Any program, project or experiment that will release objects in orbit should not be planned unless an adequate assessment can verify that it does not produce long-term danger to future space craft or tethered systems.
Minimize the Potential for On-Orbit Break-ups	All space systems should be built and operated with the intention of minimizing the potential of break ups or explosions, whether accidental or intentional. Purposeful destruction to space craft should be avoided and not planned at all.
Minimize the Potential for Post Mission Break-ups Resulting from Stored Energy	To reduce post-mission dangers, all on-board sources of stored energy that are no longer needed, such as residual propellants, batteries, high-pressure vessels, self-destructive devices, flywheels and momentum wheels, should be stored safely as soon as this operation does not pose an unacceptable risk to the payload.

Minimize the Potential for Break-ups During Operational Phases	During the design of spacecraft or orbital stages, each program or project should demonstrate through models that there is no probable failure mode leading to accidental break-ups or that there are procedures to minimize the probability of their occurrence. Spacecraft should be periodically monitored while operating to detect malfunctions that could lead to a break-up or loss of control function. Adequate recovery measures should be planned and conducted; otherwise, disposal and passivation measures for the spacecraft or orbital stage should be planned and conducted.
Avoidance of Intentional Destruction and other Harmful Activities	Intentional destruction of a spacecraft or orbital stage, (self-destruction, intentional collision, etc.), and other harmful activities that may significantly increase collision risks to other spacecraft and orbital stages should be avoided. For instance, intentional break-ups should be conducted at sufficiently low altitudes so that orbital fragments are short-lived.

Questions to Consider:

1. What are some improvements that can be made on current guidelines and regulations?
2. Has your country had any difficulties with their space programs due to space debris issues?
3. Is space debris a priority to your country and its space program?
4. What are your country's views on private companies becoming more involved in outer space?

Topic 2: Improving and Ensuring the Safety of Atomic Energy Production

Introduction to the Topic Before the Committee

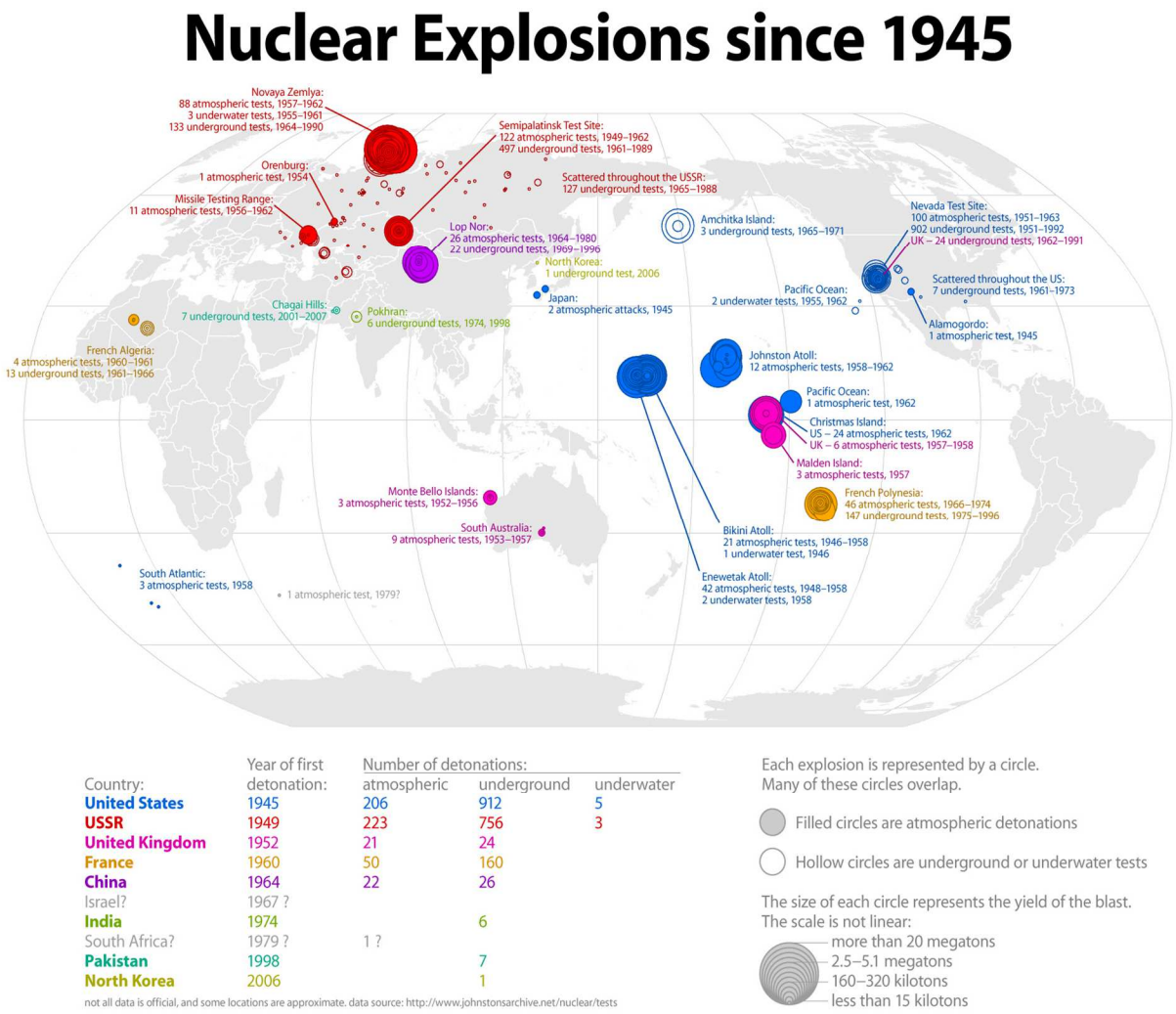
Uranium, a radioactive ore named after the planet Uranus, was discovered by German chemist Martin Klaproth in 1789. The term "radioactivity" was invented in 1896 by French physicists Marie Curie and her husband Pierre, who were pioneers in their respective fields and discovered the element radium.[25] The biological effects of radioactivity were not observed until 1898 when further experimentation by Samuel Prescott revealed that radiation could destroy bacteria in food. A significant number of experiments revealed a great deal about the structure of atomic particles, culminating in experiments by Lise Meitner and Otto Frisch in 1939, which proved that breaking up atoms could release immense energy.[26]

