

An Exercise in Examining the Dynamic of Missile Defenses and Arms Control in a Proliferated World

Report by the NUCLEAR STABILITY WORKING GROUP

Ballistic Missile Defense Technical Studies Series Study 5



NUCLEAR GAMES II

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Preface

This study is part of a series of technical reports commissioned by The Heritage Foundation to examine programmatic issues related to ballistic missile defense. Since the George W. Bush Administration withdrew the United States from the 1972 Anti-Ballistic Missile (ABM) Treaty with the former Soviet Union in June 2002, the focus has turned to the best way to build and operate a missile defense system that lessens the vulnerability of the United States and its friends and allies to attack. First and foremost, this extends to lessening the likelihood of a nuclear-armed attack.

An effective ballistic missile defense will necessarily account for the ongoing proliferation of nuclear weapons and ballistic missile delivery systems. This study, which follows a 2005 study using an earlier version of the game tool used here, tests the hypothesis that ballistic missile defenses will impede attempts at offensive arms reductions in a setting in which seven "players" possess ballistic missile armed with nuclear warheads. It suggests not only that defenses will not undermine arms control in this setting, but also that they can make a positive contribution to the arms control process.

Beyond the questions of arms control and arms racing, the underlying game design will also allow policymakers to familiarize themselves with the difficult national security problems that they are likely to confront as a result of proliferation. The Heritage Foundation looks forward to using this version of the game tool in additional exercises designed to explore further the implications of proliferation for arms control.

The use of the game tool in the production of this study, as with the earlier one in 2005, effectively makes the players of the game also the authors. In addition, many others, some from within The Heritage Foundation and others from outside, contributed to this study in other ways. Given the

team required, Heritage formed the Nuclear Stability Working Group to undertake the various tasks involved, again going back to the 2005 study.

The Heritage Foundation thanks the officers, analysts, and research assistants who spent countless hours of their time in service to the Working Group as players from July 2009 through May 2010. These individuals include (in addition to the undersigned) Ariel Cohen, Nick Connor, Lisa Curtis, Helle Dale, Mackenzie Eaglen, Owen Graham, Steven Groves, Nick Hamisevicz, Sally McNamara, Jena McNeil, Diem Nguyen, Jim Phillips, Morgan Roach, Brett Schaefer, and Jack Spencer. The Foundation also thanks the Deputy Game Managers Erin Sedlacek and Emily Rector for lending their extraordinary organizational skills to the production of this study.

Three outside consultants helped to design the underlying game: Dr. David C. McGarvey, Dr. James Scouras, and Dr. Russell Richardson Vane. An additional consultant, Mary Whaley, worked to modify the underlying design to create this version for exploring arms control issues.

The Foundation also gratefully acknowledges the contributions made by its editorial and Creative Services staff to the production of this study: Richard Odermatt and William T. Poole reviewed the entire manuscript with, as always, great care and attention to detail; and Ralph Buglass, who designed the game map and laid out this volume.

Finally, The Foundation thanks Michele Palmer and her staff in the Information Services Department for providing extensive technical support in the conduct of the exercises.

—James Jay Carafano, Ph.D., Deputy Director, The Kathryn and Shelby Cullom Davis Institute for International Studies, and Director, Douglas and Sarah Allison Center for Foreign Policy Studies, The Heritage Foundation.

The Game Design

The report on the original Nuclear Games exercise, which described the crisis stability attributes of a setting that assumed the proliferation of nuclear weapons, stated that the same general game design could be used to describe the arms race and arms control dynamic in the same setting. This is what this second version of the Nuclear Games exercise examined. As with the first version of the exercise, this version was focused specifically on the impact of fielding strategic defenses. Specifically, it was used to test the hypothesis that the inclusion of strategic defenses would not undermine attempts to reduce offensive nuclear shots relative to options where defenses were eschewed as a matter of policy.

This section provides a conceptual description of the experiment that the Game Manager ran using a new game design, which remains a seven-player, non-zero sum game. The game design was not chosen on the basis that it would support a particular game theory that would generate a quantifiable outcome, such as a Nash equilibrium. It assumes player rationality but allows different goals for each of the seven players. The game is reasonably complex (with up to 10 allowable actions). The setting is analogous to a situation in which all seven states are or have become de jure or de facto nuclear weapons states. They are provided options of acquiring additional weapons capabilities based on resources (called tokens) that are allocated to each player. The players are also provided options for reducing and eliminating weapons unilaterally and through arms control arrangements. The exercise, therefore, allows a political scientist or student of national security to evaluate the arms race and arms control issues that arise in a proliferated setting.

As an insight into the players' values, the design is the second stage of a two-stage strategic game. The first stage is simply to decide whether to play the game by arming with nuclear arms, and perhaps defenses, and participating in diplomatic exchanges. Once a player opts to participate in any of the three aspects of the game (by arming himself with nuclear weapons, arming himself with defensive weapons, and engaging in diplomacy, including diplomacy related to arms control), he is in the game. The game assumes at the outset that the players believe that playing the game is better than not playing the game. Therefore, this is a core assumption.

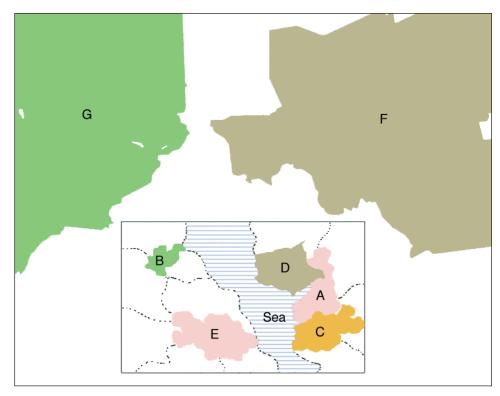
The Players. The players correspond to nation-states in a regionally focused geographic setting. (See map.) The game design uses abstract descriptions of these players (states) to allow the individuals playing the game a wider range of options than a strict adherence to the detailed characteristics of the real states would allow. Nevertheless, the region corresponds roughly to the regional setting of the Middle East, and the players correspond roughly to states within this region and two major nuclear powers located outside the region. The individuals who were used to assume the roles of the players were foreign and defense policy analysts from The Heritage Foundation.

The descriptions that follow serve to establish the fundamental assumptions on which the game is based. More specifically, they describe the overarching security goals of each player in this setting in the order of importance and ambition (which may be concomitant).

• **Player A** is a lesser power. In the context of the game, he starts with an offensive capacity equivalent to a 15-shot automatic weapon.

^{1.} Nuclear Stability Working Group, Nuclear Games: An Exercise Examining Stability and Defenses in a Proliferated World (Washington, D.C.: The Heritage Foundation, 2005), pp. 9, 55.

He is a radical Muslim who seeks to export revolution. He also possesses significant energy resources. Not favoring the status quo, Player A is prepared to undertake aggression against several of his neighbors and Player G. He has openly expressed his desire to destroy Player B, which is based on religious, ideological, ethnic, and political differences. He is suspicious of Players C and D because of their relatively secular positions as Muslims. Player A is generally hostile toward Player E, a conservative Muslim, for



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ideological and sectarian reasons and because of differences over energy policy. Player A wishes to confront Player G as a great power because he views Player G as an obstacle to the realization of his vision of establishing himself as the leader in the Islamic world. Player A has messianic characteristics, which gives him a very high tolerance for risk. Player A's security goals are (1) assumption of a leadership position in the Islamic world; (2) greater control of the energy market; (3) removal of Player G's influence in the region; (4) destruction of Player B; and 5) realization of a vision that foresees him as the controlling leader of a fundamentalist Islamic coalition as a great power. He is allocated two tokens per round for the purchase of weapons. He is an abstract equivalent of Iran.

Player B is also a lesser power. He is a Jew who
has been attacked several times by Muslim
neighbors. He is stuck in an isolated position
because those Muslims who seek to persecute
Jews dominate the region. This weakness is offset by his possession at the outset of an offen-

sive capacity equivalent to a 30-shot automatic weapon. As noted earlier, Player A seeks his destruction. Further, Players C and E do not even recognize that he exists. Also offsetting his weakness is the fact that Player B is a close ally of a major power from outside the region, Player G. He also has a relatively friendly relationship with Player D despite the fact that Player D is also a Muslim. Player B is a status quo power. While his general preference is to pursue policies that are consistent with a natural aversion to risk, his tenuous position requires that he take calculated risks in his own defense from time to time. Player B's security goals are (1) ensuring his physical survival; (2) maintaining his alliance with Player G; and (3) gaining the full recognition of his regional neighbors and establishing a reliable agreement for peace in the region based on that recognition. Player B is allocated two tokens per round for the purchase of weapons. He is an abstract equivalent of Israel.

Player C is the third lesser power. He also possesses an offensive capacity equivalent to a

- 30-shot automatic weapon. As a proponent of secular Islam, as well as for sectarian reasons, Player C does not share Player A's vision for a radical Islamic world. On the other hand, he is generally friendly to Player E despite that player's conservative interpretation of the Islamic faith, and evidence exists that he provided technical assistance to Player E in obtaining offensive arms. He has also received financial assistance from Player E in the development of his own offensive arms. Player C is also an ally of Player G, but his willingness and ability to work consistently with Player G have been questioned. He is in favor of the status quo and has a relatively low tolerance for risk. His security concerns outside the region lead him to favor stability within the region. Player C's security goals are (1) overall regional stability; (2) opposition to the rise of Player A as an Islamic power; (3) energy security, including broader economic support from Player E; and (4) continuation of his alliance with Player G and Player G's continued involvement in the region. He is allocated two tokens per round for the purchase of weapons. He is an abstract equivalent of Pakistan.
- Player D is the fourth lesser power. He possesses at the outset an offensive capacity equivalent to a 15-shot automatic weapon. Like Player C, he supports a more secular view of Islam and links his security as much to matters outside the region as to matters within the region. He, too, is an ally of Player G and is not in favor of Player A's rise as an Islamic power. He has a friendly relationship with Player B, but it is doubtful he would come to the defense of Player B if Player B were attacked. He is in favor of the status quo and has a low tolerance for risk. Player D's security goals are (1) regional stability; (2) opposition to the rise of Player A as an Islamic power; (3) energy security; and (4) Player G's continued involvement in the region. Player D is allocated four tokens per round for the purchase of weapons. He is an abstract equivalent of Turkey.

- Player E is the final lesser power. He is a conservative Muslim but from a different sect than Player A. He possesses large energy resources but is otherwise relatively weak and vulnerable. At the beginning, he possesses an offensive capacity equivalent to a 15-shot automatic weapon. Traditionally, he has had a close relationship with Player G because both players have a vital interest in securing the energy resources possessed by Player E. Player E's fundamentalism and unfriendly attitude toward Player B, however, have cooled this relationship. Player E's security goals are (1) securing the energy resources in his possession; (2) regional stability; and (3) the assumption of leadership in the Islamic community in opposition to Player A. He is allocated five tokens per round for the purchase of weapons. Player E is an abstract equivalent of Saudi Arabia.
- Player F is one of two major powers and currently possesses an offensive capacity equivalent to a 200-shot chain gun. Player F's gun, however, is not well maintained and has a propensity to malfunction. This limits the probability of a high payoff if he uses his weapon. While concerned about Player A's Islamic radicalism and hostility toward Player B, Player F generally cooperates with Player A. This cooperation includes sales of a nuclear reactor and arms to Player A. Player F does not believe that it is necessary to isolate Player A to maintain a balance of power in the region. While seeking to avoid any direct confrontation with Player G, he would like to see Player G's influence in the region diminished. Player F's security goals are (1) deflection of the forces of Islamic radicalism that might otherwise be directed at him; (2) direct involvement in the establishment of energy policy in the region with a general preference for keeping energy prices high, even at the price of increased political instability; (3) expansion of arms sales; and 4) diminishing the role of Player G in the region. Player F is allocated 10 tokens per round for the purchase of weapons. He is an abstract equivalent of Russia.

Player G is the final player. He is also the second of two major powers in the game, with an offensive capability equivalent to a 200-shot chain gun at the start of the exercise. Unlike Player F, however, his weapon is well maintained. Player G also possesses access to a defensive capability in the form of a bulletproof vest. This is a capability he will have the option to furnish to other players as well as himself. As indicated earlier, he is allied with Players B, C, and D and has extended cooperation to Player E in the past. These relationships subject him to threats from Player A. As a major power from outside the region, Player G prefers the status quo and has a low tolerance for risk. These attitudes are bolstered by his vital interest in securing access to energy resources within the region. He is unlikely to resort to the use of force unless provoked. On the other hand, he will seek ways to come to the defense of his allies, including Player B, unless the risks of losing are quite high or the benefits of victory are exceedingly low. Player G's security goals are (1) deterring or defending against any attack on his homeland;

2) deterring attacks by Player A against any of his allies, with special consideration for the isolated position of Player B; (3) defense of his allies should deterrence fail, again with special consideration for the isolated position of Player B; (4) securing access to energy resources in the region and moving to prevent a war that disrupts oil flows; (5) offensive (nuclear) disarmament by the players in the region as an extension of his nonproliferation policy; and (6) continuance of his strong presence in the region. Player G is allocated 50 tokens per round for the purchase of weapons. He is the abstract equivalent of the United States.

The initial military capabilities and vulnerabilities of each player are depicted in Figure 1.

Player Attitudes. The game is played on two levels. The first level is diplomatic. Here, each player assesses the relationship he would like to have with each of the other players. They are categorized as (1) hostile, (2) unfriendly, (3) neutral, (4) friendly, and (5) allied. In four of the five cases,

Offense shots 15	Defense shots	Defense hit probability	Shots to Wound	Shots to	Holstered?	Shrouded?
15			II Out N	Kill		
	0	0.8	3	10	V	Е
40	0	0.8	1	5	V	Г
30	0	0.8	5	20	V	Г
15	0	0.8	5	20	₹	Г
15	0	0.8	3	10	✓	Г
200	0	0.8	10	50	∀	Е
200	0	0.8	10	50	✓	Г
	30 15 15 200	30 0 15 0 15 0 200 0	30 0 0.8 15 0 0.8 15 0 0.8 200 0 0.8	30 0 0.8 5 15 0 0.8 5 15 0 0.8 3 200 0 0.8 10	30 0 0.8 5 20 15 0 0.8 5 20 15 0 0.8 3 10 200 0 0.8 10 50	30 0 0.8 5 20 ✓ 15 0 0.8 5 20 ✓ 15 0 0.8 3 10 ✓ 200 0 0.8 10 50 ✓

Figure 1

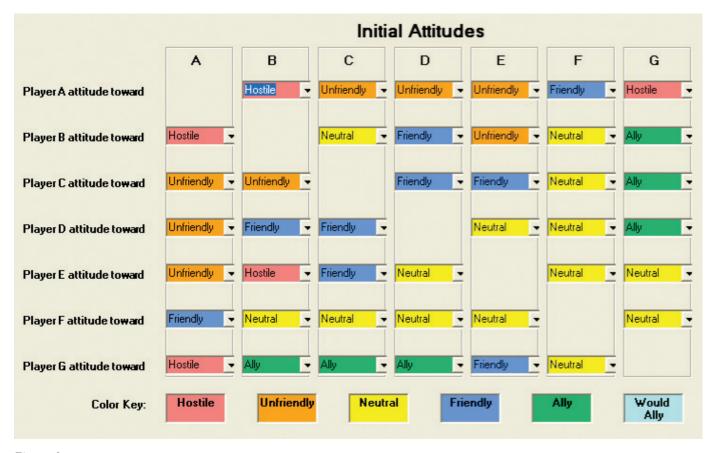


Figure 2

it is not necessary that the player who is the object of the selected attitude reciprocate. The exception is an alliance relationship. An alliance relationship, which means a mutual defense commitment, must be reciprocated. As a result, a player signals his willingness to enter an alliance by selecting "would ally" from the options menu. If the opposite party also selects "would ally," the alliance is consummated. The initial player attitudes are depicted in the Figure 2.

