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The Pakistan Connection

An Interactive Qualifying Project Proposal
submitted to the Faculty
of the
WORCESTER POLYTECHNIC INSTITUTE
in partial fulfillment of the requirements for the
Degree of Bachelor of Science
by

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and

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Abstract:

This report covers phase one of a three part project involving the development, field testing and assessment of a live role playing game in classroom and more casual consciousness raising setting. An existing game dealing with nuclear proliferation was revised using media coverage and literature sources so as to focus on the case of A. Q. Khan's private network of suppliers used to get a nuclear weapon for Pakistan. The game is designed for use by high school upper classman or college students. The classroom test will occur after this phase of the project is over but the plan was to assess the practical logistics and materials as well as the value of the game for informal consciousness raising during their project. However, the informal field test did not materialize in time to be included in their report.

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Chapter 1

Introduction

The purpose of this project is to study the effort of the International Atomic Energy Association to control nuclear proliferation across the globe and test its effectiveness and adequacy in the context of the case of nuclear weapons technology spreading from Pakistan. The goal is to adapt an existing live action role playing game to serve as a public consciousness raising effort about the nature of the nuclear proliferation threat and the powers that the IAEA will need to succeed in controlling the threat.

While the main educational goal of this project is to make students aware of the dangers of nuclear proliferation and to decide what powers the International Atomic Energy Association needs, it is also one example of how technology can get out of control. However, if the game is run several times and the players alter the IAEA in about the same way every time, the result is a policy recommendation and not just an educational game. By getting players thinking about technology and international affairs, this project is intended to get students acquainted with the larger society-technology debate about when and how to control technology and begin to think of things from a critical thinking perspective. The game should work well in a classroom or casual setting and we want to see it tested in each one.

This particular live action role playing game involves asking students to play the roles of delegates which are meeting at a special assembly comprised of countries which are members of the IAEA general conference. These countries will be meeting to discuss

one of multiple plot lines which have been developed to challenge the students' knowledge of the issues and to help them learn about the society-technology connection to international affairs. Through game play, students will have a chance to practice speaking publicly, formal writing, debating and negotiating.

As a secondary effect we hope to further the reputation of Worcester Polytechnic Institute as a "global college" by pushing students to learn about the society-technology connection, other nations and cultures.

The goals must be met by making the game so that the players are educated about nuclear proliferation and the IAEA's powers and progress towards meeting the goals must be tested by implementing the game and assessing the results. The current group that is working on the project is creating the game to meet all of the educational and consciousness raising goals that have been mentioned. Later teams will do the field test and assessment data collection and analysis.

The game will be created with detailed briefing papers to educate the students about the nations, cultures and the technology that these nations use or are attempting to use in order to create nuclear power and weapons. This game can be used to educate students in about the interaction of political, history, chemistry,physics, and economies. They can learn game history from reading a brief history of their nations, chemistry by reading about the isotopes of Uranium and Plutonium, and physics by reading about the processes of creating fissile material and by studying the 50 year history of the Pakistan and India's challenge to the Atoms for Peace regime setup by the USA's President Eisenhower. The must consider the need for institutional change to meet the challenges raised by their cases.

Since this game has the ability to teach the participants about so many subjects it naturally follows that this game could be used effectively in a high school or college setting where history, chemistry and physics are introduced to students. The current group contacted various high school teachers of senior AP courses and Student Pugwash USA to inform them about the game and then, depending on interest, prepare a list of names which details who may wish to view, participate or use the game.

After the current group has redeveloped the Dewhirst et al. game and created a list of interested parties, the project will be continued by another group. The second group will be tasked with running the game in a class about the society and technology debate to be offered at WPI. This will be the main test to see if the game has the ability to teach students about how difficult technology is to control illustrating with the case of nuclear proliferation concerning the spread of nuclear technology from Pakistan to Iran, Libya, and North Korea. The powers the IAEA has and world need to stop this proliferation will be an interesting way to consider the limits of what social institution can do to limit the negative impact of technology. The game could be judged by making the participants fill out surveys and write journals about their experiences in the game.

The second benefit of the test run is that the group can invite interested high school teachers and their students to come to WPI and either view or participate in the pilot test of the game. Using the list of interested parties found by the first group, it should not be difficult to find people willing to either view the game.

After the test run is complete, the group could then contact SPUSA and inform them how well the game achieved its goals and ask if they would be willing to disseminate the game to their chapters. If the game is deemed a good consciousness

raising event, it could be reported about or even played at the International Association for Science, Technology and Society's 22nd Annual Conference in Baltimore which members of SPUSA would likely attend.

Using these test runs of the game the second team should ultimately be able to judge whether the game achieved the lofty goals which were set by us based on what Dewhirst et al. hoped would happen to the game. The game should be found to educate and raise the awareness of players about the spread of nuclear technologies and inform them specifically about the Pakistan case and the powers the IAEA would need to stop nuclear proliferation by "private" entrepreneurs with access to state secrets. The success of this project depends upon a live action role playing game simulating the effort of the International Atomic Energy Association to convince its oversight board that it needs more authority to do its job in order to control nuclear proliferation across the globe and further limitations on state sovereignty by international organization associated with the UN are necessary. This will be a hard sell, but the failure of the current regime to nuclear weapons technology spreading from Pakistan. When the US and Britain knew what was happening in some detail but could not get the information until several political factors finally fell into place in sobering. It suggests that the current system is unworkable and that the IAEA itself does not have the resources to do its job. It can only act when it is in the self interest of a superpower to help it do its job. Meanwhile the situation got increasingly out of control. The IAEA must be able to act on its own to do its job despite whatever is going on with the superpowers foreign policy at the time.

Chapter 2

Literature Review

Chronology of Game Development at WPI

Year	Subject	Description
1995-1996	AEGIS	Ives et al. created a game that involved space agencies around the world cooperating to protect earth from an asteroid. Tested in WPI's SS1202 class and with Pugwash players
1995-1996	AEGIS	Kozioziemski et al. attempted to make the game for high school science classes' physics curriculum but it failed it's field test.
1996	AEGIS	Jakobsen et al. again attempted to create a game for high school science classes. There was no field test but it looked very promising.
1996	Scopes Trial. Role play event/experiment	Lupien revises a game in which she asserts Alien origins of the human race to her class and is dragged away by the principal for denying evolutionary theory. WPI students visiting/observing take over the class, run a "Scopes" trial with biology teacher Diane Fenerstein. Class is experimented upon.
1997	Nuclear Plant game (6th Game)	Schloosser and Volock revised nuclear game to go with an existing 6th grade curriculum
1999	AEGIS	Mossey et al. adds to curriculum in AEGIS to enter into college ethics classes taught by an engineer.
1999	AEGIS Revised into Chinese Conundrum	Space Policy game by Bryant et al. that involves a response of space faring nations to the announcement of a plan to build a Chinese moon base after Taikonauts land on the moon.
2001	Nuclear Diplomacy (Run in 2002-04 SS2208 class @ WPI)	Dewhirst et al. create a game about nuclear diplomacy. Field test with WPI Science Fiction Society playing. Game runs 3 times in SS2208. Later, successfully run at a NCSSSMST student conference at WPI in 2002-2003.
2002	AEGIS	An attempt to disseminate the game to other colleges by Cymer et al. fails. 10 runs of the game complete by this point. There is a pattern to the game outcomes.
2002	AEGIS and Nuclear Proliferation Game run	Peter Cooper takes advantage of the NCSSSMST conference for students in specialized secondary

	out of class with high school student's recruited at a conference	schools like Mass Academy at WPI to recruit high school students to play with little to no preparation.
2003	Asteroid Game	Robin Castle makes a competition version of the game based on AEGIS materials.
2003	Chernobyl Game	Gallant and Grouix create a version of the Nuclear game about Chernobyl and it is run with the proliferation game is SS2208 and at Oakmont High School it is run alone.
2003	Chernobyl Game run with high school and college classes	Gallant, Grouix, and Cooper team up to run the new game at WPI (Cooper) in SS2208 and at Oakmont High School (Gallant and Grouix). Cooper actually runs Chernobyl and Nuclear Proliferation back to back for comparative evaluation in the SS2208 class.
2004	Automated Development	Ellis looks into methods of easily generating games on a variety of topics of interest to a teacher.
2005	Moon Race	Hinkley and Sciarpelletii make a competitive game about a moon race involving how to assign Property Rights and Mining Rights on the Moon.
2004	Modernization in the Middle East – Country Briefing papers	Fariaand Silverman help with running a game about comparative modernization. Run in SS1202 classes currently.
2005	Realism in Nuclear Diplomacy 2001-2005 run of SS2208 class at WPI	Moriah Knock and Joshua Gagnon revise the nuclear game, but make all characters real, tie to events in North Korea but played during Iran crisis.
2006	Modernization in the Middle East – Turkish and Spanish team coaches	Current attempt by Demer and Demolina Cobo to improve the modernization game.
2006	Pakistan Connection (2006-2007 run of SS2208 will be Field Test)	Lane and Roberts revise nuclear game to focus on Pakistan Case of A.Q. Khan.

Overview

The first AEGIS game created at WPI was completed in 1995.(Ives et al, 1995) The game focused on the danger of a large object (asteroid or comet) from space crashing into the Earth and potentially destroying much of human civilization and perhaps killing

all people on Earth. The delegates from national space agencies around the world convene and discuss how such an object can be dealt with when the Earth itself is being threatened. The participants are able to see how difficult it actually is for agencies and nations to work together toward a common goal even when the stakes are high. They ran it for a Student Pugwash regional conference held at WPI, and several high school students from Doherty High School came to be the Japanese delegation. It is run in Introductory Sociology SS1202 for a class of 50 students. It is part of the labs of that class for 20-50 students from 1995-2003. In 2004 the Modernization of the Middle East Game replaced it as part of a class revision.

This game was then altered by Jeff Jakobsen and Joel Waterman because they wanted to add a physics curriculum to run parallel to the game so that it would be adopted by high school science teachers.(Jakobsen et al, 1996) This was completed in 1996 and the combined game was entitled 'A Shield for Planet Earth.' This game focused on the mechanics of a strike on Earth so that students could learn physics from the problem. This idea failed, however, because too much time (3-4 weeks) was devoted to the mechanics of physics for a normal high school classroom.

Three years later the game was revised for an Engineering Ethics class at another college. This was completed by Stephen Lord, Brad Foulkes, Adam Mossey and Lawrence Marcoux.(Mossey et al, 1999) This game ultimately was tested in SS1202 The Introduction to Sociology class at WPI, after the original sponsor at another college delayed implementing his course for a year. The run almost took place in the Worcester Public High schools as part of science classes but the school system wanted more time to

prepare than the development team could afford to give, given that the project was already running late.

In 2002, Cymer et al. attempts to disseminate the game to local high schools and colleges. (Cymer et al., 2002) The game, however, was not successfully disseminated to local high schools as they intended. The game was tested again which brings the total amount of test runs for the AEGIS game to nine. This suggests that the game is functional and does not have problems since it can be revised and tested successfully so many times.

In the same year a game called the Chinese Conundrum was produced which asked what the space agencies of the world would do if China became a leading force in space exploration. (Bryant et al, 1999) This is even more relevant today as China is getting ready to send people to the moon. This game was field tested on the WPI campus by a group of volunteers, but was not tested in the classroom setting.

The original space game has gone through many revisions by other groups throughout the years and has been tested on and off campus at high schools and conferences for high school students. The above mentioned projects seem to be the most important because they are the basic core of the game and further additions simply produce exciting add-ons, frills and improve the appeal to particular audiences.

One of the best and first nuclear proliferation games to come out of WPI was created by Brian Dewhirst, Christopher Dunn and Glenn Townsend.(Dewhirst et al, 2001) This game was created in 2001 and was entitled Global Nuclear Diplomacy. This game is a forerunner of the game which is currently under development so it is of particular interest to this project.

The Global Nuclear Diplomacy game puts students into the role of delegates at a conference to determine if all the nuclear countries of the world are moving toward the disarmament of nuclear arms and what the IAEA can and should do about it if they are not.

Their goals were the same as this project. They had a target audience of students from AP high schools classes where the game could be played after the AP exams as a final class event and project. However, they field tested their prototype on campus. It had very short briefing papers where the students might not learn much from the briefing papers that were provided, but encouraged improvisation to make the experience more fluid and enjoyable. In order to be of use to this project, the briefing papers will need to be extended with more detailed so the students will learn more from reading and playing the game. The game worked well and it was in SS2208, a course at WPI about the Society-Technology debate in which the course and the text had provided background on nuclear power and the briefings could focus more on the IAEA and the nations being represented.

Another version of the game was also created for the course based solely on facts about nuclear arms at a particular time. In that period North Korea was supposed to be the focus, but Iran emerged as a second topic while the game was being written. The game that is being created now will be based on the underlying causes of nuclear tensions between the countries, especially helped by Pakistan, at this time. An option will be available to future teachers to have their students do research to update the current events in order for the game to stay fresh from year to year.

In terms of the games developed by past projects, our project will be a combination of Global Nuclear Diplomacy and the game which was based on using real people andevents. Real people, however, to be implemented by the players is too restrictive and will not age well. Our game will be based on real events, but also will be able to be played for the next five years or so in the future. Hence, it will also use hypothetical situations which were arrived at by using the facts which are shown to the students. The history of Pakistan, of course, will not change. This way, the student will get the factual information, but also not become bored with the game because nothing exciting is happening in the game. Very few hypothetical situations may have to be used if any at all because the nuclear proliferation issues at this time with North Korea and Iran are exciting enough in the real world. However, there should be other "events" in real time to provoke conflicts in the game if current events do not provide them.

A significant portion of the Dewhirst et al. game was reused. The countries that they selected for their game are nearly exactly the countries that are being used in this project. For this reason, the detailed character sheets they created can be reviewed and built upon and some are fine as they are. If we find that a certain character is lacking an important trait that needs to be in this project, we can simply add it into the character sheets of the Global Nuclear Diplomacy game. Recycling the character sheets from this pre-existing game should save significant time and not detract from the project itself.

The country and technical briefing papers that are in previous versions of any game however were not adequate to be used in our game without revisions. We want to have in depth briefings on our countries so that students who portray a particular country know a significant portion of its history, culture and foreign policy. It must, at least,

satisfy a high school social studies teacher. We would like to present this information to the students in a short, but very detailed paper about their country. Other projects viewed to date have either had papers that seem too short or papers that seem too long about the country being represented.

All of the source material for the history and cultural backgrounds can be found in the reference section under history and culture sources. This list will most likely expand as the briefing papers are being written and more detail is required.

Current Events

This project will rely heavily on recent events in Pakistan and current events in North Korea and Iran. The game should be very realistic because it is using the events which are happening in the world at this very moment. Since this moment in time seems very important to nuclear history, it should not be a problem finding relevant articles to take excerpts from to brief students on events.

This task was made significantly easier because Professor Wilkes has been copying relevant news articles on Iran, North Korea and Pakistan over the past couple of years and has given these New York Times articles to the group. We plan to use these articles in the briefing papers on the issue at hand. The current articles from Professor Wilkes have been read and now need to be sorted and selected so that we can disseminate to the students, all of the information needed to know about these events from real news sources.

If certain events that we deem important can not be found in a news article, then we will be required to add in another briefing paper that goes over all of the events in

paragraph form. This synopsis in paragraph form along with the chosen news articles should give any student sufficient understanding about what is being conveyed so that they will be confident and knowledgeable about the facts of the case.

Games as Pedagogy

The reasons that games are useful in teaching are simple, but powerful. The more interest a student has in a game the more that they can potentially learn from the game. Learning should be fun and fast which means that the more fun a student is having the more interested and involved they become in the subject matter and therefore they learn the material better and faster. (Dryden, 1999) A great example of this can be found in a previous games project done at WPI. Here is an excerpt from that report:

> *More recently, the video game industry has created a series of strategy games based in historic settings such as Ancient Rome, China, and England. A study performed at the University of Wisconsin found that one of these games, Age of Mythology, inspired seven-year-olds to read about mythology both during the game and later on outside internet sources. Some were even inspired to borrow mythology books from the library and write their own creative stories connected to mythological themes. (Gee, 2003) Age of Mythology is not designed as an educational game to be used in the classroom. It is designed to be an exciting strategy game that generates revenue in the video game market. Yet, Gee's research has*

clearly shown that this game inspires young children to learn more about mythology on their own.

This shows that it is even possible to use games as a teaching tool even if the game itself is not educational. Even though that is not the purpose of this project it is important because a game that is both fun and educational should have an added effect because if the students wish to learn more then they can just get further involved in the game. When a game becomes more serious then it has a higher capacity for teaching the students because they are taught just the facts and cannot easily become distracted. (Aldrich, 2003)

Some of the most educational games played are called simulations. Simulations are not often looked upon as games because this is what pilots use to get ready for new aircraft or what military officers perform in order to be ready for any possible situation. (Keldsen, 2006) The games that model the IAEA, the UN or any international body could also be thought of as simulations of how each of these groups would handle a problem.

These types of games could easily be run in a classroom environment and since they are historically based and also are very heavy in factual information about the groups they model, they are wonderful teaching tools. The best way to learn about something is to simulate it and actually learn by doing. (Aldrich, 2005) Since the students would actually be representing people in an IAEA conference then they would learn much about how the IAEA functions, the responsibilities of delegates and the needs of the countries at the conference.

One can clearly see that creating simulations that are both fun and informative can teach students about a topic in a highly effective way. Since a simulation immerses a student in the subject matter they have no choice, but to begin learning about what is happening all around them. They get to see the practicality of everything they are learning and this is a great benefit because when a student sees how their knowledge applies it will help them retain that knowledge.(Brown University, 2004) This way if a simulation is both fun and informative the student becomes interested in the subject and can beginning learning a great deal about the subject from the simulation alone.

Chapter 3

Methodology

The tasks that needed to be completed to achieve our objectives are research of the Pakistan case, planning for pilot run observers, setting up the test run, student organization contact for the pilot run, high school contact for dissemination, date finalization of the test run, guidelines and rule creation, final country selection, plot formulation, character sheets creation, the pilot run, administer and analyzing pilot run surveys, and fixing errors in the game found during the test run. We wanted to finalize the new game with all errors fixed in time for a run in the STS2208 class.

By reviewing past projects, histories and current political circumstances of all countries in the game, the student players can gain insight on countries which have strong links to Pakistan and other countries of interest. We will also create briefing papers and other background material for players of the game to read in order to be well informed and grounded in their debate.

Contact with WPI student organizations is a phase of the project in which we will communicate with student organizations such as Pugwash and the Science Fiction Society and ask them if they are interested in taking part in a test run in late November of 2006.

Contacting potentially interested parties affiliated with local high schools through each school's principal is important to get the attention of local high school teachers who might be interested in using the game. We also hope to have some observers or observer participants come to the test run of the game in hopes that their interest will be peaked

enough to take the game back to there respective high schools. This will allow our game to be brought into a high school classroom and achieve our goal of disseminating the game beyond the college setting. Our main goal, however, is to ready this game for a test run in a WPI classroom.

Date finalization involves working with the WPI student groups which have expressed interest in the game from initial contact. Once this date is set, the teachers that expressed interest in coming to the game will be notified about the finalized date of the game and their participants/observers can be accommodated.

One detail that was overlooked on previous live action role playing game projects that have been researched, is a clear set of guidelines on how the game is to be set up and played. This must be done in detail because many teachers, professors and students have never played live action role playing games in the past.

Although a basic list of countries already exists we must make a final decision as to what countries will definitely be in the special assembly and what countries will be unnecessary for the next run of the game. This is imperative because there can be no second guessing the country selection once the game design has begun.

The plots will start to be formulated for some of the countries with which the Pakistan network is connected. The base number of plots will be 3:

- A Pakistan centered plot
- A North Korea centered plot
- An Iran centered plot.

The number of plots could grow, for example, to include Libya and North Africa, but this is not part of the current plan.

A large portion of the project will be used to create three character sheets for each nation involved in the special assembly. This will be done reviewing the characters from previous projects, creating our own characters and based on characters directly from past projects.

The initial test of the game was to be conducted using students from WPI organizations and hopefully some observing members recruited from local high schools. This is a crucial part of the project in which we hoped to identify flaws in the guidelines, character sheets, plot line, briefing papers and general organization.

A surprising amount of thought went into the kind of room that must be reserved that can accommodate all of the observers and participants. A fixed seating classroom was to be avoided but a few places on campus seemed ideal though difficult to schedule for the times we required. We wanted the Campus Center's Hagglund room or perhaps the Great Hall in Higgins House. It should take place in a room where the delegates can sit in a circle and hold discussions with nearly anyone from their seat.

The time of the pilot run will be decided by the groups which are involved because they need to be available to participate in the pilot run. Depending on when and how long the pilot run takes food may need to be provided for the students involved.

Surveys and diaries will be given to participants of the pilot run of the game to gauge the usefulness and conclusions drawn from the individual participants of the game. This will also give insight into the opinions of the local school representatives who come as observers.

We wanted to spend the remainder of the term after the pilot run taking time to review the diaries and surveys of the participants and correct any outstanding errors or flaws in the game's design or background material.

The final version of the game with the summarized diaries and surveys of the pilot run participants and all outstanding errors fixed. The design of the game and the success of the pilot run will also be noted in the final report.

Chapter 4

Test Run Analysis

The idea of the pilot run of the Pakistan Connection game was not overly ambitious. This initial run would serve primarily to test the mechanics of the game, but the student view of the game as enjoyable rather than educational, and an evaluation of the overall effectiveness of the game as a consciousness raising event without prior study could be carried out. When these three topics were analyzed the game could have been evaluated as an out of class experience and we would be ready at the mechanics and procedures level for a run in a classroom.

First, with an initial pilot run the mechanics of the game would have been tested. This means that the pilot run would have determined if the game ran smoothly and there were no glaring errors in the direction and briefings that either the players or the observers could not understand. Misunderstandings of the game goals and procedures by the players would have effectively halted the game and the students would have been left clueless as to what was happening and what to do next. Although errors like this are unexpected, one most anticipate that the game master will have to deal with a problem which leads a player to consult with them out of role. How often this situation arises during game play is a clue as to the adequacy and complexity of the instructions.

Second, the initial pilot run would have tested the student views of the game. The students would have given back input about what they thought of the game as an event and how it might have been improved. So as to be lively and enjoyable this would have

been very beneficial to the game designers because it could have been modified to fit to avoid slow spots and groups left out of the spotlight. Anything that helped to get the students more interested and involved and when students are interested and get involved they stand to learn much more than if they were not fully engaged.

The observer view of the game also would have been important to the project because it would have given insight as to how the game might be altered both to help the students learn more and to make it more likely to disseminate off campus. This view is far different to that of the players because the observers would have had an outsider view of the game where they could have seen where the game was lacking and where it seemed to shine that would complement player responses or diaries.

Finally, the test run would have been very beneficial to the game makers because we could have evaluated how the game achieved its consciousness goals, if in fact it did achieve these objectives. We could have ascertained if the students learned as much as we expected them to by watching how they displayed the knowledge they should have gained from their briefing documents. What briefing papers the students seemed to have in depth knowledge of and of which documents the students had limited knowledge of would have been worth knowing. We planned to follow up on this use by the later questioning of the student players about why they did not understand some documents we prepared and how we could have made them better would have been solicited.

Although there obviously would have been many benefits to the test run being executed, there was never any test run. The reason that there was not a test run during this portion of our project is we were not able to recruit enough players to run all of the delegations. We needed at least ten players for a decent test, and twenty would have been

better. Twenty players would put two people on each of 10 delegations. With fewer than ten players the number of delegations would have needed to be cut down as well as the size of the delegations. Without the full number of delegations, the game will probably become uneven because the balance of views in the game is perfect when there are ten or more delegations. This is so because the delegations support their country's views where there are five countries that tend to support one view and five that support the opposite view. This balances out in the short term where the views will initially negate each other and no instant resolution can be created. After that we hope to process of persuasion, debate and political deals will produce a majority view or even a consensus.

The minimum number of players to play the ideal game as designed is twenty and without this many players there cannot be a scientific advisor and a diplomat for every team. This is important so that the scientific advisor can inform the diplomat based on his scientific knowledge of the bomb and the benefits of their country having nuclear weapons while the diplomat can weigh these facts with the international and national effects of a weapon program and the power that would result in the end after a costly period of sanction. This intra-delegation communication is vital to the game because it allows the diplomat to learn about the scientific knowledge without having to pour over both country and scientific information briefing papers. It allows learning to take place through verbal, personal communication rather than just reading. Reducing "homework" while enhancing informed information exchange is a very important function of this game as a learning experience.

Surprisingly, this game did not attract enough interest of participants despite these being two potentially interested clubs at WPI that seemed to want to participate in the

game. The clubs that were approached were the Science Fiction Society, Student Pugwash and the Model United Nations club. Upon review of the subjects that these clubs were interested in, they were selected to be invited to participate in our game because they were thought to be interested in either the nuclear technology or the international negotiations that would have taken place during the game. Science Fiction Society and Student Pugwash leaders were interested and did agree to promote the game to their members. However, this was a month before the proposed event and they thought it too early to mention. In the end they waited to long.

The reason that the Science Fiction Society did not get enough interest in the event is because it was not publicized well enough by the Pakistan Connection team in front of the SFS members at their regularly scheduled meetings. The only way the event was publicized was by quick mentioning of the game by the leader of the SFS, Mike Anastasia, at their weekly meetings. He could not answer questions on the spot but was supposed to lead his members contacting us. We were outsiders and only two people decided to contact us. These announcements were clearly not enough to gather widespread support of the game. The game never became an SFS event as we had hoped. Members enjoy each other's company and are competitive so either most of the club would get interested in the game or no one would get interested promoting the game. Unfortunately, no one in the club became interested in the game as a club event. After the initial lackadaisical reaction to the game no further announcements would make any difference to the members of the club. We needed to be there in person, the first time it was mentioned to make our pitch and we weren't invited.

The Model United Nations club was not interested simply because the event sparked no interest with the leader of the club. Since the leader was not interested in the event, we could not spread the idea into the minds of the club members because we had no way of getting invited to announce the event at the club meetings. This was unfortunate because the leader of the club was disinterested and as a result, the members of the club lost an opportunity to hear about a game that they may have found worth participating in.

The Student Pugwash club was where the game was supposed to acquire most of its players. The leader of Pugwash at the time, Eric Stein, assured us that the game would receive widespread support among nearly everyone in the local Pugwash chapter. It was rather unfortunate; however, that Student Pugwash seemed to have trouble planning meetings and had not had one in a month. The core group of 4-5 was demoralized due to low and no turn out meetings beyond themselves in the past. Since the club could not promise turn out it was afraid to commit even its core group. Pugwash needed to call a meeting to discuss, the idea of the game as a club endorsed event. We needed the core group of 4-5 to meet and see who was interested in the game. The only contact from Pugwash leadership to its members was via e-mail and therefore, no one from Pugwash was recruited to play because they never met with us as a group. Eric liked the idea but could not sell it as his organization was falling apart..

The pilot run of the game hinged on the fact that Student Pugwash told us that they would have 4-5 interested players and those players could gather a delegation each comprised of their non-Pugwash friends and produce 5 delegations of 2-3 for the game. When Student Pugwash was contacted nearly a week previous to the game, it was

obvious that they had never met, talked, committed on recruiting friends. Then they could not provide any players to the game. With only a week until the scheduled pilot run, it was impossible to call together a group of people who would be interested in playing the game. We might have been able to build from 10 people and 5 delegations to run two more delegations ourselves by using the 2 SFS people interested to do 2 more and with 9 covered find a few friends to be the 10th delegation. However, when Student Pugwash folded, we had nothing to build upon. Therefore, the pilot run of the game had to be called off and we had to reorganize the project around the game that would be held in C term in Professor Wilkes' STS2208 class on the technology and society debate.

Overall, while a great deal of information was lost when the pilot run of the game fell through it was not as serious as if there was a totally new game. One of the goals of the pilot run was to test the mechanics of the game that was created. This, however, is not a huge concern because the game was created using previous game elements which were field tested as a basis. Since the previous games were already tested we saw the reports on them and they worked acceptably from a mechanics stand point, there was little to no reason to worry about the Pakistan Connection game failing to run at all. We lost our chance to test the new features that we had developed which may or may not improve it.