Fast forwarding to World War II (1939-45), the potential for using the energy released by radioactive materials as a weapon was mobilized in the Manhattan Project, a secret United States government program. With over 130,000 people collaborating to create an atomic bomb for possible usage during the war, the Manhattan Project yielded success in just six years. Tests on bombs like "Fat Man" and "Little Boy" (the types detonated over Nagasaki and Hiroshima, Japan, respectively) were conducted in the desert near Los Alamos, New Mexico in 1945, an area which still contains radioactive waste to this day.[27]

From 1947 until 1991, the United States was engaged in a Cold War nuclear arms race with the Soviet Union to build more advanced bombs.[28] From 1946 and 1958, the United States conducted sixty-seven nuclear tests in the Marshall Islands, an island territory under its administration with a population of 52,000. The detonations rained particles of nuclear fallout on the islands, which were then studied by U.S. scientists.[29] A 2005 study by the National Cancer

Institute indicated that following the period of testing, "... the risk of contracting cancer for those exposed to fallout was greater than one in three."[30]

Figure 3: World map of nuclear explosions, 1945-2007[31]



While health risks caused by nuclear weapons testing was known early on, "Since 1956, the main focus [of the United States nuclear program shifted to] the technological evolution of reliable nuclear power plants."[32] In 1957, the first American large-scale nuclear power plant began operation. This was also the year the "International Atomic Energy Agency (IAEA) was formed to promote the peaceful uses of nuclear energy and to provide international safeguards

and an inspection system to ensure nuclear materials aren't diverted from peaceful to military uses."[33]

Outside of the United States, other countries have adopted nuclear power because it is cheaper and is produced more cleanly than fossil fuels. In 1972, Kazakhstan started up the world's first commercial prototype reactor, the BN-350. This fast neutron reactor produced electricity for the country, as well as heat to convert salt water from the Caspian Sea into fresh drinking water.[34] Today, the United States, France, China, South Korea, and Russia are among the top producers of nuclear power to generate electricity for their nation,[35] while other producers of nuclear energy include Ukraine, Germany, Sweden, Spain, India, Czech Republic, Belgium, and Japan.[36] In fact, nuclear power "generated around 10% of the world's electricity in 2019, or almost one third of all low carbon electricity, and was set to remain the second largest source of low carbon electricity after hydro power."[37]

Figure 4: Leading producers of nuclear energy, 2018[38]

World nuclear statistics

Data for 2018.