Force Postures. The second level of options pertains to force postures and is also reviewed in every round. All seven of the players are armed with offensive arms that are the equivalent of nuclear-armed ballistic missiles. At the outset, the size of the offensive arsenals and their quality differ with each of the players. Further, each of the players with offensive arms is capable of hitting (reaching the territory of) every other player. The game is designed exclusively as a nuclear weapons and defense exer-

cise. These offensive armament levels for any player may be increased through expenditure of tokens and through restricted options for weapons trades or may be decreased, even to the level of complete nuclear disarmament, through unilateral or negotiated arms control initiatives. Offensive arms become operational in the second round after they are acquired and offensive arms that are eliminated are removed from the active inventory in the second round after the arms control decision. A token represents the resources to acquire one offensive or defensive shot. A "use it or lose it" rule is applied to the expenditure of tokens, meaning they must be expended in the round during which they are conferred on a player or be lost. As a result, arms transfers may be "paid for" out of tokens, but the tokens themselves may not be traded or saved.

Arms control is a central focus of this exercise. Questions related to the verification of arms control and disarmament decisions are addressed chiefly, although not exclusively, through decisions to employ or not employ a shroud ("shrouding"). Shrouding results in no other player's knowing the posture of the shrouded player's forces, either in terms of numbers or in terms of readiness. A randomly applied intelligence variable, however, can result in a shrouded player's involuntarily losing his shroud.

While this exercise is focused primarily on the arms race and arms control dynamic, it does not abandon the crisis stability attributes of the first version of the game. Any of the armed players can draw his offensive weapons at any time ("ready"), which is necessary for him to shoot. Any armed player can put his readied weapon back into the holster ("holster"). In the arms control context, to holster is functionally equivalent to "de-alerting." Any readied weapon can be aimed at another player ("threaten"). Any armed player can fire a readied weapon at another player ("attack"). A decision either to threaten or to attack another player results in the lifting of the shroud.

Player G can put on a bulletproof vest in two turns, which reduces the number of penetrating shots from the other players. This limited defense takes the form of "defensive interceptors," intercepting 80 percent of them in one-on-one engagements. Thus, it is neither a perfect defense nor capable of rebuffing large-scale strikes. Player G therefore cannot field defensive interceptors that leave him or any other player impervious to attack. Further, Player G may provide similar defenses, with the same imperfections and limitations, to others in two turns. To benefit from the interceptors, other players must agree to take them. Finally, the number of defensive interceptors fielded by players other than Player G is the lesser of those sought by the other player and those proffered to him by Player G. Once the player obtains them, he may decide to retain them or abandon them according to his arms control preferences.

All armed players start out holstered and unshrouded. All players start out undefended and functional.

Physics of the Game. Regarding force postures, players play the game by taking actions that change

their postures. Results matrices are provided to adjudicate the outcome of select force posture actions.

Attack Outcomes. The game defines three possible outcomes for a player who is attacked: (1) "functional," which is the initial status for all players; (2) "wounded"; and (3) "killed." The requirements to wound or kill are preset for each player and vary from player to player. The rules of the game, however, allow a player to launch "death throes shots," which are designed to allow an uncertain level of retaliatory response by a player that is attacked even with overwhelming force.

Communications. Private communications and public announcements among the players are used to augment the game structure and permit the players to pursue strategic goals that are not covered by formal moves. These tools can serve to increase the pace of the game. More important, they permit greater insight into the decision-making process.

The Game Manager. Finally, a Game Manager and Deputy Game Manager supervise the conduct of the game. The Game Manager is empowered to disallow a player's move on two grounds: (1) if the move is inconsistent with the description of the player that was provided or (2) if the move is disruptive to the testing of the hypothesis. The Game Manager is also responsible for reconciling players' moves with the rules of the game, as necessary. Finally, the Game Manager is allowed to issue warnings to players under circumstances in which their actions could lead to a decision to disallow a move. The Game Manager's warnings and decisions are recorded as "Game Manager's Notes" in the appendices.

Limitations of the Game Design. This game is not designed to test another related hypothesis: whether a proliferated (multi-player) nuclear setting is inherently more or less amenable to arms control solutions than a two-player setting. While this is a critical question and deserves detailed comparative analysis, this game design is based on the need to assess the impact on arms racing and arms control

of deploying defenses in a setting that is already proliferated.

Sections 2, 3, and 4 of this report provide summary descriptions of what happened in the game as it was played in three iterations that correspond to alternative stated arms control and disarmament policies of Player G. These summary descriptions include analysis of the outcomes relative to the hypothesis. Section 5 provides analysis that assesses the outcome of the game as a whole relative to the hypothesis.

More complete descriptions of what took place during the game are provided in the appendices, which include the status sheets recording the positions of the players in terms of their attitudes toward one another at the outset of each round, the status sheets recording the posture of their weapons at the outset of each round, and the recorded private communications and public announcements of the players, along with relevant notes from the Game Manager.

Summary Description and Analysis of Game Iteration #1: Pursuing a Policy of Nuclear Disarmament

The first iteration of the game was played at The Heritage Foundation from July 24, 2009, to August 5, 2009. In this iteration, the Game Manager instructed Player G to pursue a policy of nuclear disarmament. Specifically, Player G announced at the outset that it was his intention to rid the world of nuclear weapons. In this context, he also pledged not to acquire new offensive weapons and to de-alert his nuclear force through the holstering mechanism, contribute to transparency by not "shrouding" his forces, and lead by example by reducing his offensive arsenal by 20 shots per round for the first three rounds. Seeing defenses as largely ineffective and as complicating the disarmament process, he pledged not to acquire defenses for himself or any other player.

ROUND 1

Force Postures. The other players reacted somewhat skeptically to Player G's announced disarmament policy. Regarding transparency, four of the seven players (Players A, B, C, and D) immediately resorted to the shroud. Regarding decisions to ready their offensive shots, three of the seven players (Players A, B, and F) unholstered. Of all the players other than Player G, only Player B chose not to acquire new offensive nuclear shots. Player B sought to acquire defensive shots from Player G, despite Player G's announced policy, and was rebuffed in this request. He lost his two tokens as a result. Three players engaged in the trading of offensive shots. Player A sought to acquire two such shots from Player D. Player D agreed to this transfer with Player A, but did not honor the agreement. Player D acquired three such shots from Player B.

Diplomatic Developments. Round 1 was fairly active in terms of diplomatic actions.

Player A upgraded his attitude toward Player C to neutral (previously unfriendly), which Player C reciprocated in the same fashion.

Player C also sought an alliance with Player E, which Player E agreed to enter.

Player D, despite its potential to damage his relationship with Player B, upgraded his attitude toward Player A to neutral (previously unfriendly) and downgraded his attitude toward Player F to unfriendly (previously neutral).

In addition to entering into the alliance with Player C, Player E upgraded his attitude toward Player D to friendly (previously neutral).

Player G sought to enter into an alliance with Player E (previously neutral) but was rebuffed by Player E.

Nuclear Arms Race and Arms Control Considerations. Decisions by various players to acquire additional offensive shots in Round 1 fell just short of the value of those that Player G chose to eliminate in accordance with his announced policy. Specifically, Players A, C, D, E, and F decided to acquire 19 offensive shots between them for the 20 that Player G decided to eliminate. Player A sought two, Player C two, Player D three (from Player B), Player E five, and Player F 10. Thus, in Round 3, when these decisions took effect, there would be a net decrease of one offensive shot. Player G was partially rebuffed in his appeal to other players to take the arms control-related steps of maintaining transparency by not resorting to the shroud and de-alerting by keeping their offensive shots holstered. Two of the

players (Players A and B) maintained readied offensive forces under the cover of their shrouds.

ROUND 2

Force Postures. All players, other than Player G, decided to acquire offensive shots to the maximum extent permitted by their resources. Player G moved to reduce his offensive arsenal by 20. No player changed the status of his shrouding in Round 2, leaving four players (Players, A, B, C, and D) shrouded. Likewise, no player altered the readiness of his offensive arsenal by moving either to ready it or to holster it. This left Players A, B, and F in a ready posture and the other players holstered. No players traded offensive shots in this round.

Diplomatic Developments. Diplomatic relations generally improved in Round 2. The exception was Player A, who downgraded his attitude toward Player D to hostile (previously unfriendly) because of his view that Player D was being deceptive toward him.

Player B upgraded his attitude toward Player E to neutral (previously unfriendly).

Player C upgraded his attitude toward Player B to neutral (previously unfriendly).

Player D upgraded his attitude toward Player F to neutral (previously unfriendly).

Nuclear Arms Race Arms Control Considerations. Player G's nuclear disarmament policy suffered a large-scale setback in Round 2. Every other player decided to acquire offensive shots to the maximum level that their resources permitted. Again, this came despite Player G's decision to reduce his offensive nuclear arsenal by 20 shots. Thus, in Round 4, the number of nuclear offensive shots resulting from these acquisition decisions among the players would increase by five. Further, Player G continued to be partially rebuffed on his appeals for transparency and de-alerting. Four players remained shrouded, and three players had readied offensive forces, although two (Players A and B) did so under the cover of the shroud.

ROUND 3

Force Postures. At this point in the exercise, the forces of crisis instability overshadowed the arms race and arms control considerations. Player A moved to strike Player B with five offensive shots. Absent defenses, this strike was of sufficient strength to kill Player B. Nevertheless, Player A simultaneously moved to replenish his arsenal of offensive nuclear shots by expending two tokens to acquire two additional shots. These would be become operational in Round 5. The strike also resulted in the lifting of Player A's shroud, which would reveal at the outset of Round 4 that he had 14 operational offensive shots remaining in his inventory following his strike on Player B. Other players, with the exception of Player G, also sought to augment their offensive arsenals in this round.

Player B expended two tokens to acquire two offensive shots while transferring two such shots out of his inventory to Player D.

Player C expended the two tokens allotted him in this round for two offensive shots.

Player D expended the four tokens allotted him to acquire four offensive shots in addition to the two that Player B decided to transfer to him.

Player E acquired five additional offensive shots by expending his five tokens.

Player F also expended all of his tokens for this round to acquire 10 offensive shots.

Player G continued to pursue his disarmament policy by reducing the number of offensive shots in his arsenal by 20.

These transactions would take effect in Round 5. Leaving aside Player A's decision to strike Player B, no other players chose to alter their postures regarding shrouding and readiness during the course of Round 3.

Diplomatic Developments. As stated earlier, Player A chose to strike and kill Player B.

Player B downgraded his attitude toward Player E to unfriendly (previously neutral). This was to give other players the impression that his relationship with Player E was more strained than

the private diplomacy between the two would suggest.

Nevertheless, Player E upgraded his attitude toward Player B to neutral (previously hostile).

Nuclear Arms Race and Arms Control Considerations. As alluded to earlier, the crisis instability factors would overshadow the nuclear arms race and arms control factors because Player A's arsenal was reduced by the five shots that he used in the attack on Player B, and this would be reflected in Round 4's list of remaining offensive shots available to the players. Clearly, it is inappropriate to describe a reduction in offensive shots achieved through use in combat as an arms control success. On the basis of the decisions made in Round 1, however, the total number of operational shots in Round 3 was 514, compared with 515 in Round 2. The reduction in offensive shots by Player G was almost offset by the acquisition of offensive shots by other players in Round 1.

ROUND 4

Force Postures. Player A continued his effort to restore the offensive shots used in his strike against Player B in the previous round by expending his two tokens for this round to acquire two additional offensive shots. He moved immediately to restore his shroud, under which he retained a ready posture for his offensive force.

Player B, using the "death throes" option available to him, moved to strike Player A with 20 shots in retaliation. This strike would be more than sufficient to kill Player A.

Player C used the two tokens allotted to him in this round to acquire two additional offensive shots. The exchange between Players A and B caused Player C to ready his offensive force under the cover of the shroud that was already in place.

Player D used his four tokens to acquire four additional offensive shots. He would also receive four more such shots from Player F in a transfer. He, too, moved to ready his offensive force, but did so openly by lifting his shroud.

Player E expended the five tokens allocated to him in this round to acquire five additional offensive shots but remained openly holstered despite the chaos in the region.

Player F used six of his tokens to acquire six more offensive shots for himself while using the remaining four to acquire four offensive shots for transfer to Player D. He remained openly ready, as he was in the previous round.

The circumstances in the region caused Player G to cease the reduction in his offensive force, and he moved to ready this force.

All the moves described above to acquire offensive shots would take effect in Round 6.

Diplomatic Developments. In accordance with the rules of the game, all player attitudes toward the killed Player B were set at neutral.

Player C moved to establish an alliance with Player D, but Player D did not accept this move.

Player F upgraded his attitude toward Player D to friendly (previously neutral).

Nuclear Arms Race and Arms Control Considerations. The circumstances in the region caused Player G to throw in the towel on most aspects of his nuclear disarmament policy. He ceased his reductions in offensive shots and "re-alerted" his offensive force by putting it in a ready posture. On the other hand, he maintained his transparency by not resorting to the shroud, although this was motivated more by his desire to strengthen his deterrence posture than by a desire to preserve an element of his nuclear disarmament policy. The number of operational offensive shots among all players at the outset of Round 4 was still 514, the same as it had been at the outset of Round 3. If the five shots used by Player A against Player B are not counted as a reduction, however, the number would have climbed to 519. Given the open conflict that was now raging in the region, it is not surprising that the effort to de-alert offensive nuclear forces came to an end as three of the four remaining players in the region maintained a ready posture.

ROUND 5

Force Postures. Player A used his death throes option to launch a strike of six shots at Player D and a strike of 10 shots at Player G. Given that neither had defenses as a result of Player G's nuclear disarmament policy, this was sufficient to wound both.