The game would have been helpful in ascertaining the viewpoint of the students and how much they actually learned from the game itself and not the course homework the next will have prior to the run. The pilot run would have been a good point at which to learn about what students thought about how interesting and engaging the game was a standalone experience. We could have gauged how much the players were consciousness

raised about the issue from the game, which involves reading press coverage gathered over time. It would no have been a perfect estimate of learning potential because the people playing the game were put together from clubs and not students who are playing the game in a class and for a grade where the purpose is learning. Consequently, it seems that we only lost the ability to gauge the students' interest in our game itself, but judging by previous games on related topics it seems that the international relations games are quite appealing to many if not most students who play the game and they are generally considered the high points of a class.

Not having the game run seemed like it would be a rather large loss because none of the interested high school teachers would be able to come and witness the game first hand. This turned out not to be too serious a loss though, because nearly all the teachers that were contacted either did not respond to us or the few who did, with one exception, were not interested in seeing a pilot run of the game. They wanted a formal report at article length if they were interested at all. When the game is run in a class in the future it seems that more teachers would be interested in participating because it would be in a classroom environment and more like the classes in which they would be running the game. Of course, they will then have a time conflict since it would be during the school day.

The class in C term is actually a far better time to test our game because the previous game that was created, which was our departure point, was specifically tailored to be run in a classroom setting and not as an ad hoc game with WPI clubs. It was Dewhirst et al. that wanted to get into high school science classes. Though not a science class, the next run will successfully test how well the game runs in a class, how well the

students learn about the social science topics that are being presented to them. This can easily be done in a class by the use of journals as well as post game surveys where as a game that is being run with clubs would not have the benefit of diaries because the players would not want to be required to do so much work in order to play a recreational game. Students who are taking a class however, will be required to do preparation homework and can then have their interest and the amount that they learned adequately measured in the assessment part of a class. This could not have been done in the club run of the game because of course everyone who was playing the game for fun would be interested in the game because they wanted to learn about the game or like the people brought them into the pilot run in the first place.

One can see that the pilot run of this game failing to be run was more of a loss to our IQP project than the achieving of the overall goals of the long term LRPG because most of the questions that would have been answered by the run seemed to already have been answered in part by past games. The new parts of the game that we developed need to be tested, and will be tested in the next term of the class run at WPI. It would have better to test them before the class, but this will have to be the pilot run of the Pakistan briefings and of course, half of the class will have read the whole book on which they are based. Hence, only the other half of the class will be providing the kind of feedback we sought from the pilot run. The half that reads the book on the Pakistan case then can provide a whole new level of feedback. Any problems that are found in the game can easily be fixed after the game is run in the class during C term of 2007 and before any of the high school teachers attempt to take the game off campus.

Chapter 5

Evaluation of Game / Grading

One question that comes to the mind of any teacher when they are faced with playing a game in their classroom is, "How will I grade my Students?" Students can be graded in a variety of ways when a game is being played in a class, but we will try to present some of the best methods of grading students when they are playing such a game. These methods can be written such as journals, surveys or even exams. They can also be oral in nature because they teacher can grade class participation, display of knowledge and adequacy of proposals and opening statements.

The first way that a student can be graded when playing a game such as ours is having a student keep a journal of the events that are going on in the game. In a journal of this type the student would have to stay in character and write about the conference as if they were actually a delegate in the conference. This way the student would be writing about what is said in the conference and providing their reactions to the proceedings. They may react to countries in different ways depending on what character they are portraying and their commitment to portraying that character's culture, class and political views accurately.

This material can be used to grade a student be cause it can determine a variety of factors about how the student is playing the game, especially how engaged they are in the activity. This journal can also be used to test how well the student read their briefing papers and paid attention to the proceedings of the game. This also shows how

committed the student is to the particular character and how well he read and engaged the role described in his character sheet. If the student continually breaks away from the character he is supposed to be portraying then the instructor can use the diary to tell the student either did not read their character sheet thoroughly or is just playing himself rather than the character. The participation based grading systems are based upon the judgment of the teacher to evaluate how well the student is displaying his knowledge of his character and the game. This grading will be more subjective than one based on writings.

The student could also be asked to write a journal about the game, but out of character. In a journal such as this the student could comment on how realistic the game has become or how they feel the proceedings have diverged from what would happen in a real negotiation. The students could also be asked to comment on how well their fellow students are doing at keeping in character and how they think that the issues in front of them at the moment could be resolved. This would allow the student to gain further insight into nuclear weapons, foreign policy and nuclear proliferation through writing about their thoughts.

This type of journal could be graded in two ways. First, the student could be graded on how well they understand the technical and political issues that have been placed in front of them. The originality and effectiveness of the ideas that they put forward in their journal about how to resolve the issues should also be taken into account even if the group voted them down. This is evidence that the student has been paying attention to the issues, the thoughts of various countries and the needs of the world in

stopping nuclear proliferation. The political effectiveness of the student in swaying the course of the game should also count in grading.

The second way that a journal of this type could be graded is by the students thoughts of other students. No one knows how well the other students in a delegation are doing better than the students trying to work with them. When students are asked to write about how well other students are doing at staying in role and displaying knowledge that they are supposed to have learned, teachers could look at this information and give grades that take into account the observation and judgment of their peers. This could be a great way of grading assuming that there are no preexisting bad relationships that would make the journals inaccurate. Teachers would have to be wary of this if using a journal in this way among students with a personal history, but among those who were causal acquaintances prior to the class it should work well enough.

The teachers that are running the games could also create surveys that would be completed at the end of the play period. At the end of the game, the students would be asked about how much that they learned from the game, how much they participated in the game, how well they understood the topics of the game and more questions of this nature. This would allow for the teacher to get a better understanding of how much each student invested into the game and how much they understood and participated in the action. Since because most students would tend to embellish on how much they invested into the game, accounts by other players would need to be taken into account by the teacher.

The teacher could also create exams covering materials learned only as part of the game. The teacher could actually draft questions about the game that students would

know the answers to only if they had read their briefing papers thoroughly and if they had paid particularly close attention to the game. Exam questions are under the control of the teacher so they can ask about what they think is particularly important to getting a good grade on the game. The diaries balance this by letting the students convey what they felt was not important.

An altogether different way of evaluating the students performance is just listening to them orally as they play the game. The simplest way to grade in this way is to look for the students' participation in the game. Usually if a student is participating it means that they have a good understanding of the main ideas and are willing to assert themselves in order to fight for their nations interests. Active participation would mean that the student is helping to further the game and reach an accord to learn what is mutually suitable to every country, which is the final goal of the game. This kind of participation is a good measure of engagement in the political process mimicked by the game. An active student is learning by personally mastering the materials and co-teaching by helping his peers to learn. Therefore active participants who lead their delgation should receive a good grade for the game in terms of preparation, participation and engagement. When students appear in the diaries of others you know if they were effective politicians as well.

Another way to grade the students orally is to not look exclusively for participation, but rather a display of background knowledge. A student who is participating extensively, but seems to just be sputtering nonsense should not receive as much credit as a student who speaks only at opportune times with insight and knowledge. A student who displays that they have a mastery of the material and the knowledge that

they should have gained from the briefing papers should receive credit for both effort and learning. Sharing relevant information with peers helps to further the game and also helps their peers learn.

The teacher however, should be aware of the possibility that a student is staying in character and spouting disinformation because they are a character with an agenda. The instructor should have knowledge of which students should be feeding misinformation and distrust to disrupt the proceeding and grade them on positively feeding misinformation rather than true information. The instructor could also just covertly ask the student if they meant to say the wrong thing at the right time so that they may know if the misinformation was intentional or simply a lack of knowledge.

A simpler way of grading the students is just to listen to the complexity and correctness of their opening statements, the effectiveness of their proposals and ask for a written copy or notes of each proposal. Students who have done their homework and know a great deal about their country and their country's policies and interests would be capable of providing a good opening statement and all the students that actively participated in giving that statement should be awarded points for giving such a good position statement. At the end of the game, the students should also be given a large sum of points if they can work out a proposal that is mutually agreeable to both sides of the proliferation issue. A student who leads in helping to work out such a good proposal as with a key compromise should be given extra credit because he/she has succeeded in making the game a success and created an IAEA that might be capable of stopping nuclear proliferation.

Of course, the ways of grading that were stated here are not a complete set of all possible ways of grading each student. We tried to show that a game can fit seamlessly into a traditional course, so as to encourage the adoption of the game. Creating possibilities for teachers less concerned with individual grades and more interested in group process and learning communities would be even better. Different ways of grading will be devised that would work better for different classrooms or teachers. These are just suggestions to teachers and professors which will be running the game in the future to get them thinking about the possibilities

Chapter 6

Information Dissemination

Previous games that have been developed at WPI have been limited in their ability to quickly and easily disseminate the required information to the players. They would use either paper copies of character sheets and briefing papers which are unwieldy and inefficient or in one case, email lists to send information to the players prior to the commencement of the game. These methods of getting information to the players does not seem as efficient as they could be because papers and emails can be lost and deleted, respectively and when this happens a student would need to go through a process of acquiring the information again.

A seemingly more effective approach to making briefing papers and information available would be to make a website where students can download all of the documents that they require. This would allow the student to have a permanently available source of briefing papers so that they would not have to contact the game master if they lose their documents. The problem is in making sure they do not see more than their character should see. The hidden agenda and private instructions to negotiations are privileged documents.

The creation of a webpage where documents pertaining to the game can be downloaded has all the benefits of paper and email dissemination as well as other additional benefits. It has the benefits of paper-based dissemination because the students can very easily send the documents to a printer if they wish to have a hard copy of the

documents. This allows for flexibility where the student can either read the documents off the computer or carry the documents where they can be read at nearly anytime.

The website also has the benefits of a mass emailing because the students can visit the website and hopefully quickly and easily, find the documents and download them. This is nearly as convenient as email if a link is sent to each participant via email. If the email is lost one can find the page regardless.

The added benefits of a website far outweigh the small amount of time the website takes to create. The website provides the students with a permanent source of the documents, so that if they lose them, the documents can easily be recalled from the website and printed again. This takes the game master out of the distribution of materials loop and the replacement of lost documents role too.

There are, however, concerns about a website that also need to be addressed to make it a good form of information dissemination. The first such concern is that any student would be able to download other players briefing papers and thus, get an unfair edge over the other players. This can be dealt with rather easily be creating passwords for the files which are available to the students. For example, all of the documents for the Iranian science advisor would have a single password which is different from all other passwords needed to access the files which are assigned to other players.

With this password method no student would have access to documents which they should not see. Diplomatic advisors would not get to see how their military advisors and science advisors are supposed to act towards them and they would also be barred from getting scientific fact sheets that might render the scientific advisor role virtually useless.

In order to keep the passwords manageable, there would need to be a master list which would connect all of the different files to different passwords. This list would only be available to the gamemaster team so that he/she will be able to access all of the documents him/herself. It would need to be used in order to assign a password to each individual player so that they would know what to type in order to access their documents.

Another concern facing this use of a website is that some students may not have easy access to a computer and therefore, cannot access the files. This could easily be managed by the gamemaster when a student tells him of this fact. The game master could simply print out a copy of the game and then give it to the student. This would be far simpler than having to print out twenty to forty paper copies in advance and giving them to all of the players individually, and collecting and reorganizing them later.

The website can also be kept with absolutely no maintenance. The website can simply stay running all by itself on a WPI server where students and professors can have access to it at will. This is also a huge benefit because every time the game needs to be run the website can simply be pulled up again and all of the documents will still be stored and ready to be downloaded for the game. When the game is over nothing extra has to be done to the website because it can simple stay where it is and no harm can be done.

It is also a great way of disseminating the game because it is available around the world to anyone who wishes to view it. If there are teachers or professors that inquire about the game, they can simply be given the master password and have instant access to all of the locked files. With such quick access to the entire game directory a teacher can

selectively read about the game and decide if it is a good fit for their class and teaching style, and modify those things they do not want to use.

One can see that there are many benefits to putting the game documents on a website and that any security drawbacks to creating a website can be dealt with. The ease of getting information to students would make the game more attractive to a prospective gamemaster or faculty adopters because it cuts down on some of the managerial work that is needed to run the game. Getting this information quickly and easily is a major step towards the goal of getting socio-technological materials into high school and college courses.

Chapter 7

Project Continuation

The Pakistan Connection project will be continued in the terms that directly follow this project in C term of 2007. The game will be continued by Nathan Tibbetts, Ian Bennett and Keith Craig and will include at least one test run of the game in the STS2208 classroom environment at WPI. This run will look at a variety of factors that only a test run of the game can create. He must look at:

How interested in the game the students seem to be.

How much it appears that they have learned from preparation and play.

Whether the form of grading was seen as fair and was successful in motivating engagement.

If the game logistics run smoothly, the schedule works given the time available and the students understand their roles.

How easy or difficult the game is for the game master to run the game.

In addition to actually running the game and evaluating its performance, Nathan and his group will also have to add some features to the game and try to improve its chances of disseminating to high schools and their AP teachers or club advisors. The portions he should consider adding to the game and project include:

MBTI usage to separate students into roles they are most comfortable and

improve evaluation research

Add further storylines about Iran and North Korea that build off the Pakistan game

Keep the game up to date with news articles of the time to use for briefing

Review Ellis' work to see if the current version of the game can be altered with out breaking down(Ellis et al, 2003)

Add recommendations for further project continuation and future games, to be devised for high school teachers who sponsor the efforts and agree to use the results

Steps must also be taken to disseminate the game to teachers in the local area. Lists of email addresses of local teachers and high schools will be used in order to contact a large amount of instructors and let them know about the planned run of the game in C term. This will allow teachers and students from the high schools to come to the field test of the game and either observe or participate in the game. This first hand experience should give the teachers all the information they need in order to visualize the game as a legitimate teaching tool and hopefully adopt this game (or another version of the game) into their classrooms.

After all of the teachers have been invited to the game and have hopefully expressed interest, the project will need the additions that were listed above. These additions will be described in further detail in the proceeding.

The MBTI should be used in order to group students into the roles which they are most suited. This would be a great addition to the project because the students will feel

more comfortable in their roles and more likely to perform better in those roles. What the MBTI will do is identify the introverts from the extraverts (Personalitypathways.com). introverts are people who do not speak much, but contemplate issues deeply before speaking and expressing their opinion. They are at home when they are alone and not being forced to converse with others. The extraverts display the exact opposite behavior, where they are comfortable when they are speaking and conversing with others and do not enjoy spending time alone and quiet.

The MBTI instrument could be used to the advantage of the evaluation team by giving the introverts certain roles and the extraverts certain roles. This could be done in two ways. The first way would be to make the introverts science and financial advisors where they would do the bulk of their learning from the briefing papers about the scientific and financial properties of their country and stay in the background feeding information to other delegates. This would allow them to feel more comfortable in a group learning activity because they only play background roles that interact only when asked, but can observe the nuances of international relations without having to become aggressively engaged.

In this type of arrangement, the extroverts would be assigned to the diplomats and military advisors because in a role playing game the diplomats would be doing the majority of the speaking and most military advisors would tend to be loud and have a dominating presence. This allows for an extrovert to do what they are comfortable doing because they enjoy speaking and listening directly to others and immediately responding. This would be a good way for them to learn because they are quite relaxed when in role and are just being themselves.

On the other hand the MBTI could be used in the opposite way to test if people may learn better from the game when forced outside of their comfort zone. Of course, this idea gives rise to the risk of the game breaking down if the introverts still do not speak their mind.

In this case, the introverts would be assigned the roles of diplomat and military advisor to encourage them have to speak their mind and converse with others. This would force them to do what they are not accustomed to and perhaps learn even more because they are being so out of character that they are attempting to soak up every detail so that they are not caught off guard when speaking.

The extroverts would be forced to play the role of the scientific and financial advisors where they simply do not get to speak as much as they would wish and would have to sit back and attempt to discipline themselves to be effective as subordinates. They would learn so much because when they finally receive a chance to speak they would want to talk about as much as they can for as long as possible and having more knowledge about the subjects makes this possible for them.

The MBTI will definitely be used in the field test run of the game, but it is the responsibility of those who are continuing the project to determine whether it is an important part of the package to disseminate. Perhaps the game could be run twice with each scenario being tested.

The next portion that would need to be added to the game is the addition of more storylines. This would make the game more robust because if a teacher is not interested in Pakistan they will not be interested in the game all together. If there were more storylines that included currently hot topic countries such as Iran and North Korea,

teachers may become more interested in the game simply because they like the storyline that is presented. Of course, the Pakistan case is used in this game because in retrospect, one can see it was very important and the details do not change over time.

Making storylines about North Korea and Iran may seem as if it would stray away from the goal about enlightening students about the Pakistan connection, but it does not. It teaches students about the Pakistan connection because both Iran and North Korea received help from Pakistan in furthering their nuclear programs (Corera, 2006). It is known that North Korea had received knowledge about the enrichment process from Pakistan and this fact could be inserted into the North Korea plot to teach about how Pakistan was involved.

The plot about Iran would also teach about the Pakistan connection because Iran received help and even some outdated technology to help along their enrichment process. It is even thought that Khan may have actually given old prototypes of centrifuges which could have been reverse engineered and studied to make the centrifuges that Iran is using today.(Corera, 2006)

A small, but important element to the further development of the game is the ability of the group to keep up to date with the current events that concern all of the countries involved in the game. This is a huge factor because students who begin to realize that the game is not keeping up with current events could lose interest in the game if they can't connect it to present situations. Therefore, the news will need to be read everyday to monitor for changes in the political climate and the nuclear situations of every country. For example, North Korea detonated a nuclear bomb during the writing of the current project and if a North Korea plot was being developed the effects of the

nuclear test on the project would have been huge. A project which was missing the fact that North Korea had become a nuclear power would be fundamentally incomplete and out of date.

A project that was not extensively reviewed by the current project group was the work of Brain Ellis with "The Role of Software in Educational Role-Playing" (Ellis et al, 2003). This should be reviewed by the groups who continue the current project. The literature review would have to be changed if the work of Ellis was adapted. If it could be used to generate a game that is of the caliber of the Pakistan Connection that would be an important finding. The project that Ellis submitted attempted to create a software program that would in essence create a game without having to put hundreds of hours of work into its development. (Ellis et al, 2003) The next group should look at his ideas, software and results and attempt to see whether that project could help to create projects like the Pakistan Connection rapidly to fit teacher interests.

One of the main points that every game made at WPI has had was that the game was neither perfect and always in need of improvement. However, overtime incremental improvement transformed the games. This is why the continuation of this project will be an effort to mature the nuclear proliferation game to the level of the AEGIS game. It would be wise to state clear goals of what a further continuation of the project will explore and what could be recommended for future games next year.

After all of these additions are made to the project and the game, the test run in C term of 2008 (if offered) will be ready to run. There are many different aspects of the game which much be judged closely that were outlined previously and will now be expanded upon.

The first goal to be observed when the game is run will be the interest of the students. The students should be interested in the game because if they are engaged in the materials then they are most likely going to learn more from the game because they will become more involved. If a student, however, does not concentrate on the issues of the game it follows that the student will not learn as much as a student which is engaged. Therefore, using surveys, journals or interviews the group leading the projects continuation must gauge the general engagement level of the students. If the interest level is too low then the game, plot and briefings will need to be revamped so that the students will enjoy them more. If the student level of engagement is already relatively high then the game was a success and no further additions need to be made.

Also, through the use of the surveys, journals and interviews the group can also ascertain how much the students learned about their countries and about nuclear proliferation. Just by reading what the students have written one could find out if the students were knowledgeable about the subject when the game started or were lost and perhaps needed more depth to their briefing papers. If the students seem fairly ignorant about the facts that were conveyed via the briefing papers, then the briefing papers will need to be further enhanced so that the students can learn more from them. If the students seem ignorant about international negotiations then perhaps a small section about negotiating styles and behavior of negotiators from different countries can be drafted. These styles could also be adapted form the AEGIS game. This would be quite helpful to the students because they would get to see that people from all over the world negotiate in different ways and that this dynamic of different cultural styles impedes the clear cut negotiation process one might imagine.

Groups that choose to perform a continuation on the Pakistan Connection would also need to look at the various grading styles that are outlined in this project and assess if they are effective. The various forms of grading could all be done in a single test run by simply using all of the styles and then judging them as separate means of grading. The group could then come to the conclusion about one grading system being better or perhaps even a group of systems working together to form the best grade for the students.

The current group's recommendation for ascertaining how much the students have learned would be through two means. First the students should have diaries that can be read by the members of the continuation group. Secondly, a survey should be passed out to the students on the class following the completion of the game which asks them directly to rate how well the grade worked as a teaching tool and how much they learned form the game. Holding a debriefing session may be too time costly and difficult to put together using and therefore, should not be used by the group.

The next group to test the Pakistan Connection should also evaluate their own roles in the game and how easy or difficult it was to setup, run and then complete the game. One thing that seems to have been lacking in previous projects is a clear set of guidelines for game masters to follow in order to run a successful game. This is understandable, however, because the role of a game master is a personal preference and can be changed very much by the personality or preferences of the individual game master. Perhaps after their own experience of being game masters the group can help to develop a sheet of guidelines where the role, duties and even expectations of the game master are written in a clear and orderly manner. This would help teachers to quickly and easily pick up the game and understand what part they should be playing in the game.

After all of these things were assessed, hopefully the proceeding group can say that the game ran smoothly and that all students at least knew their roles and the goals of the conference. If these bare conditions are not met than this would mean that the game is a total failure and would have to be rewritten in or to be used again. Hopefully, the team will not have to rewrite anything that has already been developed for the game.

Once the continuation group has completed these clear cut objectives then their work on the project will be effectively done and the game will be ready for another group if they deem fit. The continuation of this project will hopefully bring the game closer to perfection and closer to being in high schools in the area.

Chapter 8

Suggestions for Future Games

Online Games

One subject that was broached during discussions of the Pakistan Connection was the development of an online type of game that could be played on computers rather than in a classroom. This subject would be of particular interest to future gaming projects that could be completed here at WPI. These games would take advantage of the technologically savvy audience that resides at technology schools. Online games would be able to be played a website where the students could meet and enter their opinions about the subjects that are put forth in the briefing papers.

The students that would be playing an online game would be capable of retrieving the briefing documents off of the internet. These documents could then be reviewed at their leisure before the game start is initiated. The game start could either require the students to meet in a real time chat room or the students could post in a forum whenever they please, but of course within the boundaries of game time. Either option has both positive and negative points about it which could be reviewed by future projects.

The real time chat room has many possible drawbacks to it. Every person who is participating in the game would need to have access to a computer at the same time. These students would then need to be conversing with their counterparts at the very same time as they are reading some of their briefing papers and notes about the game. This could problems in itself because if a student has a computer problem they may simply be

forced out of the game for reasons beyond their control. Also, if the student is perplexed by a statement made by another delegation then they could choose not to respond and not have the demand placed on them that they would feel in a live action event. This could allow students to avoid questions that are posed to them from other delegations quite easily.

Another concern for a real time online game would be the control of the game master. The game master would have to be quite assertive to have his voice heard in a bustling chat room. As long as the game master is assertive enough they could get control of the players in the game and direct where the game was headed, but if the game master is not assertive enough then the game may get out of hand and spiral away from its goals.

Some positive parts of having a game be real time and online is that the students will be seeing how technology allows them to communicate with their peers, which is a major factor in the IQP program itself. They can log onto a chat room and instantly have access to their peers and be allowed to converse with them about the game while furthering their nation's goal toward a proposal to the IAEA. While the students are conversing they could easily be looking at their briefing documents on the screen in case they forget a small fact about their country or character. This would take away awkward pauses that would occur in a live run because a small delay is expected in a chat room.

Te better alternative to a real time chat room would be a forum based game. This would allow the students to actually be immersed in the game for a number of days while the game is being played out in the forums. This would allow for students to post their ideas and concerns as new threads and to respond to existing ideas and concerns in

previous threads. This gives time to the students so that they can thoroughly review their documents before making any type of rash decision that they may regret later on in the conference.

A game of this type could have a message board on the internet and then have a live action portion of the game in class where the students can put forth proposals and have votes taken in class on the proposals. Discussion of these proposals can happen in class and then be further discussed, once students have had time to think, on the internet. This would allow for greater thought to be put into the game seeing as the students could have entire days to think about the issues and then post responses on the internet. More thought being put into the game would obviously be very good for the students because they would be able to learn more about what they are doing and the consequences that their statements may have. Having these message boards open twenty-four hours would allow the students to be thinking of ideas and posting them for peer review at any time they wished.

The students would also find it much easier to hold closed door discussions over the internet because the use of email would be strictly private to the person that is being emailed. If one person wishes to privately speak to another then all they have to do is email that person and no one else will know that they have ever talked. Backhanded deals may become a large part of the game if people could secretly and easily speak to delegates from different nations.

One can clearly see that having an online chat room or message board would be a great addition or perhaps even a replacement to the live action role-playing games that we are creating today. It would be the job of a future IQP group to attempt to assess the

feasibility of these ideas and then perhaps attempt to implement the online based game and run a trial with a group of student. This online option looks very attractive and should be pursued by groups in the future to make games more interesting and involving.

Potential Course for Teachers

The greatest problem that faced the goal of gathering interest in our project was disinterested teachers. When teachers were told of this new game that could help enlighten their students about nuclear proliferation and international negotiations many were not even slightly curious. This may because they are stuck in their old habits of teaching by using lecture and the copying notes or because they just did not believe that a game could successfully teach their students about relevant topics. Either way, we believe that if teachers were to actually learn about our game and see how well it can convey these topics to their students they would be thoroughly interested in the game and would most definitely use it in their class rooms year after year.

Obviously, one cannot just force teacher to learn about our game and then have them implement it in their own class rooms. There must be a way to give an incentive to teachers for learning about games in the class room environment. This could be done by offering graduate courses that would count toward their continuing education credits which they must take or face going without a job. This would give them the incentive they need to take a course about using games in a classroom environment.

This graduate course would outline the fundamentals of a game that would be used to help teach their students about proliferation and international negotiations. A game such as the Pakistan Connection could be given as a reference where they would see that through the use of briefing papers students would learn about the histories, views and current affairs of many nations. They would also learn about nuclear proliferation and even some of the science behind nuclear weapons.

After the teachers are introduced to all the materials a game could actually be run in one of these classes to give the teachers first hand experience of what it is like to be a participant in a live-action role playing game. Hopefully, this would give the teachers all of the proof that they need about how informative, educational and fun one of these games can be. They may also see that these games are not at all difficult to setup and run and therefore, would be further inclined to setup and run a game of their own.

The main problem of interesting teachers in a game would quite easily be solved if an incentive like credits for a graduate continuing education course were given for learning about a game that can help stimulate and educate their students. A class like this would definitely interest the teachers who take the class in live-action role-playing games and would most likely get games like the Pakistan Connection into high school class rooms in the area which is a goal of the project. The project would be a great success if this happened because not only would the teachers become interested in the game, but also the students who took part in the game would hopefully be interested in playing the game again. This would help spread the game from high school to high school and hopefully be placed into curriculums everywhere once these games are recognized for keeping students entertained while educating them about a broad array of topics.

One could clearly see that a students would have a greater chance of playing this game and learning from it only if their teachers were not so mired in their old ways of teaching and took a more progressive approach that received interest from their students and taught them all about the social technological connection that is present in the world that is all around them.

Chapter 9

Conclusion

One can clearly see that the goals of this project can clearly be attained from this game. The game seems to be quite interesting, informative and can be easily used in a high school setting. If the game achieves these goals in a test run when the project is continued then the game will prove to be successful and ready for use in high schools.

The game is interesting because it deals with current events that are very important to the world at hand. It is not like a game about history where the outcome is already decided and therefore not as involving for the players in the game. The game deals with the nuclear tensions between the chief nuclear powers of the day because the IAEA calls a meeting to stop the nuclear proliferation that resulted from the Pakistan case. This case is different from conventional terms because just one man was able to spread nuclear technology throughout the world. This fact alone makes for an interesting game because the students have to plot against how to stop this from happening again, but also protect their country's nation interest. The amount of ways the game could be played and also the various ways in which it could end clearly make it and exciting and engaging game.