Top five nuclear electricity generating countries	Total annual nuclear electricity generation in billion kilowatthours (BkWh)	Nuclear share of total national annual electricity generation
United States	807 BkWh	19.3%
France	393 BkWh	71.5%
China	272 BkWh	4.1%
Russia	182 BkWh	17.5%
South Korea	127 BkWh	23.4%

	Share of total world nuclear electricity generation
United States	31.7%
France	15.5%
China	10.7%
Russia	7.1%
South Korea	5.0%

Last updated: October 23, 2020

The UN supports countries that produce nuclear energy for peaceful purposes, but also monitors those with nuclear weapons to discourage further escalation in weapons development and testing through treaties like the Nonproliferation Treaty and the Comprehensive Test Ban Treaty. Peaceful atomic energy production in both of these treaties is defined as using nuclear energy to "diagnose and fight diseases, develop new crops, manage scarce water resources, and broadly apply nuclear science and technology that meet UN Sustainable Development Goals. Nuclear commerce is also thriving, providing clean electric capacity around the world".[39]

In order to ensure the safety of and govern nuclear energy production, the United Nations Scientific Committee on the Effects of Atomic Radiation (UNSCEAR) and IAEA help regulate nuclear power and energy usage. For instance, UNSCEAR assesses and reports "levels and effects of exposure to ionizing radiation. Governments and organizations throughout the world rely on the Committee's estimates as the scientific basis for evaluating radiation risk and for establishing protective measures."[40] Similarly, the IAEA "…works for the safe, secure and peaceful uses of nuclear science and technology, contributing to international peace and security and the United Nations' Sustainable Development Goals."[41]

Case study: Chernobyl

While the benefits of nuclear power have provided for largely safe and abundant power for many countries, there have been incidents where the safety of nuclear energy has raised significant concerns by citizens, advocates, and governments. Unfortunately, in 1986, the incident at the Chernobyl nuclear power plant in Ukraine (then part of the Soviet Union) displayed the gap in safety that could occur at nuclear power plants. Operators conducting a periodic safety test in Rector 4 of the plant disabled the emergency water cooling system and

other key safety equipment. The test was supposed to make sure that the emergency water cooling system would work in case of a power loss.[42] Ironically, an uncontrolled reaction caused pressure to build up and the reactor exploded, causing fires and damage to nearby reactor buildings. The disaster "killed 31 people directly, including 28 workers and firefighters who died of acute radiation poisoning during the cleanup."[43] These first responders had no knowledge concerning the amount of radiation in the area and wore no protective gear.

The combination of human error and poor reactor design were key factors in this accident, which led to a "…sudden, explosive release of large amounts of radioactive material into the atmosphere over a short period of time."[44] Furthermore, the worker handling the reactor was less-experienced and stated that he had never received proper instructions on how to perform the test safely and avoid the type of events which caused an unprecedented environmental tragedy.[45]

The Soviet government compounded the disaster by not evacuating citizens or informing them of the environmental dangers caused by the accident. The Soviet government wanted the accident to remain secret in order to protect their global reputation, hence they chose not to make an official statement for two days. The radiation was picked up by the wind and blown to other countries, in this case "…Swedish leaders demanded an explanation when operators of a nuclear power plant in Stockholm registered unusually high radiation levels near their plant."[46] Domestically, authorities failed to quickly protect the supply of food and milk from being harmed by radiation. The spike in thyroid cancers among children and adolescents from consuming contaminated food could have been prevented if it weren't for the neglect and indifference of those in power.[47]

The delays in reporting the health effects have led to long-term, tragic reports of the results of the Chernobyl accident. "Ukraine's government declared in 1995 that 125,000 people had died from the effects of Chernobyl radiation."[48] As time has gone by, more health effects became evident. "By 2006, more than 5,000 cases of thyroid cancer were diagnosed among those who were children at the time of the exposure decades prior. By 2015, the total number of cases in the three affected countries [Russian Federation, Ukraine, and Belarus] has reached 20,000."[49]

