HISTALYA

MUN 2024

NASA'THE CHALLENGER DISASTER'

AGENDA ITEM:

The Great Fall of NASA

STUDY GUIDE

UNDER SECRETARY GENERAL

İrem Uzun

UNDER SECRETARY GENERAL

Fırat Yalçın

Table of Content

I. Letter from the Secretariat

It is with great pleasure that I extend a warm welcome to all participants of HistalyaMun'24, which will be held in Antalya from August 15th to 18th.

As we gather for this Model United Nations conference, we anticipate engaging debates, enlightening discussions, and invaluable networking opportunities. Our committees, covering a diverse range of topics about historical events, promise to challenge and inspire delegates, fostering both critical thinking and diplomatic skills.

I would like to express my sincere appreciation to the organizing team and our gracious hosts in Antalya for their dedication and hard work in bringing HistalyaMun'24 to fruition.

I am eager to meet each and every one of you in Antalya as we come together for this enriching experience.

Sincerely,

Metehan Yıldırım
Secretary-General
HistalyaMun'24

II. Letter from the Under-Secretaries-General

Dear Delegates,

We would like to welcome you all to the The National Aeronautics and Space Administration committee of HISTALYAMUN'24! It is our utmost pleasure to serve you as the Under-Secretaries-General of this committee.

As two people who have been following the improvements in the aviation industry very closely (thanks to Fırat being an Aerospace Engineering student- and a huge space geek) , we have dreamt of creating a committee including one of the major accidents in the history of aeronautics for an extremely long time. The core progress in Space Shuttle Programs were altered because of this specific incident, therefore, its significance cannot be comparable with the ones that came before. In this study guide, we have analyzed the main issues regarding the matter. Read it carefully, and do your research about the agenda item and the characters you represent. Each of you has an essential role in this committee. The future of the American Aeronautics Industry is in your hands now, and we cannot wait to see the plans you have for us. Do not hesitate to contact us via email if you have any questions regarding the agenda.

Last but not least, we would like to the Secretariat; the Secretaries General Doğaç Çınar Arat and Metehan Yıldırım for giving us this opportunity.

Sincerely,
İrem Uzun & Fırat Yalçın
ireeeemuzn@gmail.com
firatyalcin@ieee.org

III. Rules of Procedure

a. A Brief Summary on the Rules of Procedure

The committee will follow a special procedure which includes both General Assembly and Crisis Cabinet procedures. Keep in mind that the below mentioned steps of these procedures are written on the basis of our committee, therefore, they do not explain these procedures as a whole. We are only underlining the parts which **this** committee will use. Also, since you will be representatives in this committee, you may use the personal pronouns. Should you have any questions regarding the rules of procedure, do not hesitate to contact us via email.

i. Parts from the General Assembly Procedure

1. **Roll-Call:** The Roll-Call is an essential stage to open the debate. In the beginning of each session, the Board Members will call the names of the representatives in the committee in an alphabetical order. The representatives who are present have two options to state that they are present. They should say whether ‘’Present’’ or ‘’Present and Voting’’ which means that they are actively following the debate and voting on the motions. If you say present and voting in the voting procedure, you do not have the right to stay abstain. The delegates who do not participate in the committee for at least three sessions will not be having their attendance certificate, therefore, if you have any special problems that require you to stay abstain, please contact the Secretariat.
2. **Caucuses:** There will be three caucuses we will be using in this committee, including the moderated, unmoderated and semi-moderated caucuses. For caucuses to be put in order, first and foremost, the chairboard should open the floor to debate. After that, each representative has the right to propose a motion stating its topic, duration and type. A