The game is also informative because in order to play the game each of the students are required to learn about their personal interests, national interests and about nuclear weapons and power technology. In order to learn about the national interests the students must first read the briefing papers that tell them of the history of their respective

country and also the nuclear history of the country. Then to be knowledgeable about nuclear technology they will either read or be informed about the different ways nuclear weapons can be made. The final portion that makes the game informative and educational is that the students will learn about international diplomacy from the fact that they will actually be acting out the negotiations.

The game will also be a success because it was created to be very scalable and could be used to incorporate one or two high school classrooms into the game. This scalability is very useful because it makes the number of students required to play the game very flexible. A person can effectively organize a game for between twenty or forty people with no worries. Therefore, the game can easily be adapted to the high school setting and could easily be accepted because of the educational value it holds.

During this portion of the Pakistan Connection project the game was not shown or given to any teachers at local area high schools, but we remain confident that the game will catch on once teachers see the game. When the game is run in C term of 2007 in a class room setting, the list of teacher email address could be used in order to invite teachers to observe and participate in the game. This would give them exposure to the game and may get them interesting in running the game with their own classes. If this happens a major goal of the Pakistan connection will be completed.

Overall, the Pakistan Connection is a well thought out and well orchestrated game. When the game is played properly, the players of the game will become quite interested in the subject matter because there are elements of science, history, negotiations and public speaking to interest nearly anyone. They will also be educated about these topics when they have to read their briefing papers and learn more about their

respective roles. If each student plays the game properly and the game master administers the game without glaring faults the game would be a success in the high school classroom environment. When the game is presented to high school teachers in C term of 2007 they should be interested in the game and will hopefully bring the Pakistan Connection to students across New England.

Appendix A:

Character Sheets

Each player should be given the character sheet which will inform them of what role they should play in their delegation. These are integral to the players because they inform them of their goals, views, orders, and personal history. Any of these character sheets can be added to at the discretion of the game master.

China Head Diplomat

Rui / Ran Kai-hui

Chinese Head Diplomat

Description:

You were born in Fenghua, Zhejing. Your father was an extremely influential and connected leader of the Communist Party of China. You grew up among rich and powerful members of that political party and you enjoyed many lavish comforts. You spent a great deal of time on your education and were pressed hard by your father to succeed. In your teens your father makes the decision to send you to Moscow, Russia to study communism. While your paternal ties were weak and riddled with resentment, your maternal ties were strong and you resisted this decision. However, your resistance failed and you packed your bags for several years spent in the capital of Russia.

Your extreme aptitude for international politics sent you high and you used your skills and connections to publicize a great many political articles. You joined the Kuomintang (Chinese Nationalist Party). Many of these articles criticized your father for his actions and role played in political actions. Your father grew furious and tried to have your assets seized and be forced to work in a labor camp. You managed to slip under the radar, back to China were you used your Russian connections to gain a low level political office. You left the Kuomintang as they were forced out of Mainland China and gained membership in the Communist Party of China to maintain power.

After making several public speeches and making a great many friends in high places you served for many years as the mayor of Shanghai. You managed to solve many problems that had been plaguing the city including financial and political troubles. These rapid and favorable solutions gained international attention and eventually favor in the eyes of the Chinese Premier. The Premier has invited you to represent China in a Special Assembly of the IAEA. You cling only to values and ideals that suit you and keep you in power. You have no respect for power or authority over you and only show respect when it suits your needs. You are power hungry and ambitious but you are also extremely intelligent and keenly aware of situations.

Views:

You believe that your country can never disarm all of their nuclear weapons. You believe that peace between superpowers can be contingent on mutually assured destruction and that if disarmament occurs world war may again break out.

You also believe that your country cannot have other countries developing nuclear weapons. When more nations create nuclear weapons then the stability of the world may break down. If a radical nation gets a nuclear weapon it may actually use it or an Islam bomb may be given to radical extremist groups.

Goals:

Your goal in this conference is to create an image of your country that people feel is not over powering and condescending. This is not to say that you can become overpowering with treats if you wish. You wish to not have total disarmament of your country, but you want no new nations to be able to build nuclear arms.

You will always try to keep the support of the western nations and try to get Islamic nations and what seem to be radical nations to never be able to create and keep nuclear weapons.

Orders:

You will try to give the IAEA powers to make developing countries give up their weapons or at the very least suspend their creation of more nuclear weapons. You will also try to give the IAEA powers to prevent all other countries from developing a bomb. You want to get this done without having your country totally disarm.

China Science Advisor

Bang/Ju Fan-long

Chinese Chief Science Advisor

Description:

You were born in Shaoxing, Zhejiang. Your mother and father both served their government faithfully and without question. They were relatively middle class having no special skills to speak of. However, you learned at a extremely high rate taking a great interest in physics and chemistry in high school.

You mother and father saw this aptitude as an amazing gift and sacrificed what little comforts they had to send you to France to further your education. In France you study physics intensely but also gained a great respect for art, cultural and the French people. You returned home after several years and at the request of your parents you joined the Communist Party of China. Your education and intelligence preceded your entrance as you were quickly invited to join the People's Republic of China nuclear program. You spent many years developing further both the atomic and hydrogen bombs for China. You gained a lot of experience in these respective fields but also in communication with educated and uneducated figures.

Soon your innovation and communication skills caught the interest of your superiors and you were promoted to Director of the Institute of Modern Physics under the Chinese Academy of Sciences (of which you also became a member). You were later appointed to the Chairman of the China Association for Science and Technology.

Your rapid rise in rank and your experience with weapons of mass destruction technology has caught the eye of the Chinese Premier. The Premier has invited you to represent Chinese science interests and advise your fellow delegates at the Special Assembly of the IAEA. You are good at communicating and discussion but your passion is for research and development. You would much rather sit back and advise your delegates rather speak out to a group. You try to minimize your exposure to scrutiny and retort. You are polite and considerate but take your job seriously and are quick to defend the actions and decisions of your country.

Views:

You believe that your country can never disarm all of their nuclear weapons. You believe that peace between superpowers can be contingent on mutually assured destruction and that if disarmament occurs world war may again break out.

You also believe that your country cannot have other countries developing nuclear weapons. When more nations create nuclear weapons then the stability of the world may break down. If a radical nation gets a nuclear weapon it may actually use it or an Islam bomb may be given to radical extremist groups.

Goals:

Your goal in this conference is to create an image of your country that people feel is not over powering and condescending. This is not to say that you can become overpowering with treats if you wish. You wish to not have total disarmament of your country, but you want no new nations to be able to build nuclear arms.

You will always try to keep the support of the western nations and try to get Islamic nations and what seem to be radical nations to never be able to create and keep nuclear weapons.

Orders:

You must tell anyone in your delegation everything that you know about nuclear weapons or power if they ask.

China Chief Military Advisor

Ji/Jiang Wang-hao

Chinese Chief Military Advisor

Description:

You were born in Yilong country in the Sichuan province. You were part of a large family of farmers. You had a great respect for both your parents but did not develop intense ties with any family members. You showed a fairly high intelligence but did not take a great interest in school. At the intense persuasion of a rich uncle you attended college in China and took the district examinations. You did remarkably well and you were granted a high level degree.

Deciding that a simple life was really what you desired you decided to hide the results from your family and become a physical education teacher in Chengdu. You joined the Chinese army shortly after and enrolled in the Yunnan Military Academy in Kunming. Your aptitude for military affairs landed you an opportunity to teach at the Yunnan Military Academy which you accepted. You requested to be sent to Europe to study military affairs. Your government granted this request and you studied in Russia and at Göttingen University in Germany.

You left your tenure at the academy and served as a high officer in the military for several years before leaving the military and moving to Shanghai. You joined the Chinese Communist Party. You used your military experience to quell several uprisings in the population, the CPC from embarrassment and keeping control. This action caught

the attention of the Chinese Premier. The Premier has asked you to represent Chinese military interests at the Special Assembly of the IAEA.

You are of quick wit, extremely decisive and consider yourself to be a hero of your nation. Your confidence and arrogance is shown in discussion and debate. You feel that you always have your nation's best interest at heart, regardless of what anyone else says. You sometimes clash with the opinions of your fellow delegates and are considered abrasive and ornery.

Views:

You believe that your country can never disarm all of their nuclear weapons. You believe that peace between superpowers can be contingent on mutually assured destruction and that if disarmament occurs world war may again break out.

You also believe that your country cannot have other countries developing nuclear weapons. When more nations create nuclear weapons then the stability of the world may break down. If a radical nation gets a nuclear weapon it may actually use it or an Islam bomb may be given to radical extremist groups.

Goals:

Your goal in this conference is to create an image of your country that people feel is not over powering and condescending. This is not to say that you can become

overpowering with treats if you wish. You wish to not have total disarmament of your country, but you want no new nations to be able to build nuclear arms.

You will always try to keep the support of the western nations and try to get Islamic nations and what seem to be radical nations to never be able to create and keep nuclear weapons.

Orders:

You will try to give the IAEA powers to make developing countries give up their weapons or at the very least suspend their creation of more nuclear weapons. You will also try to give the IAEA powers to prevent all other countries from developing a bomb. You want to get this done without having your country totally disarm.

China Chief Financial Advisor

Ji/Jiang Wang-hao

Chinese Chief Financial Advisor

Description:

You were born in Beichen, Tianjin son of a devoted Communist father and skilled artisan mother. You attended the well known Nankai High School from which a former Chinese premier had graduated. You spent many years unsure of what you wanted to specialize in but eventually decided on geology and attended the Beijing Institute of Geology. You graduated and studied geomechanics of Beijing under government order. You found your work fascinating but felt that your position was relatively low and that you were work was mostly unimportant to many people. Deciding to take a more active role you joined the Communist Party of China and served as the Minister of Natural Resources.

You success as Minister led you to serve in the CPC Central Office were you made friends and gained the respect of many officials. From you experience as the Minister of Natural Resources, your ability to see trends, keeping you eye on the long term behavior and your keen ability for efficiently moving assets, you began to slowly shift towards the financial areas. You aptitude was demonstrated when you were given the task of managing financial and economic policies when China entered the World Trade Organization.

This act successfully set your name in favor with the Chinese Premier. The Premier has asked you to represent Chinese financial interests at the Special Assembly of the IAEA. You take responsibility very seriously and you hate to let anyone down. You are extremely well educated and very experience when it comes to communication and manipulation based on behavioral patterns of certain delegates. You work extremely well with your fellow Chinese delegates and you never lose sight of your goals and orders.

Views:

You believe that your country can never disarm all of their nuclear weapons. You believe that peace between superpowers can be contingent on mutually assured destruction and that if disarmament occurs world war may again break out.

You also believe that your country cannot have other countries developing nuclear weapons. When more nations create nuclear weapons then the stability of the world may break down. If a radical nation gets a nuclear weapon it may actually use it or an Islam bomb may be given to radical extremist groups.

Goals:

Your goal in this conference is to create an image of your country that people feel is not over powering and condescending. This is not to say that you can become overpowering with treats if you wish. You wish to not have total disarmament of your country, but you want no new nations to be able to build nuclear arms.

You will always try to keep the support of the western nations and try to get Islamic nations and what seem to be radical nations to never be able to create and keep nuclear weapons.

Orders:

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France Diplomat

Bernard / Bernadette Devereux

France Head Diplomat

Description:

You were born and raised in Rennes. Your father was descended from a long line of French nobility and the mother is part of a large family of wealthy businessman and venture capitalists. You grew the third oldest among five children. Many of your early skills of negotiation developed from settling disputes between your siblings. You were quite a troublemaker in your youth but you took advantage of your family's political position and your own personal ability of talking yourself out of a corner.

You were educated in Paris at the College Stanislas, Harvard in the United States and than the École Nationale d'Administration (ENA). Your father pushed you to enter military college and you attended Saint-Cyr for one year before dropping out. This crushed your father but you severely disliked the rigid structure of military school. You instead decided to work your way up the ladder of civil service.

After various low level civil servants jobs, you begin to rise quickly through the ranks and catch the eye of the current Prime Minister. The Prime Minister appoints you head of his staff. This move effectively shoves you into the political and public eye. In a few years you become head of the Ministry of Social Affairs, a post that you did not

enjoy but remained in for 4 years. You then spent 2 years as a member of the National Assembly as representative to Paris.

You were then offered the post of head of Ministry of Agriculture and Rural Development. You antagonized other countries for there conflicting policies against your own and scrutinized heavily the current policies of your administration. You make heavy changes that have a significant effect on the farming community.

The Prime Minister chooses you to attend the meeting of the IAEA for your negotiating skills, your ability to defuse a situation but also your ability to shake things up. You are known by your peers for a superior ability to cut through the clutter right to heart of the problem.

Views:

You believe that your country can never disarm all of their nuclear weapons. You believe that peace between superpowers can be contingent on mutually assured destruction and that if disarmament occurs world war may again break out.

You also believe that your country cannot have other countries developing nuclear weapons. When more nations create nuclear weapons then the stability of the world may break down. If a radical nation gets a nuclear weapon it may actually use it or an Islam bomb may be given to radical extremist groups.

Goals:

Your goal in this conference is to create an image of your country that people feel is not over powering and condescending. This is not to say that you can become overpowering with treats if you wish. You wish to not have total disarmament of your country, but you want no new nations to be able to build nuclear arms.

You will always try to keep the support of the western nations and try to get Islamic nations and what seem to be radical nations to never be able to create and keep nuclear weapons.

Orders:

You will try to give the IAEA powers to make developing countries give up their weapons or at the very least suspend their creation of more nuclear weapons. You will also try to give the IAEA powers to prevent all other countries from developing a bomb. You want to get this done without having your country totally disarm.

France Science Advisor

Léon / Luce Noel

French Chief Science Advisor

Description:

You were born in Rue Lamartine in Paris. Your parents were mainly of Polish and Jewish decent whose families escaped the Holocaust. While your early childhood was spend with your parents in London but you went with them across the English Channel and settled in Cherbourg. You learned how difficult it is to live in the lower class of society and you strived to break out and make money. You showed an extreme inclination towards mathematics and science but also natural history.

You attended the Lycée Condorcet where you won a prize for some of your scientific work and also you were published by 20 in the Annales de Mathématiques for your solution of a mathematical problem dealing with non-linear differential equations. You became relatively famous in the scientific community very quickly but decided to pursue a research project in the field of natural history and biology.

You then decided to take various teaching appointments around the globe at vastly different educational institutions. You enjoyed the difference in culture and learned a lot about the way the world works and interacts. After many years of travel you decided to settle back down in your hometown of Cherbourg and begin working for the

upper portions of the French government as a scientific advisor. You eventually catch the attention of the Prime Minister who chooses you to provide technical expertise to the other French representatives at the IAEA conference. You choose your battles carefully, staying out of conversation and debate until you are sure that you are in the right and you launch into an intense lecture of the true reality of the situation. You are also a good listener and quick to adapt to other people's attitudes, even abrasive ones.

Views:

You believe that your country can never disarm all of their nuclear weapons. You believe that peace between superpowers can be contingent on mutually assured destruction and that if disarmament occurs world war may again break out.

You also believe that your country cannot have other countries developing nuclear weapons. When more nations create nuclear weapons then the stability of the world may break down. If a radical nation gets a nuclear weapon it may actually use it or an Islam bomb may be given to radical extremist groups.

Goals:

Your goal in this conference is to create an image of your country that people feel is not over powering and condescending. This is not to say that you can become overpowering with treats if you wish. You wish to not have total disarmament of your country, but you want no new nations to be able to build nuclear arms.

You will always try to keep the support of the western nations and try to get Islamic nations and what seem to be radical nations to never be able to create and keep nuclear weapons.

Orders:

You must tell anyone in your delegation everything that you know about nuclear weapons or power if they ask.

France Military Advisor

Daniel / Danielle Garnier

France Chief Military Advisor

Description:

You were born in Villeneuve-le-Roi in the Val-de-Marne. You grew up in a political family, your father was the mayor of Biarritz and your mother was a city councilor in Paris. During a period of personal rebellion you joined the French Armed Forces for 5 years and returned as a more disciplined and determined person. You attended the University of Paris I where you got your doctorate in ethnology, law and political science. You became a senior lecturer at that university before returning home and using your father's political position to springboard yourself on the French political scene.

You became a municipal councilor for Biarritz and then Ciboure. You then became elected to the National Assembly to represent Pyrénées-Atlantiques. You then made a lateral move to become mayor of Saint-Jean-de-Luz. You then became Minister of Defense, working closely with the Prime Minister on many occasions.

Your close friendship with the Prime Minister has led to his decision to send you the IAEA Special Assembly to represent France's military interests. You consider yourself more of a politician then a military expert but you have served in the armed forces and you are extremely knowledgeable of the French military and are aware of the

important use of French Military Intelligence or the Service de Documentation Extérieure et de Contre-Espionnage and you tend to contact them regularly. You hate to be ignored, interrupted or downplayed. Your opinion is important and you make sure that everyone knows it.

Views:

You believe that your country can never disarm all of their nuclear weapons. You believe that peace between superpowers can be contingent on mutually assured destruction and that if disarmament occurs world war may again break out.

You also believe that your country cannot have other countries developing nuclear weapons. When more nations create nuclear weapons then the stability of the world may break down. If a radical nation gets a nuclear weapon it may actually use it or an Islam bomb may be given to radical extremist groups.

Goals:

Your goal in this conference is to create an image of your country that people feel is not over powering and condescending. This is not to say that you can become overpowering with treats if you wish. You wish to not have total disarmament of your country, but you want no new nations to be able to build nuclear arms.

You will always try to keep the support of the western nations and try to get Islamic nations and what seem to be radical nations to never be able to create and keep nuclear weapons.

Orders:

You will try to give the IAEA powers to make developing countries give up their weapons or at the very least suspend their creation of more nuclear weapons. You will also try to give the IAEA powers to prevent all other countries from developing a bomb. You want to get this done without having your country totally disarm.

France Finance Advisor

Gérard / Geneviève Neville

France Chief Finance Advisor

Description:

Your parents left Hungary at the end of the Second World War and crossed Europe during a very chaotic time to settle in France. The French took your parents in and they settled near the border. You signed up for the French Foreign Legion as soon as your age permitted and served 5 years in French Algeria.

After serving your military term you returned to France to settle in Marseilles. You used your sharp wit and logic to attend law school at the Université Paris X Nanterre. You joined the law practice that your father had set up while you were away and made great strides in furthering the wealth and reputation of that law practice.

After several years you moved to Paris to become a city councilor in Neuilly-sur-Seine and soon became mayor. Later you moved in to a seat of the National Assembly and then became the Minister of the Budget. The Prime Minister considers you a personal friend and political ally because the situations and deeds you did in your former political positions. He has chosen you to represent France's financial interests at the IAEA Special Assembly.

Your military and law career gives you great respect for discipline and articulation. You consider yourself a no-nonsense, straight to the point person but you

know how to spin words and phrases to achieve the desired effected on your political adversaries. You are new on the international stage and a little nervous about your fellow French delegates. You are familiar with no other delegate from your country and you desire to feel important and that you are making a contribution.

Views:

You believe that your country can never disarm all of their nuclear weapons. You believe that peace between superpowers can be contingent on mutually assured destruction and that if disarmament occurs world war may again break out.

You also believe that your country cannot have other countries developing nuclear weapons. When more nations create nuclear weapons then the stability of the world may break down. If a radical nation gets a nuclear weapon it may actually use it or an Islam bomb may be given to radical extremist groups.

Goals:

Your goal in this conference is to create an image of your country that people feel is not over powering and condescending. This is not to say that you can become overpowering with treats if you wish. You wish to not have total disarmament of your country, but you want no new nations to be able to build nuclear arms.

You will always try to keep the support of the western nations and try to get Islamic nations and what seem to be radical nations to never be able to create and keep nuclear weapons.

Orders:

You will try to give the IAEA powers to make developing countries give up their weapons or at the very least suspend their creation of more nuclear weapons. You will also try to give the IAEA powers to prevent all other countries from developing a bomb. You want to get this done without having your country totally disarm.

India Head Diplomat

Badrinath/ Bageshri Malek

Indian Head Diplomat

Description:

You grew up in Calcutta one of the largest cities in India. In this place you learned to speak your mind and how to get others to listen to you. You learned that these two things compliment each other because when you speak your mind, people listen.

Your school career was not a great one. You did not excel in any scientific, technologic or mathematical subject. You barely scarped by because you got fairly good grades in history and language classes. These were your favorite subjects and they catapulted you into Central Calcutta College where you attained a degree in history.

You spent your days afterward at the University of Calcutta where you taught history and also taught about foreign policy. Your teaching on foreign policy is what made the Indian government recognize you. They offered you a position as a head diplomat to the IAEA special conference on stopping nuclear proliferation.

This interested you because now you had a chance to put your great speaking and people skills to the test. You want to use your great knowledge of history and language to make your voice heard.

Views:

Most of your views are taken from lessons you have learned from history. Historically nuclear weapons have ensured, ironically, that nuclear weapons cannot be used. The concept of MAD is a frightening one, but you think it keeps countries in line with their weapons. You think that nuclear weapons are not a danger unless one country has them and another country does not. This is the only time nuclear weapons will be used; when there is no chance of reprisal.

Goals:

Your goals at this special conference are to maintain the nuclear arms of your country while getting the large nuclear powers to begin to disarm their vast stockpiles of nuclear weapons. You also do not want nuclear developing countries to be completely stopped although you would like to see some limitations imposed on them. Since you are in a unique position of have weapons and still attempting to develop more and better weapons, you will try to create a compromise between large powers and developing countries. You want to see the large countries reduce their huge stockpiles and at the same time see limitations put on developing countries so that they cannot secretly develop stockpiles.

Orders:

Use your knowledge and skills to convey your points to the rest of the assembly.

India/ Science Advisor

Manishankar/ Manorama Vysetty

Indian Science Advisor

Description:

You group up in Cochin, India. You went to school there and immediately excelled in science and math. You showed great promise as you graduated frist in your class from high school and then went on to attend the Cochin University of Science and Technology. Here you studied quantum mechanics. You spent many years studying quantum mechanics and finally received a PhD in the field.

During this time research into nuclear weapons for India was beginning to gather steam. With your knowledge of particle and sub particles you were a perfect candidate to become a nuclear scientist. You worked at the Bhabha Atomic Research Centre where you attempted to develop nuclear weapons. Finally, enrichment was successful and the device to detonate the weapons was underway.

With the weapons created you decided to retire and perhaps even try your hand in politics. You attempted to become the mayor of Cochrin, but it did not pan out. Instead you received attention from the Indian government. They saw that you were interested in politics and decided to offer you a position as the scientific advisor to one of India's head diplomats. This is where you are today.

Views:

You believe that your country should have the means to develop and create nuclear weapons. You also feel that all countries that follow the religion of Islam should the ability to develop their own bomb.

You also believe that the countries that already have nuclear weapons should have to disarm before they can begin to suggest what your country should do with its own nuclear weapons program. You will attempt to disguise your nuclear program as just a program for power and not for weapons because you know how the rest of the world would react.

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Goals:

You want your government to succeed in creating nuclear weapons because you believe it will give you power in the Middle East and across the globe. You also need to push nuclear powerhouse countries to disarm so that they do not have a huge weapons stockpile compared to that of your country. You also do not mind if other countries develop nuclear weapons because it is a natural way to balance the power of the nations.

Orders:

You orders are to give your opinions and nuclear facts to anyone in your delegations.

India Military Advisor

Hemadri/ Harsha Parekh

Indian Chief Military Advisor

Description:

You were born in Gah, Pakistan. Your family moved in India and your father was an entrepreneur. You watched your father build a business from the ground up and become a respected member of the community. He made a lot of money and made a great deal of investments in you. He sent you to the University of Cambridge in the United Kingdom where you got a First Class Honours degree in Economics.

You returned home to your father and became a senior lecturer at Punjab University. You began to advise certain friends in government positions in the Ministry of Foreign Trade and the Ministry of Finance on their decisions when dealing with the economy. They took your advice which proved to be useful and productive. They convinced you to leave the university and work for the government.

You had many unorthodox but amazingly useful ideas about economic reform. Some say you single handily turned the Indian economy into a powerhouse but you are extremely humble and would never take such extreme credit. You left the government to serve as the governor of the Reserve Bank of India but you continued to serve as chairman of the Planning Commission of India.

After several years the Minister of Defence position opened up. The President of India recalled the dramatic changes and your determined attitude and offered you the position. You were skeptical if you were qualified but the President insisted. You took the position and quickly learned all the necessary information to make well informed decisions. The President was confident of your aptitude to the task at hand and has asked you to represent the military interests of India at the Special Assembly of the IAEA. The President feels that this will cement your knowledge of the Minster of Defence position as well as quell any fears you have remaining.

Views:

Most of your views are taken from lessons you have learned from history. Historically nuclear weapons have ensured, ironically, that nuclear weapons cannot be used. The concept of MAD is a frightening one, but you think it keeps countries in line with their weapons. You think that nuclear weapons are not a danger unless one country has them and another country does not. This is the only time nuclear weapons will be used; when there is no chance of reprisal.

Goals:

Your goals at this special conference are to maintain the nuclear arms of your country while getting the large nuclear powers to begin to disarm their vast stockpiles of nuclear weapons. You also do not want nuclear developing countries to be completely

stopped although you would like to see some limitations imposed on them. Since you are in a unique position of have weapons and still attempting to develop more and better weapons, you will try to create a compromise between large powers and developing countries. You want to see the large countries reduce their huge stockpiles and at the same time see limitations put on developing countries so that they cannot secretly develop stockpiles.

Orders:

Use your knowledge and skills to convey your points to the rest of the assembly.

India Financial Advisor

Devesh/ Deepika Khatri

Indian Chief Financial Advisor

Description:

You were born in Indore, Madhya Pradesh. Your father was a wealthy accountant. As a child you became very interested in planes and rockets. You attended Madras Institute of Technology where you received a degree in aeronautical engineering. While you were interested in this for a while you eventually desired a profession that was more grounded and earned yourself more money. You began schooling yourself with the help of your father as an accountant. Your father was not the best accountant but he had very high class clients who paid him very well. You learned many communication and people skills from your father and began getting clients of you own.

After several years and much money made, you felt guilty of your lifestyle and decided to get into the government and use your skills to help your people. You took on the role of State Industries Development Corporation of Madhya Pradesh (MP) State Government. You made remarkable and decisive changes that all ended up to be positive in the long run. This earned you a spot as in the Ministry of Commerce and eventually the position of Minister of Commerce and Comptroller and Auditor General of India. You also made several contributions to the international community by serving as an

advisor to the United Nations on trade policy for the Asia-Pacific region. You are also on the UN Panel of External Auditors and a member of IAEA.

Your experience has caught the eye of the President of India and he has asked you to represent Indian financial interests at the Special Assembly of the IAEA.

Views:

Most of your views are taken from lessons you have learned from history. Historically nuclear weapons have ensured, ironically, that nuclear weapons cannot be used. The concept of MAD is a frightening one, but you think it keeps countries in line with their weapons. You think that nuclear weapons are not a danger unless one country has them and another country does not. This is the only time nuclear weapons will be used; when there is no chance of reprisal.

Goals:

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same time see limitations put on developing countries so that they cannot secretly develop stockpiles.

Orders:

Use your knowledge and skills to convey your points to the rest of the assembly.

Iran Head Diplomat

Bahman/ Banafsheh Hassan

Iranian Head Diplomat

Description:

You grew up in the capital city of Iran, Tehran. Here you learned to speak well, but always feared to speak your mind. After years of growing up and always having to agree with the Iranian government or face punishment it was engrained in your mind that Iran's views were best. You grew up as a single child and forced yourself through the drudgery of school. You did not particularly like science and math courses so you mainly focused on history, which was skewed by Iran, and public speaking.

You continued your education at the University of Tehran where you obtained a degree in history and subsequently taught the subject at the University. You have spent 30 years teaching history and voicing the opinions of Iran to your students and have served your country well. Recently you became the head of the history department and this gained you the attention of the Iranian government.

The government recognized that you know much about both Iran and its international situations. You are one of the most knowledgeable people about the goals of Iran and its view about nearly every subject. The government knows that you are loyal to Iran because of the Iranian skew you put on all of the areas you taught.

Now they have selected you to represent the country to a special assembly of the IAEA. You will be going there to defend the rights and honor of Iran.