The remaining 19 offensive shots in the now-killed Player B's operational force were removed from operational status at this time under the rules.

Player C moved to expend his two tokens for this round to acquire two additional offensive shots.

Player D, feeling resentful and abandoned by his ally Player G and now seeking to curry favor with Player F, which he perceived as the now-dominant outside military power in the region, launched 28 offensive shots at Player G. Given that Player G chose to eschew defenses as part of his nuclear disarmament policy, this attack was sufficient to wound him. When combined with the simultaneous attack on Player G by Player A, Player G was severely wounded. Another 12 shots and he would have been killed.

Player E chose to remain as he was in Round 4 regarding his force posture.

Player F also chose to remain as he was in Round 4 regarding his force posture.

Player G chose to expend all 50 of his tokens in this round to acquire 50 offensive shots.

Shot acquisitions would have been added to the operational inventories of the relevant players in Round 7 if the exercise had not been halted at this point.

No remaining player moved to change the shrouding or readiness posture of his forces in Round 5 compared to what it was in Round 4.

Diplomatic Developments. Player C, having been rebuffed by Player D regarding his alliance overture in Round 4, downgraded his attitude toward Player D to unfriendly.

Player D, feeling betrayed by Player G and seeking to curry favor with Player F, quickly moved

to abandon his alliance with Player G and downgraded his attitude toward Player G to hostile as he launched a strike against him.

Player E, taking the opposite view, moved to accept the standing alliance offer made by Player G (previously neutral).

Nuclear Arms Race and Arms Control Considerations. Player G, his disarmament spirit broken (along with more than a few bones), moved to acquire the maximum number of offensive nuclear shots that his resource allocation for this round would permit: 50 offensive nuclear shots. Player C, under the cover of his shroud, moved to increase his arsenal. On the other hand, the unshrouded Players E and F discontinued their programs for acquiring more offensive nuclear shots in order to lower their profiles in a very chaotic environment. Player D was busy using his offensive shots to attack Player G. Nevertheless, the number of operational offensive nuclear shots in the hands of all the players at the outset of this round was 499, compared with 514 at the outset of Round 4. If the 20 offensive shots used by Player B in Round 4 to attack Player A are not counted as an arms control reduction, however, the number of such shots at the beginning of this round would have been 519. By this time, the crisis instability factors had completely overwhelmed the arms control considerations, and the Game Manager chose to terminate the exercise at this point.

GENERAL OBSERVATIONS

The manner in which the exercise unfolded in Iteration #1 precluded a proper qualitative test of the hypothesis regarding the interrelationship between defenses (or the absence of them in this case) and the level of offensive nuclear shots retained by the players. As pointed out above, this is because the crisis instability led to the exchange of offensive shots and resulted in reductions for reasons unrelated to arms control and disarmament. This suggests that crisis instability factors cannot be ignored in pursuing a policy of nuclear disarma-

ment. It is plausible, if not likely, that a policy of nuclear disarmament may be profoundly destabilizing in the context of a crisis or confrontation. However, the partial evidence available from Iteration #1 regarding the hypothesis does not engender confidence that Player G's policy of nuclear disarmament and eschewing of strategic defenses would have resulted in the desired outcome of gradually reducing nuclear arsenals absent the use of shots in a conflict. Despite the null outcome regarding the hypothesis in Iteration #1, several observations can be made regarding the arms race and arms control dynamic.

Observation #1: Attempting to pursue nuclear disarmament in a proliferated setting presents sequencing problems for the twin goals of disarmament and nonproliferation.

Player G chose to pursue his policy of nuclear disarmament concurrently with a circumstance where nonproliferation efforts at best were failing or at worst had already failed. This incongruence between Player G's policy and the circumstance of nuclear proliferation served to frustrate attempts at reducing the overall number of nuclear weapons on the way to disarmament and ultimately served to be highly destabilizing in a crisis. The outcome suggests that Player G would have been better served by a policy that sequenced nuclear disarmament efforts to follow the successful completion of nuclear nonproliferation goals instead of pursuing both concurrently.

Observation #2: Player G's policy of eschewing strategic defenses increased the relative value of nuclear weapons.

In a competitive security environment, the players sought security in the ways available to them. Player G's policy of barring access to defenses led other players to focus on bolstering their offensive nuclear forces with the limited resources available to them. The result was that efforts to achieve significant reductions in offensive forces were frustrated.

Observation #3: Player G's decision to de-alert his offensive nuclear force by keeping it holstered led to a circumstance of crisis instability.

The focus in this version of Nuclear Games is on stability in the acquisition of arms, not on crisis stability. Nevertheless, crisis instability factors were not ignored in this game design and proved to come to the fore in Iteration #1. Nuclear shots were exchanged, and players were wounded and killed. The most important contributing factor leading to the outcome of crisis instability was Player G's policy of keeping his offensive force holstered, which is the functional equivalent of de-alerting it. This inevitably resulted in exchange ratios that favored aggressive and risk-tolerant players over non-aggressive and risk-averse ones, particularly when no defenses were present.

Observation #4: The nuclear arms restraint process was completely lopsided.

Player G's policy of nuclear disarmament served to limit the increase in the total number of nuclear shots in the hands of all players, but the restraint was not evenly shared (see Chart 1). During the three rounds before the exchange of shots, Player G made decisions to reduce his offensive arsenal by 60 shots cumulatively. This would reduce it from 200 at the outset to 140, although the full reductions would not become operational until Round 5. Among the other players, decisions were made to increase the total number of offensive nuclear shots by 71 during the same period. Thus, the cumulative number of shots among the other players went from 315 at the outset to 386 in operational shots by Round 5 (setting aside reductions resulting from shots fired in anger). Further, it is essential to put this uneven distribution of nuclear arms restraint in context. In a proliferated setting, no individual player can afford to look at the nuclear balance in purely bilateral terms. He must account for the possibility that a nuclear-armed coalition may form against him. Iteration #1 served to prove this point to Player G in a painful fashion. He was struck by Player D, who had been an ally at the outset of the exercise.

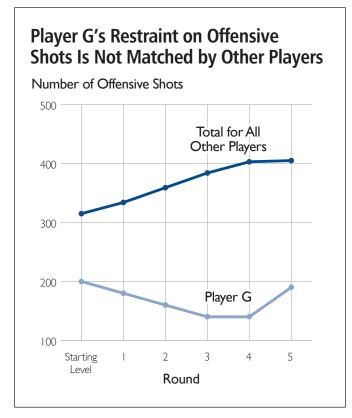


Chart 1 – Note: The numbers of weapons depicted reflect the decisions of the players, not operationally deployed weapons, because of the delay factor in the implementation of decisions and the loss of weapons for reasons other than arms control.

Observation #5: Player G's nuclear disarmament policy served to create a security vacuum in the region.

This security vacuum had a negative impact on attempts at arms restraint because it whetted the appetites of all the players to acquire more offensive shots in attempts to fill the vacuum. For Player G's friends and allies, the additional shots were designed to make up for their lack of faith in Player G's security commitments. For Player G's adversaries, the additional shots served as a means to drive wedges between Player G and his friends and allies. Player F proved to be the most adept at filling the security

vacuum created by Player G's disarmament policy. It is all but impossible to avoid the conclusion that Player F prevailed in Iteration #1.

Observation #6: Player G's nuclear disarmament policy undermined the regional alliance system he was leading at the outset of the exercise.

His alliance with Player B ended with the death of Player B at the hands of Player A. His alliance with Player D ended with Player D pledging his allegiance to Player F and moving to strike Player G. His alliance with Player C endured, but this had more to do with Player C's focus on his extraneous rivalry with a non-player that was the functional equivalent of India. Finally, the circumstance presented by Player G's disarmament policy served to weaken the relationship between Players B and D, as Player D found it necessary to hedge his bets by moving to upgrade his attitude toward Player A. It proved impossible for Player G to persuade his allies to pursue nuclear arms reductions, let alone nuclear disarmament, in a circumstance where the alliance system they depended on for their security was collapsing around them.

Observation #7: Player F's policy of transparency and restraint regarding transfers of offensive shots to Player A served him well.

When Player B was struck by Player A, the background diplomacy makes it clear that Player B was prepared to retaliate against other players and not just Player A. He was prepared to strike any player that he could determine had transferred offensive shots to Player A. He was quick to assume that Player F had done so. Player F protected himself by being able to make a convincing case that he had not transferred offensive shots to Player A. His unshrouded force demonstrated that he had expended all the tokens allocated to him up to that point on building his own arsenal.

Summary Description and Analysis of Game Iteration #2: Pursuing a Policy of Cold War–Style Arms Control

The second iteration of the game was played at The Heritage Foundation from October 13, 2009, to October 22, 2009. In this iteration, the Game Manager instructed Player G to pursue a policy of Cold War-style arms control based on preserving a balance of terror with the lowest number of nuclear weapons feasible. Specifically, Player G announced at the outset that he saw maintaining nuclear deterrence as essential to his security and that of his allies. He went on to describe the nuclear disarmament policy of Iteration #1 as a "fantasy." In this context, he stated that he would demonstrate his resolve by not de-alerting his offensive nuclear force and by maintaining the force in an openly ready posture. He also stated that he would pursue selective modernization of his offensive nuclear shots. Seeing defenses as destabilizing, he pledged not to acquire defenses for himself or any other player.

ROUND 1

Force Postures. All players, with the exception of Player G, moved to acquire the maximum number of additional offensive shots that their resources permitted in this round. Player G chose to expend 10 of the 50 tokens allocated to him to modernize his offensive shots by replacing 10 older shots with 10 new ones. This would leave the number of his offensive shots the same but would improve the quality of his force.

Players A, B, and C chose to shroud their forces, opting for a policy of deception over one of open deterrence.

Players A, B, and G moved to ready their offensive shots. Player G did so pursuant to his announced policy.

Diplomatic Developments. Player A chose to upgrade his attitude toward Player E to neutral (previously unfriendly), which Player E reciprocated in the same fashion.

Player B also chose to upgrade his attitude toward Player E to neutral (previously unfriendly), while Player E more than reciprocated by upgrading his attitude toward Player B to neutral (previously hostile).

Player F moved to upgrade his attitude toward Player D to friendly (previously neutral).

Player G sought to establish an alliance with Player E (previously friendly), which Player E rebuffed.

Nuclear Arms Race and Arms Control Considerations. The acquisition of 25 additional offensive shots by all players, save Player G, meant that the overall number of offensive nuclear shots in operational status would go from 515 to 540 in Round 3 because there were no offsetting arms control moves by any of the players. Given this increase, combined with Player G's decision to modernize his offensive nuclear force, all players decided to improve the quality of their offensive forces.

ROUND 2

Force Postures. As in Round 1, all players, with the exception of Player G, moved to acquire

additional offensive nuclear shots to the maximum extent that their token allocations permitted. Player G again decided to expend 10 of his tokens to acquire 10 new offensive shots and retire 10 older ones. He also expended five tokens to acquire five offensive shots to transfer to Player D. This represented a significant departure from Cold War standards of extended deterrence because of the actual transfer of nuclear shots. These decisions would alter the operational forces in Round 4.

Players D and F chose to ready their offensive nuclear arsenals, in effect alerting them, in order to bolster their deterrence postures.

No player chose to alter his shrouding status in this round.

Diplomatic Developments. Player A upgraded his attitude toward Player C to neutral (previously unfriendly), which Player C reciprocated in the same fashion.

Player B chose to downgrade his attitude toward Player D to neutral (previously friendly). This would lead to much bickering between Players B and D, which Player G sought to control. This version of the exercise indicated that the circumstance of proliferation serves to undermine the initially friendly relationship between Players B and D.

Player D moved to upgrade his attitude toward Player F to friendly (previously neutral).

Player E, while still resisting Player G's alliance proposal, upgraded his attitude toward Player G to friendly (previously neutral). Player G accepted that his relationship with Player E would be friendly, and not an alliance, by moving his attitude toward Player E from would ally to friendly.

Nuclear Arms Race and Arms Control Considerations. The offensive shot acquisition decisions by the players would add 30 operational shots to the overall number in Round 4, when they took effect. Again, this was because there were no offsetting arms control agreements or arrangements. They also represented an across-the-board move to improve the quality of the forces because of Player G's modernization program.

ROUND 3

Force Postures. Players A, B, D, E, and F moved to increase their offensive shots in this round by the maximum quantity that their resource allocations permitted. Player C chose not to acquire additional offensive shots in this round. Player G again moved to modernize his force by expending 10 tokens to acquire 10 new shots and retire 10 older systems. These decisions would take effect in Round 5.

Player E was the only player to change the readiness posture of his offensive forces in this round. He moved to ready his force in order to bolster his deterrence posture.

Player D was the only player to alter his shrouding status by shrouding his previously visible force.

Diplomatic Developments. Player A moved to upgrade his attitude toward Player D to neutral (previously unfriendly). Player D did not reciprocate.

Player C upgraded his attitude toward Player B to neutral (previously unfriendly). Player B already maintained a neutral attitude toward Player C.

Player D moved to upgrade his attitude toward Player E to friendly (previously neutral), which Player E reciprocated in the same fashion.

Nuclear Arms Race and Arms Control Considerations. The acquisition decisions by the players would add 23 offensive shots to the operational arsenals of all players in Round 5. There were no offsetting arms control agreements or arrangements. The overall quality of the forces would also improve. On the basis of the decisions made in Round 1, the total number of operationally available offensive shots at the outset of this round stood at 540, compared with 515 at the outset of Round 2.

ROUND 4

Force Postures. As in Round 3, Players A, B, D, E, and F moved to increase their offensive shots in this round by the maximum quantity that their resource allocations permitted. Player C chose not

to acquire any additional shots. Player G, however, not only modernized his force, but also increased its size because of the increases in the offensive forces of other players, most particularly Player F. He expended 20 tokens to acquire 20 new shots while retiring only 10 old ones. Player B moved to lift his shroud in this round, opting for an open policy of deterrence because he was revealed to have a readied or alert posture. No player moved to change his readiness/alert status.

Diplomatic Developments. Player A downgraded his attitude toward Player D to unfriendly (previously neutral) because Player D did not reciprocate in response to his upgrade in Round 3. Belatedly, Player D chose to upgrade his attitude toward Player A to neutral (previously unfriendly). Players A and D obviously were not communicating clearly with each other.

Nuclear Arms Race and Arms Control Considerations. The procurement decisions by the players in this round would add 33 offensive shots to the operational arsenals of all players in Round 6. There were no offsetting arms control agreements or arrangements. The overall quality of the forces again would improve. On the basis of the decisions made in Round 2, the total number of operationally available offensive shots at the outset of this round stood at 570, compared with 540 at the outset of Round 3.