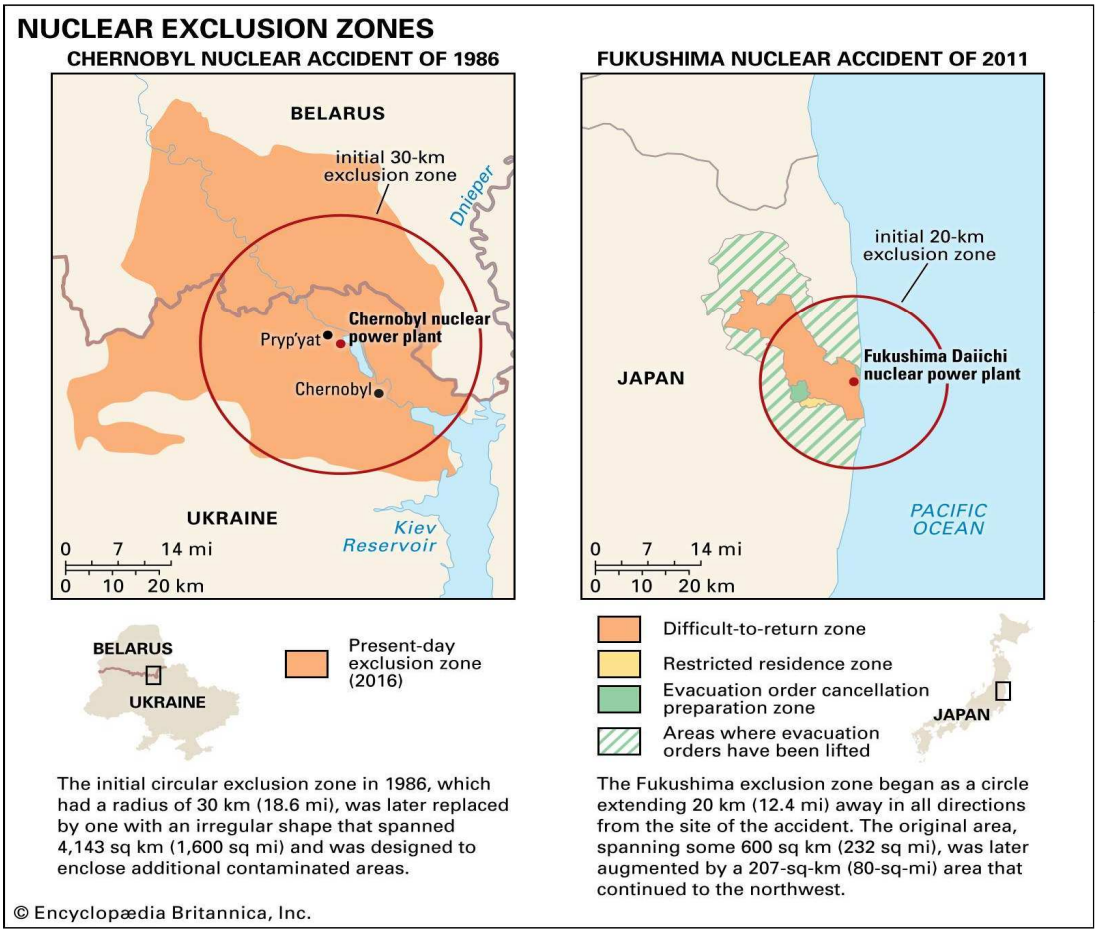
Figure 5: Effects of radiation at Chernobyl [50]

Population effected	Radiation level on ground (kBq/ m^2 of Cs-137)	Number of people affected	Excess thyroid cancers	Collective effective lifetime dose (person-Sv)	Excess solid cancers & leukemia (excluding thyroid)	Excess cancer deaths (excluding thyroid)
Recovery operation workers		530,000		77,000	*9,000*	*4,000*
Evacuees		115,000		5,000	*600*	*300*
Residents of "more contaminated" areas	>555	25,000	6,000 by 2008	16,000	*2,000*	*1,000*
Residents of "contaminated" areas in Belarus, Ukraine and affected areas of Russia	>37	6.4 million		57,000	*6,000*	*3,000*
All other residents of Belarus, Ukraine and affected parts of Russia	<37	92 million		83,000	*9,000*	*5,000*
All residents of other European countries		500 million		163,000	*19,000*	*9,000*
All other people in the rest of the world; effects largely confined to northern hemisphere				64,000 (1988 UNSCEAR)	*7,000*	*4,000*
Total				465,000	*53,000*	*27,000*