Views:

Most of your views are taken from lessons you have learned from history. Historically nuclear weapons have ensured, ironically, that nuclear weapons cannot be used. The concept of MAD is a frightening one, but you think it keeps countries in line with their weapons. You think that nuclear weapons are not a danger unless one country has them and another country does not. This is the only time nuclear weapons will be used; when there is no chance of reprisal.

Goals:

Your goals at this special conference are to maintain the nuclear arms of your country while getting the large nuclear powers to begin to disarm their vast stockpiles of nuclear weapons. You also do not want nuclear developing countries to be completely stopped although you would like to see some limitations imposed on them. Since you are in a unique position of have weapons and still attempting to develop more and better weapons, you will try to create a compromise between large powers and developing countries. You want to see the large countries reduce their huge stockpiles and at the same time see limitations put on developing countries so that they cannot secretly develop stockpiles.

Orders:

Use your knowledge and skills to convey your points to the rest of the assembly.

Iran Science Advisor

ArAd/ AlAleh Bahadur

Iranian Science Advisor

Description:

You grew up in the capital city of Iran and like most people in Iran you were very interested in science and technology because you believe it is a way to enhance your country. In grade school you did very well in mathematics and in secondary school you found a great love for physics. You transferred this love over to college.

You went to Amirkabir University of Technology in Tehran. Here you took physics classes that pertained to nuclear power. You enjoyed them very much and in no time at all you had your PhD in nuclear physics. Since you went to a school focusing on technology you were very interested in creating machines that could begin to enrich uranium up to a grade that can be used for power.

This focus on enrichment technology is what landed you a job in a top secret Iranian facility that was dedicated to the Iranian nuclear program. Here you worked on attempting to enrich uranium, but most of the scientists at the facility found it near impossible to create. The facility obtained information about the devices from Pakistan from sources that are unknown to you.

You have begun to suspect that the enrichment process you are working on will be further so that weapons grade material can be produced. You brought this up with your manager and he did not deny your claims. He then told you the government was looking for a scientific advisor for an upcoming special assembly of the IAEA. You gladly accepted, but were told to keep quiet about the facility and weapons.

Views:

You believe that your country should have the means to develop and create nuclear weapons. You also feel that all countries that follow the religion of Islam should the ability to develop their own bomb.

You also believe that the countries that already have nuclear weapons should have to disarm before they can begin to suggest what your country should do with its own nuclear weapons program. You will attempt to disguise your nuclear program as just a program for power and not for weapons because you know how the rest of the world would react.

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Goals:

You want your government to succeed in creating nuclear weapons because you believe it will give you power in the Middle East and across the globe. You also need to push nuclear powerhouse countries to disarm so that they do not have a huge weapons

stockpile compared to that of your country. You also do not mind if other countries develop nuclear weapons because it is a natural way to balance the power of the nations.

Orders:

You orders are to give your opinions and nuclear facts to anyone in your delegations.

Iran Military Advisor

Firouz / Forough Mofrad

Iran Military Advisor

Description:

You were born in a village outside of Bābol in the province of Māzandaran but you parents moved into the Tehran, the Iranian capital, when you very young. You were an old child. Your father was a scientist and also very religious. He took your education into his own hands with some help from your mother. You admired him and took on his love of science and religion.

When you took the national university entrance exam you placed within the top 100 and were immediately granted admission to the elite Elm Va Sanat University Of Tehran. You decided to study physics, graduated and went on to get your PhD in electrical engineering. Your graduate program was sponsored by the Revolutionary Guard with whom you began consulting. You began your tenure as a professor of electrical engineering and the Iran University for Science and Technology.

The President of Iran has asked you to represent Iranian military interests at the Special Assembly of the IAEA.

Views:

Most of your views are taken from lessons you have learned from history. Historically nuclear weapons have ensured, ironically, that nuclear weapons cannot be used. The concept of MAD is a frightening one, but you think it keeps countries in line with their weapons. You think that nuclear weapons are not a danger unless one country has them and another country does not. This is the only time nuclear weapons will be used; when there is no chance of reprisal.

Goals:

Your goals at this special conference are to maintain the nuclear arms of your country while getting the large nuclear powers to begin to disarm their vast stockpiles of nuclear weapons. You also do not want nuclear developing countries to be completely stopped although you would like to see some limitations imposed on them. Since you are in a unique position of have weapons and still attempting to develop more and better weapons, you will try to create a compromise between large powers and developing countries. You want to see the large countries reduce their huge stockpiles and at the same time see limitations put on developing countries so that they cannot secretly develop stockpiles.

Orders:

Use your knowledge and skills to convey your points to the rest of the assembly.

Iran Financial Advisor

Farid/ Farrin Kalbassi

Iranian Chief Financial Advisor

Description:

You were born in Ejiyeh, Isfahan. You were the only child of two working class parents. Your parents wanted nothing but the best for you from birth. You attended Haghani School and desired to be independent of your parents at a very early age. Your grades were adequate to get you into the very best universities. Your parents pushed you to stay in the country and to give up your education. You decided however to cut they strong emotional ties with your parents and take your life into you own hands.

You moved to the capital where you attended Tehran University. Deciding that more distance was necessary you decided to attend Bangalore University in India where you studied international law and business.

You returned to Iran where you took on the diplomatic role of the Iranian Ambassador to Turkey and then Japan. You gained much favor in the eyes of the former Supreme Leader and President and you were given the office of Minister of Education. You held this position for many years before desiring the Minister of Commerce position which you convinced the current President to grant you.

As Minister of Commerce you made small but dramatic changes in the policies and behavior of Iran's economy. You took a hands-on approach to many problems and

you never missed a deadline. You take your job very seriously and are extremely sensitive to criticism and insults.

Your influential decisions have allowed you to gain favor in the eyes of the President. The President has asked you to represent Iranian financial interests at the Special Assembly of the IAEA.

Views:

Most of your views are taken from lessons you have learned from history. Historically nuclear weapons have ensured, ironically, that nuclear weapons cannot be used. The concept of MAD is a frightening one, but you think it keeps countries in line with their weapons. You think that nuclear weapons are not a danger unless one country has them and another country does not. This is the only time nuclear weapons will be used; when there is no chance of reprisal.

Goals:

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countries. You want to see the large countries reduce their huge stockpiles and at the same time see limitations put on developing countries so that they cannot secretly develop stockpiles.

Orders:

Use your knowledge and skills to convey your points to the rest of the assembly.

Israeli Diplomat

Eitan / Eliana Asher

Israeli Head Diplomat

Description:

You were born in a small town in the Hafia District of Israel. Your parents were immigrants who escaped from Russia and Ukraine before finding refuge in northern China. They eventually left China and came to Israel to help build and be a part of the new Jewish state.

Your family was often treated differently because if it's particular religious views which tended to differ with that of the Israel Labour Party or Mapai. Your parents were vocal and active political figures.

You joined the Israel Defense Force as required by law but suffered a serious injury that has not healed correctly and you were discharged before your service was officially over.

After attending the University of Jerusalem you opened up a law practice. However, you grew bored and joined the legislative branch of the government or Knesset. You served as a member of many committees including the Foreign Affairs and Security committees.

Determined to take a more active role you ran for the Mayor of Jerusalem and won. Serving many years at this post the current Prime Minister asked you to represent

Israel at the IAEA special assembly. You are a fierce and determined diplomat, you do not stand down from what you think is right. You believe that a well defended difference of opinion is something to be respected but you have little tolerance for ignorance of the subject at hand and disrespect when it comes to diplomatic discussions.

Views:

You believe that your country can never disarm all of their nuclear weapons. You believe that peace between superpowers can be contingent on mutually assured destruction and that if disarmament occurs world war may again break out.

You also believe that your country cannot have other countries developing nuclear weapons. When more nations create nuclear weapons then the stability of the world may break down. If a radical nation gets a nuclear weapon it may actually use it or an Islam bomb may be given to radical extremist groups.

Goals:

Your goal in this conference is to create an image of your country that people feel is not over powering and condescending. This is not to say that you can become overpowering with treats if you wish. You wish to not have total disarmament of your country, but you want no new nations to be able to build nuclear arms.

You will always try to keep the support of the western nations and try to get Islamic nations and what seem to be radical nations to never be able to create and keep nuclear weapons.

Orders:

You will try to give the IAEA powers to make developing countries give up their weapons or at the very least suspend their creation of more nuclear weapons. You will also try to give the IAEA powers to prevent all other countries from developing a bomb. You want to get this done without having your country totally disarm.

Israel Science Advisor

Meir / Maytal Jacobson

Israeli Science Advisor

Description:

You born in Jerusalem and your parents are both natives of Palestine. Your parents have always lived poor, barely getting by. Both were somewhat self educated but were barely able to read. You respected your parents for working hard and getting by throughout your child despite the fact that you lived on the edge of poverty and malnutrition. You knew early on that you wanted to get out of poverty and get an education so you made your whole focus on your childhood education.

You were not particularly gifted in mathematics and science but you tried very hard and got excellent grades. You were eventually accepted into the Hebrew University of Jerusalem where you got your doctorate in computer science doing your thesis on quantum computing and nanotechnology. You lectured for many years as a professor of computer science. You then entered a joint professorship at Tel Aviv University in Israel and also the University of South Carolina in the United States of America. You continued your work on quantum computing and eventually received the Wolf Prize for you international studies in the field.

The current Prime Minister has chosen you to represent Israel at the IAEA Special Assembly because of your knowledge of physics and your international experience. You are confident and proud of your life and feel secure in your abilities. You feel that you are one of the best educated people at the Assembly, a mentality that is sometimes exposed in discussion.

Views:

You believe that your country can never disarm all of their nuclear weapons. You believe that peace between superpowers can be contingent on mutually assured destruction and that if disarmament occurs world war may again break out.

You also believe that your country cannot have other countries developing nuclear weapons. When more nations create nuclear weapons then the stability of the world may break down. If a radical nation gets a nuclear weapon it may actually use it or an Islam bomb may be given to radical extremist groups.

Goals:

Your goal in this conference is to create an image of your country that people feel is not over powering and condescending. This is not to say that you can become overpowering with treats if you wish. You wish to not have total disarmament of your country, but you want no new nations to be able to build nuclear arms.

You will always try to keep the support of the western nations and try to get Islamic nations and what seem to be radical nations to never be able to create and keep nuclear weapons.

Orders:

You must tell anyone in your delegation everything that you know about nuclear weapons or power if they ask.

Israel Military Advisor

Chanan / Chana Cohen

Israeli Chief Military Advisor

Description:

Born and raised in Jerusalem you were the son of two extremely patriotic Iranian-Jewish parents. You did not share the extremely patriotic nature that your parents did. They claimed that you were taking Israel for granted. You excelled in school and studied abroad at a Russian university. Upon furthering your education and broadening your horizons your realized why your parents were in love Israel and you apologized to them. You returned home and joined the Israel Defense Force (IDF). You served in several public and covert operations as a member of Sayeret Matkal.

You were promoted to infantry brigade commander. The IDF then sent you to attend the United States Marine Corps Command and Staff College in Quantico, Virginia. You returned back to Israel to command the Paratroop Brigade. Your tenacity and intolerance of nonsense propelled your rapid rise through the ranks of senior military positions. You have commanded the military stationed in every region of Israel. Your operational record is impeccable and you were promoted to Chief of the General Staff.

Your record and reputation has caught the eye of the Prime Minister of Israel. The Prime Minister has asked you to attend the Special Assembly of the IAEA and represent Israeli military interests.

Views:

You believe that your country can never disarm all of their nuclear weapons. You believe that peace between superpowers can be contingent on mutually assured destruction and that if disarmament occurs world war may again break out.

You also believe that your country cannot have other countries developing nuclear weapons. When more nations create nuclear weapons then the stability of the world may break down. If a radical nation gets a nuclear weapon it may actually use it or an Islam bomb may be given to radical extremist groups.

Goals:

Your goal in this conference is to create an image of your country that people feel is not over powering and condescending. This is not to say that you can become overpowering with treats if you wish. You wish to not have total disarmament of your country, but you want no new nations to be able to build nuclear arms.

You will always try to keep the support of the western nations and try to get Islamic nations and what seem to be radical nations to never be able to create and keep nuclear weapons.

Orders:

You will try to give the IAEA powers to make developing countries give up their weapons or at the very least suspend their creation of more nuclear weapons. You will also try to give the IAEA powers to prevent all other countries from developing a bomb. You want to get this done without having your country totally disarm.

Israel Financial Advisor

Alon / Alona Thomas

Israeli Chief Financial Advisor

Description:

You parents were Jews who migrated from Lithuania. Your family moved to Pennsylvania where you graduated from a local high school. Your older brother stayed behind with family members. You attended the Massachusetts Institute of Technology graduating from the Sloan School of Management. You then went to Yale to study political science but decided it wasn't for you. Your older brother died serving the as an element of Sayeret Matkal in the Israeli Defense Force in Operation Entebbe.

After a brief career in business you reached back to Israel and used a few friends to become the Chief of Mission at the Israeli Embassy in Washington, D.C. After a few years of flawless service the current government appointed you to Chief Ambassador to the United Nations for four years. You then became a member of Knesset or the legislature of Israel. During a string of suicide bombings in Israel you personally managed the crisis and responded aggressively to the threats.

The Prime Minister has appointed you to represent the financial interests of Israel at the IAEA Special Assembly. You have the most experience of anyone

Views:

You believe that your country can never disarm all of their nuclear weapons. You believe that peace between superpowers can be contingent on mutually assured destruction and that if disarmament occurs world war may again break out.

You also believe that your country cannot have other countries developing nuclear weapons. When more nations create nuclear weapons then the stability of the world may break down. If a radical nation gets a nuclear weapon it may actually use it or an Islam bomb may be given to radical extremist groups.

Goals:

Your goal in this conference is to create an image of your country that people feel is not over powering and condescending. This is not to say that you can become overpowering with treats if you wish. You wish to not have total disarmament of your country, but you want no new nations to be able to build nuclear arms.

You will always try to keep the support of the western nations and try to get Islamic nations and what seem to be radical nations to never be able to create and keep nuclear weapons.

Orders:

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Pakistan Head Diplomat

Jaffar/ Jehan Salahuddin

Pakistani Head Diplomat

Description:

You grew up in quite a small town in Pakistan. You wanted to make a good life for yourself so, you studied hard through all of your school years. You made a good impression on all of your teachers simply because that is your way. You were a great public speaker and a great friend to nearly anyone you met. You were seen as a good person by your teachers and schoolmates simply because you are always in a pleasant mood.

Since you were such a good speaker and everyone seemed to support you, you decided to run for a public office. You became mayor of that small town that you grew up in. You took a firm stance on every issue that came your way, but that stance was always influenced by what the people wanted. What others wanted is what you did and stuck to it.

The Pakistani Government saw how you well you were doing with the small town and decided to offer you a post as a diplomat for their government. Your first assignment for them is to go to the special conference of the IAEA and fight for the rights of Pakistan. Of course you will fight for them because that is what you always do.

Views:

Most of your views are taken from lessons you have learned from history. Historically nuclear weapons have ensured, ironically, that nuclear weapons cannot be used. The concept of MAD is a frightening one, but you think it keeps countries in line with their weapons. You think that nuclear weapons are not a danger unless one country has them and another country does not. This is the only time nuclear weapons will be used; when there is no chance of reprisal.

Goals:

Your goals at this special conference are to maintain the nuclear arms of your country while getting the large nuclear powers to begin to disarm their vast stockpiles of nuclear weapons. You also do not want nuclear developing countries to be completely stopped although you would like to see some limitations imposed on them. Since you are in a unique position of have weapons and still attempting to develop more and better weapons, you will try to create a compromise between large powers and developing countries. You want to see the large countries reduce their huge stockpiles and at the same time see limitations put on developing countries so that they cannot secretly develop stockpiles.

Orders:

Use your knowledge and skills to convey your points to the rest of the assembly.

Pakistan Science Advisor

Farook/ Massima Elahi

Pakistani Scientific Advisor

Description:

You grew up in one of the greatest times in the history of your country. You were schooled by some of the greatest scientific minds that your nation has every seen. Like any scientist you excelled in the sciences. You went to school to be a chemist and graduated with a PhD in the field.

During this time nuclear development was underway in Pakistan and although you were not a nuclear physicist you knew enough about the atom to begin research for a local Pakistani laboratory.

This laboratory was run by a man called A.Q. Khan. During your time at the laboratory you learned much about nuclear weapons and was even a key figure in creating them for your country. Your knowledge of nuclear enrichment, weapons and power is of the top tier in you country.

After Khan was found to be selling nuclear secrets to other countries you decided to retire from being a scientist because you did not think nuclear weapons should be spread in such a way. Knowing your position on the matter your government has selected you to be the scientific advisor to a delegation which will be convening to discuss the IAEA and nuclear proliferation.

Views:

You believe that your country should have the means to develop and create nuclear weapons. You also feel that all countries that follow the religion of Islam should the ability to develop their own bomb.

You also believe that the countries that already have nuclear weapons should have to disarm before they can begin to suggest what your country should do with its own nuclear weapons program. You will attempt to disguise your nuclear program as just a program for power and not for weapons because you know how the rest of the world would react.

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Goals:

You want your government to succeed in creating nuclear weapons because you believe it will give you power in the Middle East and across the globe. You also need to push nuclear powerhouse countries to disarm so that they do not have a huge weapons stockpile compared to that of your country. You also do not mind if other countries develop nuclear weapons because it is a natural way to balance the power of the nations.

Orders:

You orders are to give your opinions and nuclear facts to anyone in your delegations.

Pakistan Military Advisor

Tamonash /Tanmaya Barakzai

Pakistani Chief Military Advisor

Description:

You were born in Daryaganj in Delhi, India. Your family immigrated to Pakistan and settled in Karachi. Your father was a diplomatic clerk and you were raised in a middle class environment. You saw the need for balance in life at an early age and your father was your hero. He often worked long hours to keep you in school and support your family. You attended Saint Patrick's High School in Karachi and attended the Forman Christian College in Lahore.

When you got out of college you had a hard time deciding what to do. After a short period of indecision you decided to join the military and entered the Pakistan Military Academy at Kakul. You continued your military education at the Royal College of Defence Studies in the United Kingdom as well as the National Defense College in Rawalpindi.

You commanded an artillery regiment for many years. There was several tense situations with India and even one with China but you never saw combat. You were promoted to Company Commander of the Special Services Group (SSG). You later took the post of Infantry Division Commander. The Prime Minister pulled you ahead of other senior officers as the Chief of Army Staff position opened up due to a resignation.

In this position, though largely administrative, you took the training of the SSG commandos personally and created one of the finest groups of its kind in the world. The Prime Minister, a close personal friend and ally, has asked you personally to attend the Special Assembly of the IAEA and represent Pakistan military interests.

Views:

Most of your views are taken from lessons you have learned from history. Historically nuclear weapons have ensured, ironically, that nuclear weapons cannot be used. The concept of MAD is a frightening one, but you think it keeps countries in line with their weapons. You think that nuclear weapons are not a danger unless one country has them and another country does not. This is the only time nuclear weapons will be used; when there is no chance of reprisal.

Goals:

Your goals at this special conference are to maintain the nuclear arms of your country while getting the large nuclear powers to begin to disarm their vast stockpiles of nuclear weapons. You also do not want nuclear developing countries to be completely stopped although you would like to see some limitations imposed on them. Since you are in a unique position of have weapons and still attempting to develop more and better weapons, you will try to create a compromise between large powers and developing countries. You want to see the large countries reduce their huge stockpiles and at the

same time see limitations put on developing countries so that they cannot secretly develop stockpiles.

Orders:

Use your knowledge and skills to convey your points to the rest of the assembly.

Pakistan Financial Advisor

Aditya/ Akuti Kayani

Pakistani Chief Financial Advisor

Description:

You were born in Isfahan in Iran. Your parents migrated to India and then to Karachi in Pakistan. Your father was a photographer and your mother was a chef. You attended Saint Patrick's High School and Abbottabad Public School. Your parent's love of art pushed you away from abstract thinking and you decided to go to school for something well grounded. You attended Gordon College in Rawalpindi and then the Pakistani Business School at the Institute of Business Administration in Karachi.

You made a move to join a private bank firm. You started as at an entry level position but worked your way up quickly. Your upward mobility moved you around the globe to places like Sweden, Switzerland, the US, UK, China and Singapore. You left lasting impressions at every place you visited that thrilled your superiors. You were handpicked for the position of Corporate and Investment Banking for the Asia-Pacific Region at Citibank.

After the election in Pakistan, a friend of yours had become the President of Pakistan and had asked you as a personal favor to him if you would become the Minister of Finance which you accepted. Based on your friendship and experience the President

has asked you to attend the Special Assembly of the IAEA to represent Pakistani financial interests.

Views:

Most of your views are taken from lessons you have learned from history. Historically nuclear weapons have ensured, ironically, that nuclear weapons cannot be used. The concept of MAD is a frightening one, but you think it keeps countries in line with their weapons. You think that nuclear weapons are not a danger unless one country has them and another country does not. This is the only time nuclear weapons will be used; when there is no chance of reprisal.

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Orders:

Use your knowledge and skills to convey your points to the rest of the assembly.

Russia Diplomat

Viktor/Veronika Dosteyev

Russian Head Diplomat

Description:

You were down trodden early in life. You were born and immediately lost the person who loved you most in the world. As you were growing up, you felt the weight of this loss bear on your shoulders and found it very difficult to make friends in the orphanage. Luckily, you simply directed all of your energy into schoolwork and received a full scholarship and admittance into Oxford.

When you were accepted you decided to attain your law degree. Now that you are becoming successful you find it easier to relate to the other students in the college and begin making friends. You love the English people and their ways.

After you receive your law degree, you decide to go back to Russia and defend people who can not defend themselves. It is your way of saving the people who you easily could have become yourself.

Nuclear weapons begin to interest you because you know that Russia or the US could easily trigger the mass annihilation of the human race. You attempt to become mayor of Vladivostok in order to make the city a better place and help out the innocent. You lose by a small margin, but you catch the eye of a influential man.

Vladimir Putin supported you through your campaign yet you did not know it. He agreed with your ideas. He arranges a meeting with you and you have a long and insightful conversation with him. He decides to make you his advisor on nuclear affairs. When he eventually becomes president he appoints you to be his head diplomat on nuclear affairs to the UN and the IAEA.

Views:

You believe that your country can never disarm all of their nuclear weapons. You believe that peace between superpowers can be contingent on mutually assured destruction and that if disarmament occurs world war may again break out.

You also believe that your country cannot have other countries developing nuclear weapons. When more nations create nuclear weapons then the stability of the world may break down. If a radical nation gets a nuclear weapon it may actually use it or an Islam bomb may be given to radical extremist groups.

Goals:

Your goal in this conference is to create an image of your country that people feel is not over powering and condescending. This is not to say that you can become overpowering with treats if you wish. You wish to not have total disarmament of your country, but you want no new nations to be able to build nuclear arms.

You will always try to keep the support of the western nations and try to get Islamic nations and what seem to be radical nations to never be able to create and keep nuclear weapons.

Orders:

You will try to give the IAEA powers to make developing countries give up their weapons or at the very least suspend their creation of more nuclear weapons. You will also try to give the IAEA powers to prevent all other countries from developing a bomb. You want to get this done without having your country totally disarm.

Russia Scientific Advisor

Boris/ Natalia Oromuv

Russian Scientific Advisor

Description:

You are a hot shot scientist who has quickly worked his way up from the bottom of the scientific world, up to the top. You went to a very prestigious college in the United States called Yale. From there you began work at CERN laboratories in Europe.

You were very quick to move your way up the latter at this research institute and became highly regarded by your peers. Russian intelligence took note of this and recently you were offered a position as the chief scientific advisor to the president of Russia.

This was great news to you, but there was a small catch. First, you need to be the scientific advisor to a delegation which is heading to a special conference of the IAEA. Although this is not the best job for your skills and knowledge you begrudgingly accept because you want that chief advisor position.

Now it looks like it is off to the conference. It seems like I will be a terribly boring and uneventful time in a room full of dusty old dinosaurs who can't get anything done.

Views:

You believe that your country can never disarm all of their nuclear weapons. You believe that peace between superpowers can be contingent on mutually assured destruction and that if disarmament occurs world war may again break out.

You also believe that your country cannot have other countries developing nuclear weapons. When more nations create nuclear weapons then the stability of the world may break down. If a radical nation gets a nuclear weapon it may actually use it or an Islam bomb may be given to radical extremist groups.

Goals:

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You will always try to keep the support of the western nations and try to get Islamic nations and what seem to be radical nations to never be able to create and keep nuclear weapons.

Orders:

You must tell anyone in your delegation everything that you know about nuclear weapons or power if they ask.

Russia Military Advisor

Oleg / Olga Dimitrinoff

Russian Military Advisor

Description:

You grew up as a boy in the Soviet Union under the Cold War. You quickly became engulfed in the Soviet Union military. In order to beat the United States, you had to become very involved in your job. You were one of the greatest men in the military during the Cold War, but lost some respect when the Cold War ended and nuclear weapons were no longer a hot topic.

When the Soviet Union fell the Cold War pretty much ended and took you down with it, but key members of the Russian government now see you as a great asset in diplomacy. You grew up with nuclear weapons and learned many military advantages and disadvantages of these weapons. You know what they can bring to a country and at the same time what they can take away.

You have regained the respect the you once garnered and now you are seen as a key advisor in anything to do with nuclear arms. You are one of the highest authorities in the world on the Russian military and its nuclear weapons. You always voice your opinion on any military benefit of nuclear weapons to Russia.

Views:

You believe that your country can never disarm all of their nuclear weapons. You believe that peace between superpowers can be contingent on mutually assured destruction and that if disarmament occurs world war may again break out.

You also believe that your country cannot have other countries developing nuclear weapons. When more nations create nuclear weapons then the stability of the world may break down. If a radical nation gets a nuclear weapon it may actually use it or an Islam bomb may be given to radical extremist groups.

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Orders:

You will try to give the IAEA powers to make developing countries give up their weapons or at the very least suspend their creation of more nuclear weapons. You will also try to give the IAEA powers to prevent all other countries from developing a bomb. You want to get this done without having your country totally disarm.

Russia Financial Advisor

Dimitri / Vladia Chezkoff

Russian Financial Advisor

Description:

You grew up when the Soviet Union was by far one of the most respected and feared countries in the world. In your time everyone thought that the Soviet Union was an enormous financial powerhouse. This was until the Soviet Union just completely collapsed.

The most hated part of your time as a financial advisor to the president was just after the collapse of the USSR. As the financial advisor you almost always had to give him bad news. Russia had a long recuperation time and is beginning to become a financial success again, albeit slowly.

These times ahead are very exciting for you and because of your optimism you were recognized by many people and then appointed to the head diplomat to the IAEA of your country as one of his advisors. As his advisor you will continue to be optimistic and tell him of the financial greatness of your country.

Views:

You believe that your country can never disarm all of their nuclear weapons. You believe that peace between superpowers can be contingent on mutually assured destruction and that if disarmament occurs world war may again break out.

You also believe that your country cannot have other countries developing nuclear weapons. When more nations create nuclear weapons then the stability of the world may break down. If a radical nation gets a nuclear weapon it may actually use it or an Islam bomb may be given to radical extremist groups.

Goals:

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Orders:

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also try to give the IAEA powers to prevent all other countries from developing a bomb. You want to get this done without having your country totally disarm.

South Africa Head Diplomat

Gwembeshe/ Gbemisola Meikle

South African Head Diplomat

Description:

You were born in the Eastern Cape province of South Africa. Your father was a member of the African National Congress and the South African Communist Party. Both your parents were teachers and anti-apartheid activists. You went to high school at Lovedale. Your father pushed for you to become extremely well educated and politically active.

You obliged your father by studying abroad. You studied at the University of Sussex in the United Kingdom earning a degree in Economics, as well as Russia and the United States. At the University of Sussex you met your friend and colleague Baako Seralina. Around this time, your father passed away. You took it upon yourself to continue his legacy and take his advice. You returned home, joined the African National Congress and became the head of the ANC's information department and international affairs department. As a member of the international department you worked to solidify relations with Zimbabwe and help there ailing economy.