moderated caucus allows delegates to debate under the chairboard control. The chairboard chooses which delegates will speak and they will warn the delegates about their remaining time. Only one delegate can speak at a time. However, in the semi-moderated caucus, delegates can speak however they wish without chairboard control but they do not have the right to leave their seats or write documents connected with the committee. In this caucus, the chairboard will only give a warning when the timer ends, they will not control which speaker will speak unless an argument arises. In the unmoderated caucus, delegates can speak to each other without staying in their seats, they can discuss anything related to the committee and wander around while discussing, or write a document such as the resolution paper or a directive. Similar to semi-moderated, the chair only controls the remaining time. Nonetheless, you can always ask questions about the agenda item to the chairboard, no matter what the caucus is by stating a Point of Information. Also, the topic of a motion cannot be a question and it should be simplified as much as possible. Before saying your motion you should propose one of these sentences: ‘’I would like to raise a motion about…/ I would like to discuss upon…’’ Here is an example for how to propose a motion: ‘’I would like to raise a motion about the importance of the Space Shuttle Programmes in America in a moderated caucus for fifteen minutes, individual speaker time being one and a half minute.’’

3. **Communique & Presenting the Communique :** This committee’s final document will be a communique. A communique is a document of explanation, it does not have a specific format like the resolution paper. In a communique, you explain the matters you’ve discussed in

the committee carefully and detailise your solutions to those issues in paragraphs. It may be seen as a press release, but a formal and longer version. Also, this stage is a special motion by itself. You may propose this motion as its name by saying ‘’I would like to raise a motion about presenting the (draft) communique.’’ The reason why it is separated from other motions is that in this motion, the proposer reads the paper to the committee out loud.

4. **Voting Procedure:** In this committee, we will use the roll-call voting procedure. The chairboard asks the representatives in order about their vote separately. You have five options: Yes, No, Yes with Rights, No with Rights, Abstain. The ‘’with rights’’ ones mean that you do not accept the paper as a whole but you agree or disagree with most of them and when the voting is completed you make a speech about the clauses you agree or do not agree with. Abstain means that you neither agree nor disagree.
5. **Points (for both procedures) :** Points allow you to ask questions or take permissions from the chairboard. There are five in total. None of the points except ‘’Point of Personal Privilege due to inaudibility’’ can interrupt a representative’s speech.
    - **Point of Information:** When you want to ask for information about the agenda item or a translation of a word which you do not know in English, you can use a point of information.
    - **Point of Personal Privilege:** This point is used for personal situations such as turning off the AC, going to the bathroom, answering an important phone call. We suggest you use your point of personal privilege in the message papers which will be given to you in the conference. Also, as mentioned above, if you

have problems hearing a speaker’s speech, you may interrupt them by stating an inaudibility motion under the roof of personal privilege motion and the chairboard will request the speaker to increase their voice.

- **Point of Order:** When there is a mistake in the ongoing order of the session such as forgetting a stage or a mistake in the speakers list etc. you can always raise a point of order to state this inaccuracy to the chairboard.
- **Point of Parliamentary Inquiry:** This motion can be used to ask questions about the rules of procedure and state mistakes as questions.
- **Right of Reply:** While right of reply does not fully qualify as a motion, it's still a sentence you may state as one. Right of reply can only be used when a speaker specifically mentions your **name**. You may raise your placard and say ‘’Right of Reply’’ or write a message paper to the chairboard explaining which parts of the speech got you offended. If the chairboard accepts your offer, you will be given a limited time to reply to the previous speaker or explain your aim in the matter.

ii. Parts from the Crisis Cabinet Procedure

1. **Tour de Table:** After the Roll-Call, in the beginning of every session, each representative will deliver a speech about the topics that were discussed before or will be discussed. They may state their thoughts, their hopes, what should be done etc. You can deliver a speech about whatever you wish.
2. **Trial Procedure (Credits to Setareh Ghazizadeh) :** Since the agenda item of our programme includes a nationwide disaster, delegates will have the right to sue each other by sending message papers to the chairboard, by detailing why they are doing this action and what their evidence is. They can make agreements with other delegates to be their witness. When a case gets accepted by the chairboard, the victim will have a limited amount of time to gather their defenders and write their defense speech. After that, a delegate will raise a motion to start the trial procedure. Everyone included in the case will deliver a speech. The jurors will be the Under Secretaries General and depending on the speeches, a result will be announced according to them.
3. **Sending Directives:** A directive can be sent to the chairboard through message papers. There are three types of directives we will be using. You can find examples of these directives in the sample part.
    - **Individual Directive**: An individual directive includes only one delegate, and their personal plans. The result of these directives can be shared to the whole committee in the updates.
    - **Top Secret Directive:** A top secret directive is usually used to take some action privately, behind the scenes. Usually these directives are used to betray someone, without them knowing. All the aspects of

the top secret directive are the same with the individual one except the announcement part. The updates on these directives will only be given to the one who wrote them, privately without the committee knowing.