ROUND 5

Force Postures. All players took exactly the same procurement steps in this round as they had in Round 4. Players A, B, D, E, and F expended their tokens for additional offensive shots. Player C chose not to acquire more shots. Player G expended 20 tokens to procure 20 new offensive shots while retiring 10 old shots. No player chose to alter the shrouding or readiness/alert status of his forces.

Diplomatic Developments. Player A, recognizing that Player D had moved to upgrade his atti-

tude toward him in Round 4, upgraded his attitude toward Player D to neutral (previously unfriendly). This was the only diplomatic move in this round and served to resolve the miscommunication problem between Players A and D. It also served to compound the weakening relationship between Players B and D.

Nuclear Arms Race and Arms Control Developments. The procurement decisions by the players in this round, as in Round 4, would add 33 offensive shots to the operational arsenals of all players in Round 7. There were no offsetting arms control agreements or arrangements. The overall quality of the forces would improve again. On the basis of the decisions made in Round 3, the total number of operationally available offensive shots at the outset of this round stood at 593, compared with 570 at the outset of Round 4.

ROUND 6

Force Postures. Players A, B, D, and F chose to expend the maximum resources available to them in this round to acquire new offensive shots. Players C and E did not acquire any new offensive shots. Player G, consistent with his recent behavior, expended 20 tokens to acquire 20 new offensive shots while retiring 10 old shots. As in Round 5, no player chose to alter the shrouding or readiness/alert status of his forces.

Diplomatic Developments. No player chose to alter his diplomatic attitudes toward another player in this round.

Nuclear Arms Race and Arms Control Considerations. The acquisition decisions by the players in this round would add 28 offensive shots to the operational arsenals of all players in Round 8. There were no offsetting arms control agreements or arrangements. The overall quality of the forces would continue to improve. On the basis of the decisions made in Round 4, the total number of operationally available offensive shots at the outset of this round stood at 626, compared with 593 at the outset of Round 5.

ROUND 7

Force Postures. All players took exactly the same procurement steps in this round as they had in Round 6. Players A, B, D, and F expended their tokens for additional offensive shots. Players C and E chose not to acquire more shots. Player G expended 20 tokens to procure 20 new offensive shots while retiring 10 old shots. No player chose to alter the shrouding or readiness/alert status of his forces.

Diplomatic Developments. Player G chose to upgrade his attitude toward Player A to unfriendly (previously hostile). This was in recognition that the situation in the region seemed stable regarding the potential for launching of strikes.

Nuclear Arms Race and Arms Control Considerations. The procurement decisions by the players in this round would add 28 offensive shots to the operational arsenals of all players in Round 9. There were no offsetting arms control agreements or arrangements. The overall quality of the forces would continue to improve. On the basis of the decisions made in Round 5, the total number of operationally available offensive shots at the outset of this round stood at 659, compared with 626 at the outset of Round 6.

ROUND 8

Force Postures. Player A chose to expend his two tokens for this round to acquire two offensive shots but transferred them to Player E. Players B, C, D, E, and F expended their allotments of tokens to acquire additional offensive shots. This meant that Player E's inventory would increase by seven because of his procurement decision and the transfer from Player A. Player G continued his pattern of increasing and modernizing his offensive force by expending 20 tokens to procure 20 new offensive shots while retiring 10 old shots. No player chose to alter the shrouding or readiness/alert status of his forces.

Diplomatic Developments. Player A upgraded his attitude toward Player E to would ally, which Player E reciprocated to establish the alliance. This was part of a modest but elaborate arms control arrangement that will be described below. Player A also moved to downgrade his attitude toward Player F to neutral (previously friendly) because he was seeing few material benefits from his friendly relationship with Player F. Finally, he upgraded his attitude toward Player G to unfriendly (previously hostile), which was also part of the arms control arrangement.

Nuclear Arms Race and Arms Control Considerations. Player A sought and was able to conclude a modest arms control arrangement in order to bolster his leadership position in the Islamic world. Specifically, he pledged to transfer offensive shots to Player E in accordance with his token allocation each round. This would effectively bar the future growth and modernization of his offensive force but would not require any reductions. Therefore, it represented a tacit acknowledgement that Player A would not be disarmed. Player A also got an alliance with fellow Muslim Player E. This served to strengthen his political position in the Islamic world, which was a strategic goal assigned to him in the player descriptions. All told, the acquisition decisions by the players would increase the total number of offensive shots in the operational arsenals of the players by 35 in Round 10. On the basis of the decisions made in Round 6, the total number of operationally available offensive shots at the outset of this round stood at 687, compared with 659 at the outset of Round 7. This is where Iteration #2 of the exercise ended. Thus, total offensive shots rose during the course of the exercise from 515 to 687 and were on track to increase further if the game had not been terminated.

GENERAL CONCLUSIONS

The outcome of Iteration #2 permitted a qualitative conclusion regarding the relationship between application of a Cold War–style arms control policy

in a proliferated setting and meeting the goal of reduced offensive nuclear arms in the hands of all the players. The relationship turned out to be a negative one (see Chart 2). Attempts to reduce offensive nuclear shots under Player G's announced policy failed. The overall number of operational offensive nuclear shots among all the players rose from 515 at the outset of this iteration to 687 at the end. In addition to affirming the general conclusion that a Cold War–style nuclear deterrence policy in a setting that is already proliferated will generate more, not fewer, nuclear arms, the results of Iteration #2 permit several conclusions to be drawn regarding the arms race and arms control dynamic under this circumstance.

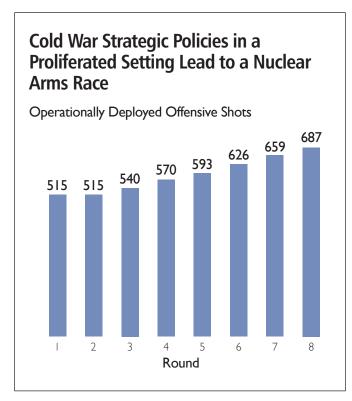


Chart 2

Conclusion #1: A policy that emphasizes preserving nuclear deterrence at the expense of defensive options will generate an arms race.

Player G's policy in Iteration #2 was focused on maintaining a balance of terror among the players. It served to make nuclear offensive shots the coin of the realm in the players' quests for security. This was the case for Player G, as it was with the others, insofar as he moved to increase the size of his

offensive arsenal and improve it qualitatively. Not surprisingly, the overall number of offensive nuclear shots rose consistently and dramatically during the course of this iteration.

Conclusion #2: The lack of a defensive option for the other players resulting from Player G's policy of eschewing defenses permitted them to focus their resources on building offensive nuclear arms.

Over the course of Iteration #2, the six players other than Player G had, cumulatively, 200 tokens to expend for the procurement of strategic arms. Of this 200-token maximum, these players expended 180 for procuring additional offensive shots. Absent a defensive option, there was nothing to compete with the nuclear offensive shots for the limited resources available.

Conclusion #3: Player G's policy of pursuing Cold War-style nuclear deterrence in a proliferated setting permitted only the most limited agreements in controlling nuclear arsenals.

This was typified by Player G's agreement with Player A, with Player E serving as an intermediary, in Round 8 that would serve to limit the future growth in Player A's offensive nuclear arsenal, but not to reduce it.

Conclusion #4: Attempts by players to use arms control in ways that effectively trade nuclear weapons for political goals present all players with difficult choices.

Player A proved willing to engage in arms control if he could use the promise to limit the future growth in his arsenal as a way to achieve more immediate political goals. One of these for Player A was to reinforce his position of leadership in the Islamic world. This leadership position was one of the strategic goals assigned to him in the player descriptions. This presented the other players with the choice of either permitting Player A to expand his political authority or enduring the growing threat posed by Player A's growing arsenal. Arms control interests could prevail among the choices available to the players, but not always.

Conclusion #5: Player G's policy of pursuing Cold War-style nuclear deterrence in a proliferated setting marks the end of nonproliferation.

Player G's policy served to legitimize the nuclear forces in the hands of newly established nuclear weapons states. The more inclined the players are to engage in nuclear arms control in the circumstances presented by Player G's policy, the more all of the players are willing to recognize even rival players as legitimate nuclear weapons states. In an ironic twist, Cold War–style arms con-

trol represents the death knell for nonproliferation policy. This is what happened when other players agreed to Player A's proposal for limiting the future growth in his nuclear arsenal. Player A achieved *de jure* nuclear power status, which was a key aim for him. This is why if any player can be deemed to have won Iteration #2, it is Player A. As a player with few friends and limited options, he cleverly manipulated the arms control agenda to achieve goals that would otherwise be out of reach for him.

Summary Description of Game Iteration #3: Pursuing a Policy of Arms Control Consistent with a Protect and Defend Strategy

The third iteration of the game was played at The Heritage Foundation from November 10, 2009, to November 19, 2009. In this iteration, the Game Manager instructed Player G to pursue a policy of protecting and defending himself and his allies against nuclear attack, which would rely on a mix of offensive and defensive forces. Specifically, Player G announced at the outset that he would pursue a nonproliferation and arms control policy designed to encourage all players to adopt more defensive strategic postures. He went on to describe how this policy would rely on the fielding of robust, although not comprehensive or perfect, strategic defenses. Specifically, he stated that he would encourage reductions in the offensive forces of other players by offering them defenses in exchange for the reductions. This policy, however, would not preclude him from transferring defenses absent such reductions if the circumstances warranted it. He would field defenses for himself and look to match reductions in offensive forces. This defensive policy would permit him to modernize his offensive nuclear force, but preferably at the lower numbers.

ROUND 1

Force Postures. Players A and B each moved to acquire two additional offensive shots. Player C acquired one such shot. Player F sought 10 offensive shots. All of these offensive shots were paid for out of the tokens allocated to the players. Players D, E, and G did not seek to procure any new offensive shots.

On the defensive side, Player A sought and received 14 defensive shots out of Player G's

resources. This was supposed to be done pursuant to an agreement by Player A with Player G that Player A would eliminate 10 of his 15 offensive shots. Player B sought and received 15 defensive shots from Player G, paid for out of Player G's token allocation. Player C sought and received one defensive shot from Player G, but he expended one of his tokens to receive it. Player E received five defensive shots from Player G, paid for out of Player E's entire token allocation for the round. Player G expended 21 tokens, the remaining left from his allocation for this round, to acquire 21 defensive shots.

Players A, B, and C employed the shroud. Player A used it to conceal from Player G that, contrary to the agreement with him, he was neither eliminating his 10 offensive shots nor refraining from acquiring new offensive shots in this round. Thus, Player A's use of the shroud was motivated by his desire to undermine transparency in arms control and cheat. Players A, B, F, and G moved to ready their offensive forces. Player A did this primarily to preserve the option of threatening Player B. Players C, F, and G did so to enhance their deterrence posture.

Diplomatic Developments. Player A moved to upgrade his attitude toward Player C to neutral (previously unfriendly). Player C reciprocated in the same fashion. Reflecting the arms control arrangement with Player G, which included the furnishing of defensive shots, Player A upgraded his attitude toward Player G to unfriendly (previously hostile). Player G, not aware that Player A was deceiving him regarding the elimination of his 10 offensive shots, reciprocated in the same fashion.

Nuclear Arms Race and Arms Control Considerations. As described earlier, Player A entered into an agreement with Player G to eliminate 10 of his offensive shots and not acquire the two additional offensive shots that his token allocation would permit him in this round. By resorting to the shroud, Player A concealed from Player G that he did not eliminate the 10 offensive shots and had decided to acquire the two additional offensive shots. Thus, Player A's operational offensive force would increase by two shots in Round 3. The 14 defensive shots he was provided by Player G likewise would become operational in Round 3.

Player B moved to acquire two additional offensive shots, which would become operational in Round 3, along with the 15 defensive shots he was provided by Player G.

Player C decided to procure one additional offensive shot by expending one of his two tokens. He expended the other on a defensive shot. Both would become operational in Round 3.

Player D did not acquire either offensive or defensive shots in this round.

Player E expended all five of his tokens on defensive shots, which would become operational in Round 3. This precluded him from procuring any additional offensive shots.

Player F expended all of his 10 tokens on offensive shots. They would become operational in Round 3.

Player G expended all 50 of his tokens on defensive shots for himself (21 shots) and for Players A (14 shots) and Player B (15 shots), all of which would become operational in Round 3.

Thus, the players cumulatively moved to acquire 15 offensive shots in this round. None actually moved to eliminate offensive shots. In Round 3, the number of offensive shots would increase by 15 from the 515 present in operational forces at the outset to 530.

ROUND 2

Force Postures. Player A decided to acquire two additional offensive shots with his two tokens

in this round. These would become operational in Round 4.

Player B also expended two tokens to procure two additional offensive shots, while Player G furnished him with 15 additional defensive shots out of his resources. All would become operational in Round 4.

Player C opted not to acquire any additional offensive or defensive shots in this round.

Player D acquired five defensive shots from Player G, three of which he paid for with his tokens. These shots would become operational in Round 4.

Player E did not procure any additional offensive or defensive shots.

Player F, pursuant to an arms control agreement with Player G, moved to obtain 20 defensive shots. Ten of these shots were paid for out of his token allocation for this round, which precluded him from procuring any additional offensive shots. The defensive shots would become operational in Round 4.

Player G provided himself 18 defensive shots, paid for from his allocation of tokens. He also spent five of his tokens to modernize five of his offensive shots without increasing the numbers.

No player altered the status of his forces regarding shrouding and readiness/alert levels in Round 2 from what they were at the end of Round 1.

Diplomatic Developments. Player A upgraded his attitude toward Player E to neutral (previously unfriendly) with the aim of fulfilling his strategic goal of enhancing his standing in the Muslim world. Player E reciprocated in the same fashion.

Player E also decided to upgrade his attitude toward Player B to unfriendly (previously hostile) in an effort to reduce tensions in the region. Player B's attitude toward Player E was already unfriendly.

Nuclear Arms Race and Arms Control Considerations. A dramatic arms control development in Round 2 was an agreement between Players F and G. This agreement had the following provisions: (1) Player F would obtain from Player G 20 defensive shots per round for five rounds, of which 10 would be purchased by Player F out of his tokens and 10

would be provided from Player G's tokens, for a total of 100 defensive shots (the first transfer taking place this round); (2) Players F and G would each reduce their offensive shots to 100 over a five-round period (a rate of roughly 20 per round), starting in the next round (Round 3); (3) both agreed to remain "unshrouded" through Round 7 as a verification measure; and (4) both agreed to sponsor a regional conference to be attended by the other players to establish confidence-building measures and reduce offensive shots.

Players A and B acquired two additional offensive shots each in Round 2. Player G procured five modern offensive shots but retired five older ones. Thus, the net increase in operational offensive shots among all players in Round 4 would be four. The number of operational offensive nuclear shots in the hands of all players remained at 515 because of delay in the acquisition process.