You succeeded and earned the respect of many South African and Zimbabwe officials. You choose to take the offered position of Minister of Foreign Affairs. You continued to receive support from Zimbabwe and from within your own government. The praise from your colleagues caught the attention of the President of South Africa.

The President has asked you to represent South Africa in a Special Assembly of the IAEA. You are extremely tolerant and accepting of different races and beliefs. You practice patience in debate. You tend to let people that disagree with you make mistakes that serve your means rather then attack them directly. You command respect from the people that know you but your quest to take the higher road sometimes agitates opposing parties.

Views:

Most of your views are taken from lessons you have learned from history. Historically nuclear weapons have ensured, ironically, that nuclear weapons cannot be used. The concept of MAD is a frightening one, but you think it keeps countries in line with their weapons. You think that nuclear weapons are not a danger unless one country has them and another country does not. This is the only time nuclear weapons will be used; when there is no chance of reprisal.

Goals:

Your goals at this special conference are to maintain the nuclear arms of your country while getting the large nuclear powers to begin to disarm their vast stockpiles of nuclear weapons. You also do not want nuclear developing countries to be completely stopped although you would like to see some limitations imposed on them. Since you are in a unique position of have weapons and still attempting to develop more and better

weapons, you will try to create a compromise between large powers and developing countries. You want to see the large countries reduce their huge stockpiles and at the same time see limitations put on developing countries so that they cannot secretly develop stockpiles.

Orders:

Use your knowledge and skills to convey your points to the rest of the assembly.

South Africa Science Advisor

Zuberi/Zulu Lehmkuhl

South African Science Advisor

Description:

You were born in Tzaneen in the Limpopo Province. You father was a biologist who studied the wildlife in the tropical and subtropical regions surrounding your home. Your mother was a teacher at a local school. You parents both stressed education at an early age but you were deeply in love with your village and the environment and did not wish to stray far from home.

You enrolled in Hebron Training College gained a BSc in Physics and an MSc in Applied Mathematics. You took an opportunity to teach at the University of Zululand. Several years later you left Africa completely to study in Germany and France gaining a doctorate degree in Physics.

Your research center mostly around nanoscale physics which you performed at the University of Birmingham in the United Kingdom. You continued to keep in touch with your parents and you were often home sick. You decided to travel home and change focus to astronomy. You studied deep space physics and worked for the National Research Foundation of South Africa at the South African Astronomical Observatory in Sutherland.

Continued discussion with your mother and father got you active in politics. Your father happened to be old friends with the President of South Africa who got you the

position of Minister of Education and then soon after the Minister of Science and Technology. Your personal connection and research has the attention of the President of South Africa. The President has asked you to advise and represent the scientific community of South Africa at the Special Assembly of the IAEA.

Views:

You believe that your country should have the means to develop and create nuclear weapons. You also feel that all countries that follow the religion of Islam should the ability to develop their own bomb.

You also believe that the countries that already have nuclear weapons should have to disarm before they can begin to suggest what your country should do with its own nuclear weapons program. You will attempt to disguise your nuclear program as just a program for power and not for weapons because you know how the rest of the world would react.

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Goals:

You want your government to succeed in creating nuclear weapons because you believe it will give you power in the Middle East and across the globe. You also need to push nuclear powerhouse countries to disarm so that they do not have a huge weapons

stockpile compared to that of your country. You also do not mind if other countries develop nuclear weapons because it is a natural way to balance the power of the nations.

Orders:

You orders are to give your opinions and nuclear facts to anyone in your delegations.

South Africa Military Advisor

Qinisela /Qhikiza D'Ewes

South African Military Advisor

Description:

You were born in Matatiele, KwaZulu-Natal to a small family of dairy farmers. You mother and father were both simple people with little education. You attended Emma Farm School and went to Mariazel High School in your hometown. You do reasonably well and attended St. Francis College in Marianhill and the University of the North where you enrolled for a social science degree.

In college, you became a larger supporter of the South African Student' Organization which is aligned with the African National Congress (ANC). This got you into a lot of trouble because of its sometimes controversial activities. Seeing that your life was going down a dangerous road you took action. You entered the South African National Defense Force (SANDF) where you took part in many campaigns including missions in the Democratic Republic of the Congo and Lesotho as well as many UN peacekeeping task forces.

You entered the SANDF as an officer and quickly rose higher in rank. You learned of and are currently aware of the nuclear weapons program that South Africa started in the 1970s but dismantled in the 1990s. You agreed with the South African government's decision to voluntarily dismantle its nuclear weapons arsenal. You view

nuclear weapons as an abomination and a complete divergence from conventional weapons and traditional combat.

When you left the SANDF you called upon old friends in the ANC to help you win a position in the government. You were elected the premier of the Free State province. A few years later you were promoted the chairperson of the National Council of Provinces. Your political and military career caught the eye of the President of South Africa. The President has granted you the position of the Minster of Defense of South Africa and asked you to attend the Special Assembly of the IAEA and to represent South African military interests.

Views:

Most of your views are taken from lessons you have learned from history. Historically nuclear weapons have ensured, ironically, that nuclear weapons cannot be used. The concept of MAD is a frightening one, but you think it keeps countries in line with their weapons. You think that nuclear weapons are not a danger unless one country has them and another country does not. This is the only time nuclear weapons will be used; when there is no chance of reprisal.

Goals:

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Orders:

Use your knowledge and skills to convey your points to the rest of the assembly.

South Africa Financial Advisor

Baako Seralina

South African Financial Advisor

Description:

You were born in Hanover in the Northern Cape province of South Africa. Your family was large and composed primarily of mineworkers. Your father was active in the National Union of Mineworkers and you grew up around gold and uranium mining men. Unlike your family, you were extremely driven to attain an education. You worked extremely hard in the Vaal Reefs mine to finance this education.

After your hard work paid of, your family pulled what few strings they had to land you a job in the Congress of South African Trade Unions. You started as a clerk but worked your way up to regional secretary before departing South Africa entirely to study economics at the University of Sussex in the United Kingdom where you met (Gwembeshe/ Gbemisola) Meikle. After working briefly in several small companies in the United Kingdom you returned to South Africa and joined the African National Congress (ANC). You kept your eye on the Ministry of Finance position trying to use the ANC as a means to launch yourself into such high office. However, you became extremely critical of some of the ANC's policies and left the ANC. You were picked up but the Congress of South African Trade Unions as a sponsor and they supported you in your campaign for Finance Minister which you won. As Finance Minister you reformed

a great many policies within the South African government, weeding out corruption and increasing the wealth of the nation.

Your fall and return to political power as well as your aide to the South African government caught the eye of the South African President. The President has asked you to represent the financial interests of South African at the Special Assembly of the IAEA. You are extremely confident but you exercise self control when wanting to speak of controversial matters. Your tenacity and stamina when you are the center of attention is something that many of your fellow delegates admire. You recognize the necessity of support and alliances. You rarely disagree with delegates that share your views and are very cautious when disagreeing with your fellow delegates.

Views:

Most of your views are taken from lessons you have learned from history. Historically nuclear weapons have ensured, ironically, that nuclear weapons cannot be used. The concept of MAD is a frightening one, but you think it keeps countries in line with their weapons. You think that nuclear weapons are not a danger unless one country has them and another country does not. This is the only time nuclear weapons will be used; when there is no chance of reprisal.

Goals:

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Orders:

Use your knowledge and skills to convey your points to the rest of the assembly.

United Kingdom Diplomat

John / Jane Hammond

United Kingdom Head Diplomat

Description:

You were born in Edinburgh, Scotland. Your father was the child of two atheist Irish actors and your mother came from a long line of traditional Catholic Englishmen. Religion was often an intense subject of debate in your home and you never got involved but did listen too much of what your parent's had to say. Your father was attempting to get a law degree and your mother was a tax inspector for the government.

You moved to Durham, England were you attended Oxford at St. John's College where you taught yourself law and then Cambridge where you studied foreign policy and international relations. You entered politics immediately by joining the Labour Party and representing the constituency of the cities of London and Westminster in the House of Commons of the Parliament of the United Kingdom.

You publicly supported unilateral nuclear disarmament but you later rethought your position. You also spoke publicly against the 'closed shop' practice of some businesses as the Shadow Cabinet's Secretary of Employment. After several terms in that role where you made several controversial and influential changes to the Labour Party's policy, you ran for the leader of the Labour Party which you won narrowly.

However, your influence and rise in politics caught the eye of the Prime Minister who has asked you to represent the United Kingdom in the Special Assembly of the IAEA. You are new to this international stage but you do not fear it. You are confident in your country and your knowledge and you did not like to be outspoken. Many of your colleagues find to rude and annoying at some of your interjections but you feel that you are bringing important truths and insights to the table.

Views:

You believe that your country can never disarm all of their nuclear weapons. You believe that peace between superpowers can be contingent on mutually assured destruction and that if disarmament occurs world war may again break out.

You also believe that your country cannot have other countries developing nuclear weapons. When more nations create nuclear weapons then the stability of the world may break down. If a radical nation gets a nuclear weapon it may actually use it or an Islam bomb may be given to radical extremist groups.

Goals:

Your goal in this conference is to create an image of your country that people feel is not over powering and condescending. This is not to say that you can become

overpowering with treats if you wish. You wish to not have total disarmament of your country, but you want no new nations to be able to build nuclear arms.

You will always try to keep the support of the western nations and try to get Islamic nations and what seem to be radical nations to never be able to create and keep nuclear weapons.

Orders:

You will try to give the IAEA powers to make developing countries give up their weapons or at the very least suspend their creation of more nuclear weapons. You will also try to give the IAEA powers to prevent all other countries from developing a bomb. You want to get this done without having your country totally disarm.

United Kingdom Science Advisor

Rupert / Rachel Mansfield

United Kingdom Chief Science Advisor

Description:

You were born in North London. Your father was a research biologist and your mother was a Polish immigrant. You were the youngest of four children where you were favored the most by your parents. Your family moved to Oxford shortly after you were born because of a research opportunity for your father. You bonded very closely with your mother whom you saw the most. Your father did not spend much time at home though you admired him. Your father tried to get you into the field of biology and natural science but you did not enjoy the field. Instead you took an interest in pure mathematics and physics.

You enrolled in University College at Oxford studying mathematics and physics. After graduating you took a research opportunity to study sunspots but decided that you did not like studying things that you could not see very accurately and instead turned your attention to atomic physics and quantum mechanics. You were published in the Bulletin of Atomic Scientists and later became a member of the Board of Sponsors. You did intense work on atomic physics but later went on to research fusion with the Joint European Torus (JET) at United Kingdom Atomic Energy Association (UKAEA) and European Union (EU) laboratory. You made significant improvements to the JET design

and operation, published several papers on the project and caught the eye of the public and the scientific community.

You were inducted as one of the youngest Fellows to the Royal Society. The Prime Minister chooses you to represent the United Kingdom in the IAEA Special Assembly because of your research relevance and because of your recent successes. You feel very comfortable with discussing and collaborating with other countries delegates because of your experience with the EU and UKAEA JET project. You become agitated by imprecise and assumed values but you rarely speak out against them. You find it easier to relate and confer with the members of other delegations then with your own.

Views:

You believe that your country can never disarm all of their nuclear weapons. You believe that peace between superpowers can be contingent on mutually assured destruction and that if disarmament occurs world war may again break out.

You also believe that your country cannot have other countries developing nuclear weapons. When more nations create nuclear weapons then the stability of the world may break down. If a radical nation gets a nuclear weapon it may actually use it or an Islam bomb may be given to radical extremist groups.

Goals:

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You will always try to keep the support of the western nations and try to get Islamic nations and what seem to be radical nations to never be able to create and keep nuclear weapons.

Orders:

You must tell anyone in your delegation everything that you know about nuclear weapons or power if they ask.

United Kingdom Military Advisor

John / Jane MacGregor

United Kingdom Head Military Advisor

Description:

You were raised in an only child in a small town outside of Carlisle. Your mother passed away very early in your life and you become very close to your father. As a child you did not care much for school but enjoyed the mountains and the outdoors. Your father taught you many traditional skills and values including hunting, some farming and a somewhat extreme form of patriotism.

You wanted to go straight into the military but your father pushed you in school and you to attend the Royal College of Defence Studies in London. Your father's pride and your personal sense of patriotism allow the making of serious intellectual gains. College affirms you sense of patriotism and you enter the British military. You accelerate through the ranks of the military using a sharp wit and a complete and total hatred for skirting issues. You attack every problem head on and are rarely concerned with finding easier solutions when there is one solution clear to you.

The majority of your military career is spent in the Land Command but as your career progress you spend time as a command element in the Royal Air Force, MI5 and

MI6. You soon find yourself in a high position in the Ministry of Defence where you become close friends of the Minister of Defence as well as the Prime Minister.

You are admired for your ability to seek and attack problems without warning or concern. This drive sometimes gets you in trouble because of the implications of your direct action and your aggressive methods. You are however chosen to represent the Ministry of Defence's interests at the IAEA special assembly. It is your first appearance on this global platform but you're quite confident. You respect everyone in discussion but are quick to use aggressive and direct measures when it comes to private meetings and conversations.

Views:

You believe that your country can never disarm all of their nuclear weapons. You believe that peace between superpowers can be contingent on mutually assured destruction and that if disarmament occurs world war may again break out.

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Orders:

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United Kingdom Financial Advisor

Paul / Pamela Campbell

United Kingdom Head Financial Advisor

Description:

You were raised in London, one of the largest financial centers in the world. You grow up in a large, middle class family. Your father is a college professor and teaches you the value of education and calculations throughout your childhood. From an early age you took had a vested interest in gaining respect and taking on responsibility. The first paycheck you received when you were 16 was invested in fast growing stock. You excelled in school, particularly in the fields of applied mathematics and social science. You take a personal pride in your ability to manage risks, especially in crisis situations.

You attend the London School of Economics and Political Science (LSE), Merton College, Oxford, and the Manchester Grammar School. At LSE you become friends with John/Jane Hammond who becomes a respected colleague and family friend.

You begin working in HM Treasury but branch off in to the Commonwealth and Foreign Offices and join the Council of International Advisers of the China Banking Regulatory Commission. After taking on the role of Special Secretary to the British Ambassador to France, you leave government office for a brief stint in the private sector and a senior office at the Back of England. You return to government office at the

request of the Chancellor of the Exchequer in order to smooth the transition of the financial structure of the United Kingdom from the British Pound to the Euro.

For your performance during the currency conversion process you are knighted by the Queen of England and gain much respect in the eyes of your peers. The Prime Minister asks you to call upon your brief foreign relations experience as the financial representative of the United Kingdom at the IAEA Special Assembly.

Views:

You believe that your country can never disarm all of their nuclear weapons. You believe that peace between superpowers can be contingent on mutually assured destruction and that if disarmament occurs world war may again break out.

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United States Diplomat

Mitchell / Michelle Townes

United States Head Diplomat

Description:

You grew up in the suburbs of New York City. In order to grow up in such a bustling place you needed to be loud and be able to get yourself heard by your peers. You excelled at learning in all of its forms. You graduated at the top of your class in high school and since you did so well you were accepted to Harvard University.

At Harvard you study political science and again you learned very quickly and again graduated in the top tier of your class. You were a whiz with relations and could get nearly anyone to see your point of view and even get some opponents to subscribe to your ideas.

This was noted when you were working in the Whitehouse as an intern. The people there saw how great a speaker you were and how patriotic you were. They knew you would never betray your country and would stand up for its ideals. This is why you became their head diplomat to the IAEA in 1997. Now you are a veteran of the IAEA conferences and are looking forward to the special conference in which you can represent your country.

Views:

You believe that your country can never disarm all of their nuclear weapons. You believe that peace between superpowers can be contingent on mutually assured destruction and that if disarmament occurs world war may again break out.

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United States Scientific Advisor

Tobias/ Anne Owens

United States Scientific Advisor

Description:

From early childhood you always thought you knew more than anyone else. This confidence, or perhaps arrogance, has served you well in life. You were top of your class in high school and excelled at any class that had to do with science or technology. This knowledge and love for science boosted your grades to extraordinary levels and attained you admittance into Princeton University where you study nuclear physics and quantum theory.

Again you were one of the brightest minds at the school and turned quite a few heads with how quick you caught on and the sheer amount of material you learned about nuclear physics.

After you graduated with a PhD in nuclear physics and quantum mechanics you received a job at the coveted Los Alamos National Laboratory. Although the lab has been around since American nuclear experimentation began it is still a thriving hub of knowledge and research. You become a senior scientist at the laboratory and this position comes with quite a lot of respect. You garner so much respect that when the

United States was looking to send a science advisor to a nuclear conference they chose you.

Views:

You believe that your country can never disarm all of their nuclear weapons. You believe that peace between superpowers can be contingent on mutually assured destruction and that if disarmament occurs world war may again break out.

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Orders:

You must tell anyone in your delegation everything that you know about nuclear weapons or power if they ask.

United States Military Advisor

Michael/ Michelle Roberts

United States Chief Military Advisor

Description:

You were born in Pawtucket, Rhode Island. You were raised in an upper class family. Your father was a wealthy engineer and your mother ran a successful advertising company. Your parents taught you how to confront your problems and how to face your fears. You attended Bishop Keough Regional High School where you got excellent marks. Your family used its limited influence to United States Military Academy at West Point, New York.

After graduating you were taken under the wing of a General Dwight in charge of a military base in the Middle East. General Dwight taught you a great many things about the Middle East as well as military history and theory. He became your mentor and you maintain contact with him to this day.

You left the Middle East to attend the Command and General Staff College at Fort Leavenworth, Kansas. You education there cemented what General Dwight had taught you and you felt yourself ready for any situation. You went on to serve as a battalion commander at Fort Benning, Georgia.

You served under many other generals, taking the training of their troops as personal task. However, you sustained a bad injury to your left knee during a training accident. You considered retirement before taking a staff position in Washington, D.C.

You served on the General Staff in Washington for many presidential terms and you worked in close proximity with the Department of Defense. The current president sees your experience and hands-on approach to be an invaluable asset and has asked you to represent the military interests of the United States at the Special Assembly of the IAEA.

Views:

You believe that your country can never disarm all of their nuclear weapons. You believe that peace between superpowers can be contingent on mutually assured destruction and that if disarmament occurs world war may again break out.

You also believe that your country cannot have other countries developing nuclear weapons. When more nations create nuclear weapons then the stability of the world may break down. If a radical nation gets a nuclear weapon it may actually use it or an Islam bomb may be given to radical extremist groups.

Goals:

Your goal in this conference is to create an image of your country that people feel is not over powering and condescending. This is not to say that you can become

overpowering with treats if you wish. You wish to not have total disarmament of your country, but you want no new nations to be able to build nuclear arms.

You will always try to keep the support of the western nations and try to get Islamic nations and what seem to be radical nations to never be able to create and keep nuclear weapons.

Orders:

You will try to give the IAEA powers to make developing countries give up their weapons or at the very least suspend their creation of more nuclear weapons. You will also try to give the IAEA powers to prevent all other countries from developing a bomb. You want to get this done without having your country totally disarm.

United States Financial Advisor

Joshua/ Jerusha Lane

United States Chief Financial Advisor

Description:

You were born in the small town of Waterville, Maine. Your father was a union paper worker and a police officer and your mother was an administrative clerk. Your father taught you the meaning of hard work and your mother taught you how to be polite and personable. You attended Waterville High School, got high marks and attended the Massachusetts Institute of Technology where you enrolled in the Sloan School of Management.

After college you desired to stay close to home but there was little job openings so you moved to Washington, D.C. where began working as a civil servant performing the duties of a diplomatic clerk. Your devotion to your job and your education allowed you to rise quickly through a serious of promotions. After you felt like you had no more opportunities to rise you left government service to work in the private industry. After you had managed to make a lot of powerful friends and a lot of money you returned to government service as Special Assistant to the current President of the United States.

You proceeded to advise the President on a great many issues including foreign policy and the economy. You took a personal interest in the huge federal deficit and

advised the President intensively on ways to bring the deficit down. Your ideas proved effective and the President found himself in great favor. The President has asked you to attend the Special Assembly of the IAEA to represent the United States financial interests.

Views:

You believe that your country can never disarm all of their nuclear weapons. You believe that peace between superpowers can be contingent on mutually assured destruction and that if disarmament occurs world war may again break out.

You also believe that your country cannot have other countries developing nuclear weapons. When more nations create nuclear weapons then the stability of the world may break down. If a radical nation gets a nuclear weapon it may actually use it or an Islam bomb may be given to radical extremist groups.

Goals:

Your goal in this conference is to create an image of your country that people feel is not over powering and condescending. This is not to say that you can become overpowering with treats if you wish. You wish to not have total disarmament of your country, but you want no new nations to be able to build nuclear arms.

You will always try to keep the support of the western nations and try to get Islamic nations and what seem to be radical nations to never be able to create and keep nuclear weapons.

Orders:

You will try to give the IAEA powers to make developing countries give up their weapons or at the very least suspend their creation of more nuclear weapons. You will also try to give the IAEA powers to prevent all other countries from developing a bomb. You want to get this done without having your country totally disarm.

Appendix B:

Country Briefings

The following are the historical and cultural briefings for every country that is included in the game. These briefing papers are important to the players because it lets them learn about the country which they came from and other countries in the game. Each player should receive a country briefing for the nation which they are a delegate. Every player should also have access to all other country briefings if they request such access.

Briefing Index:

Republic of France

France has a population of about 64 million people. Geographically, the areas of France that are not mountainous are mostly plains or rolling hills, suitable for either agriculture of inhabitation, and has several desirable regions of great beauty for living and vacationing.

This was the land of Gaul in the time of the Roman Empire, captured at the time of the fall of the empire by the invading Franks, a Germanic people. Mostly Celtic, Roman and Germanic in origin, the French people have been a relatively tolerant community in the same location long enough that the rest of the world considers French an ethnicity. There are smattering of minorities of course, Teutonic, Slavic and others, but most of France is, indeed, French. The official language of the nation is French, and Romanic Language, and the few other dialects spoken are in decline. The vast majority of Frenchmen profess Roman Catholicism as their religion, as the French Protestants, called Huguenots, was unable to capture Paris, and their leader converted to Catholicism in order to be allowed to become King of the Nation, with the famous phrase "Paris is worth a mass."

The government of France is a Unitary Republic, with President Jacques Chirac and Prime Minister Dominique de Villepin presiding over the Republic. The monarchy was overthrown in a bloody revolution shortly after the American Revolution.

France has a GDP of 1.83 trillion dollars, and the GDP per capita is $29,316. The economy is mostly service based, with industry of major importance. Major trade partners include the United States, and the rest of the European Union.

The average French citizen has a life expectancy of 74 years if male, and 72 years if female. The birth rate is 1.20% and the death rate is 0.904%. 99% of the population is literate, with compulsory education.

The French are, above all else, a proud people. They take great care and effort both to preserve and display their cultural heritage, so that everyone can know the greatness of France. It is this pride in their own culture that makes France a leading country in world affairs, more than anything else. However, France is also a country of immigrants. Its borders are relatively open to immigration, and nearly 6% of France's total population consists of immigrants. Despite this, everyone in France feels that they share in France's rich cultural heritage.

While France is not a large country, possessing an area approximately as large as Texas, it is fairly heavily populated. The population of France mainly reside sin its cities and urban centers. In fact, approximately 89% of its people live in one of France's major cities and 49% of the total population lives in Paris itself. Other major cities include Lyon, Marseilles, Lille, Bordeaux, Toulouse, Nantes, and Strasbourg, in order of population size.

Many countries border France, each having a long and often troubled history with France. Germany, Switzerland, Italy, and Spain are it's largest neighbors, as well as its smaller neighbors Belgium, Luxembourg, Monaco and Andorra. Across the English Channel is the United Kingdom. Historically, France has been both allies and enemies with nearly all of its neighbors. However, Switzerland has nearly always remained neutral and unassailable in the Alps. In particular, the French people still feel strongly about both the Hundred Years War, a conflict that lasted throughout the 14th and into the

15th centuries with Britain. France also found itself at war with Germany no less than five times since participating in the 30 years war from 1618 to 1648. These countries are considered to be bitter rivals by the French.

The history of France was also filled with great leaders and victories. In the 8th century Charlemagne, named Emperor of the Western world, nearly succeeded in recreating the Roman Empire with France as his seat of power. The Renaissance, while not started in France, greatly impacts the views and philosophies of the French, and it is a time when many of the nation's greatest cultural treasures were created. Lastly, Napoleon, named emperor of France in 1804, was known to be the greatest military mind of his time. He was eventually defeated by the English and exiled. After he escaped and returned to France, the English defeated him again and sent him to a less comfortable exile. England reinstated a monarchy to France afterwards, in an effort to return to a state of normalcy.

The rather bloody history of France led eventually to its present state, known as the fifth republic. Like America, the government of France is based on a Constitution that was adopted in 1958, by a referendum of the people. It has been revise several times, most notably in 1962 when another referendum called for direct universal suffrage of the people. The president of the French republic is elected to seven-year terms. He appoints the Prime Minister and he presides over the cabinet. Like America, the French president is the head of the Executive branch, making him the head of armed forces, as well as giving him the power to pardon and also allowing him, if necessary, to dissolve parliament.

The Prime Minister determines the nation's policy and runs the administration, submits bills to Parliament and is responsible for the execution of these bills once they are ratified. The cabinet determines general policy, and also has the ability to submit bills to Parliament. The French Parliament consists of two houses: The National Assembly (577 members), who are elected by direct suffrage to 5 year terms, and the Senate (321 members), who are elected by indirect suffrage to 9 year terms, 1/3 of whom are reelected every 3 years. France has a multi-party system, which has at least 5 different strongly supported parties. Historically, a different party has been in power at every election of the National Assembly, while the Senate has remained, for the most part, evenly split.

The French economy is one of France's greatest strengths. France has the sixth largest economy in the world, totaling more that 8 trillion francs in 1997. While the economic growth in the US has been more vigorous, France is an economic powerhouse in the European community. A great deal of this wealth comes from foreign investors and supporters of the booming French economy. Direct foreign investment counts for a third of France's industrial production in almost every sector of its economy. France is also one of biggest exporters of products and services in the world. Among other items, France is also one of the biggest exporters of products and services in the world. Among other items, France is the number on exporter of luxury goods, mainly due to its reputation for excellent, if costly, products ranging from wine and cheese to perfume and high culture designer clothing, especially for women. (Dewhirst et al, 2001)

Republic of India

The Republic of India has a population of 1.1 billion people. India has a varied geography, with terrain ranging from high mountains to low deserts to tropical flatlands. 72% of India is Indo-Aryan, while 25% is Dravidian, with the balance made up of people of Mongol decent and others. Despite this relatively simple ethnic make up, India is a melting pot of cultures. Official documents are printed in English and Hindu, while a bedlam of other tongues dominates the streets. 81% of the country's population is followers of the Hindu religion, with the majority of the remaining people being Islamic.

The government of India is a Federal Republic, but has only been independent of England since 1947. Unlike most nations, India gained its freedom through mostly peaceful methods. The president of India is A.P.J. Abdul Kalam, while the Prime Minister is Manmohan Singh.

India has a GDP of 3.633 trillion dollars, which means it has a per capita income of 3,344 dollars. Major trade partners include the United States, United Kingdom, and Germany. Life expectancy for men is 62 years, and life expectancy for women is 63 years. The birth rate is 2.48% and the mortality rate if 0.888%. The literacy rate is 52% but only 37.7% of the women can read.

One of the oldest civilizations in the world, India's modern history begins at the end of British colonial rule in 1947. The parliament of Great Britain gave the colonial era India to two governments, due to the politics of the time. The vast majority of the land and people went to the Hindu state of India, while the remainder went to the Muslim state of Pakistan. England was forced to abandon India during World War II, and this

lead to a renewed desire for independence. Since gaining its independence, India has found itself in military conflict with Pakistan and China. Pakistan began its existence as an eastern and western portion separated by disputed territory with India. When the eastern portion attempted to become independent, India interfered on its behalf to weaken Pakistan. India and Pakistan have gone to war multiple times since their creation, and both sides have sworn never to lose another conflict with the other. More recently, India has successfully developed nuclear weapons on its own. It is believed to have the capability to launch its missiles a short distance, but is not capable of striking targets on other continents. There is no small amount of tension between the United States and India about India developing nuclear technology despite an international embargo on the transfer of such technology.