- **Joint Directive:** A joint directive is written by two or more delegates, explaining their plan and how they will accomplish them.

4. **Press Release:** A press release is a document written by the members of the committee to enlighten the public about the ongoing crisis and calm the citizens upon the upcoming events. It is usually expected after a sudden update. If the committee does not write a press release during a disaster, the public may arise and protests for the government to resign might cause a rebellion in the country both economically and politically.

b. Sample Documents

In these sample documents, İrem will be the president of the country of X, and her country will be at war with the country of Y which is ruled by Fırat. We will detailize an assasination.

i. Directive

-Top Secret Directive-
To: Chairboard
From: İrem
At 23.36 on the 16th of June, I called the minister of internal affairs and defense for an urgent meeting at the Swift Palace. I asked them to meet me there after an hour and ordered my guards to check the area for any kinds of tracking devices such as bugs and gave a day off for all the workers such as janitors, gardeners, maids *except the securities and the police* to prevent my plans

from the country of Y's spy operations. When I made sure everyone had left, I went to the Palace with guards surrounding me. The press was not alerted, and I switched cars, therefore, they did not see my entrance. After I met with the ministers, I explained my plan of assasination of Fırat. The plan is: Tomorrow morning, on June 17th, Fırat will be in the town center of his capital, giving a speech about not losing hope in the war at exactly 11 o'clock. Since our spies may have the risk of being noticed, we will be using someone he can trust, someone who is a citizen of the country of Y and someone who is a victim of the war. Since we have had many captives since the beginning of the war it was not hard to find a pregnant one. We will threaten her husband to kill Fırat, otherwise his loved one will be punished. I ordered the ministry of internal affairs to reach out to our spies, for them to threaten the husband at around 7 a.m. tomorrow. She explained the details of the plan to our spies very carefully and ordered them to wear the traditional clothes of the country of Y to dispose of any kind of risk of getting caught. We also sent pictures of the pregnant woman to convince the man to our plan. After the man is convinced, he will hide his weapon, which is a small kitchen knife, to his crotch. When Fırat mentions that the country is on its way to win this war, the man will scream in the crowd saying ‘'My wife has been kidnapped by X! Shame on them! I want your blessings and luck, Mr. President! You have to look me in the face, shake my hand and convince me that we will find her!'' When Fırat invites him to the stage to do all these things mentioned, the man will take out the knife as he is taking out some present for Fırat and stab him from his aort, all in a second.

Signature, İrem

ii. Press Release (from İrem to the country of X)

Dear citizens, today, our suffering has come to an end, the sun shines on our fellow nation once more now that the war is over. We shed so many tears, blood and sweat. We lost parts of ourselves, we understood the importance of unity once more. Nobody can stand against our power, and the truth has shown itself again. The victory is ours. Now, we mark the beginning of our recovery plan. All the areas which were affected by the war will be restored, there will be memorials to remember our greatest soldiers. I know you are tired, but we have to stand up as we always do. May the power be with you.
The President

IV. Introduction to the Committee

The National Aeronautics and Space Administration is an independent agency of the United States government. It is responsible for the civil space programmes, aeronautics research, and space research.
As a historical committee, the date in the beginning of our committee will be December 1st, 1985. With further updates based on your directives, the time will pass onwards under the authority of the Under-Secretaries-General. The committee includes engineers and representatives from NASA, politicians and signature names in the United States at that time. Together, you will try to decide upon the future of America's Space Programmes, whether it is positive or not. Now, it is your turn to rewrite history.