After the 1986 tragedy at the Chernobyl plant, the Soviet government attempted to protect the world from the dangers of the site by creating a 1,000-square-mile exclusion zone around Reactor 4. However, since 2011, the government of Ukraine has opened the area to tourists in order to educate the world about the events of this accident.[51] Ukraine allows tourists

to visit abandoned towns inside the former exclusion zone alongside tour guides with dosimeters to monitor radiation levels.[52] For those who venture there, "…white protective suits, helmets and masks [are provided] for the brief visits. After leaving, they will be subject to two radiology tests to measure exposure."[53] Additionally, animals are managing to survive in the area, given the heaping amounts of radiation. "While radiation exposure couldn't be good for the animals, the benefits of the absence of humans outweighed radiation risk…Humans, on the other hand, aren't expected to repopulate the area any time soon. Ukrainian authorities have said it will not be safe for people to live in the Chernobyl Exclusion Zone for more than 24,000 years."[54]

Figure 6: Nuclear Exclusion Zones at Chernobyl and Fukushima[55]



Case Study: Fukushima, Japan

Decades after the Chernobyl disaster, a nuclear power plant in Fukushima, Japan suffered a different type of crisis. “Following a major earthquake, a 15-metre tsunami disabled the power supply and [caused the] cooling of three Fukushima Daiichi reactors, causing a nuclear accident on 11 March 2011. All three cores largely melted in the first three days.”[56] While the reactors were built to withstand the earthquakes that frequently strike Japan, they were not prepared to deal with the sea water that washed into the plant. Over 100,000 people were evacuated from their homes near the reactor to ensure no one was exposed or became sick from radiation.

There were no deaths from radiation on the day of the accident, instead, deaths occurred from the trauma experienced during evacuation and living conditions in shelters, as well as delays in getting medical support for other medical conditions because of the enormous destruction the earthquake had on the nation.[57] These events from the natural disaster and accident were not only an issue of homelessness and physical well-being, but as a mental health crisis too. However, the effects of radiation were evident in later years. “In the first screening among 298,577 young people four years after the disaster, thyroid cancer occurred 50 times more among those who lived in irradiated regions than those who didn’t. In the second screening conducted in April 2014, 106,068 young people living in less irradiated regions were assessed. Results show that cancer was twelve times more common than the general population.”[58]

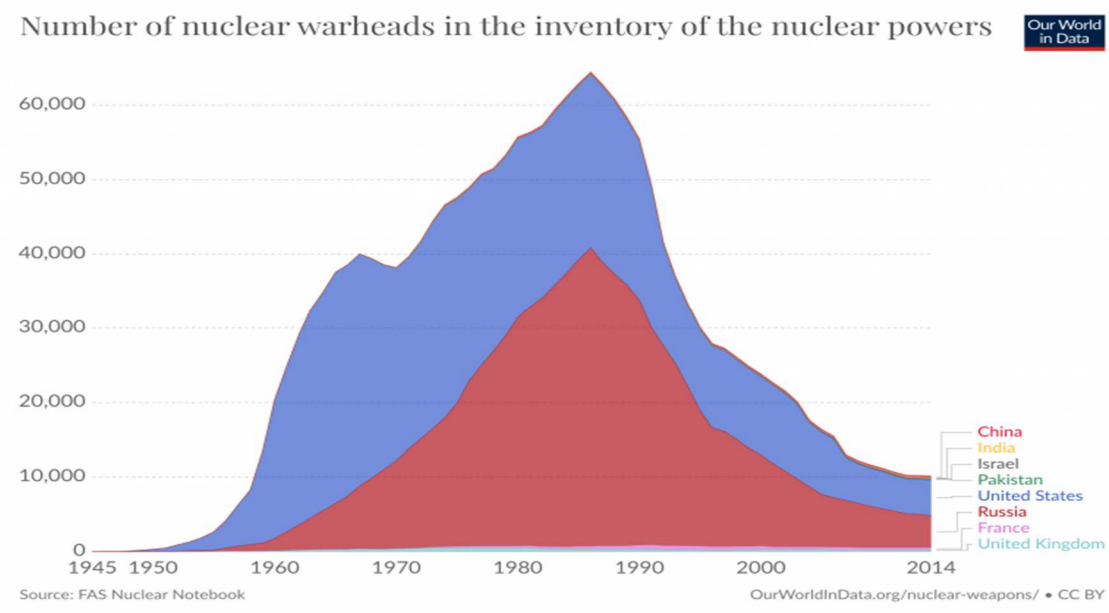
Fukushima was caused by two natural disasters, the earthquake and tsunami, which initiated a slow leak of radiative material from the damage reactors in the days following.[59] “The Japanese government moved rapidly to implement protective measures, evacuating people and halting food shipments from the area. The government also distributed potassium iodide to residents near the facility to prevent their thyroid glands from absorbing radiation.”[60] The

Japanese government's actions were more transparent than the Soviet government at Chernobyl, informing its citizens and helping prevent additional cancer cases from occurring. The distribution of medication to prevent negative health effects of radiation to the general populace, also showed how active steps by a government can achieve ethical care for its citizens.