For many years, India was forced to deal with the troubles of separation, including riots, mass migration, and repatriation. Gandhi, who took no office in the new government, wandered the nation, attempting to sue his personal influence with the people to quell the violence, however fruitlessly, and ultimately fell to an assassin's bullet himself.

India is the original crossroads of the world, and as such, cannot really be said to have a single, overarching culture. However, in many cases, when one considers the Indians as a people, the Hindu 'majority' is immediately thought of, and so we will say a few words on the culture of these people.

The Hindus are guided by the religion from which they take their name. This religion has two important tenets that must be taken into consideration when looking at the people. First, Hinduism sates that one is placed on earth to live life to the fullest and

achieve true inner peace. Thus, the religion does not disapprove of many of the dissipations that western Christianity has worked so hard to eliminate in the past, after all, in time even the most corrupt of men will learn that wealth, drunkenness, and other such amusements do not bring lasting happiness. Second, time works in a scale far, far vaster than a man can ever comprehend. It is on this time scale that a man has to reach enlightenment, and he will be continually reincarnated until he does so and reaches Nirvana.

As such, the basic clause of the society reflects these principles rather than the sanctity of life and law.

These two principles have lead to one more development that must be understood. As each soul progresses through the circle of life, it tends to aggregate with those similar in understanding to itself, especially in families. And so, a caste system was born. This caste system placed everyone into their place in life by the family of birth, and although no longer officially accepted by the government, it stratifies the society along the lines of these castes, regardless of rule of law. The castes can be broken into a few major categories, including the priests, soldiers, merchants, laborers, and Untouchables, but there is a caste for almost every profession. The traditional notion was that there would be no social mobility, each son and daughter being taught their place and any necessary skills by their parents.

Special notes: The vast majority of Indians do not have family names, and as such, they are not given here. Usually, the 'surname' given by a member of this melting pot culture is a patronym, or caste name. For example, Gandhi is not a surname, but rather, the name of the grocer caste. It is recommended that students do some minimal

background reading on castes and sub-castes, and make up a last name on the fly, as many real Indians are forced to do when in contact with Western civilization. (Dewhirst et al, 2001)

The Islamic Republic of Iran

The Islamic Republic of Iran has a population of 68 million people. Much of Iran is desert, and this leads to crowding in urban areas, concentrated along the rivers and the Caspian coastline. 51% of Iran is of Persian decent, with another 24% being Azeri. The remainder of the population is a large blend of other ethnic groups, including the Kurds. Parsi, the Persian language, is the official language, but Turkish is another widely spread tongue. 89% of the country is followers of Shiite Islam, while another 10% follow Sunni Islam.

The government of Iran is an Islamic Republic, dominated by the Imamas and the Ayatolla. During the Cold War it was an absolute monarchy, but corruption and a rejection of Western ideals brought about the Islamic Revolution in 1978. The government backed by the United States was overthrown. The United States then backed Iraq in a seven year long war with Iran. This war was very damaging to Iran. The president of Iran is Mahmoud Ahmadinejad, but ultimate power rests in the hands of Ayatollah Ali Hoseini-Khamenei as Supreme Leader.

Iran has a GDP of 562 billion dollars, which means it has a per capita income of $8,300 dollars. Major trading partners include Japan and Italy. Life expectancy for men is 69 years, and life expectancy for women is 72 years. The birth rate is 1.7% and the mortality rate is 0.555%. The literacy rate is 79%.

Cradled in the birthplace of human history, Iran possesses one of the oldest cultures of mankind. However, this history will not begin until 1978, with the Islamic revolution that overthrew the Shah.

Unhappy with the effects of an industrialization process pushed too far too fast by the ruling Shah, and his American aides, an emerging middle class, an oil rich economy, and a Royal family trying to control everything and scornful of religion, revolution came to Iran. Many radicals began to oppose the government, in support of the traditional values espoused by Shiite Islam. Directed by Ayatollah Khomeini from afar, masses of comparatively peaceful protesters forced the Shah to flee Iran in 1979. On April 1, 1979, after a national referendum in which only one choice was offered, the Ayatollah created a constitutional republic in Iran.

This constitution was imbued with Khomeini's ideals for an Islamic government, and encouraged a massive wave of fundamentalism, with patrols to enforce anti-Western codes. When the old Shah was admitted to America for medical treatment in July of 1980, activists seized an American embassy. They held it until January of 1981, releasing them in part due to the changeover of authority in America.

For Iran, the next 8 years were filled with war, a trial by fire for the new government. A fair amount of territory was lost to Iraq, and then regained, and the war soon settled into a war of attrition. Oil production, and thus income, in the region plummeted, as refineries were assaulted, and the Persian Gulf became unsafe for travel. Iran and Iraq signed a UN sponsored cease-fire in 1989.

The cease-fire brought to light a deal with the Ayatollah's 'Great Satan,' America, in which weapons were exchanged for assistance in the release of hostages, held in Lebanon. The US had equipped the Persian Army during the period of the Shah's rule, and spare parts had reduced the Iranians to human wave assault tactics, while Iraq halted with dug in tanks and the use of poisonous mustard gas. With no air force left to ward of

Iraq's bombers and terrible loss of life in the field, Iran sought peace by treaty after having been invaded, a humiliation. What Iraq wanted was control of its one oil right peninsula.

With the Ayatollah's death by natural causes in 1989, a smooth and peaceful transfer of power occurred, the old president becoming the new Ayatollah, and a new president being elected, nearly unopposed.

The new more moderate president began to modernize Islam, allowing capitalism, and creating diplomatic ties with certain Western countries, while still holding strong ties to the idea of an Islamic state.

This situation continues to the present day, although a few attempts by the most recent president to soften some of the hardest regulations of the nation, particularly in the area of women's right, have been met with harsh resistance. Iran is still controlled by the radical fundamentalist Shiite priests, and they will resist any Westernization of their people.

Iranians are mainly Shia Muslims, who support the existence of a priest class to read and interpret the Koran. (Dewhirst et al, 2001)

The State of Israel

The State of Israel has a population of about 5.8 million people, living on a thin strip of land bordered by the Mediterranean. Large portions of Israel are desert, and only a very small portion of the land is arable, leading to a highly urbanized nation.

Ethnically and religiously, 80% of Israel is Jewish. The two main branches of Judaism are Sephartic and Ashkernazie. Christianity and Islam also have a presence here, due in part to holy places for all three of these religions being located in Jerusalem.

Israel is a parliamentary democracy with a constitution designed to ensure that minority views have a voice. This sometimes leads to an unstable state of affairs where the party in power shifts more often than one might expect. President Moshe Katsav is currently the head of state, while Prime Minister Ehud Olmert directs the nation.

Israel has a GDP of about 163.45 billion dollars, with the GDP per capita being $23,416. The economy is mostly service based, with industry of minor importance. Major trade partners include the United States, Benelux, and the UK.

The average Israeli citizen has a life expectancy of 77 years if male, and 82 years if female. The birth rate is 1.79%, while the death rate is .618%. 95% of the population is literate, with education being compulsory.

First and foremost, Israeli is the homeland of the Jews. Israel is based upon the notion that the Jewish people need a country where they are in the majority and can protect themselves. According to the Jewish religion, Israel is located were God promised the Jewish people a homeland thousands of years ago. The Jews, as a people, have not had a true homeland since the rule of King David. After the Roman Empire

expanded into the Middle East, the Jewish people led two revolts. They were unhappy with the requirement that in addition to whatever local religion they might have, they must worship the Emperor. Following the second revolt, the Roman Empire enslaved and scattered the Jewish people throughout their Empire in what is known as the Diaspora. This caused there to be small communities of Jewish people throughout the area once controlled by Rome. At first, the Roman Empire rejected Christianity. One missionary, Paul, set about converting a great many people. He was largely responsible for Christianity blaming the death of Christ on the Jewish people for 1500 years. Later, when Christianity became the state religion, the Jewish people were in a poor position. Following the fall of the Roman Empire, they were continually oppressed and discriminated against. Until quite recently, Islamic countries were not overly oppressive to Jewish citizens. They were seen as having a common religious background, as Islam accepts the Old Testament. Jews and Christians were allowed to live as second class citizens, but pagans had to either convert or die. In more recent times, Islamic countries have come to associate Israel with the Crusades and western intrusion into the Middle East.

Throughout these troubles, the main population of Judaism remained near Jerusalem. Despite being an oppressed people, the Jews remained strong and continued to struggle for survival. With the coming of the 20th century, Jews began to talk about a homeland and a place to live in peace, away from oppression. On May 14, 1948, the Jewish people as a whole declared their independence from the oppression of Britain. Because it was embroiled in World War II at the time, Britain was unable to respond with force, and thus Israel was formed.

As World War II wound to a close, many of Britain's colonies demanded independence and received it. At the same time, Israel declared itself the homeland of the Jewish peoples around the world, and any Jew that wished it would receive sanctuary in Israel. This brought in millions upon millions of refugees from the previously German occupied territories and other countries. While not all Jews migrated to Israel, many were tired of the oppression so readily directed towards them. The United Nations stepped in and tired to negotiate between the Jewish people and the neighboring Arabic factions. The United Nations had put forward a peaceful compromise, but the Arabic nations rejected it and tried to invade. The Arab nations lost, thanks in part to financial support from Jews living in the United State. In the end, Israel became the Jewish homeland.

There followed, between the years 1948 and 1967 a period struggle for recognition and to retain independence. Many battles were fought, entire wars started and ended over the course of this struggle, but eventually there was peace. The wars included the 6 Day War, where Israel attacked surrounding countries that were preparing to attack Israel and were very successful thanks tot heir air support. The Yon Kippur War was also a victory, but it was less one sided. Conflict continued with the PLO, which use Lebanon as a hiding place. In 1967, Egypt, and Arabic country, recognized Israel as an independent nation. Israel has been continuing to achieve peaceful coexistence with neighboring nations despite the numerous tensions that exit. Recently, Israel has shown a renewed willingness to trade land for peace. Israel has achieved peace with Jordan and Egypt, and has mixed relations with Lebanon, but relations with Syria are still poor at best. The group of people who had been living where Israel now stands is

known as Palestinians, as the region was previously known as Palestine. These Arabs are unhappy with Israeli rule and desire autonomy, if not the return of the entire country. Multiple terrorist organizations exist to bring about an end to Israel, but many Palestinians simply wish for peace. Israel has reacted strongly to terrorist strongly to terrorist attacks, and has been criticized at times for how the Palestinian community is treated.

Several struggles have ensued since. Terrorist attacks by Palestinians based in surrounding nations still plague the country. However, for the most part, Israel has maintained a careful balance between peace and watchful readiness. One of its greatest strengths is the network of satellites that Israel has managed to assemble above itself and the surrounding nations. With it's state of the art imaging technology, the Israel Intelligence Agency has been able to keep very close track of the troop movements, bomb and missile placements, and to a certain extent the counter-espionage activities of its neighbors. This, along with a very well trained army, makes the Israeli military one of the best, for its size. While their standing army is small, there are many talented reservists. Israel is also an economic power in the region, but the Arabic countries are oil rich.

Currently, Israel has produced several nuclear bombs worth of weapons grade material from the Domina plant. It is unclear exactly how many operations devices Israel actually has, but one reasonable estimate is three low-yield man portable nuclear bombs have been produced for use in an "Ein brera" or no alternative scenario. Thus Israel has enough nuclear capability to act as a threat and a deterrent, but not enough to really be perceived as a major nuclear threat to it's many hostile neighbors.

The Jewish people have always been said to have a long memory. This certainly holds true for the Israeli nation. They will not soon forget the horrors of the holocaust or the unwillingness of their neighbors to concede them the right to a homeland. So, in essence, the Israeli mindset can be summed up in two facts. They wish to retain a homeland where they are in the majority and can ensure the protection of their people. They also wish to have peace with their neighbors, but are unsure if their neighbors can be trusted to live in peace. (Dewhirst et al, 2001)

Islamic Republic of Pakistan

The Islamic Republic of Pakistan has a population of 141 million people. Much of Pakistan is hot, dry desert, with temperate areas in the northwest and an artic north in the mountains. Ethnically, Pakistan is a blend of Punjabi, Sindhi, Pashtun, and others. Punjab is the widest spread tongue, spoken by 48% of the population, with a wide variety of other languages spoken by the rest of the people, including Sindhi, Siraiki, and Urdu. 97% of the country is followers of Islam, about 77% Sunni, and the rest are Shia.

The government of Pakistan is a Federal Republic, with a long and rocky history of martial law, which it is currently under. The president of Pakistan is Pervez Musharraf and the Prime Minister is Shaukat Aziz. The Quaid-e-Azam or the founding father of the nation is known as Muhammad Ali Jinnah.

Pakistan has a GDP of 425 billion dollars, which means it has a per capita income of 2,706 dollars. Major trade partners include the United States, China (Hong Kong), and Japan. Life expectancy for men is 62 years, and life expectancy for women is 64 years. The birth rate is 2.97% and the mortality rate is 0.823%. The literacy rate is 49%, who are mostly men.

The history of modern Pakistan begins in the 1930s, during British colonial domination of the area. The previous Muslim rulers found themselves unsuited to colonial control, and as the British plans for eventual independence under a parliamentary government became clear, the Islamic minority became worried about being mistreated at the hands of this majority government.

Under the leadership of Mohammed Ali Jinnah, the Muslim community began to agitate for an independent state in the north of India, to be known as Pakistan. The British disliked this, not wishing to destroy the unity they had created during their own rule, but Jinnah would not accept any other proposals, and India could not stand on its own with the active resistance of the Muslim people. Mahatma Gandhi was in jail at the time, so Jinnah was not effectively challenged.

And so, in 1947, Pakistan became a separate state with 2 parts, West and East, in what is called the Bengali Region. It was divided geographically, in much the same manner as Germany was before World War I. The separating area, Kashmir had not submitted its popular vote on which nation to join and immediately became disputed territory. This territory is nominally Indian. The division and India's control over several of Pakistan's waterways threatened to cripple the new nation.

All of this was not aided by the 1948 death of Jinnah, and temporary leadership passed to Liaquat Ali Khan, Jinah's lieutenant. He began the drafting of a constitution based on Islamic values, despite the objections of the Hindu members of the parliament.

With Khan's assassination in 1951, Pakistan's politics, and thus its leadership, dissolved into a murky mess of chaos, as various regional, economic, and religious factions struggled for power, and the chance to define the constitution. This chaos ended with the ascent of Iksander Mirza.

Mirza and his fellow, Chaudri Mohammed Ali, finally succeeded in creating a constitution, and getting it accepted. Chaudri was appointed the new Prime Minister, while Mirza became president with very restricted powers.

Politics interfered again, and Chaudri was soon replace din office, and legislation ended as the government began to fall apart. The East Pakistan legislature demanding almost total autonomy.

With Pakistan disintegrating, President Mirza declared martial law, with General Mohammed Ayub Khan as the chief administrator. The martial government shortly exiled Mirza, who ended up in London.

General Ayub began to construct a political system with the intent of expressing Islamic ideals, while a committee began to create a constitution. Under Ayub's leadership, the economy of Pakistan slowly improved, but the first ting to recover was industry.

In 1969, Ayub passed the leadership of Pakistan to General Yahya. Yahya set about holding a general election to draft a constitution but the results of the election led to a civil war, as East Pakistan again demanded virtual independence. An army from West Pakistan began a brutal occupation with considerable looting, rape, and murder involved. With vast numbers of refugees streaming across the borders, India intervened militarily in this war, and East Pakistan became the fully independent but desperately poor nation of Bangladesh thanks to interference from India.

Yahya resigned in 1971, passing power to Bhutto of the Pakistan people's party. Bhutto's policy of socialist Islam brought about no real change, but he was popular. A constitution was adopted in 1973, with elections to be held in 1977. This program also reverted to martial law within months, not to be lifted gain until 1985.

Pakistan found itself caught in the war between Afghanistan and the USSR in 1979, as guerillas used refugee camps within Pakistan as a base of operations. This was

stepped up, as the United States began to funnel assistance to the Afghanistan guerillas, and became an ally of Pakistan, given India's neutral stance combined with taking aid from the Soviet Union.

After India successfully test detonated a nuclear weapon, Pakistan followed with their own tests a few days later. Pakistan and India have fought a number of wars since both states came into being in their present form, and both nations have vowed never to lose a war to their neighbor again. They are currently locked into a sort of cold war in miniature. Pakistan has the capability to launch missiles at India, and India has the capacity to reciprocate, but they are both presently unable to threaten nations further away. China is another nuclear neighbor nearby, and India, Pakistan, and China all have disputed territory in the regions where their countries meet.

As martial law was lifted, the power struggles began anew, over a background of heavy narcotic use, and civil unrest, continuing until the mid 90s, when the issue became graft in government and economic growth in the private sphere. Pakistan remains a major player in world drug trade, and illicit sales of drugs are a major factor in their economy. The United States has tried to change this, but to no avail.

In addition to these social factors, Pakistan is religiously fundamentalist. Recently, someone said that Mohammed was probably a member of a pagan tribe before he became the Prophet. While possibly historically accurate, this man is being tried and will most likely be executed for his opinion. (Dewhirst et al, 2001)

People's Republic of China

China has a population of about 1.3 billion people, making them the single most populous nation in the world. Like many Eastern nations, China has large areas of rugged desert land, where little can be scratched from the land and even fewer people live, leading to crowded cities and riverbeds.

Ethnically, China consists of almost 92% Han Chinese, with a handful of other related cultures. This has lead to a very uniform nation, free of many of the discontinuities that appear in more multicultural nations. The official language of the nation is Mandarin Chinese, though many people also speak Cantonese as well as several other minor languages. An estimated 2% each of Chinese citizens are Taoist, Islamic, or Buddhists, while another 1% is Christian. However, all citizens are officially atheists.

The government of China is once of the last remaining communist regimes, though its economy is increasingly capitalist. Sun Yat-Sen led a successful democratic revolt against the former government of China, and after his death the government was taken over by Chain Kai-Shek. Chaing drove communists in his country almost to the brink of destruction, but at the last moment the United States stepped in to stabilize the country. The communists later recovered and overthrew the democratic government. The former democratic government moved to Taiwan, along with the portion of the army loyal to them. The current president of China is Hun Jintao and the current premier is Wen Jiabao.

China has a GDP of $8.86 trillion, making it the second richest country in the world, behind the United States. However, the GDP per capita is still only $3,840. The

economy is mostly service based, with industry of major importance. Major trade partners include United States, Japan, Germany, North and South Korea.

The average Chinese citizen has a life expectancy of 70 years if male, and 74 years if female. The birth rate is 1.325%, while the death rate is .697%. Chinese law discourages a woman from bearing more than one child, in attempt to control the population of the nation. 91% of the population is literate with compulsory education.

China is an ancient nation, steeped in history, and while the current communist government does not embrace the old culture, it does acknowledge that past. The old feudal system was swept away by the Revolution after WWII and the current communist government was put into place in 1949. These revolutionists, calling themselves the People's Liberation Army (PLA) drive the armies of General Chiang Kai-Shek off of mainland China to Taiwan, after a long, bitter period of civil warfare. In 1949, Jiang declared Taipei, Taiwan, as the temporary capital of the Republic of China, while the PLA went to work creating the People's Republic of China (PRC) under the leadership of Mao Zedong.

Like the other communist governments being established at the time, one of the PRC's first acts where to organize agriculture and industry, in order to feed and employ the surprisingly large population of 583 million people enumerated in China's first modern census. This process occurred quickly and was over 90% complete by 1956.

Unlike many other communist governments, China at first allowed 'constructive criticism' of the government and it's programs. As soon as its people became used to the idea, the government came under a surprising amount of fire from those who lest the most during the revolution, the more capitalistic sections of its populace. However, this

policy was soon left by the way side. Unsure of Soviet support, Mao launched a major program designed to incite ideological fervor, and enhance China's economy by enhancing the commune. The resultant economic disaster in China led to Mao stepping down as official chairman of the nation, as well as an institution of hard line foreign policy.

In the beginning of the 1960's, the suspension of Soviet aid to China forced major reforms with in the nation, put into effect mainly by Mao's underlings. Most important of these were releasing production control from government authority, as well as a strengthening of the military. In China, the military became peasant elite. Only one in four volunteers are accepted and one in ten ever become anything but a foot soldier. The PLA build roads and help at harvest time. While apparently just a huge pool of manual laborers and soldiers, the PLA is a road of advancement for commoners in China. By 1965, China was headed towards recovery under Deng Xiaoping.

In the late 1960's, Mao lead an ideological purge of the nation, one which eventually lead to his downfall as leader of the PLA, and later as leader of the Communist Party. Deng Xiaoping slowly emerged as the new leader of the nation, and despite heavy political attacks by the radicals of the party, had solidified his power base by the late 1970's.

Deng's first act once he was no longer vulnerable to his enemies was to reverse the iron grip that Mao once held on Chinese policy, weaning China away from the policies that Mao carried to his death. Deng took further steps to moderate his nation, placing economic progress over the class warfare ideals of Mao. Economic reforms, capitalist policies and social inequalities followed.

These reforms have carried China far, despite the murky politics of the 1980's and 90's, and have created a unique blend of capitalism and communism and perhaps the label of communism is no longer truly appropriate for the current Chinese government.

A diplomatic cloud still hangs over China, its unique government laden with corruption and inefficiency despite repeated attempts to reform, and its poor record on the recognition of the Western version of human rights.

China has also seemed to be an active partner with Brazil in space technology and the Islamic nations on other technology. China is suspected of supplying Iran and Saudi Arabia with medium range missiles. (Dewhirst et al, 2001)

The Russian Federation

The Russian Federation has a population of 142 million and a population density of 22 people per square mile. Russia is the largest country in the world. 82% of the citizens of Russia are Russian, 4% are Tartar, and the rest are of various ethnic backgrounds thanks to multiple relocations and numerous migrations. The two most widely practices religions are Russian Orthodox Christianity and Islam. The Government is a Semi-presidential Federal Republic whose President is Vladamir Putin and Prime Minister Mikhail Fradkov.

Russia spends 5.8% of its GDP on defense. With a GDP of 1.576 trillion dollars, its citizens have a per capita GDP of 4,200 dollars. This is a fraction of the GDP of the United States, indicating the Russia is one of the less economically well off nations. Major trade partners include Germany, the United States, and China. The life expectancy of a Russian man is 59 years, and the life expectancy of a woman is 72 years. The birth rate is 0.995% and the death rate is 1.465%. This makes Russia one of the few European countries where the death rate outpaces the birth rate. Education is mandatory between the ages of 7 and 17 and Russia has a 97% literacy rate.

In the 19th century, Russia expanded eastwards until it hit the Pacific. In 1905, Russia's pacific fleet was defeated soundly by Japan. This was rather embarrassing defeat for Russia, but the government survived a negotiated peace. WWI ended economic progress and Russia sent 2 large armies against 1 German army in the opne3ing days of WWI. Reinforcing that army cost the Germans and stopped any chance success on the western front, but the Germans held the Russians for 2 years. Then the Germans

sent Lenin 'home,' releasing him from prison to do so. Soon, the troops were going home and the provisional government in Russia was threatened. Russia took very heavy casualties and its mean were poorly equipped. This led to revolt. In 1917, the revolution began with strikes by workers. A democratic provisional government was put in place after the Czar was deposed, but Russia had yet to withdraw form the war. Communists led by Lenin overthrew this provisional government. Lenin arranged for peace with Germany in exchange for a portion of the western territories. Following Lenin's death, Stalin took power in 1924. Trotsky was supposed to be Lenin's successor, but Staling had the backing of the army. Many years later Trotsky was murdered in Mexico. Stalin's purges of political rivals began shortly after he came to power. Stalin's army support was ironic, as some of his earliest purges were with the army. These early purges of experiences officers cost Russia when war with Germany finally came about. In 1939, Russia and Germany signed a non-aggression treaty. Stalin didn't trust Hitler any further than he could throw a boulder, but Stalin was caught unprepared and went into hiding for 2 years, initially offering little direction. In 1941, Germany attacked Russia. Russia moved its factories out before the German troops moved in. As a result of errors that were Hitler's personal decisions, the Russian winter, and the mud that followed, the German army was unable to subdue Russia. The USSR sent 10 million men against the Germans, tying up many German troops and adding another front to the war. The Kazaks and Turks that Russia sent to face Japan in China turned the tide on that front. Following WWII, the United States and the Soviet Union eyed each other cautiously. The United States feared Russia intended to invade the rest of Europe, and the USSR soon had nuclear weapons of its own. The next 50 years were of course the Cold War.

In 1953, Khrushchev became Party Chairman and also assumed control of the USSR. Khrushchev was anything but a fan of Stalin, and began a process of de-Stalinization. This involved correcting mistruths spread during Stalin's administration, destruction of posters and statues of Stalin, renaming things named after Stalin's administration, destruction of posters and statues of Stalin, renaming things named after Stalin something else, and so on. On becoming President, Kennedy found that the Eisenhower administration was planning to invade Cuba using Cuban refugees as shock troops. He pulled back from the overt intervention and moved the invasion site, support and other arrangements trying to mask US involvement. As a result, the invasion failed an the survivors of the Bay of Pigs were captured a rather than being able to escape into the interior and start guerilla activities. Castro turned to the USSR to protect Cuba from a second more serious attempt at the invasion. The USSR responded by providing nuclear missiles. The Cuban missile crisis came about when the United States discovered the USSR was trying to place missile silos in Cuba, which would allow the USSR to bomb Washington in a matter of minutes. The United States had missiles in Turkey which were already as threatening to Moscow as the Cuban missiles would be to the United States, but the United States didn't feel the situation was balanced. Khrushchev was hoping that both sides could withdraw their missiles after he matched US by placing missiles in Cuba, and was guaranteed that Cuba would be left alone. Khrushchev was under pressure from hard-liners in the Communist party to be thought with the West. In return of Russia not placing missiles in Cuba, the United States agreed to remove the Turkish missiles. The United States removed the missiles from Turkey and replaced them with better missiles, after allowing the Russians to save face and avoid nuclear war.

In 1964, Brezhnev replaced Khrushchev. During the 60's and 70's, the USSR and China extended massive amounts of aid to North Vietnam. The United States "got back at" the USSR by arming and training Afghanistan rebels when they attempted to drive out the Soviet troops propping up a puppet regime of the USSR in 1979. In 1988, Soviet troops were withdrawn from Afghanistan, ending brutal and bloody conflict. The rebels trained by the CIA didn't necessarily like America. Terrorist groups in Afghanistan which are opposed to the United States are able to draw on the same resources that the United States provided them with.

After Brezhnev, the leaders chosen for the USSR kept dying of the old age after short periods of time in office. Older leaders were chosen because they held more conservative views. Eventually, they appointed Gorbachev, who was much more liberal. He held summit meetings with President Reagan, helping to relax tensions. In 1987, a number of peace treaties were signed with the United States. At home, he attempted to expand freedoms and cause the government to become more democratic. He also wished to bring about economic reform. This was Glasnost (openness) and Perestroika (restructuring). Many of the more conservative Communists opposed these changes, leading to an attempted Coup in 1991. Then Major of Moscow (later president) Yeltsin opposed the coup, and saved the captured Gorbachev, who was restored to power, but still he and Yeltsin clashed. Gorbachev remained a Communist in a nation where the party was discredited, and tried to go slow on economic reform. Yeltsin wanted to see a capitalist democracy established and rejoin the western world. Gorbachev was in control of the Soviet Union, a multi-state nation, and the leaders of several states wanted to get rid of him. Yeltsin was now President of Russia, so he proposed the dissolution of the

Soviet Union in favor of a Confederation of Independent Sates. This left him in charge of the largest chunk of the former Soviet Union. While portions of the Confederation still work together and negotiate as a diplomatic block, Russia does more or less what it wants. In 1992, subsidies on goods were eliminated, causing prices to rise far above the ability of average citizens to pay. Under the old system goods such as bread, cigarettes, and cabbage were priced artificially low. After restrictions were lifted, people charge as much as they could get for their goods. This was massively inflationary. In 1993, many of the state run industries were privatized. In 1995, troops were sent in Chechnya to prevent it from breaking away from the rest of Russia. Russia pulled its troops out two years later, only to send them back after several terrorist episodes and a threat to keep doing so until Chechnya was recognized. In 1998, Russia's economic problems grew worse, leading to a number of cabinet positions being re-arranged and officials resigning. This has been likened to re-arranging the deck chairs on the Titanic to try to prevent it from sinking. This eventually led to the resignation of president Yeltsin, in favor of ex-KGB leader Putin. (Dewhirst et al, 2001)

South Africa

South Africa has a population of about 47 million people living on the edge of the African Savannah, most of which is used as pastureland.