V. Introduction to the Agenda Item

Challenger Space Shuttle, which aimed to carry out a study including the research about the Halley's Comet and the deployment of a communications satellite while they were in the Orbit, was set off on 28th of January 1986. 73 seconds after its departure, the spacecraft disintegrated above the Atlantic Ocean. Since it included a High School Teacher in its crew for the first time in American History under the programme of Teacher In Space, the launch and the disaster were broadcasted live on every school of the United States.

The subsequent tragedy resulted in the death of seven crew members and marked as the first fatal accident involving an American spacecraft. In the following weeks, documents indicating the rejection of the flight by the NASA engineers were released. It had been stated that NASA was warned about such an accident, but they did not take the risk of a delay since the Agency was facing an economic crisis. The catastrophe caused NASA's already declining budget to become increasingly weakened, and the Space Shuttle programs were temporarily halted.

VI. The History of NASA

During the Space Race, which was a competition on the spaceflight and aeronautics industry between the Soviet Union and the United States in the Cold War Era, the National Aeronautics and Space Administration had been created, from the path of NACA (National Advisory Committee for Aeronautics). Its primary aim was to improve the civilian spaceflight and research.

VII. The Significance of NASA in the Aerospace Industry

NASA paved the way to the civilian spaceflight programs, including triumphs such as ‘’First American in Space, First Person to Walk on the Moon, Space Shuttle Programs etc.’’ The Administration is a pioneer and poses an example for innovations, technology and communication systems internationally. The advancements made by NASA in the GPS systems have been revolutionary with its precision and its ability to forecast. The research on the materials for spacecraft provided a contribution as an advancement in the aircraft design. More efficient and powerful engines in the aviation industry were possible because of them. Without NASA, the distribution of knowledge about the aerospace industry would not be as easy as it is now. With partnerships and frameworks on the future projects including other international space agencies, it encourages cooperation among other countries in aviation.

VIII. The Importance of Challenger Space Shuttle Programme

The Challenger Programme holds a significant place because of its improvements that were made to develop spacecraft technology and guide further implications on space missions. One of the main aims to accomplish with its launch was reusing spacecraft technology, which was seen as a huge milestone in the aviation industry. The reduced launch cost would help NASA financially and it would allow them to focus more on new developments, without having to worry about single use spacecrafts. It also gave civilians hope and raised interest about the future of space exploration by the plan of slating the launch of the teacher Christa McAuliffe under the Teacher in Space programme.

IX. NASA's Previous Attempts

Before the disaster, Challenger had operated for three years on ten missions, spending over 62 days in space and completing almost 1000 orbits around earth. It became the most-flown orbiter during the years of its operation. Challenger was used for satellite launches, tests, repairments of telescopes and it carried the first German crewed spaceflight mission, first American female astronaut and spacewalker, first African-American astronaut, and the first Canadian astronaut. All of them succeeded except the tenth launch.