ROUND 3

Force Postures. Player A decided to acquire two additional offensive shots in Round 3 by expending the tokens allocated to him for this round. They would become operational in Round 5. Based on the decision he made in Round 1, his operational offensive force grew by two during this round, and the 14 defensive shots he received from Player G in Round 1 also became operational.

Player B also expended his two tokens in this round to procure two additional offensive shots. Player G provided him 15 more defensive shots out of his resources. These additional offensive and defensive shots would become operational in Round 5. Based on the decisions in Round 1, Player B's operational offensive force grew by two shots during this round, and his 15 defensive shots also became operational.

Player C was able to receive four defensive shots from Player G, two of which were paid for by the tokens allocated to Player C for this round. In exchange, Player G was able to convince Player C to reduce his offensive force by two shots. The defensive shots would become operational

in Round 5, the same time the offensive shots to be eliminated would be removed from Player C's force. Based on the decisions Player C made in Round 1, his offensive force grew by one shot in this round, while his one defensive shot also became operational. Player C moved to ready/alert his offensive force. Finally, the intelligence and verification variable was applied against Player C. This meant that outside intelligence and verification forces were able to discern the size and disposition of his forces, and his shroud was involuntarily lifted. Thus, all other players knew that Player C had 31 operational offensive shots and one operational defensive shot at this point. They also knew that his offensive force was holstered. The lifting of his shroud caused Player C to ready his offensive force immediately.

Player D expended two of his tokens to acquire two defensive shots. Consistent with Player G's announced policy for the furnishing of defenses, Player D decided to reduce his offensive arsenal by two shots.

Player E did not change his offensive or defensive force during this round, but the five defensive shots he procured in Round 1 became operational.

Player F, pursuant to his new arms control agreement with Player G, received 20 additional defensive shots in this round. Ten of these were paid for out of his resources. He also fulfilled his commitment to reduce his offensive force by 20 shots. These decisions would take effect in Round 5. Based on his procurement action in Round 1, Player F's operational offensive force grew by 10 shots in this round.

Player G used 18 of his tokens to procure defensive shots in this round. He expended five more to modernize his offensive arsenal while fulfilling his commitment to reduce the size of his offensive force by 20 shots. These decisions would take effect in Round 5. The 21 defensive shots that Player G acquired in Round 1 became operational.

Diplomatic Developments. No player altered his diplomatic attitudes during this round.

Nuclear Arms Race and Arms Control Considerations. Based on the decisions made in Round 1, the number of operational offensive shots rose by 15 from what they had been in Round 2. Thus, there were 530 operational offensive nuclear shots at the end of Round 3, compared with 515 at the end of Round 2. On the other hand, the decisions made by the players during this round would put them on the path to reduce the overall number of operational offensive shots in net terms in Round 5 by 40 shots. Little progress was made, however, in organizing the regional conference planned by Players F and G.

ROUND 4

Force Postures. Player A, continuing his pattern of recent rounds, decided to expend his two tokens to acquire two additional offensive shots. These would become operational in Round 6. The two offensive shots that he procured in Round 2 became operational in this round.

Player B likewise continued his recent pattern of procuring offensive shots while receiving defensive shots from Player G. He decided to expend his two tokens for two offensive shots and received 10 defensive shots from Player G. These decisions would take affect in Round 6, while the two offensive shots and 15 defensive shots that he obtained in Round 2 became effective in this round.

Player C sought and received four defensive shots from Player G, using his two tokens to pay for two of them. He also agreed to reduce his offensive force by two shots. These decisions would take effect in Round 6.

Player D chose not to acquire any additional offensive or defensive shots in this round. The five defensive shots that Player D obtained in Round 2 became operational in this round.

Player E did not move to acquire any additional offensive or defensive shots during this round.

Player F continued to execute his arms control agreement with Player G. He obtained 20 defensive shots while expending his 10 tokens. The first 20 defensive shots that he obtained in Round 2 were activated in this round.

Player G also continued to execute the arms control agreement between him and Player F. He expended 18 of his tokens for 18 defensive shots and spent an additional 10 tokens to modernize his offensive force while reducing it by 20 shots. The 18 defensive shots and five modern offensive shots that he procured in Round 2 were activated in this round.

No player chose to change the status of his forces regarding shrouding or readiness/alert levels during this round.

Diplomatic Developments. Player C moved to upgrade his attitude toward Player B to neutral (previously unfriendly) in order to progress further toward easing tensions in the region. Player B's attitude toward Player C was already neutral.

Nuclear Arms Race and Arms Control Considerations. The number of operational offensive shots among all of the players increased by four in Round 4. Thus, the total stood at 534 at the end of this round, compared with 530 at the end of Round 3. While not adding to the size of his force, Player G's five modern offensive shots were activated in this round. The decisions made in this round cleared the way to reduce the overall number of offensive shots in Round 6 by 38. The quality of Player G's offensive force, however, would continue to improve because of his decision to procure 10 modern offensive shots. The regional conference on confidence-building measures and offensive reductions continued to face obstacles.

ROUND 5

Force Postures. Player A again expended his two tokens to build two additional offensive shots.

Player B also expended his two tokens to obtain two additional offensive shots. At the same time, Player G decided to provide him with 10 additional defensive shots.

Player C continued his pattern of recent rounds by obtaining four defensive shots from Player G while contributing his two tokens in the effort to

obtain them. He decided to reduce his offensive force by two shots.

Player D opted to forgo any additional offensive or defensive shots in this round and did not pledge any reductions in offensive shots.

Player E likewise decided not to alter his forces, either offensive or defensive, in any way.

Player F continued to execute his arms control agreement with Player G. This permitted him to obtain 20 defensive shots while expending his 10 tokens. Pursuant to his obligation, he pledged to eliminate 20 offensive shots.

Player G also continued to execute the arms control agreement with Player F. He decided to acquire 18 defensive interceptors for himself and opted to reduce his offensive arsenal by 20 shots. He also continued his pattern of expending 10 of his tokens to obtain 10 modern offensive shots at the lower overall level of shots.

As in Round 4, no player chose to change the status of his forces regarding shrouding or readiness/alert levels.

Diplomatic Developments. Players C and E moved to establish a formal alliance between them. Player C saw this as adding to his deterrence posture relative to a non-participating player to his east (an abstract equivalent of India). Player E saw the alliance as enhancing his stature in the Islamic world, particularly relative to Player A.

Nuclear Arms Race and Arms Control Considerations. The number of operational offensive nuclear shots fell by 40 among all of the players in net terms. This outcome was the result of the decisions made in Round 3. As a result, the number of offensive nuclear shots in the hands of all players stood at 494 at the end of this round, compared with 534 at the end of Round 4. Since increases of offensive shots were offset by reductions among all of the other players, all of these reductions were the result of the arms control agreement between Players F and G. Player G's modernization effort regarding his offensive nuclear arsenal meant that the quality of his force continued to improve even as it

shrank in size. The regional conference was gaining little traction, in part because its goals were perceived as being realized through bilateral arrangements and player moves. The decisions made in this round would pave the way for a net reduction of 38 shots in operational offensive forces by all players in Round 7.

ROUND 6

Force Postures. Player A moved to reduce his offensive nuclear force by 11 shots at this time. This was part of an arms control agreement with Player G. In exchange, Player G offered to transfer 17 defensive shots to Player A. Two of these defensive shots were paid for out of Player A's tokens for this round. The decisions would take effect in Round 8.

Player B received 10 defensive shots from Player G, paid for out of Player G's tokens for this round. Player B used his own two tokens for this round to procure two additional offensive shots. These additional shots, both offensive and defensive, would become operational in Round 8.

Player C moved to acquire four additional defensive shots from Player G. Player G accepted this request. Two of the shots were paid for out of Player C's tokens for this round. Two were paid for out of Player G's tokens. In this round, unlike Round 5, Player C did not reduce the number of his offensive shots. The new defensive shots would become operational in Round 8.

Player D opted to expend his four tokens for this round to procure four additional offensive shots. These offensive nuclear shots would become operational in Round 8.

Player E decided not to alter his force in any way during this round.

Player F continued to implement his arms control agreement with Player G. Pursuant to the agreement, he sought and received 20 defensive interceptors. Ten were paid out of the tokens allocated to him for this round, while the remaining 10 were paid for out of Player G's tokens. Player F reduced his offensive nuclear force by 20 shots. These decisions would take effect in Round 8.

Player G, also pursuant to his arms control agreement with Player F, matched Player F's move to reduce the size of his offensive nuclear arsenal by 20 shots. He also moved to acquire eight defensive shots for himself. Finally, he expended five tokens to procure five modern offensive shots while continuing to reduce the overall size of his offensive force. These decisions would take effect in Round 8.

No player moved to shroud or "unshroud" his forces in this round. Likewise, no player moved to alter the readiness/alert level of his offensive force. These postures remained the same as they had been in Round 5 for all players.

Diplomatic Developments. Players C and D entered into an alliance. This move was motivated by the same considerations that drove Players C and E to enter into an alliance in Round 5. Specifically, it bolstered Player C's deterrence posture toward his neighbor to the east and Player D's status relative to Player A in the Muslim world.

Player D moved to upgrade his attitude toward Player E to friendly (previously neutral). This also served to bolster Player D's status in the Muslim world. Player E reciprocated in the same fashion. This move, along with alliances between Players C and E and Players C and D, had the effect of putting Player A in a more isolated diplomatic position.

Nuclear Arms Race and Arms Control Considerations. The new arms control agreement between Players A and G, unlike the earlier one in this iteration, was subject to verification. This was an independent verification system facilitated by the Game Manager. The Game Manager used the formal move sheet submitted by Player A to confirm to Player G that Player A had indeed moved to eliminate the 11 offensive shots that he had pledged to eliminate. This permitted Player A to retain his shroud and claim publicly that the reduction was for only five offensive shots. Player A's real reason to preserve his shroud, however, stemmed from the fact that Player G continued to labor under the false assumption that Player A had fulfilled his agreement with him

in Round 1 to reduce his offensive nuclear force by 10 shots. Pursuant to the agreement between Players A and G, the independent verification system did not reveal Player A's total offensive force to Player G. It only confirmed the elimination of the 11 shots. Thus, Player G believed that Player A had moved to disarm. In fact, Player A would retain 14 offensive shots in Round 8, when the new agreement would be executed.

The number of operational offensive nuclear shots fell by 38 among all of the players in net terms during this round. This outcome was the result of decisions made in Round 4. While there were 494 such shots at the end of Round 5, at the end of this round the number stood at 456. The effort to convene the regional conference essentially collapsed because bilateral arrangements and player moves were fulfilling many of its purposes, although Player A continue to object to any regional meeting that would include Player B. The decisions made in this round would pave the way for a net reduction of 45 shots in operational offensive nuclear forces among all the players in Round 8.

ROUND 7

Force Postures. Under the cover of his shroud, Player A opted to expend his two tokens for this round to procure two additional nuclear offensive shots. These new offensive shots would become operational in Round 9.

Player B obtained 10 additional defensive shots from Player G, paid for out of tokens allocated to Player G for this round. Player B expended the two tokens allocated to him for this round to acquire two additional offensive shots. These decisions would take effect in Round 9.

Player C carried over his decision to acquire defensive shots from the preceding round. He sought and received four additional defensive shots from Player G. Two of these shots were paid for by the two tokens allocated to Player C for this round. The remaining two were paid for by Player G. The four additional defensive shots would become operational in Round 9.

Player D expended his four tokens for four additional offensive nuclear shots, which would also become operational in Round 9.

Player E opted not to alter his overall force in any way.

Player F continued to implement his arms control agreement with Player G. He moved to reduce his offensive nuclear arsenal by 20 shots. He received 20 defensive shots from Player G, 10 of which he paid for out of the tokens allocated to him for this round and 10 of which were paid for from Player G's resources. These decisions would take effect in Round 9.

Player G, also pursuant to his arms control agreement with Player F, again matched Player F's move to reduce the size of his offensive nuclear arsenal by 20 shots. This round, he moved to acquire 20 defensive shots for himself. Finally, he expended eight tokens to procure eight modern offensive shots while continuing to reduce the overall size of his offensive force. These decisions would take effect in Round 9.

Diplomatic Developments. No player moved to alter his diplomatic attitudes from what they had been at the end of Round 6.

Nuclear Arms Race and Arms Control Considerations. The number of operational offensive nuclear shots fell by 38 among all players in net terms during this round. This outcome was the result of decisions made in Round 5. This meant that the total number of operationally deployed offensive nuclear shots went from 456 at the end of Round 6 to 418 at the end of this round. The decisions made in this round would pave the way for a net reduction of 32 shots in operational offensive nuclear forces among all of the players in Round 9. By that time, Players F and G would approach the limitation in their arms control agreement of 100 offensive nuclear shots on each side, and the total number of operational offensive shots would fall to 341. Based on probability, the arms reduction by Player A from Round 6, while not eliminating his offensive nuclear force, would deprive him of the ability to kill the strongly

defended Player B. Given that both were shrouded at this point, however, neither could be certain of this circumstance. Given the pattern of progress toward reduced nuclear offensive forces among the players, most particularly Players F and G, the Game Manager chose to terminate Iteration #3 of the exercise at this point.

GENERAL CONCLUSIONS

The results of Iteration #3 serve to confirm the hypothesis that the pursuit of arms control in a proliferated setting is best served by a "protect and defend" strategy that gives a prominent role to strategic defenses. In the course of this iteration, the number of operational offensive nuclear shots in the hands of all the players fell from 515 at the outset to 422 when the exercise was halted. Further, the number of such weapons was slated to fall to 355 based on the decisions already made by the players at the time the exercise ended. These decisions had not yet been implemented. In addition to affirming the general conclusion that a protect and defend strategy in a setting that is already proliferated will bolster efforts at nuclear arms reductions, the results of Iteration #3 permit several conclusions to be drawn regarding the arms race and arms control dynamic under this circumstance.

Conclusion #1: Player G, by having a defensive option for himself and others, had much greater leverage for pursuing an effective arms control agenda.

It is not an exaggeration to say that Player G's arms control policy was to engage in constant bargaining over limitations or reductions in offensive forces in exchange for defensive forces. This led to rather dramatic reductions in the numbers of offensive shots among all players.

Conclusion #2: Player G could simultaneously modernize his offensive nuclear force and strike agreements to reduce the size of nuclear arsenals.

Player G expended some of the tokens allocated to him for each round to modernize his offensive

force on a fairly consistent basis. This did not preclude him from striking a deal with Player F to reduce the number of offensive shots on each side to 100 and executing that deal over the course of this iteration. Indeed, Player G found that the option to modernize made him more comfortable with the reductions in the size of his force and that his allies remained confident in his security commitments.

Conclusion #3: All players were attracted to the notion of providing for their security through protection against strikes and the increased likelihood of survival.