South Africa is divided ethnically. About 75% of the population is of assorted black descent including a major block of Zulu people, 14% are Europeans, while various mixtures of the two comprise about 9% of the population. There are 11 official languages, including Afrikaans, English, and various native dialects. Christianity is the religion of about two-thirds of the people, while another quarter follows native religions.

The government of South Africa is a Republic, presided over by President Thabo Mbeki.

South Africa has a GDP of 570 billion dollars, with a GDP per capita of $12,161. The economy is mostly service based, with industry and mining of Gold, Uranium, and diamonds of major importance. Major trade partners include the United States, Germany, and Japan.

The average South African citizen has a life expectancy of 43 years if male, and 42 years if female. The birth rate is 1.82%, while the death rate is 2.2%. 85% of the population is literate. AIDS is a major factor in the low life expectancies in South Africa. The disease has reached epidemic proportions there, and shows no sign of decreasing its spread. There are also a large number of orphaned children who have AIDS as a consequence of the infection and subsequent deaths of their parents.

South Africa was originally a colony founded by the Dutch. The entire southern half of the continent was originally claimed as South Africa, back in the mid 1700s, but a

tribe of Africans called the Zulu challenged that claim. The Zulu warriors were the best fighters on the continent. They were partially nomadic and partially agricultural. They began a thousand years ago on the North side of the continent and would move a village at a time south, staying in place for a few years, and continuing on to the next village south. Entire tribes took on the Zulu and lost. Eventually, it became a regular pattern. The Zulu would march on a tribe, that tribe would retreat south. After a thousand years of this, both the retreating tribes and the Zulu hit the southern shore of Africa, but by this time that area had been claimed by the Dutch. Since South Africa is so far south, agriculture there mimics that of the North Hemisphere. Crops grown in Central Africa won't grow far to the south. The Dutch brought European crops capable of surviving in South Africa, as well as herd animals suited to the environment.

A battle ensued. The Dutch has muskets and masted boats. The Zulu had spears and reed canoes. The Zulu nearly won, but the Dutch managed to hold the Zulu back from their encampments. By the time they were finished, the Dutch controlled only the very tip of Africa, and their colony was surrounded by several tribes of various origins who had been retreating from the Zulu.

From these origins came the nation of South Africa. After freeing themselves from Dutch rule, the same area was colonized by the British. They set up a government to control the native population and maintain a colony for trade purposes. Eventually, in 1910, South Africa declared independence from the United Kingdoms. This allowed the Dutch population to retake control, but disenfranchised the black population.

In order to do this, South Africa maintained an oppressive Apartheid government. It used the native population of Africans effectively as slave labor, giving them a few

rights, little land, and harshly putting down any resistance. The form of government was termed apartheid, and became a major point of conflict, both nationally and internationally.

The battle against apartheid in South Africa has been considered one of the major milestones of the last century. The key to the entire struggle was Nelson Mandela, who was a socialist rebel imprisoned by the government between the years 1963 and 1990. During these years, there were protests and violent uprisings throughout South Africa. It was during this period of time that the South African government went through a very serious and thorough transformation. Before giving the black population of South Africa the right to vote, the government of South Africa systematically changed itself, though slow by steady bills and legislation, from a apartheid government into a constitutional republic.

Finally, with the release of Mandela and other party leaders in 1990, the black population of South Africa was given voting rights. That led to Mandela's election to presidency of the African National Congress in 1991, and the presidency of South Africa in 1994. Since these events, South Africa has been relatively peaceful, with only a few small retributive actions against the oppressive white population.

The economy of South Africa is one of the strongest on the African continent. With a GDP of nearly three hundred billion, South Africa has more buying power than any other country in Africa. While the unemployment rate in South Africa is high, the export industry, South Africa's biggest enterprise, has not slacked since it first became a colony in the 17th century. The standard exports of South Africa are gold, diamonds, heavy machinery, and most importantly Uranium. In fact, South Africa is the third

largest source of Uranium in the world, and the largest source outside of either Russia or the US. (Dewhirst et al, 2001)

United Kingdom (England)

England has a population of about 60 million people, living in a land of rugged hills and mountains. It is impossible to get very far from the sea in England, and the sea has always been part of their history.

Ethnically, the people of United Kingdom have descended from various Celtic and Teutonic tribes, all of whom have maintained their own traditions, and until comparatively recently, their own nations. Thus, no one claims the United Kingdom as their nationality or ethnicity but they are rather English, Scottish, Irish, Welsh or one of the few others. The official language of the nation is English, though a portion of the population also speaks Welsh and Gaelic. Anglican and Roman Catholicism are the most common religions, although there are also large numbers of Muslims, and other variants of Christianity.

The government of England is one of the first modern republics, one that came about by use rather than constitution, and in fact they are still a constitutional monarchy. Her Majesty Queen Elizabeth is the symbolic head of the government, while The Right Honorable Tony Blair is Prime Minister.

England has a GDP of $1.83 trillion, with a per capita GDP of $30,436. The economy is mostly service based, with industry of major importance. Major trade partners include the United States and the rest of the European Union.

The average British citizen has a life expectancy of 76 years if male, and 81 years if female. The birth rate is 1.071% while the death rate is 1.013%. 99% of the population is literate with education being compulsory.

The English are both a proud and humble people. Although they are proud of their cultural heritage, they are friendly to other nations, and they have no real hatreds of any other country. Despite a history of repeated warfare with Scotland, Ireland, France, Germany and tensions with former colonies, they treat people of other nations in a dignified and polite fashion. This attitude has been a hallmark of English society for many years, and is a basis for several American stereotypes.

The United Kingdoms, consisting of England, Scotland, Wales and Ireland, roughly constitutes an area bout the size of California and Nevada combined. Each of the above areas is both a separate entity and a part of the whole, in the same manner that the United States is composed of individual states. The current government of England is a Constitutional Monarchy, which effectively means that all eligible voters (at least 18 years of age and not of nobility) vote for members of parliament. The nobility is represented by the House of Lords, which is now primarily ceremonial. Parliament will vote for a Prime Minister to act as head of the executive government. The Queen will then appoint this Prime Minister to the position. The traditional, indirect system of government is important to the English people.

Each of the separate kingdoms of the United Kingdoms has a state religion: Anglican for England, Catholic for Scotland, Anglican, Methodist or Baptist for Wales and in Ireland there is religious freedom. While some might see this as somewhat archaic, it has been defended vehemently by the peoples of each kingdom.

England has long been a driving force of the world stage. In earlier periods, it was a force for war, conquest, and violence. During the 1500's and 1600's, England was a force in terms of military supremacy, at land and at sea, to be feared throughout Europe.

As time marched on and the Renaissance began, the moved to a more peaceful form of conquest: colonial imperialism. They established colonies and trading posts throughout the known world, staking claims in some of the best territories, including India, South Africa, and much of the North American continent.

This led to conflict, and there were several wars between England and other colonial countries during this period. The more notable ones include the French-English war (the French-Indian War in North America) and the subsequent American Revolution. While England had the military resources to re-conquer the American Colonies, it felt the endeavor would require troops that were needed elsewhere. Also, they felt that the United States would fall apart on its own. In 1812, England again went to war with the United States and would probably have re-conquered it if the Napoleonic War hadn't provided a distraction.

During this period, the British Commonwealth expanded through trade and industry, and thus grew economically. In the early stage this still involved violence, as demonstrated by the Opium War to open China to trade. Hong Kong was also seized by demanding a 99-year lease which only recently expired. The English were the first to experience an Industrial Revolution under a capitalist philosophy, and it was their textile innovations that triggered America's won Industrial Revolution. The Commonwealth was a shift from Empire to cooperating independent nations that forestalled repeated revolution by former colonies. India's peaceful revolution led by Gandhi was the critical moment in this evolution into partner nations.

In World War I and II, England suffered blows to public spirit, military might, and financial solvency. The blockade around England put in place by the German

submarine navy forced England to go to the United States to help produce weapons of war. England shared many if not all of its technological military secrets, leading to the post-war military strength of the United States. After World War II, many of its colonies expressed a desire to break away and to convert their English currency for dollars. England was in no condition to go to war with all of its colonies, so it allowed its empire to fade away. It also bore the economic burden of allowing its satellites to convert their English pounds for American dollars.

Since then, England has continued to expand in the economic sense. They were the initiators of both NATO and the growing Euro-community movement, which is slowly but surely binding all of Western Europe into a single economic superpower. England's active intervention in the Middle East has involved securing the Suez Canal, the occupation of Egypt, Palestine, war against Turkey in alliance with the Arabs, and the creation of Kuwait to limit the power of Iraq in an effort to control oil prices.

The United States has to some extent adopted England's role as a colonial power. The United States has tried to frustrate the nationalistic liberation movements on several occasions, most notable Vietnam. The United States has experienced complications from interfering with foreign governments, such as the consequences of propping up the Shah of Iran. Learning from history, the English have learned that one should never try to hold the reigns of power in a country that you are not willing to go to war with. They have chosen to lead a movement to foster nuclear disarmament. The English have done what they could in light of recent events to bring about a peaceful end to the trouble with nuclear weapons and international tension, especially in areas involving former colonies such as Israel, India, and Pakistan. (Dewhirst et al, 2001)

The United States of America

The United States of America is one of the most affluent and powerful countries in the world. It has a population of over 300 million people, with a population density of 80 people per square mile.

The government of the United States is a Federal Republic, with a separation of powers into three branches of government, Legislative, Judicial, and Executive. The head of the government is President George W. Bush and Vice President Dick Cheney. The United States has one of the longest standing democratic governments in the world. The United States has not had a war on its own soil since its civil war in the 1860's.

With a Gross Domestic Product (GDP) of 13.05 trillion dollars and a per-capita income of $43,555, the United States is one of the most prosperous nations in the world. Major trade partners include Canada, Western Europe, and Japan. The US spends 4% of its GDP on defense, but since its GDP is so large, this is quite a bit of money.

Education in the United Sates is free and compulsory from the ages of 7 to 16, and the literacy rate is anywhere from 99%. The life expectancy of men is 75 years, and the life expectancy of women is 80 years. The birth rate is 1.414% and the mortality rate 0.826%.

The citizens of the United States value personal freedom, particularly freedom of expression. The entertainment and communications industries of the United States have had a profound cultural impact on other countries. Other countries often view the United States as imperialist bullies, and have been known to view American citizens as ungrateful for they have, ignorant of the world outside their borders, as well as loud and rude. This combination of generally isolationist attitude of on the part of the citizens and

imperialism on the part of the government might go a long way towards explaining why people don't like the United States.

The United States began as 13 colonies of the British Empire, which rebelled because legislation affecting them was being written without any representation on the part of those affected. Additionally, the citizens of the United States didn't feel like paying taxes. The British Empire had put high taxes in place to try to recoup some of the large costs of having colonies in the first place, such as its seven year war with France. The Revolutionary War began as a guerilla action on the part of the United States, but as other nations lent support in an effort to irritate Britain, the war became more conventional. The war ended when Britain withdrew because it considered the war too expensive to pursue. In addition, the war was not popular at home.

In the following decades, the United States cemented its form of federal government by writing a Constitution and Bill of Rights designed to protect the rights of the individual citizen and to ensure a balance between the rights of individual states and the powers of the nation as a whole. In 1812, confident due to the success of the Revolutionary War, the United States went to war with Britain over the impressments of United States citizens into the British Navy. Britain would probably have reduced all of the United States to ashes, much as it did to the US capitol, but Napoleon presented himself as a greater threat, and the United States survived its adolescence.

Over the next hundred years, the United States continued to expand westward, purchasing land from foreign governments in some cases, cheating the native population for it in others, and sometimes driving the same population off by force.

Many southern states generated a large portion of their income from agricultural pursuits, and these same states had a vested interest in cheap labor that slavery provided. When an election didn't got the way that the southern states liked and a president who was a member of a political party which supported abolition was elected, the southern sates rebelled. In the war that follow, the southern states scored many early victories thanks to talented generals, but the war was eventually won by the superior industrial capacity and greater population of the northern states, setting a precedent for future conflicts. As a result of the civil war, the question of state's rights was settled. The states did not have the right to separate themselves from the United States with the consent of the Federal Government.

During the two world wars, the United States was able to advance technologically thanks to the help from allied nations, and was able to advance economically since none of its infrastructure came under attack. The United States could have become a global player after World War I, but popular isolationist opinion lead to dodging that particular responsibility until after World War II.

Following World War II, the United States was locked in a Cold War with the USSR. Both nations obtained nuclear weapons technology and missile technology following World War II and the conflicting political viewpoints of the two superpowers led to a very high state of tensions. The two nations came into conflict through proximity wars in Cuba, Korea, Vietnam, Afghanistan and other nations.

As a result of a policy of arming which were allies against either the USSR or allies of the USSR, Iran found itself armed by the United States while the USSR armed Iraq. When a religious movement opposed to the corrupt western government overthrew

the government of Iran, the United States backed Iran in a seven year long war against Iraq. Iraq received oil rights from the war, and looked to the south at oil rich Kuwait. When Great Britain had dissolved its colonies, it's had broken up the region into smaller countries to try to ensure that oil would be available. Iraq and other states viewed this as great wrongdoing, and Saddam Hussein had decided to correct that action. Iraq was eyeing the next major oil producer, Saudi Arabia. Saudi Arabia called upon its powerful sponsor, the United States, for support. In Desert Storm, a coalition of nations reduced Iraq's military capacity to a manageable level and liberated Kuwait.

Since the decay of the former Soviet Union, the United States has found itself involved in a number of peacekeeping actions, many of which have met with limited success. Both the United States and the members of the former Soviet Union possess millions of megatons of nuclear weapons, and the number of confirmed nuclear powers has recently risen again, as Pakistan, India, and North Korea have recently developed their own nuclear bombs. Together with China and a number of nations suspected but not confirmed to possess nuclear weapons, there are a great number of nuclear weapons in the world today.

It is worth mentioning that the United States is not on good terms with the United Nations General Assembly. After a failed attempt to oust the President of the General Assembly, the United States started to withhold its dues to the UN. The United Nations has been contemplating ejecting the United States from the General Assembly as a consequence, but the United States retains a permanent seat on the UN Security Council with veto rights. (Dewhirst et al, 2001)

Appendix C

Selected Nuclear Histories

This is a selection of the nuclear histories that pertain to the Pakistan Connection. Pakistan and India are not included in these countries because it seems appropriate that students research these on their own because of the plot. Students who read Shopping for Bombs will learn a good deal about Pakistan's nuclear history. By researching India's nuclear history students will also discover that there was a rivalry between India and Pakistan that cannot be adequately described in a nuclear history briefing paper.

Appendix C Index:

Chinese Nuclear Facts

China entered the nuclear history books in 1964 with their initial nuclear weapons test. Very little is known about the Chinese nuclear weapons program because of the secrecy observed within the country. Throughout the years no one has had a good idea about the total number of nuclear warheads that China possesses. The estimates for the present weapons ranges from a low 80 warheads to a very high 200 warheads. Most of the estimates, however, fall into the range of 300 to 400 warheads.

China also has advanced delivery systems. They have land based intercontinental ballistic missile technology, submarine launch ballistic missiles and of course weapons fitted to bombers.

It is the secrecy of China which makes it rather hard to judge where they stand militarily. It acts as a deterrent from attacking China because no one knows the true extent of their stockpile of delivery systems

French Nuclear Facts

France was the first country to be interested in nuclear power and nuclear weapons. Their focus on nuclear physics, however, was destroyed in World War Two when they had to start over again.

To build its first nuclear weapons France made a trade with Britain where the English would supply the French with enriched uranium and the British would be able to go over the detailed plans for French plutonium reactors. The French were very lucky that the British looked carefully at these designs because there were many flaws which were found. This prevented a potential disaster.

After working with the Germans and Italians and then excluding them from further research the French finally had a bomb of their won. They detonated their first bomb in 1960. Just 8 years later the French detonated a fusion bomb with a 2.5 megaton yield.

Throughout the years France has created approximately 400 nuclear weapons which they now hold in their nuclear stockpile. They can deliver these weapons through intercontinental ballistic missiles, submarine launched ballistic missiles, land based mobile systems and bombers.

Israeli Nuclear Facts

Although there is no confirmation, it is widely believed that Israel has a nuclear weapons program. Israel acquired a heavy water reactor in 1956 from France. The plutonium production of this plant began years later.

A man named Mordechai Vanunu who worked at an Israeli nuclear research institute came forward in 1986 and claimed that the nuclear facility was actually developing nuclear weapons. Based on that statement most of the world now believes (if not knows) that Israel is a nuclear power.

They may have a stockpile of about 200 to 300 nuclear warheads and have intermediate range ballistic missile to deliver their payload. This clearly makes them a powerful nation in the Middle East although they are one of the smallest nations there.

Russian Nuclear Facts

Russia was the second country to develop nuclear weapons. They summarily tested this weapon in 1949 and this act triggered a start of an arms race between the United States and Russia.

In their race to beat the Americans in first and second strike capabilities, Russia created an enormous stockpile of weapons. At the time of the collapse of the USSR, there were approximately 35,000 nuclear warheads in their arsenal. After the collapse and after significant disarmament Russia still has around 9,000 nuclear weapons under its control. This makes them the world leader for the largest stockpile of nuclear weapons.

Russia also developed a myriad of nuclear delivery systems. They have intercontinental ballistic missiles, submarine launched ballistic missiles, conventional bombers and mobile land based launching capabilities. Arguably this makes them the most capable nuclear force on the planet. With the amount of weapons and delivery systems that Russia has it poses an enormous threat to any nation that is belligerent to it.

United Kingdom Nuclear History

The United Kingdom was the third nation to throw its hat into the nuclear weapons game. They developed their first nuclear weapon in 1952 at about the same time the United States was testing its own fusion weapon. These weapons are suspiciously similar to American designs. Although the United Kingdom developed nuclear weapons in 1952 the testing of these weapons did not begin until 1962 just 5 years after they developed their own fusion bombs.

By about 1970 the United Kingdom reached its peak stockpile of about 350 nuclear warheads, but today they have reduced that number to about 200. Most of these 200 nuclear missiles are used as a nuclear deterrent and are stored in multi-warhead nuclear missiles upon submarines.

The United Kingdom also attempted to create its own delivery systems with the Blue Steak Missile which was being developed in the 1960's. This program was cancelled, however, and now the United Kingdom delivery systems are bought directly from the United States. These missiles are then fitted with the British warheads and deployed.

United States Nuclear History

The United States is the first in two areas of nuclear weapons. One, they are the first to successfully create a nuclear weapon and secondly, they are the first and only to use nuclear weapons against another country.

The United States nuclear program began in 1939 under heavy secrecy and then was in 1942 became a military project and was transferred to direct military control under the name: "The Manhattan Project." Many different research sites were created for use on the Manhattan Project. These facilities were dedicated to two different types of nuclear weapon. Some attempted to use plutonium from nuclear reactors and some attempted to use enriched uranium from various processes.

The first weapon to be detonated was called the Trinity and was a plutonium bomb. Since the United States heavily funded the program the uranium enriched bomb was not far behind and was in fact the first type of bomb to be used on another county.

On August 6th of 1945 the United States dropped a uranium enriched bomb known as Little Boy on Hiroshima. Just three days later another bomb, this time a plutonium bomb known as Fat Man, was dropped on Nagasaki. The devastation and threat of more such attacks forced the Japanese military into surrender.

After the development of these initial weapons, the United States kept researching new nuclear technologies. Just seven years after dropping bombs upon Japan, the United States developed fusion bombs which had the yield of about 50 times that of which was dropped on Japan or 10 megatons.

During this time the United States also invested heavily in the research of delivery systems. By the 1960's the United States could deliver nuclear weapons via planes, intercontinental ballistic missiles and submarine launched ballistic missiles. These delivery systems could be used to deliver the 32,000 nuclear weapons that the United States had stockpiled at the time. The United States now has approximately 6,000 active warheads and the means to deliver them to nearly anywhere in the world.

For about 30 years the United States has been attempting to develop an active defense against incoming nuclear missiles. None of these systems have actually worked with a high percentage destruction rate. No systems have been a viable option through the years of Reagan when he first sanctioned the idea of Star Wars defense.

The United States remains a prominent nuclear power today, but looks to enforce nuclear nonproliferation throughout the world.

Appendix D

Additional Game Documents

Additional game documents that are integral to the game follow of the proceeding pages. Creating nuclear fuel and types of nuclear fuels should be given only to science advisors.

Appendix D Index:

Common Means of Creating Nuclear Fuel

Centrifuge

The most common way of creating enriched uranium is through the use of a centrifuge. The first centrifuges used a uranium gas which was loaded into a cylinder and then spun in a circle at very high speeds. This creates a centrifugal force that allows for the separation of the most important uranium isotopes: U238 and U235. The heavier U238 will be spun to the outside of the cylinder because they are heavier and are affected more readily by the centrifugal force. Since the U235 is a lighter isotope it is kept nearer the inside of the centrifuge and is thusly, separated from the U238. The U235 can then be taken from the cylinder at a slightly higher concentration.

This process was improved upon by the Urenco Company which has research facilities in the Netherlands and Europe. They thought of adding heat to the bottom of these cylinders in order to create an even greater separation of U235. The heat made the lighter gas more prevalent on the top of the cylinders and the heavier gas more prevalent on the bottom of the cylinders. Now, when the centrifuge is done spinning the U235 is more concentrated in the upper, centermost (in terms of the centrifuge not the cylinder itself) quadrant of the container.

Urenco was dismayed to find out that this design had be stolen by a Pakistani know as A. Q. Khan. This design was used in Pakistan to create their nuclear weapons and then Khan began a network to sell this very same design to other countries such as Iran, North Korea and Libya.

Power Reactor

Using a nuclear power reactor can be the simplest way of a country obtaining weapons grade nuclear fuel. Although this is the simplest way to obtain weapons grade fuel it is by far the most public because the IAEA and other nations can easily keep track of fuel rods which are in nuclear power reactors.

Nations can use natural uranium which is prevalent in South Africa and North Korea in heavy water reactors or low enriched uranium in light water reactors. When these reactors begin generating power, neutrons are collided with the nuclear fuel. Natural uranium and low enriched uranium are high in U238 concentration. When U238 is collided with a neutron plutonium is created.

Plutonium can be used in the building of nuclear weapons and can easily become weapons grade simply by leaving the fuel rods in the reactor long enough so that nearly all of the fuel has been converted into plutonium. When it is nearly fully enriched only 5 kilograms is needed to make nuclear weapons where as highly enriched uranium requires nearly ten times that amount.

If one wishes to know more about creating nuclear fuel, a book (Uranium Enrichment and Nuclear Weapon Proliferation by Allan S. Krass, Peter Boskma, Boelie Elzen and Wim A. Smit) can be downloaded at this location:
http://www.sipri.org/contents/publications/Krass83.html

Types of Nuclear Fuel

Highly Enriched Uranium

Highly enriched uranium consists of over 20% on U235 of U233. This is not strictly weapons grade however. Weapons grade uranium consists of at least 90% U235 or U233. With such a high concentration less critical mass is needed and a larger explosion will be yielded.

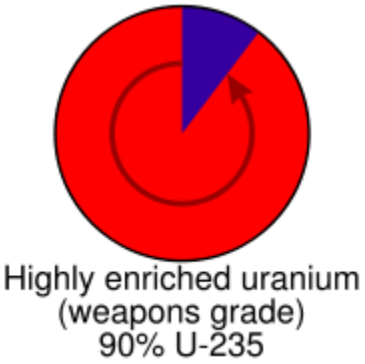


Figure 1: Courtesy of Wikimedia Commons

Weapons can still be made with any uranium which has been enriched to 20% and over, but not necessarily 90%. His is called weapons usable uranium and requires a significantly higher critical mass than weapons grade fuel. Weapons made with weapons usable fuel are often much more crude and are far less reliable because if too much U238 is present the reaction may not take place. They are not ideal for countries to make weapons out of because they require so much uranium.

Low Enriched Uranium

Low Enriched Uranium is uranium which has been enriched to between 2 and 20% of U235 or U233. This is used strictly for power generation in light water reactors which comprise most of the power reactors in the world. When nations are attempting to develop nuclear weapons

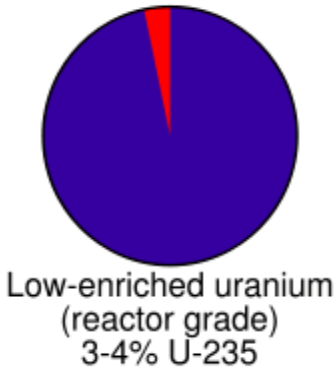


Figure 2: Courtesy of Wikimedia Commons

they often enrich under the guise of making low enriched uranium for power. However, it is quite simple to assemble the cascades of centrifuges from producing low enriched uranium and high enriched uranium. The most difficult part of enriching uranium is enriching it to 5% U235 or U233 and once a nation has this process they can begin enriching to much higher concentrations. With this being the case it is impossible to know whether a country is developing uranium for power generation or for weapons.

Slightly Enriched Uranium

This is a relatively new term and has very little bearing on nuclear developing countries. This type of uranium cannot be used in weapons and is only used in heavy water plants. This type of fuel is usually developed by countries who have already mastered the enrichment cycle and are using heavy water reactors. It is from about 1% to 2% U235 or U233 and is used so less uranium actually has to be used in reactors. Thusly, less waste is created.

Plutonium

Plutonium is another nuclear fuel and is created in nuclear power reactors. To create Plutonium U238 needs to be bombarded by neutrons in a reactor. When this happens plutonium is created and while the reaction is still underway the plutonium also becomes fuel to the reactor. Plutonium can then be retrieved from a reactor and used for nuclear weapons programs. This also makes it difficult to identify a country that is only concerned about nuclear power or if they are attempting to attain nuclear weapons.

IAEA Letter

Dear Diplomat,

The IAEA will be holding a special conference to review the current powers of the IAEA and suggest new powers which will control the proliferation of nuclear weapons across the globe.

The main example of the lack of power the IAEA currently maintains emanated from A. Q. Khan from Pakistan. One scientist who had been working on nuclear enrichment and weapons technology actually had the ability to disseminate the nuclear technologies he had been working on to at least 3 countries. North Korea and Iran, the main concerns to the world today from a nuclear standpoint, both received enrichment technology from A. Q. Khan. Without this help, it is theorized that neither Iran nor North Korea would have the technological aptitude to create nuclear weapons for decades to come. Since they received aid from A. Q. Khan, their nuclear weapons programs have thrived and now North Korea surely has weapons and Iran is beginning to enrich to weapons grade uranium.

These factors have contributed to a volatile nuclear climate and these situations will only get worse with time. The IAEA has an obligation to stop these events from happening ever again. This is why we request your presence at our special conference of the IAEA to discuss additional powers that the IAEA needs to receive in order to stop proliferation. When the special conference agrees on a set of powers, then the proposal will be given to the Director General of the IAEA and he will present the ideas before the General Conference. We hope that you send a delegation to our conference because proliferation threatens countries across the world and the world itself.

Regards,
The IAEA

Objective Statement from the Director General

Nuclear proliferation is on the rise. Equipment, material and training were once largely inaccessible. Today, however, there is a sophisticated worldwide network that can deliver systems for producing material usable in weapons. The demand clearly exists: countries remain interested in the illicit acquisition of weapons of mass destruction.

If we sit idly by, this trend will continue. Countries that perceive themselves to be vulnerable can be expected to redress that vulnerability – and in some cases they will pursue clandestine weapons programs. The supply network will grow, making it easier to acquire nuclear weapon expertise and materials. Eventually, inevitably, terrorists will gain access to such materials and technology, if not actual weapons.

If the world does not change course, we risk self-destruction.

Common sense and recent experience make clear that the Nuclear Nonproliferation Treaty, which has served us well since 1970, must be tailored to fit the 21st-century realities. Without threatening national sovereignty, we can toughen the nonproliferation regime.