The crew members who lost their lives in the disaster

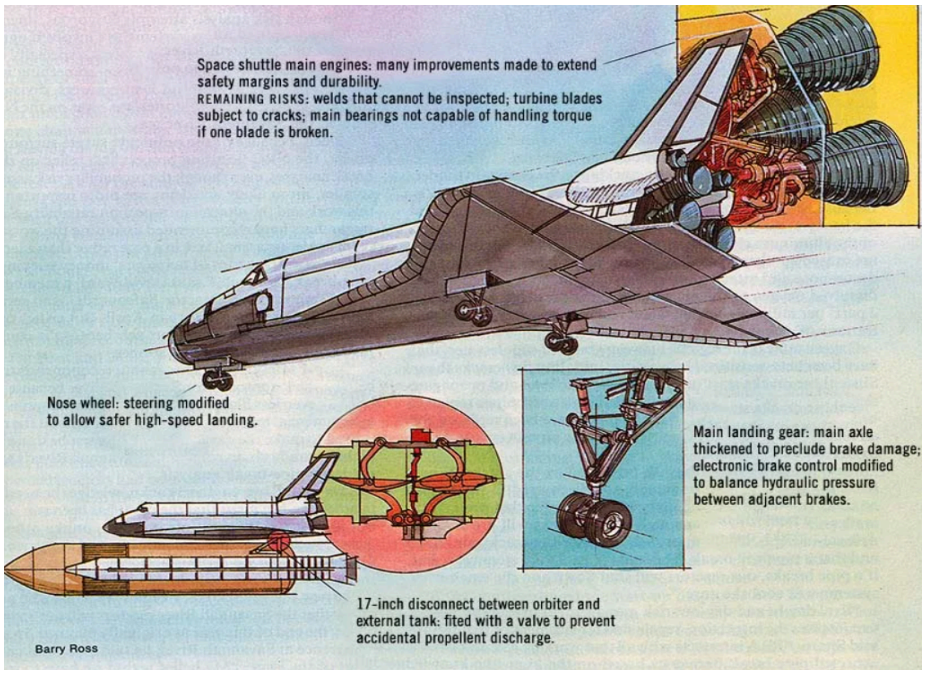
X. Decisions on the Launch

Allan Mcdonald, a NASA subcontractor responsible for the booster rockets, was one of the main opponents of the launch of Challenger. Many engineers, including him, stated their concerns about the performance of the rubber O-rings in the cold temperatures. The rubbers might not seal as they expect it to be, they thought. When the form upon the decision of the launch was presented to the engineers by NASA, they refused to sign it, which underlined the risks of a potential launch once more. However, NASA turned a deaf ear to its own engineers and decided to launch the programme anyway.

XI. Launch and the Failure

On January 28, 1986, the Space Shuttle Challenger broke up 73 seconds after liftoff, resulting in the death of seven crew members. The disaster was caused

by the failure of the primary and secondary redundant O-ring seals in a joint in the shuttle's right solid rocket booster (SRB). The record-low temperatures on the morning of the launch hardened the rubber O-rings, decreasing their capacity to seal the joints. The seals were damaged shortly after liftoff, allowing hot pressurized gas from within the SRB to escape through the joint and burn through the aft connection strut linking it to the external propellant tank (ET), before entering the tank itself.
The collapse of the ET's interior structures, followed by the spin of the SRB, sent the shuttle stack, which was traveling at Mach 1.92, in a direction where aerodynamic forces may tear the orbiter apart. Both SRBs separated from the now-destroyed ET and flew uncontrollably until the range safety officer destroyed them. The crew compartment, human remains, and numerous other shuttle fragments were retrieved from the ocean floor during a three-month search and recovery operation.



XII. Results

In the aftermath of the Challenger disaster, NASA experienced a decrease in its budget due to the decrease in operational costs and delays in new missions

since the before-planned projects were canceled to improve crew safety. It also led people's faith in expandable and reusable launch systems down, causing citizens to question the United States' Space Force's future.

XIII. The Response of the Press and the Public

The launch was watched by millions of people across the globe, which makes the disaster even more impactful. Every school in the United States had it broadcasted live to the students at the exact moment because of the teacher in space programme. Therefore, the explosion affected each citizen from the youngest to the oldest, leaving a traumatic experience for everyone. The press, immediately after, started to question NASA's decisions upon the project and the engineer reports had come to light. NASA's action upon prioritizing politics and budgetary concerns over people's safety raised many questions. President Ronald Reagan promised to conduct a thorough research about the incident, however, he did not further discuss it. In April, the same year, White House released a report including that there was not any pressure made by the government to NASA to carry out the project.

XIV. Further Implications After the Challenger Disaster

Safety precautions were altered remarkably after the accident, including stricter regulations and improved engineer practices. The importance of risk management was underlined as it never had before. With its constant and ambitious launch schedules, NASA decided to focus on halting the projects for a while and focus on assessing potential engineering mistakes before flights.

XV. Bibliography

https://en.wikipedia.org/wiki/Space_Shuttle_Challenger_disaster#White_House_response
https://spectrum.ieee.org/the-space-shuttle-a-case-of-subjective-engineering
https://en.wikipedia.org/wiki/NASA
https://cleantechnica.com/2016/01/31/challenger-disaster-happens-politics-overrides-science/

https://www.thehindu.com/children/the-challenger-disaster-that-changed-nasa-forever/article67755329.ece
https://www.sciencedirect.com/topics/engineering/space-shuttle-challenger-disaster