Bloc Positions

There are fewer countries in the UN that have nuclear weapons than those who are trying to produce nuclear energy for their country's energy needs. According to the graph below the U.S., Russia, Britain, France, China, India, Pakistan have declared having nuclear weapons (see Figure 7), while nations such as Iran and North Korea are trying to develop their own. Simultaneously, there are 30 countries that continue to use nuclear power as a fuel source to provide electricity to their cities, and an additional "…28 considering to include it in their energy mix. Four of these countries, Bangladesh, Belarus, Turkey and the United Arab Emirates, were building their first nuclear plants, with the plants in Belarus and the UAE nearing completion."[61]

Figure 7: Global nuclear inventory[62]



After the Fukushima disaster in 2011, Germany announced that they would abandon nuclear energy and choose to "…move from fossil fuel-based energy generation to a largely carbon-free energy sector while also phasing out nuclear energy by 2022."[63] Although Germany is not affected by tsunamis, the desire to avoid the social and environmental crises that happened at Fukushima because of an unforeseen incident at one of its 54 power plants[64] was a powerful motivator for their decision. With the advent of improved clean-burning fuels like solar, wind and hydroelectric power, it is possible that other environmentally conscious countries may consider moving away from nuclear power.

Questions to Consider

Here are some questions to keep in mind before debating in this committee. This will help you look inward and understand the history of the nation you represent and whether they hold themselves accountable for any past actions/violations:

- How can the UN help those who live in areas affected by radiation and how to prevent future accidents from occurring?
- Should the production of nuclear plants and weapons continue despite the negative impacts, or are the clean energy alternatives more beneficial to the environment and the people, flora, and fauna who inhabit it?
- What is your country's stance on nuclear energy? Based on this, how will they respond to this crisis of the lasting impact of atomic radiation?
- Has your country experienced accidents or been affected by nuclear weapons tests in its past? What has been the effect on citizens around the testing area, what may the opinions be of neighboring nations?

- What policies has your country implemented to monitor, improve, and ensure the safety of nuclear plants and/or testing?
- Are there any policies currently being passed pertaining to a particular (domestic or foreign) issue?

Endnotes

[1] United Nations - General Assembly: Special Political and Decolonization (Fourth Committee). https://www.un.org/en/ga/fourth/.

[2] United Nations Fourth Committee: Meetings Coverage and Press Releases (Page 1). https://www.un.org/press/en/content/fourth-committee.

[3] United Nations Fourth Committee: Meetings Coverage and Press Releases (Page 2). https://www.un.org/press/en/content/fourth-committee?page=1.

[4] Hattenback, Jim. "Does Starlink Pose A Space Debris Threat? An Expert Answers". Sky and Telescope. 3 June 2019. https://skyandtelescope.org/astronomy-news/starlink-space-debris/.

[5] Ibid.

[6] Ibid.

[7] Koetsier, John. "Starlink Internet From Space: Faster Than 95% Of USA." 1 November 2020. https://www.forbes.com/sites/johnkoetsier/2020/11/01/starlink-internet-from-space-faster-than-95-of-usa/?sh=140c865d1bb0.

[8] Resnick, Brian. "The night sky is increasingly dystopian." 29 January 2020. Vox. https://www.vox.com/science-and-health/2020/1/7/21003272/space-x-starlink-astronomy-light-pollution.

[9] Astromaterials Research & Exploration Science. "Debris Mitigation". ARES: Orbital Debris Program Office. https://orbitaldebris.jsc.nasa.gov/mitigation/.

[10] IADC. "Member Agencies". https://www.iadc-home.org/#none.

[11] European Space Agency. "Types of Orbits." 30 March 2020. https://www.esa.int/Enabling_Support/Space_Transportation/Types_of_orbits#LEO.

[12] Liberatore, Stacy. "SpaceX files paperwork for 30,000 more Starlink satellites for high-speed internet - amid fears they will litter the night sky and make stargazing impossible". 16 October 2019. https://www.dailymail.co.uk/sciencetech/article-7577107/SpaceX-files-30-000-Starlink-satellites-approved-12-000.html.