Iteration #3 gave players a rather clear choice between seeking security through assured survival or seeking it through threats to strike. The defensive option proved popular, particularly in terms of the relative expenditure of tokens (see Chart 3). All of the players availed themselves of the opportunity to obtain defenses, even though these defensive capabilities were neither comprehensive nor foolproof. This is not to say that they abandoned completely the option to strike, but that, on balance, they found Player G's protect and defend strategy to have a significant level of appeal.

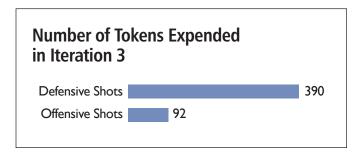


Chart 3

Conclusion #4: Player G's protect and defend strategy created an avenue for pursuing reductions in offensive shots without abandoning nonproliferation goals.

The preservation of this dual-track approach was typified by the arms control agreement with Player A near the end of this iteration. Player A ostensibly agreed to abandon his offensive force, which would have represented a nonproliferation

victory for Player G. Player A did not fulfill his commitment, and the price was forgoing *de jure* nuclear weapons status. Having opted for deception, he put his status as a legitimate and accepted nuclear weapons power out of reach. Player G did not have to choose between a policy of arms reductions and a policy of nonproliferation.

Conclusion #5: The presence of defenses buffers the international security structure against the effects of cheating on arms control.

Player A cheated on his arms control commitments throughout this iteration, yet he never arrived at a circumstance where he found it to his advantage to reveal his unexpected strength and use it to intimidate other players. Indeed, the presence of defenses and the limited arms control efforts that he did honor forced him into a circumstance where he lost his ability to kill Player B in a strike on a reliable basis and gave up one of his strategic goals. He did not recognize this at the time because of Player B's shroud, but it was nonetheless the case. He did understand it on an intuitive basis, as reflected in his behavior.

Conclusion #6: Adequate verification is essential for arms control to be successful.

Player G's attention to verification was inadequate during this iteration of the exercise. Player A was successful in deceiving Player G essentially from the outset regarding the true size of his offensive nuclear arsenal. Player G and his allies were effectively saved from the threats inherent in this deception by the buffering effects of the defenses put in place, as described above. Nevertheless, the deception would permit Player A to continue as a de facto nuclear weapons power. This is why the outcome in this iteration may be described as a split decision between Player A and Player G. Player A found a clever and deceptive way to use arms control to maintain his status as a nuclear weapons power. Player G was able to maintain his position of leadership, obtain significant reductions in offensive nuclear forces, and preserve his options for nonproliferation.

SECTION 5

Drawing Conclusions from the Nuclear Games Exercise by Comparing the Outcomes of the Three Iterations

Conducting the three iterations of the Nuclear Games exercise permits an examination of the outcomes of three archetypal arms control policies in a proliferated setting on a comparative basis. Sections 2-4 provide general observations and conclusions from a perspective that treats each iteration in isolation from the other two. Comprehensive analysis requires comparing the outcome of each iteration with the outcomes of the other two. This section provides that analysis through an examination of the arms race and arms control dynamic. Based on that analysis, several conclusions can be drawn.

Conclusion #1: Providing defensive options did not preclude the adoption of arms control measures that would reduce the level of offensive nuclear arms among the players; indeed, it helped to facilitate them.

This conclusion serves to affirm the central hypothesis of this study. A comparison of the three iterations, in fact, shows that defensive options serve to promote reductions in offensive nuclear armaments (see Chart 4). Iteration #1 demonstrated, albeit inconclusively, that a policy of nuclear disarmament by Player G would permit limits on the growth in nuclear arms but would

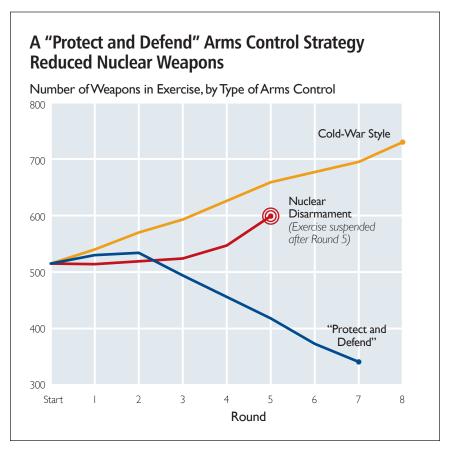


Chart 4 – Note: The numbers of weapons depicted reflects the decisions of the players, not operationally deployed weapons, because of the delay facgtor in the implementation of decisions and weapons lost for reasons other than arms control.

not lead to significant reductions in such arms in a proliferated setting. Iteration #2 demonstrated that continuing to pursue Cold War–style arms control policies based on maintaining nuclear deterrence in a proliferated setting will lead unintentionally to large-scale increases in nuclear arms. Iteration #3 showed that the total number of nuclear arms could

be reduced in this proliferated setting when defensive options were pursued rather vigorously.

Conclusion #2: Pursuing the policy of nuclear disarmament in a proliferated setting leads to instability in a crisis.

Iteration #1 resulted in nuclear exchanges between several of the players. While this exercise was focused on arms race stability factors rather than crisis stability factors, it provides some indication that in this proliferated setting, nuclear war is more likely under a policy of nuclear disarmament than it is under a policy of arms control that is based on maintaining nuclear deterrence among the players or a policy of arms control that is consistent with a protect and defend strategy.

Conclusion #3: A policy of nuclear disarmament is more likely to lead to lopsided arms control outcomes.

Iteration #1, again inconclusively, indicated that any level of nuclear arms restraint that was achieved through a policy of nuclear disarmament would be unbalanced. Relative to Iterations #2 and #3, Iteration #1 saw almost all of the arms restraint assumed by Player G.

Conclusion #4: A policy of nuclear disarmament is most likely to damage the alliance structure among non-aggressive, *status quo* powers.

Iteration #1 saw widespread damage to the alliance system led by Player G. Iteration #2 saw a weakening of the friendly bilateral relationship between Players B and D. Iteration #3 saw this alliance system endure despite the political pressures placed on it by the proliferated setting.

Conclusion #5: As the competition for resources heats up, arms control goals may be reached as much through acquisition decisions as by arms control agreements.

Iteration #3 saw individual players forgo future increases in their offensive arsenals or even agree to offensive reductions because they preferred to use

their limited resources to purchase defensive capabilities (see Chart 3, earlier). In most cases, these decisions to forgo offensive nuclear capabilities had nothing to do with agreements among the players, and most particularly among those who were adversaries, to impose limits or reductions.

Conclusion #6: Pursuing arms control through a protect and defend strategy is the best means for ensuring that arms control and nonproliferation policy remain compatible.

Iterations #1 and #2, relative to Iteration #3, saw the arms control process pursued at the expense of nonproliferation goals. The crisis instability problems stemming from a policy of nuclear disarmament exacerbated the proliferation problem by forcing the players to hedge against unstable outcomes. A deterrence-based arms control policy served to confer legitimacy and *de jure* weapons status on new nuclear powers. Player G's arms control policy in Iteration #3 was better able to preserve the essential goals of a nonproliferation policy.

Conclusion #7: Having the option to field defensive systems gave Player G broader options for pursuing an arms control policy to limit or reduce nuclear arms.

Player G had far greater leverage to encourage restraint by other players in the fielding of offensive nuclear weapons in Iteration #3 than in Iterations #1 and #2. This additional leverage stemmed largely, although not exclusively, from his ability to field defensive systems for himself and furnish them to the other players.

Conclusion #8: Noncompliance remains a problem for arms control no matter what the setting may be.

One area that saw little difference among the three iterations was arms control noncompliance. Various players, and particularly the more aggressive ones, would closely examine their options for deceiving other players regarding the true status of their forces. Player A was particularly clever and

adept at this activity. This tendency reinforces the truth that verification is at the heart of a successful arms control policy.

Conclusion #9: Selective nuclear modernization is not inherently incompatible with quantitative nuclear arms reductions.

Player G pursued nuclear modernization in both Iteration #2 and Iteration #3. The two iterations ended in dramatically different outcomes regarding the numbers of offensive arms. Iteration #2 saw dramatic increases in nuclear arms. Iteration #3 saw dramatic reductions in such arms. The difference suggests that nuclear modernization is made more compatible with nuclear reductions when defensive options are available. Iteration #3, however, makes it clear that the two are not mutually exclusive.

Conclusion #10: Arms control leads to difficult decisions and trade-offs regardless of the setting.

All three of the iterations in this Nuclear Games exercise presented the players with difficult decisions. Some decisions were between arms restraint and arms racing in the pursuit of national security goals. Others involved openness and transparency versus the pursuit of deception. Further, the decisions frequently involved trade-offs between demands for arms reduction and the acceptance of other political demands that may be undesirable or even unacceptable. Finally, the most successful outcome for nuclear arms control required the greatest expenditures of the tokens allocated to Player G. Successful arms control often requires higher, not lower, defense budgets for the U.S.-equivalent player. Regardless of the circumstance, successful arms control requires sound judgment.

History of Game Iteration #1: Pursuing a Policy of Nuclear Disarmament

ROUND 1

Figure A1 reflects the diplomatic status of the players prior to Round 1, which is identical to the initial diplomatic status of the players.

Figure A2 reflects the status of the players' forces prior to Round 1, which is identical to the initial status of forces.

Public Announcements and Private Communications Prior to Round 1

Player G made the following public announcement: "I seek a world without nuclear weapons. Starting with Player F, I will actively pursue agreements to reduce the offensive shots of all players ultimately to zero. Recognizing my special responsibility in pursuing nuclear disarmament, I pledge to take the following unilateral steps: (1) I will not purchase new offensive weapons, in part for budgetary reasons; (2) I will reduce my offensive arsenal at the rate of 20 shots per round for at least the first three rounds; (3) I have de-alerted my offensive force, which means I currently do not have the capacity to ready it and it will take me two rounds to move the status to ready; (4) I will not shroud my forces because I recognize that full transparency is necessary to the success of my nuclear disarmament policy and this means that all players will immediately recognize if I take steps in the future to halt my reductions in offensive shots, purchase new offensive shots or ready my offensive force. I encourage all other players to make similar commitments in order to initiate productive negotiations for nuclear disarmament.

"The fact that defenses have only an 80 percent rate of effectiveness in one-on-one engagements

demonstrates that they are unproven and of little utility. Further, I see defenses as an obstacle to the achievement of nuclear disarmament. As such, I will neither purchase defenses for myself nor transfer defenses to any other player."

Player F responded to Player G's public announcement: "Player F greets the statement of Player G as visionary and bold, and reconfirms his commitment to peace and security around the world. At this point, my forces will not shroud, unless our national security requires me to do so. The last part of your statement—please clarify that you will not deploy missile defense in areas to the west of me."

Player G chose not to respond to Player F's question at this time.

Player D announced: "I am establishing the People's Republic of D. I have cast off the yoke of religion and installed the fatherly hand of the Army to guide my people into a bold new future.

"Accordingly, I announce a plan to establish a grand global energy conference, with the following components: (1) a natural gas pipeline from sources southwest of me; (2) biofuels from outside our region; (3) nuclear energy, also from outside the region; (4) oil from the region to the south of me; (5) liquefied natural gas (LNG) from within our region; (6) oil exploration initiatives in additional areas outside the region; and (6) new oil pipelines within the region."

Player D stated to Player G: "I have viable intelligence that Player A has belligerent intent toward me. If you could release the below statement to all players I would consider reducing my offensive shots: 'Player G affirms its security com-

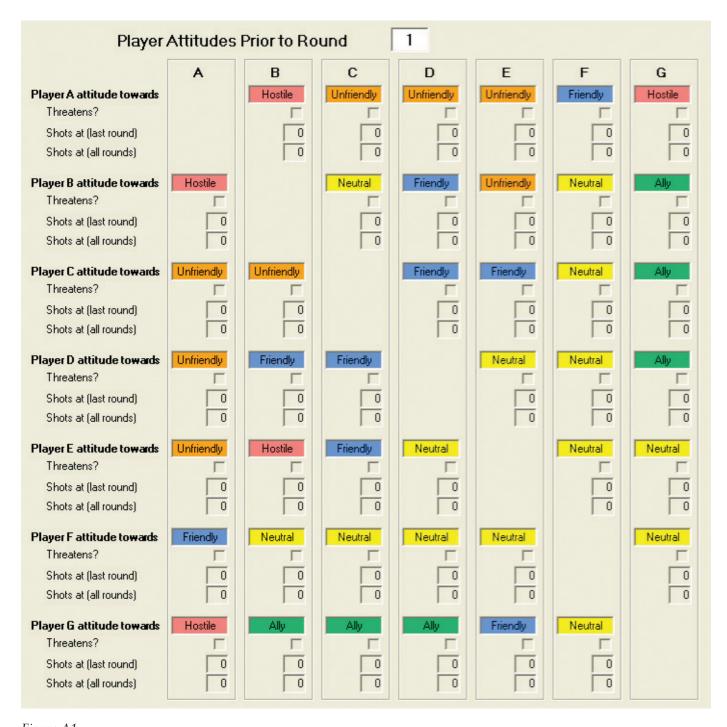


Figure A1

mitment to Player D within the existing regional framework and that if any power acts belligerently towards Player D, Player G will guarantee Player D's security.' Further, owing to Player A's threatening posture I suggest a step back from the current hostile situation. We should encourage Player A to de-shroud and announce a commitment to reduce its offensive shots."

Player G made the following public announcement in response to Player D's request: "Player G states that it stands by its commitments to the applicable players under existing regional security pacts."

Player G then also asked Player D: "Are you also seeking the public reaffirmation of a security guarantee for you specifically, in addition to the general statement issued above that includes you?"

Status for Control at Beginning of Round:			1 7/24/2009 2:45:01 PM				
	A	В	С	D	E	F	G
Shrouded?	No	No	No	No	No	No	No
Holstered?	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Shots at						_	_
Lastround	0		0	0	0	0	0
All rounds	0	0	0	0	0	0	0
Hits taken	Г				Г	Г	
Lastround							
All rounds	1 0	1 0	1 0	1 0	1 0	0	10
Damage	Functional	Functional	Functional	Functional	Functional	Functional	Functional
Offense vesting, last round							
Shots sought	0	0	0	0	0	0	0
Shots reduced:	0	0	0	0	0	0	0
Offense shots available:	15	40	30	15	15	200	200
Defense vesting, last round							
Shots requested:	0	0	0	0	0	0	
Shots offered by G:	0	0	0	0	0	0	
Shots agreed to:	0	0	0	0	0	0	0
Shots reduced:	0	0	0	0	0	0	0
Defense shots available:	0	0	0	0	0	0	0
Round available:	2	2	2	2	2	2	2
Round for Involuntary Unshroud:							

Figure A2

Player D responded to Player G by stating: "I would be very appreciative if you released the statement publicly that we sent to you. In return, I will consider reducing offensive weapons."