Recently, the founder of Pakistan's nuclear weapons program, Abdul Qadeer Khan has signed a detailed confession admitting that during the last 15 years he provided Iran, North Korea and Libya with designs and technology to produce the fuel for nuclear weapons. Dr. Khan's admission amounts to one of the most complex and successful efforts to evade international controls to stop nuclear proliferation.

Khan has opened our eyes as to just how easy it is to disseminate nuclear secrets to countries around the world. The IAEA needs to create new policy and broaden its power in order to combat this 21st-century proliferation. This new global community has become irreversibly interdependent, with the constant movement of people, ideas, goods ad resources. In such a world, we must take steps to combat proliferation with an infectious security culture that crosses borders.

The first step is to tighten controls over the export of nuclear material, a priority President Bush identified in a speech on nuclear nonproliferation. The current system relies on a gentlemen's agreement that is not only nonbinding, but also limited in membership: it does not include many countries with growing industrial capacity. And even some members fail to control the exports of companies unaffiliated with government enterprise.

We must universalize the export control system, remove these loopholes, and enact binding, treaty based controls – while preserving the rights of all states to peaceful nuclear technology. We should also criminalize the acts of people who seek to assist others in proliferation.

In parallel, inspectors must be empowered. Much effort was expended – and rightly so – in persuading Iran and Libya to give the IAEA much broader rights of inspection. But the agency should have the right to conduct such inspections in all countries. Verification of nonproliferation treaty obligations requires more stringent measures, but to date, fewer than 20 percent of the 191 United Nations members have approved a protocol allowing broader inspection rights. Again, as President Bush suggested, it should be in force for all countries.

In addition, no country should be allowed to withdraw from the treaty. The treaty now allows any member to do so with three months notice. Any nation invoking this escape clause is almost certainly a threat to international peace and security.

This provision of the treaty should be curtailed. At a minimum, a withdrawal should prompt an automatic review by the United Nations Security Council.

The international community must do a better job of controlling the risks of nuclear proliferation. Sensitive parts of the nuclear fuel cycle – the production of new fuel, the processing of weapon-usable material, the disposal of spent fuel and radioactive waste – would be less vulnerable to proliferation if brought under multinational control. Appropriate checks and balances could be used to preserve commercial competitiveness and assure a supply of nuclear material to legitimate would-be users.

Of course, a fundamental part of the nonproliferation bargain is the commitment of the five nuclear states recognized under the nonproliferation treaty – Britain, China, France, Russia and the United States – to move toward disarmament. Recent agreements between Russia and the United States are commendable, but they should be verifiable and irreversible. A clear road map for nuclear disarmament should be established – starting with the major reduction in the 30,000 nuclear warheads still in existence, and bringing into force the long-awaited Comprehensive nuclear Test Ban Treaty.

If the global community is serious about bringing nuclear proliferation to a halt, these measures should be considered at this special assembly. (ElBaradei, 2004)

The Pakistan Connection Plot

All excerpts are from real new articles that have been published from 2003 up to the present day.

December 2003:

...For the first time, a member of the nuclear treaty group, North Korea, has withdrawn from the accord, openly renouncing its pledge not to develop nuclear weapons. India, Pakistan and Israel, none of which signed the treaty, have also suffered few consequences as a result of their decision to acquire nuclear weapons. That could encourage other nations to pursue atomic bombs, experts said….

…Indeed, many criticized loopholes in the treaties, noting that Iran and North Korea used the antinuclear treaty – which was supposed to deter states from acquiring nuclear weapons – to secure that very atomic technology and expertise…

January 2004:

…Pakistan now appears to be one of the world's leading suppliers of illicit nuclear technology. In 2002, American satellites detected a Pakistani plane picking up missile components in North Korea, apparently as part of a barter deal for nuclear weapons technology. Last November, Iran told nuclear inspectors that its uranium enrichment programs had gotten crucial help from people in various nations who were probably linked to Pakistanis. And in recent weeks, Libya has indicated that its nuclear programs benefited from intermediaries in Dubai who may have been working with Pakistanis…

…It is not yet clear that General Musharraf is willing to do this. He has backed off from insisting that Pakistan was never involved in nuclear technology exports. He now claims that whatever problems existed came from rogue scientists, acting in pursuit of financial gain. The investigation he began under American pressure has so far centered on close associates of Abdul Qadeer Khan, the nuclear scientist who helped Pakistan illicitly obtain its own nuclear weapons secrets in the 1970's. Pakistani investigators must also probe whatever role senior military and political leaders may have played…

February 2004:

…The Pakistani government on Saturday removed Abdul Qadeer Khan, the founder of Pakistan's nuclear weapons program, from his post as a special adviser to the country's prime minister.

The step, and other measures, suggested that the government was laying the groundwork for exposing wrongdoing by Dr, Khan, a man revered as a national hero in Pakistan.

Dr. Khan, three scientists and three low-level army officers are the focus of an investigation into the possible sharing of Pakistani nuclear technology with Iran, Libya and other countries in the late 1980's and early 1990's. Gen. Pervez Musharraf, the Pakistani president, has said that "some individuals" appear to have sold nuclear technology for personal profit…

...Dr. Khan's supporters say he achieved as astounding feat, successfully enriching uranium and eluding an American effort to block the Pakistani nuclear program…

…The founder of Pakistan's nuclear weapons program, Abdul Qadeer Khan has signed a detailed confession admitting that during the last 15 years he provided Iran, North Korea and Libya with designs and technology to produce the fuel for nuclear weapons, according to a senior Pakistani official and three Pakistani journalists who attended a special government briefing…

…If the Pakistani government account is correct, Dr. Khan's admission amounts to one of the most complex and successful efforts to evade international controls to stop nuclear proliferation…

…The Khan laboratory has for years been the crown jewel of the Pakistani nuclear program, and it received the highest-level support after Dr, Khan stole the basic technology for uranium enrichment from European consortium, Urenco, in the late 1970's…

…Investigators have determined that the nuclear weapon blueprints found in Libya from the Pakistani scientist Abdul Qadeer Khan were of his own relatively crude type of bomb – not the more advanced models that Pakistan developed and successfully tested, American and European arms experts have said in interviews…

…Opposition parties, political and military experts and relatives of detained officials on Monday questioned Pakistan's assertion that the founder of the country's nuclear program had shared technology with Iran, Libya and North Korea for more than a decade without the knowledge of his superiors.

"This is a cock-and-bull story. If you want to believe it, believe it. The truth is nowhere near this story."…

…Strategically, it is unlikely that the Pakistani Army – let alone intelligence officials – would have directed Dr. Khan to sell nuclear secrets to North Korea, Libya and Iraq. Why? It is more important for Pakistan to keep good relations with China that with north Korea, and selling to North Korea certainly angered the Chinese. As for Libya and Iraq, Pakistani strategists knew that helping a middle Eastern state acquire nuclear weapons would bring the wrath of the Israelis…

March 2004:

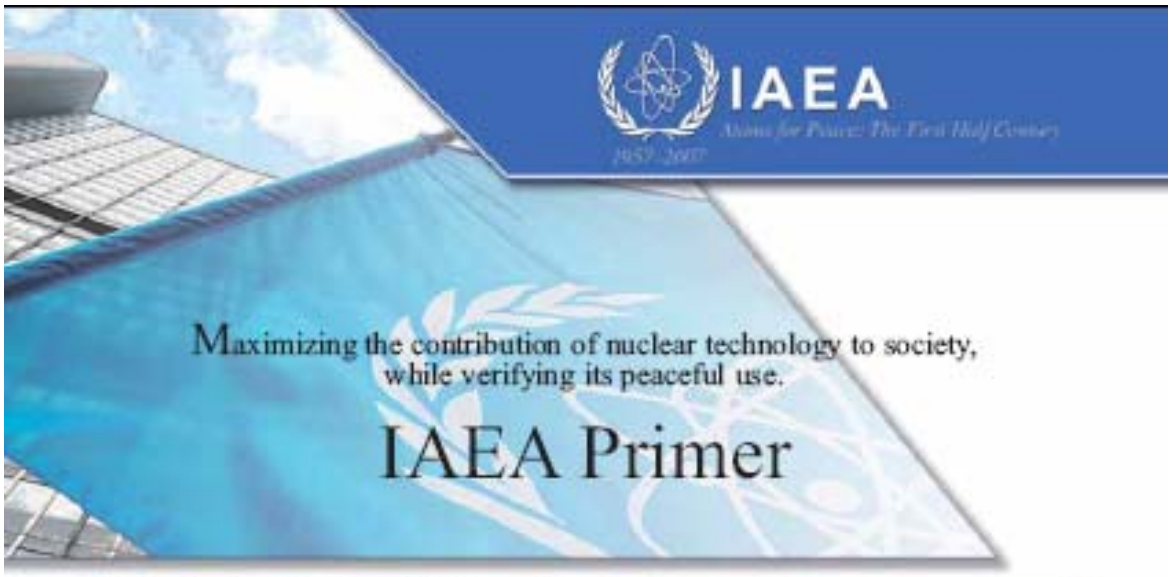
…The assessment, by the Central Intelligence Agency, confirms the Bush administration's fears about the accelerated nature of North Korea's secret uranium weapons program, which some intelligence officials believe could produce a weapon as early as sometime next year. The assessment is based in part on Pakistan's accounts of its interrogations of Abdul Qadeer Khan, the developer of Pakistan's bomb, who was pardoned by President Pervez Musharraf in January…

Pakistan Connection Time Table

The time table will take place from 0:00 to 4:00 to signify a four hour game.

- 0:00 Orientation
  - Discuss the fundamentals of playing the game
  - Importance of staying in character and following briefing papers
  - How secret talks can benefit the game and make it more interesting
  - Discuss how the game will be evaluated: if proposal is agreed upon and whether it gives more power to the IAEA or not
- 0:30 Game Starts
  - Players will become familiar with their nations delegates with intra delegation discussion on the issue
  - They will then be instructed to talk about making an initial remark to the general assembly
- 1:00 Initial Remarks From Delegations
  - Enough time must be allotted for each team to make a short 2 minute address and state where they stand on the issue
  - Remarks can then be summed up by the game master so that all nations remember the views of all other nations
- 1:30 Discussion of Remarks
  - 1:30-1:50 Teams will then be instructed to speak about the remarks and their differing views intra-delegation
  - 1:50-2:10 Teams can now discuss their remarks and views inter-delegation
  - 2:10–2:30 A break will occur where delegates can hold private/secret talks with other delegates
- 2:30 Split into caucuses
  - Ask which countries are supportive of more IAEA power and which are not
  - Allow the delegations to discuss this point
  - Split into caucuses based on each delegations final decision
- 3:00 Ask for a proposal from each caucus
  - 3:00-3:10 Ask for a proposal that each section believes that everyone can agree to
  - 3:10-3:20 Make proposals
  - 3:20-3:30 The caucuses can discuss proposals with each other and find out how they can tweak them to become acceptable
  - 3:30-3:45 Writing of final proposals begins
- 3:45 Make call for a final proposal
  - The proposals will be read and voted upon
  - Hopefully one of the proposals is passed

IAEA Primer Document:



The International Atomic Energy Agency (IAEA) is the world's foremost forum for scientific and technical cooperation in the peaceful use of nuclear technology. Established as an independent organization under the United Nations (UN) in 1957[1], the IAEA represents the realization of US President Eisenhower's visionary "Atoms for Peace" speech to the UN General Assembly in 1953. He proposed the creation of an international body to both control and promote the use of atomic energy. Today, the IAEA's broad spectrum of services and activities is based on the needs of more than 140 Member States.

In October 2005, the IAEA and its Director General, Mohamed ElBaradei received the Nobel Peace Prize "for their efforts to prevent nuclear energy from being used for military purposes and to ensure that nuclear energy for peaceful purposes is used in the safest possible way".

The Nuclear Proliferation Threat

IAEA safeguards are designed to ensure that countries using nuclear technologies are not secretly developing nuclear weapons. Hundreds of nuclear facilities are safeguarded by the IAEA in over 70 countries. The Treaty on the Non-Proliferation of Nuclear Weapons (NPT) requires that all non-nuclear-weapon States conclude comprehensive IAEA safeguards agreements and submit all nuclear material to IAEA monitoring. Governments sign agreements with the IAEA pledging to disclose their nuclear materials and activities. The IAEA then applies analytical methods, environmental monitoring, satellite imagery and on-site inspections to verify that the declarations continue to be accurate and complete. There are safeguards agreements in force with more than 150 States.

IAEA verification is further strengthened through an 'Additional Protocol' to a country's safeguards agreement. Under such a Protocol, States are required to provide the IAEA with broader information on all aspects of its nuclear fuel cycle related activities. They must also grant the Agency wider access rights and enable it to use the most advanced verification technologies.

In the verification process, the IAEA collects and analyses information about nuclear material that can be categorized as "significant quantities" (SQs) of nuclear material. SQ means the amount of a particular material (e.g. plutonium or high enriched uranium) needed to make a nuclear explosive device. At the end of 2005, on the basis of States' nuclear material reports, there were more than 140 000 SQs of nuclear material under IAEA safeguards.

Statute of the IAEA

"The Agency shall seek to accelerate and enlarge the contribution of atomic energy to peace, health and prosperity throughout the world.

It shall ensure, so far as it is able, that assistance provided by it or at its request or under its supervision or control is not used in such a way as to further any military purpose."

[1] *The IAEA's relationship with the UN is regulated by special agreement. In terms of its Statute, the IAEA reports annually to the UN General Assembly and, when appropriate, to the Security Council regarding non-compliance by States with their safeguards obligations as well as on matters relating to international peace and security.*

Nuclear Technology for Development

The Agency also works to foster the role of nuclear science and technology in sustainable development. This involves both advancing and employing knowledge to tackle pressing worldwide challenges — hunger, disease, natural resources management, environmental pollution, energy production and climate change. Part of the Agency's work relates to nuclear power, including its safety and waste management, and ensuring that nuclear technology is being used only for peaceful purposes.

The IAEA facilitates transfer of nuclear technology to Member States for use in medical, agricultural, industrial, water management and other applications. This contributes directly to the goals of sustainable development and protection of the environment. The Agency also has two scientific laboratories where training and research are carried out in support of technical cooperation activities. Many of these activities are conducted in cooperation with the UN Food and Agriculture Organization (FAO).

The IAEA cooperates in a joint division with the FAO, promoting applications of isotopes and radiation in food and agriculture. This includes plant breeding and genetics, insect pest control, soil fertility research, irrigation and crop production, animal husbandry and food preservation.

Nuclear Safety and Security

The future role of nuclear energy depends on a consistent, demonstrated record of safety in all applications. IAEA's Nuclear Safety programme concentrates on providing standards for the safety of nuclear installations and radioactive sources, safe transport of radioactive materials and management of radioactive waste. Although the IAEA is not an international regulatory body, its nuclear safety efforts are directed towards creating agreed multilateral norms. These are increasingly important mechanisms for improving nuclear safety, radiation safety and waste safety around the world. IAEA safety recommendations are used by many countries as a basis for domestic standards and regulations. Codes of practice and safety guidelines have been developed for the siting, design and operation of nuclear power plants. To strengthen worldwide operational safety further, the Agency performs safety evaluations on request, including on-site review of nuclear power plants by international expert teams.

Nuclear terrorism is a threat throughout the world, and the IAEA is helping Member States be better prepared to prevent terrorist incidents. Among the key priorities of the IAEA Nuclear Security Fund: to increase nuclear security through adequate physical protection and proper regulatory controls; effective interdiction of illicit trafficking in nuclear and radioactive material; integration of nuclear safety and security systems; and readiness for implementing emergency response plans.

Organization and Financial Resources

The policy-making organs of the IAEA are the Board of Governors and the General Conference. The General Conference is composed of representatives of all IAEA Member States. The Board of Governors has 35 members, of which 13 are designated by the Board and 22 are elected by the General Conference. The Secretariat, which is headed by the Director General, is charged with the responsibility of implementing the IAEA's programme after it has been approved by the Board and the General Conference.

IAEA financial resources fall into two categories: the regular budget and voluntary contributions. The total regular budget for 2006 amounted to €274 million, based on contributions from Member States. The target for voluntary contributions to the Technical Cooperation Fund for 2006 was €78 million, also based on pledges by Member States.

Board of Governors

The Board of Governors generally meets five times per year. It examines and makes recommendations to the General Conference on the IAEA's accounts, programme and budget and considers applications for membership. It also approves safeguards agreements and the publication of the IAEA's safety standards, and has responsibility for appointing the Director General with the approval of the General Conference. In case of a country's non-compliance with its safeguards commitments, the Board decides upon further steps, ranging from a call for clarification to a possible referral to the United Nations Security Council.

General Conference

The General Conference, consisting of all Member States, meets once a year to consider, among other things, the Board of Governors report for the previous year, to approve the accounts and programme and budget, and to approve any applications for membership. It has the authority to request from the Board reports on any questions relating to the functions of the Agency. During its regular annual session, the Conference conducts a general debate on the IAEA's policies and programme and examines a variety of matters brought to its attention by the Board, the Director General and individual Member States.

Secretariat

With about 2300 professional and support staff, the IAEA Secretariat carries out programmes and activities approved by the Agency's policy-making organs. The Secretariat is headed by the Director General, who is the chief administrative officer and is appointed for a term of four years. He is assisted by Deputy Directors General, heading six departments:

Technical Cooperation
Technology transfer and sustainable development

Nuclear Energy
Nuclear power, fuel cycle and waste management

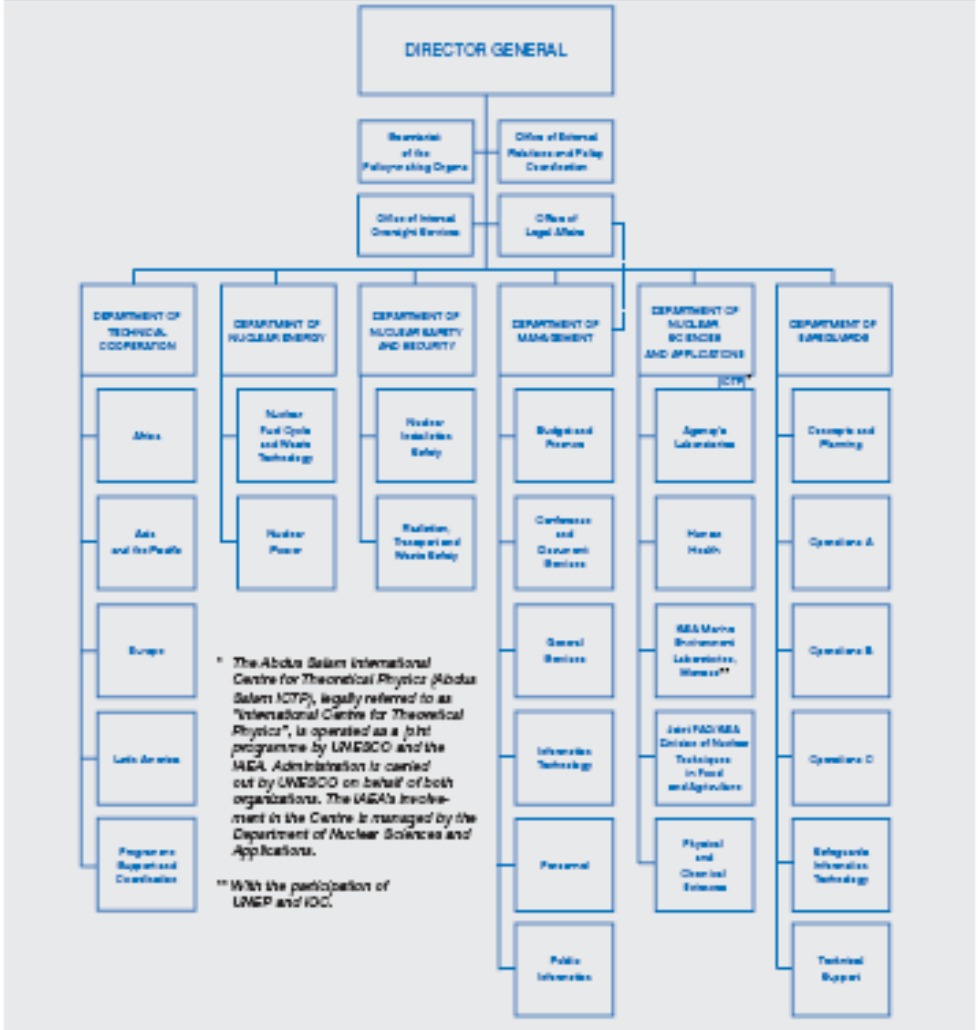
Nuclear Safety and Security
Nuclear, radiation and waste safety, and nuclear security

Nuclear Sciences and Applications
Uses of nuclear technology in health, agriculture, industry and other fields

Safeguards
Verification of peaceful uses of nuclear energy

Management
Policy, legal advice and administrative support

Organizational Chart



Member States of the International Atomic Energy Agency

(designations as of September 2006)

AFGHANISTAN
ALBANIA
ALGERIA
ANGOLA
ARGENTINA
ARMENIA
AUSTRALIA
AUSTRIA
AZERBAIJAN
BANGLADESH
BELARUS
BELGIUM
BELIZE
BENIN
BOLIVIA
BOSNIA AND HERZEGOVINA
BOTSWANA
BRAZIL
BULGARIA
BURKINA FASO
CAMEROON
CANADA
CENTRAL AFRICAN REPUBLIC
CHAD
CHILE
CHINA
COLOMBIA
COSTA RICA
CÔTE D'IVOIRE
CROATIA
CUBA
CYPRUS
CZECH REPUBLIC
DEMOCRATIC REPUBLIC OF THE CONGO
DENMARK
DOMINICAN REPUBLIC
ECUADOR
EGYPT
EL SALVADOR
ERITREA
ESTONIA
ETHIOPIA
FINLAND
FRANCE
GABON
GEORGIA
GERMANY
GHANA
GREECE
GUATEMALA
HAITI
HOLY SEE
HONDURAS
HUNGARY
ICELAND
INDIA
INDONESIA
IRAN, ISLAMIC REPUBLIC OF
IRAQ
IRELAND
ISRAEL
ITALY
JAMAICA
JAPAN
JORDAN
KAZAKHSTAN
KENYA
KOREA, REPUBLIC OF
KUWAIT
KYRGYZSTAN
LATVIA
LEBANON
LIBERIA
LIBYAN ARAB JAMAHIRIYA
LIECHTENSTEIN
LITHUANIA
LUXEMBOURG
MADAGASCAR
MALAWI
MALAYSIA
MALI
MALTA
MARSHALL ISLANDS
MAURITANIA
MAURITIUS
MEXICO
MONACO
MONGOLIA
MONTENEGRO
MOROCCO
MOZAMBIQUE
MYANMAR
NAMIBIA
NETHERLANDS
NEW ZEALAND
NICARAGUA
NIGER
NIGERIA
NORWAY
PAKISTAN
PANAMA
PARAGUAY
PERU
PHILIPPINES
POLAND
PORTUGAL
QATAR
REPUBLIC OF MOLDOVA
ROMANIA
RUSSIAN FEDERATION
SAUDI ARABIA
SENEGAL
SERBIA
SEYCHELLES
SIERRA LEONE
SINGAPORE
SLOVAKIA
SLOVENIA
SOUTH AFRICA
SPAIN
SRI LANKA
SUDAN
SWEDEN
SWITZERLAND
SYRIAN ARAB REPUBLIC
TAJIKISTAN
THAILAND
THE FORMER YUGOSLAV REPUBLIC OF MACEDONIA
TUNISIA
TURKEY
UGANDA
UKRAINE
UNITED ARAB EMIRATES
UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND
UNITED REPUBLIC OF TANZANIA
UNITED STATES OF AMERICA
URUGUAY
UZBEKISTAN
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For more information, please see: www.iaea.org

Synopsis of Shopping for Bombs by Bernard Corera

This brief synopsis will only deal with the rise of A.Q. Khan and his nuclear network and not with the fall of the network as that is not as pertinent to the game.

A. Q. Khan started his technical career in the 1960's as a student in Europe. Here, even before he developed a nuclear network, he made many friends and contacts in Europe and received the support of many academic sponsors. He finished his doctorate in 1971 and from there had a bright future in nuclear research.

He was hired by a Dutch firm known as URENCO, which had expanded into Germany, that worked on creating all grades of nuclear fuel. Here is where Khan received most of his information about nuclear weapons and nuclear enrichment. Officially he only worked on specific portions of the enrichment process (to limit his knowledge of the entire process) but URENCO actually did not restrict him from wandering to other portions of their facility. At this time, Khan would walk to parts of the facility that housed blueprints for centrifuges and other items that are used to create enriched fuel. He always carried his notebook round with him so that when he came across important blueprints he could (and would) transcribe them into his notebook.

This lax security allowed Khan to gather the blueprints and scientific information or nearly anything that he wanted in the nuclear enrichment field. It was not until fellow employees became suspicious of his constantly transcribing these blueprints that he was restricted and his spying became more difficult. This was not spying in the conventional

sense because he was not gathering information for a foreign government, but seemingly for himself personally.

After Khan gathered as much information as he could from URENCO he went back to Pakistan and in due time he developed A.Q. Khan Research Laboratories which worked for the government of Pakistan. Here Khan was the head scientist controlling the efforts of hundreds of other scientists and technologies and could produce what he had sketched in his notebook. Now Khan had government funding to create a nuclear bomb since he knew how to create enriched fuel.

It was not long until all of the spying at URENCO and his laboratory paid off, as Khan successfully created a nuclear bomb for Pakistan. One might not see a problem with one country developing a bomb when using their own research, but Pakistan jumpstarted its program through access to the plans of other nuclear nations.

This was only the start of Khan's involvement in nuclear proliferation. He then went on to give his nuclear technology designs to nations such as Libya, Iran and North Korea. With the trouble that the world is facing with North Korea and Iran, it is upsetting that these nuclear weapons crises have come from the activities of one man with the power to spread this technology.

Using the network of people that Khan had met in Germany and Pakistan while making the Pakistani bomb, he used his business associates to set up deals and get money for nuclear technology from Iran. Exactly what happened in Khan's dealings with Iran is not clear. It seems that he setup deals to give the Iranians the blueprints to make a bomb, but soon after the Iranians wanted an actual working centrifuge. It seems that Khan may have given the Iranians most of the parts of the centrifuge, but never the entire device.

Khan made much money on these dealings and helped Iran move towards nuclear armament. Many believe that Khan made this deal with absolutely no involvement by his government. Even if there were some government figures helping and protecting or even, encouraging him, the government was not officially aware of this dealing, and probably would not have endorsed sharing state secrets.

The next stop for A. Q. Khan was in North Korea where (again) for an exchange of money Khan would give them the blueprints that he had stolen from URENCO. North Korea was different from Iran though because it seems that Khan may have had at least permission and maybe encouragement from his government with this deal. Khan was given the use of a large plane which ferried between North Korea and Pakistan with large crates of which the contents are unknown. It seems that Khan may have given North Korea entire centrifuges and perhaps detailed how to set them up. North Korea also may have received nuclear detonation blue prints from Khan because they were attempting to make weapons through both plutonium and uranium enrichment and one of these programs had to succeed. In return Pakistan seems to have gotten a delivery system (missile components).

The boldest act that Khan was a part of was his dealing with Libya. Libya knew that they did not have the scientific resources to setup their own nuclear program and even given the blueprints probably could not build the devices that were detailed in the design drawings. They enlisted Khan to use his old laboratory and old centrifuges to provide them a weapons program. Khan then gave them an entire weapons program by giving them old centrifuges and setting them up into arrays so that the Libyans did not have to do any scientific research on their own. There is no doubt that this is the reasons

why Libya acquired the bomb both before Iran and North Korea, yet they decided not to develop it and instead, used it to get back in the good graces of Britain and the USA by turning it all over to the IAEA.

This dealing of foreign nations with simply one man and his illicit supply networks raises new concerns for nuclear proliferation. Nuclear proliferation safeguards were in place to try to stop nations from trading nuclear secreted and material with other nations. No one thought that a single man and his network of businessmen could deal nuclear secrets to nations across the globe. Hopefully an organization such as the IAEA can be granted new powers in order to stop proliferation of this kind from happening again.

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Appendix F

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