[13] NASA. "Space Debris and Human Spacecraft." Last updated 7 August 2017. https://www.nasa.gov/mission_pages/station/news/orbital_debris.html.

[14] United Nations Office for Outer Space Affairs. https://www.unoosa.org/pdf/publications/st_space_49E.pdf.

[15] Ibid.

[16] Business Insider. "'Unknown' space debris almost flew within 1 mile of the International Space Station. As junk builds up in orbit, the danger of collisions is growing." https://www.businessinsider.com/nasa-unknown-orbital-debris-narrowly-missed-striking-iss-avoidance-maneuver-2020-9.

[17] Ibid.

[18] Ibid.

[19] Ibid.

[20] Astromaterials Research & Exploration Science. "Debris Mitigation". ARES: Orbital Debris Program Office. https://orbitaldebris.jsc.nasa.gov/mitigation/.

[21] Ibid.

[22] Ibid.

[23] "Space Debris Mitigation Guidelines of the United Nations Committee on the Peaceful uses of Outer Space." 27 December 2007. https://www.unoosa.org/documents/pdf/spacelaw/sd/COPUOS_space_debris_mitigation_guidelines.pdf

[24] IADC. "IADC Space Debris Mitigation Guidelines." March 2020. https://orbitaldebris.jsc.nasa.gov/library/iadc-space-debris-guidelines-revision-2.pdf.

[25] "Discovery of Radioactivity." *Encyclopædia Britannica*, Encyclopædia Britannica, Inc., www.britannica.com/science/atom/Discovery-of-radioactivity.

[26] "Outline of History of Nuclear Energy". World Nuclear Association, November 2020, www.world-nuclear.org/information-library/current-and-future-generation/outline-history-of-nuclear-energy.aspx.

[27] History.com Editors. "The Trinity Test." History.com, A&E Television Networks, 23 Apr. 2010, www.history.com/topics/world-war-ii/trinity-test.

[28] "Cold War History." History.com, https://www.history.com/topics/cold-war/cold-war-history.

[29] "Marshall Islands." *Atomic Heritage Foundation*, 2019. www.atomicheritage.org/location/marshall-islands.

[30] Ibid.

[31] Lopez, German. "Map: Map: The world has set off at least 2,400 nuclear weapons since 1945". 1 October 2014. https://www.vox.com/xpress/2014/10/1/6880139/map-the-worlds-nuclear-explosions-since-1945.

[32] "Outline of History of Nuclear Energy". World Nuclear Association, November 2020, www.world-nuclear.org/information-library/current-and-future-generation/outline-history-of-nuclear-energy.aspx.

[33] Nuclear Age Timeline: The 1950's, www.radiochemistry.org/history/nuclear_timeline/50s.html.

[34] "Outline of History of Nuclear Energy". World Nuclear Association, November 2020, www.world-nuclear.org/information-library/current-and-future-generation/outline-history-of-nuclear-energy.aspx

[35] "U.S. Energy Information Administration - EIA - Independent Statistics and Analysis." Nuclear Explained - Data and Statistics - U.S. Energy Information Administration (EIA), www.eia.gov/energyexplained/nuclear/data-and-statistics.php.

[36] "Top 15 Nuclear Generating Countries - by Generation." Nuclear Energy Institute. June 2019. https://www.nei.org/resources/statistics/top-15-nuclear-generating-countries.

[37] "Preliminary Nuclear Power Facts and Figures for 2019." IAEA, IAEA, 1 Jan. 2020, www.iaea.org/newscenter/news/preliminary-nuclear-power-facts-and-figures-for-2019.

[38] "U.S. Energy Information Administration - EIA - Independent Statistics and Analysis." Nuclear Explained - Data and Statistics - U.S. Energy Information Administration (EIA), www.eia.gov/energyexplained/nuclear/data-and-statistics.php.

[39] Editors. "Non-Proliferation Treaty Creates a Safer World." Voice of America. 28 May 2017. https://editorials.voa.gov/a/non-proliferation-treaty-creates-a-safer-world/3874757.html.

[40] "UNSCEAR - United Nations Scientific Committee on the Effects of Atomic Radiation." About Us, www.unscear.org/unscear/en/about_us.html.