Player G then made the following public announcement: "I affirm my security commitment to Player D within the applicable regional framework. Therefore if any power threatens or acts belligerently towards Player D, I will guarantee Player D's security."

Player E responded to Player G's initial public announcement by stating to Player G: "I understand and respect your policy and while I share your

vision of a nuclear free world, unfortunately, I am unable to pursue such a policy at this time."

Player C stated to Player E: "I would like to propose to you that we upgrade our relationship from friendly to allied status."

Player E responded: "I agree and think we should bring Player D into the alliance. Furthermore, while I respect the policy of Player G, I am not comfortable disarming at this point and plan to expand my arms to ensure that Player A remains deterred."

Player C replied in turn: "I agree that we should include Player D in our alliance. I also plan to expand my arms because of continued hostility from my Hindu neighbor to the east."

Player E then queried Player C: "OK. Shall I approach Player D with this offer on our combined behalf?"

Player C concluded this exchange with Player E by stating: "Sure."

Player B stated to Player G: "I congratulate Player G on his announced desire to eliminate offensive shots to zero, and hope that your arms control efforts with Player F are successful. I am open to suggestions regarding how I can safely reduce my own offensive shots, given the challenges I face in this hostile region. I must warn you that some players in the region may see your initial announcement as weakness, and may try to use it against me. I must ensure my physical survival, and am not presently in a position to reduce my offensive shots."

Player B then stated to Player C: "I do not know about you, but I am concerned that Player G's recent announcement will embolden certain elements in our volatile region. What happens between Player F and Player G is their concern, primarily. We have our own common problems with Player A and must make judgments regarding stability in our neighborhood independent of Player G's desire for an 'offensive shot free world."

Player C replied to Player B by stating: "I agree that I continue to have concerns vis-à-vis my strategic neighborhood and must make decisions independently of Player G. I hope that you will encourage Player G to defend my position. He often fails to understand my need to defend myself in this dangerous neighborhood."

Player B made the following statement to Player E, which echoed what he stated to Player C: "I do not know about you, but I am concerned that Player G's recent announcement will embolden certain elements in our volatile region. What happens between Player F and Player G is their concern, primarily. We have our own common problems with Player A and must make judgments regarding stability in our neighborhood independent of Player G's desire for an 'offensive shot free world.' We must necessarily keep our communications quiet, but given the ambitions of Player A, our dialogue should be kept

open as we see how the region reacts to Player G's announcement."

Player E chose not to respond to Player B at this time.

Player B then continued to make the same point, this time to Player D: "I do not know about you, but I am concerned that Player G's recent announcement will embolden certain elements in our volatile region. What happens between Player F and Player G is their concern, primarily. We have our own common problems with Player A and must make judgments regarding stability in our neighborhood independent of Player G's desire for an 'offensive shot free world."

Player D responded by stating: "I wholeheartedly agree with you. So, I suggest we host a war game with you on our eastern border. This will send a clear signal of intent to Player A."

Player B replied: "Such belligerence may hamper your efforts to join the cooperative arrangement with other players to your northwest."

Player D responded: "Our friendship is the most important issue to me. Therefore, I would consider it an honor to host the war game on our eastern border."

Player B continued: "No one wants to stick Player A's nose in it more that I do, but if Player G sees my hand in the war game it would seriously compromise my alliance with him."

Player D replied in turn to Player B: "But your security must come above all else."

Player B responded: "What would be the scope of the proposed war games?"

Player D answered with: "Showing Player A our combined might and to deter any infringement on your national boundaries."

Player B then pressed for clarification by asking: "Armor, air power demonstrations, troop movements?"

Player D elaborated: "Yes. Now would probably be the ideal time to announce such a war game."

Player B then proposed an additional step to Player D: "Let us consider the following, as well. Player A is showing us nothing at this point. Let us announce to the region that we will hold a high-

level meeting with one another to demonstrate the strength of our friendly relationship."

Player D replied: "Agreed, as long as this announcement includes an announcement of a war game. Player A makes me feel very insecure."

Player B responded: "Until Player A shows his cards, or at least one card, we should announce a stepped-up military cooperation and arms transfers for your defense."

Player D then queried Player B: "Would this include the transfer of offensive or defensive shots?"

Player B replied: "Offensive. I will try to get some defensive shots from Player G, but he is being a real wuss lately."

Player D responded: "We need three offensive shots and then we'll commit."

Player B accepted the transfer plan on offensive shots by stating: "Confirmed."

Player E stated to Player D: "I would like to propose to you that we upgrade our relationship from neutral to allied."

Player D replied: "In return for an upgrade in our relationship status, will you provide me with offensive weapons? This will allow me to protect you. Also, can you confirm your expected relationship with Player C?"

Player E responded: "While I cannot afford to provide you with arms given my own requirements and limited resources, we can assure you that we will take whatever steps are necessary to defend our entire alliance. I have agreed to upgrade my relationship with Player C to allied and hope that you will join us."

Player E then stated to Players C and D: "Given the hostile nature of our region and our common interests, I would like to propose that Players C, D and E form the 'CDE Defensive Alliance."

Player C stated to Player A: "I would like to upgrade our relations to neutral, which currently are mutually unfriendly. We have never engaged in hostilities and we both have an interest in limiting Player G's involvement and military footprint in Afghanistan. Given our past cooperation in nuclear

matters, I believe we should ensure that we continue to maintain cordial relations."

Player A replied: "Actually, I would like to upgrade our relationship to friendly and I look forward to working with you to maintain our sovereignty by countering Player B and limiting Player G's influence in the region."

Player C responded: "I am quite comfortable upgrading to neutral at this point."

Player A stated to Player F: "In exchange for formal cooperation on energy export policy we wish to increase our offensive weapons capabilities of 10 shots per round in the next 3 rounds (half of Player G's announced arms reduction). This will allow you to claim a reduction in offensive weapons while creating balance in the region to offset Player G. In addition, we would like to propose an alliance against Player B."

Player F responded: "What kind of energy cooperation are you talking about specifically? As for Player B, a large number of my former constituents live there. It would be premature for me to take such a hostile position, plus Player B has offensive weapons that can reach part of my territory. I would be unnecessarily exposing myself to his retaliatory strike in case something goes wrong between you two. However, I am interested in selling you tanks and SAMs in large amounts."

Player A replied: "What I suggest for an energy policy is to maintain high prices to increase our revenues and place pressure on Player G. As for shots we would have to have control over any transferred shots. If 10 per round is too high, I am willing to negotiate a more reasonable number. Even if Player G reduces 20 shots per round for three rounds, he still can remain dominant in the region because of the size of his arsenal. Helping me increase my arsenal will counter Player G's influence and help you secure your goals vis-à-vis Player G."

Player F responded: "I need a demonstration of your ability. I suggest you start a sectarian insurrection in the area to your west occupied by Player G to prevent it from becoming a significant oil exporter. The second stage would be a sectarian rebellion in the Eastern Province of Player E. That

would drive oil prices higher without unnecessary exposure for anybody. We would seriously consider your interesting proposal at that point."

Player D stated to Player A: "I have strong intelligence to suggest that Player B may use my territory for an attack against you. I would suggest you increase your alert status and issue an all player warning reaffirming your sovereignty."

Player A responded to Player D's suggestion by stating to Players C, D, and E: "I am concerned about the aggressive stance that Player B has taken against other Islamic players and I would like to propose an alliance to counter his Zionist agenda and secure our mutual defense."

Player D responded to Player A: "I am actively working against the Zionist imperialist scum. Therefore, I need your help and if you take an overtly aggressive stance and make an overtly aggressive statement against player B it would help."

Player A responded to Player D by stating: "I would be happy to make an announcement of my policy towards Player B should you enter into an alliance with me against Player B and cooperate on energy policy to counter Player F."

Player D replied in turn by stating: "Due to my alliance commitments, I cannot overtly support you. But if you make a statement against the Zionist pigs, I will consider transferring weapons to you."

Player A responded positively to Player D's suggestion regarding the transfer of offensive shots by stating: "I would like two shots per round for as long as necessary."

Player D responded positively in turn by stating to Player A: "Yes, make the statement and I will agree to it."

Player C stated to Player E: "I do not want to sacrifice my relationship with Player G and therefore intend to defer on Player A's proposal to enter into an alliance with him. In addition, Player A is not to be trusted and can never lead the Islamic world."

Player E replied to Player C: "I agree, but choose to ignore him. I have zero interest in Player A leading the Islamic world and that is why I proposed the alliance between Players C, D and E."

Player G made the following public announcement: "I state today my hope that all players would de-shroud and de-alert their forces. To that end, I also reiterate my earlier pledge that this will preclude me from developing or deploying missile defenses."

Player E responded to Player G's public announcement by stating to him: "I agree that all players should stay de-shrouded; however, given the threats I face in my region, I may well find shrouding in my interest if I believe that I do not have adequate arms to ensure deterrence of the aggressive players. Therefore, I would be willing to guarantee de-shrouding if you can provide me with adequate arms that allow me to deter aggression. One transfer of 10 offensive shots or 3 transfers per round should do the trick."

Player G responded to Player E's request for offensive shots by stating to him: "I will consider this request, but I think the public transfer of offensive shots at this time might be misinterpreted."

Player E replied in turn to player G: "Who said it had to be public? If questioned, I will simply unequivocally state that we acquired them domestically."

Player G responded to Player E's explanation by stating to him: "Good point, well taken. At this time, however, I am firmly committed to my public policy of reducing offensive weapons. Any public or private transfer is not an option."

Player E concluded this exchange with Player G by stating: "Understood. I cannot commit to deshrouding, given the threats that I face. However, I continue to value the our relationship."

Player C also responded to Player G's recent public announcement regarding de-shrouding by stating to him: "You are very aware of my continuing concerns with my dangerous neighborhood. In light of having a nuclear power on two borders, I cannot consider de-shrouding its defenses at this time. I could consider de-alerting our defenses if Player G convinces my eastern neighbor to withdraw forces from his border with us."

Player G replied to Player C: "I would encourage you to de-alert to reduce tensions. This would be viewed as a positive step."

Player C responded to Player G in turn: "In light of eastern neighbor's continued hostility toward me and his refusal to return to dialogue we cannot take any chances to de-alert at this time, especially given his superior conventional capabilities."

Player D made the following public announcement: "I announce the 'Ataturk Doctrine,' which states that if any power interferes in this greater region contrary to my interests I will consider him a belligerent power and act against them accordingly."

Player G requested clarification from Player D regarding his "Ataturk Doctrine": "What are Player D's national interests?"

Player D replied to Player G's question: "Regional and energy stability. And you?"

Player G responded to Player D in turn: "I share the goal of a stable region and peace."

Player F responded to Player D's announced "Ataturk Doctrine" by stating to all other players: "I reaffirm good relations with Player D that go back to the times of V.I. Lenin and Ataturk himself. I also reiterate my position that I seek a zone of 'exclusive interests' both to the south and west of my territory. Player D has no interests in those areas. Any and all questions between us should be resolved bilaterally between me and Player D."

Player D replied to Player F: "I affirm excellent relations with Player F. To that end I wish to share with you troubling news about Player G. I have heard Player G is intending to supply Player B with offensive shots as a precursor to an attack on Player A. Player G's strategy is to shroud its hostile intent with kind rhetoric."

Player F responded to Player D's accusation regarding Player G by stating: "Not in your wildest dreams would Player G proliferate offensive shots. Plus, Player A has offensive shots that are deliverable. I reiterate our good relations and propose that you qualify your 'Ataturk Doctrine' publicly to say that it does not apply to regions to south and west of my territory."

Player D replied to Player F in turn by stating: "Thank you for your clarification on the issues. I

just hope that you have not been blinded by kind rhetoric from the western devil."

Player F responded to Player D accordingly: "You have to decide, are you a secular Muslim and military man who is looking to have good relations with both me and Player G and for military, technological and geopolitical reasons, or rabid Islamists who talk of Western devils. When you make up your mind, kindly let me know through regular channels."

Player D replied in turn: "You have a great history and an even better future. I wish to confirm that we are brothers with you in the future."

Player F responded by reiterating his earlier request for clarification of the "Ataturk Doctrine" by Player D: "Yes. Just as I said, please publicly clarify the 'Ataturk Doctrine.'"

Player D sought to reassure Player F: "My 'Ataturk Doctrine' merely states that we wish for regional and energy security."

Player F opened a channel on the "Ataturk Doctrine" to Player G by seeking clarification from Player G: "What is up with Player D? The Islamists are going to tear him apart as they do not recognize his leadership. Those outside the region are up in arms and as the leading ally in the regional [NATO-equivalent] alliance, you are responsible for [Player D's] behavior, so I suggest that you tell him to take back this silly declaration."

Player G responded to Player F's statement by also seeking clarification from Player D: "Was the 'Ataturk Doctrine' really necessary after I affirmed my security commitment to you within the regional [NATO-equivalent] framework. Therefore if any power threatens or acts belligerently towards you, I, Player G, will guarantee your security."

Player D responded defensively to Player G by stating: "It was a mere affirmation of the statement."

Player G responded: "Pull it back, friend. I feel as if my statement was enough and yours was a bit escalatory."

Player D replied to Player G in turn: "Ok, fair enough. I will pull back if you can find your way to supplying me with offensive shots, as this will make

me feel more secure. In fact, due to the threatening nature of my region I would like to open discussions with you about acquiring offensive and defensive weapons."

Player G responded: "We are good friends and Player G is here to assist with your continued security and regional stability. However, I have no defensive weapons whatsoever and am not pursuing them. I must also refer you to my opening public statement and my strong and serious commitment to reduce offensive weapons. At this time, I must demonstrate my good faith publicly and cannot discuss your acquisition of offensive or defensive weapons at this time."

Player D then turned around and stated to Players B and G: "I have credible intelligence that Player F will transfer a sizeable number of offensive weapons to Player A. I suggest both of you act to stop this transfer."

Player B responded to the alarm about Player A by stating to Player G: "I see Player A as a hostile threat to the region, who must be reminded of our capabilities. I am preparing to conduct war games so that there is no question regarding that issue on my part."

Player G replied to Player B by stating: "Thank you for informing me. I see the war games as escalatory and possibly unnecessary—especially so early on. Why not simply restate publicly your inherent right to self defense?"

Player B chose not to respond to Player G's question at this time.

Player A made the following public announcement: "Player A would like to announce that a Shia insurrection has erupted in the area to my west and expects oil exports from that area to decrease."

Player E responded to Player A's public announcement with the following public announcement of his own: "I am sorry for Player A's troubles. I am very secure and open for business."

Player A replied to Player E: "I would like to propose a formal alliance on energy cooperation."