[41] "Overview." *IAEA*, IAEA, 8 June 2016, www.iaea.org/about/overview.

[42] "Chernobyl." History.com, 4 June 2019, https://www.history.com/.amp/topics/1980s/chernobyl.

[43] Greenspan, Jesse. "Chernobyl Disaster: The Meltdown by the Minute." *History.com*, A&E Television Networks, 15 Apr. 2019, www.history.com/news/chernobyl-disaster-timeline.

[44] Witt, Jana. "30 Years since Chernobyl and 5 Years since Fukushima – What Have We Learnt?" *Cancer Research UK - Science Blog*, 25 Apr. 2016, https://scienceblog.cancerresearchuk.org/2016/04/26/30-years-since-chernobyl-and-5-years-since-fukushima-what-have-we-learnt/.

[45] Greenspan, Jesse. "Chernobyl Disaster: The Meltdown by the Minute." *History.com*, A&E Television Networks, 15 Apr. 2019, www.history.com/news/chernobyl-disaster-timeline.

[46] "Chernobyl." History.com, 4 June 2019, https://www.history.com/.amp/topics/1980s/chernobyl.

[47] "Comparing Fukushima and Chernobyl." *Nuclear Energy Institute*, 1 Oct. 2019, www.nei.org/resources/fact-sheets/comparing-fukushima-and-chernobyl.

[48] Ibid.

[49] "1986-2016: CHERNOBYL at 30." World Health Organization, World Health Organization, www.who.int/publications/m/item/1986-2016-chernobyl-at-30.

[50] Gronlund, Lisbeth. "How Many Cancers Did Chernobyl Really Cause?—Updated Version". 17 April, 2011. https://allthingsnuclear.org/lgronlund/how-many-cancers-did-chernobyl-really-cause-updated

[51] Guy, Jack. "Chernobyl Control Room Now Open to Visitors -- but Only Wearing a Hazmat Suit." *CNN, Cable News Network,* 3 Oct. 2019, www.cnn.com/travel/article/chernobyl-control-room-tours-scli-intl/index.html.

[52] Alaska, Anita. "Chernobyl, Site of Nuclear Disaster, Now a Tourist Zone." *CNN*, Cable News Network, 14 Apr. 2015, www.cnn.com/travel/article/chernobyl-tourism/index.html.

[53] Ibid.

[54] "Chernobyl." History.com, 4 June 2019, www.google.com/amp/s/www.history.com/.amp/topics/1980s/chernobyl.

[55] Rafferty, John P. "Nuclear Exclusion Zones". *Encyclopædia Britannica*, Encyclopædia Britannica, Inc., https://www.britannica.com/story/nuclear-exclusion-zones.

[56] "Fukushima Daiichi Accident - World Nuclear Association", May 2020, www.world-nuclear.org/information-library/safety-and-security/safety-of-plants/fukushima-daiichi-accident.aspx.

[57] Ibid.

[58] "Cancer Rates at Fukushima Worse than Chernobyl." *Fukushima Watch Com*, www.fukushimawatch.com/2015-11-11-cancer-rates-at-fukushima-worse-than-chernobyl-disaster.html.

[59] Witt, Jana. "30 Years since Chernobyl and 5 Years since Fukushima – What Have We Learnt?" Cancer Research UK - Science Blog, 25 Apr. 2016, https://scienceblog.cancerresearchuk.org/2016/04/26/30-years-since-chernobyl-and-5-years-since-fukushima-what-have-we-learnt/.

[60] "Comparing Fukushima and Chernobyl." *Nuclear Energy Institute*, 1 Oct. 2019, www.nei.org/resources/fact-sheets/comparing-fukushima-and-chernobyl.

[61] "Preliminary Nuclear Power Facts and Figures for 2019." IAEA, IAEA, 1 Jan. 2020, www.iaea.org/newscenter/news/preliminary-nuclear-power-facts-and-figures-for-2019.

[62] Roser, Max and Nagdy, Mohamed. "Nuclear Weapons". Our World in Data. https://ourworldindata.org/nuclear-weapons.

[63] Appunn, Kerstine. "The History behind Germany's Nuclear Phase-Out." Clean Energy Wire, 2 January 2018, www.cleanenergywire.org/factsheets/history-behind-germanys-nuclear-phase-out.

[64] "Japan's Nuclear Power Plants." Japan Data, Nippon, 10 March 2020, www.google.com/amp/s/www.nippon.com/en/features/h00238/amp/.