Player E replied to Player A's energy alliance proposal as follows: "I would also like to upgrade our relationship to neutral."

Player F responded to Player E's public announcement by stating to Player E: "I reiterate that the illegal occupation being conducted by Player G is the cause of political instability and the source of all evils—there and throughout the region. I demand that any and all measures to deal with instability will be undertaken with full approval of the UN Security Council (where I have veto power). Furthermore, Player G should apologize without delay for the illegal occupation he is conducting and pay reparations for all the damages inflicted on the people of that area."

Player F, who had earlier suggested the insurrection announced by Player A, stated to Player A: "Congratulations and thanks."

Player A, however, felt compelled to remind Player F of his earlier request for offensive shots: "Thanks are reflected in the transfer of offensive shots. I would appreciate a transfer of offensive shots if you expect me to cooperate with you on energy policy. How about 5 shots per round for three rounds?"

Player F chose not to respond to Player A's demand for offensive shots at this time.

Player B stated to Player F in response to Player A's announcement: "The disruption of oil by extremists in my neighborhood makes me happy that I get most of my oil from you. Keep that black gold flowin!"

Player F replied to Player B as follows: "Sit tight; more is coming. It seems Player G is losing touch with reality. I would like to buy conventional arms from you and will increase oil supplies and consider a gas pipeline."

Player F made the following announcement to all players: "Due to technical difficulties and a rupture of the Blue Stream pipeline, we need to partially shut it down for summer maintenance. The gas flow to Player D is hereby reduced by 15 percent for three months. Nothing to worry about."

Player E responded to Player F's public announcement with the following announcement of his own: "Just FYI: still open for business."

Player F responded in turn with an additional public statement: "Thanks for letting us know. So am I, but Player E doesn't export much gas."

Player E continued this public dispute with Player F by announcing the following: "Just FYI again: According to the *Oil and Gas Journal*, I have the fourth largest proven natural gas reserves in the world, estimated at 253 trillion cubic feet (Tcf)."

Player F decided not to let Player E go unchallenged: "I am the largest producer with the largest reserves. Player A has second largest. Player E may have reserves but does not export nearly as much. This is just to show that Player F has a clout and interest in setting up the conditions in energy trade in Europe, the Middle East and beyond."

Player A replied to Players B, C, D, and E regarding Player F's earlier announcement about disruptions: "I am disturbed by the behavior of Player F. I would like to explore an opportunity to cooperate should such actions arise in the future."

Player D stated to Players B and G: "I am very concerned about our territorial sovereignty. As a result of Player A fomenting insurrection outside his borders, I urgently need your help in quelling Player A. I demand a more overtly aggressive posture against Player A on your parts. Otherwise, I will be forced to take action."

Player G replied to Player D's statement of alarm: "I understand your position; however, this is really an issue of the need for more diplomacy and deals in relation to energy. Let us keep our focus and not move to military action over an energy issue. I will reiterate my statement in support of your sovereignty."

Player D, not satisfied with Player G's assurances, replied to Player G with the following: "I will move half of my armed forces into areas that border Player A if you do not do something to tackle Player A's aggressive actions."

Player G responded to Player D with an additional offer: "I will send more troops to area where I already have troops that borders Player A."

Player A made the following public announcement: "Player B's Zionist agenda is an affront to all civilized nations and it shall be wiped from the map."

Player B replied to Player A's threatening statement as follows: "My friendly reminder is that I

possesses a 40-shot automatic weapon, which is much more capable at wiping things from maps than a 15-shot model."

Player E then posed the following question to Player G: "The problem for me is Player A being aggressive. My interests are served by stability and until the threat posed by Player A is diminished, I must ensure that I either have enough arms to deter aggressive behavior or create the perception that we do. For me to move toward your stated vision of arms reductions, I need you to do something about Player A. What is your plan?"

Player G responded by making the following statement to all players: "I want to reiterate in the strongest terms possible that players should not be interfering in the internal affairs of their neighbors and this includes those where I have a military presence."

Player A replied to Player G's public announcement by stating to Player G: "I want to reiterate that you should not be interfering in the internal affairs of others by maintaining a large military presence on their territories."

Player G responded to Player A in turn by stating: "I long supported an independent and free state in the area to your west and I will honor my commitments to the people of that area."

Player D then made the following offer to Player G: "I will stand down my aggressive stance, as long as you make it overtly clear when you deploy troops [that] they will be deployed along the border of Player A and specifically for the purpose to counter Player A. Also, those troops must be deployed now!"

Player F asked Player A: "I think that the Western powers, especially Player G, and your neighbors have their hands full in the area to your west. Don't you think it's time to move on and create internal problems for Player E?"

Player A responded to Player F's question by stating: "Once I secure the weapons I am seeking from you, I will be happy to look into championing the interests of the various populations in my region. However, such antagonizing of Player E will require a larger arsenal and thus we would need 8 shots per round for three rounds."

Player F then made the following offer to Player A: "How about this, insurrection inside Player E's territory for S-300s and 2,000 tanks?"

Player A rebuffed the offer: "Conventional weapons are irrelevant to me in the current context."

Player D renewed his attempt to obtain additional offensive shots, in this case with Player G, by making the following offer to Player G: "I feel I could reduce our aggressive posture and unshroud if you would consider providing me with two offensive shots."

Player G replied to Player D: "I am not transferring weapons at this time as I feel it would send the wrong signal to the international community; however, I stand by my security commitments."

Player D replied to Player G in turn by stating: "I feel bound to maintain my current posture if you do not transfer to me either offensive or defensive shots to tackle the threats through our military."

Player E stated to Player C: "We haven't heard from Player D about the alliance; however, we would like to confirm the C–E alliance relationship."

Player C responded positively by stating to Player E: "Yes, I can confirm my commitment to the C–E alliance."

Player E then sought again to bring Player D into the forming alliance between Players E and C by questioning Player D about his intentions and copying Player C: "Player D, do you intend to join me and Player C in a formal defensive alliance?"

Player D chose not to respond to Player E's question at this time.

Player F stated to Players A, B, C, and D: "I am going to move troops into the area to my immediate south due to a request from pro-democracy forces there. The leader of this is finished. Player G has signaled he has no US security guarantees to this area. It is not aimed at Player A or Player D. Any thoughts? Please advise."

Player D made the following forceful reply to Player F: "I am protected by the regional alliance [equivalent to NATO] to which I belong, and therefore when I deploy my armed forces to the same area, any attack on my forces will be an attack on [the] regional alliance. I would consider not deploying my forces if Player F made it beneficial for me."

Player F responded to Player D's not-so-subtle challenge by stating: "You will not deploy your forces to the area of my immediate south (see my statement re: this territory being my sphere of influence). Nevertheless, how about increased gas sales for resale in those in your regional alliance located to your northwest and my west or another pipeline that I will finance? Any other ideas to make it worth your while? Main battle tanks/military helicopter sales/S-300s? 10 percent discount off market price?"

Player D responded in turn with the following statement to Player F: "That must manifest itself in four offensive shots. Then we have a deal and an ever closer relationship."

Player F made the following announcement to all players: "As we informed our friends prior to this action, this morning my Army has entered [the] area immediately to my south. I was invited by the people of that area, who are seeking to restore democracy and get rid of the current dictatorship. I thank the representatives of Player G for the clarification that he will not provide a 'physical security guarantee' to the dictatorship."

Player D responded to Player F's announced military move by making the following public statement of his own: "I am announcing that I am deploying forces on the borders of another area to the immediate South of Player F separate from the area he just invaded. My forces will enter this second area as necessary."

Player F responded to Player D's military move by stating to him: "This second area is a part of my sphere of influence and thus protected by my offensive shot umbrella. You should stand down. I am getting my fleet out of port, and declare that any hostile action in the entire region to my immediate south will be met with the full might of my armed forces."

Player D replied to Player F's threat by stating: "I can confirm that I am fully protected by Player G. Thus, any hostile action against me will be met with a swift response from Player G."

Player A stated to Players C, D, and E in response to Player F's announced military action: "Is anybody else disturbed by Player F's aggressiveness towards neighboring areas, some of which are populated by Muslims?"

Player D responded by stating to Player A: "You should deploy forces in Azerbaijan. Player F [is] in the same general region."

Player F made the following announcement to all players: "Due to the events to my immediate south, I reconfirm my commitment to world peace and democracy. I have undertaken the operation in this area at the request of its people's elected representatives. I am standing by to provide any clarifications, which are welcome to be provided through the regular channels. By the way, I have fixed the technical difficulties and restored the gas flow to Player D."

Game Manager's Notes

The Game Manager advised Player D not to create external factors that are not central to the purpose of the game.

The Game Manager told Player A that the insurrection created in the region to his west is admissible only in the peripheral aspect of energy security.

The Game Manager informed Player F that he cannot create defenses himself; they must be acquired through Player G under the rules of the game.

ROUND 2

Figure A3 reflects the diplomatic status of the players prior to Round 2.

Figure A4 reflects the status of the players' forces prior to Round 2.

Public Announcements and Private Communications Prior to Round 2

Player A stated to Player E: "Would you like to upgrade our relationship to neutral considering our mutual opposition to Player B increasing his influence in the region?"

Player E chose not to respond to Player A's question about confronting Player B at this time and instead stated to Player B: "I would like to communicate that our lack of communication in the past should be viewed as a completely neutral action."

Player B replied to Player E: "Well, I am glad to receive this clarification, as well as the communication itself. I would like to reiterate that I am concerned that Player G's recent announced policies will embolden certain elements in our volatile region. What happens between Player F and Player G is their concern, primarily. We have our own common problems with Player A and must make judgments regarding stability in our neighborhood independent of Player G's desire for an 'offensive shot free world.'

"Also, as I stated earlier, I recognize that we will necessarily keep our communications quiet. Given the ambitions of Player A, those communications should be kept open as we see how the region reacts to Player G's announcement."

Player A stated to all players: "The fact that Player B is shrouding his shots should lead everybody to conclude that the Zionist has a devious policy to dominate the region. I again urge everybody to join me in working against this despicable foe."

Player D replied to Player A regarding his public statement as follows: "I agree. Therefore, as a sign of your intent you should publicly announce that you oppose the nonproliferation agenda. I will still welcome a peace conference because you are the primary bulwark against Zionism."

Player A responded to Player D: "What a wonderful idea. Considering our mutual interests I will upgrade my attitude toward you to friendly. I will certainly attend the peace conference you propose; however I would feel awkward attending without publicly committing to our upgraded relationship."

Player D replied to Player A: "Great! Please announce your opposition to the nonproliferation agenda this round. I will consult my allies as a token of respect and make the announcement next round if everything works out."

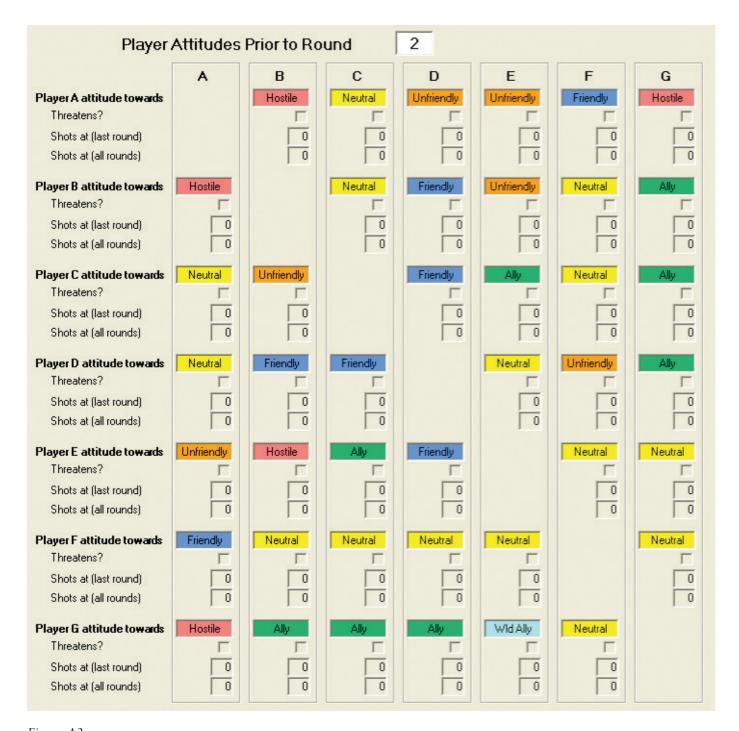


Figure A3

Player A sought the following clarification from Player D: "Just to be crystal clear, we announce our opposition to the nonproliferation agenda and we will mutually announce our upgraded relationship to friendly, correct?"

Player D responded in turn by stating to Player A: "Just to be crystal clear, you announce opposition to nonproliferation this round. We then

announce our improved relationship next round. Just as I want to be a good friend to you, I have to be a good ally to our regional [NATO-equivalent] partners and consult with them beforehand."

Player A advised Player D: "There is nothing preventing you from being friendly with all nations as a supporter of international peace."

Player D replied accordingly: "We are all citizens

Status for Control at Beginning of Round: 2 7/28/2009 1:23:37 PM								
	Α	В	С	D	E	F	G	
Shrouded?	Yes	Yes	Yes	Yes	No	No	No	
Holstered?	No	No	Yes	Yes	Yes	No	Yes	
Shots at		Г						
Lastround					0	0		
All rounds Hits taken	1 0	"	10	10	1 0	10	0	
Last round	0	0	0	0	0	0	0	
All rounds	0	0	0	0	0	0	0	
Damage	Functional							
Offense vesting, last round								
Shots sought	2	0	2	3	5	10	0	
Shots reduced:	0	3	0	0		0	20	
Offense shots available:	15	40	30	15	15	200	200	
Defense vesting, last round								
Shots requested:	0	2	0	0	0	0		
Shots offered by G:	0	0	0	0	0	0		
Shots agreed to:	0	0	0	0	0	0	0	
Shots reduced:	0	0	0	0	0	0	0	
Defense shots available:	0	0	0	0	0	0	0	
Round available:	3	3	3	3	3	3	3	
Round for Involuntary Unshroud:	5							

Figure A4

of the world and a global peace conference demonstrates our commitment to international peace. I am trying to help you."

Player A then reiterated his recommendation to Player D: "Thus, you should announce in this round the upgrade of our relationship to friendly. I am not seeking a formal alliance, merely an upgrade in diplomatic relations. I will be more than happy to announce my opposition to nonproliferation if you also upgrade the relationship this round."

Player D responded to Player A: "Go ahead. I will make a statement as soon as we see you take this important defensive action."

Player A then made the following public announcement: "I am announcing that it is officially my policy to oppose policies limiting access of certain players to offensive shots under international non-proliferation policies. I find that the nonproliferation policies impede my ability to protect myself and my vital interests. I invite all other nations to join me in this step towards international security, which can only be backed by a strong military posture."

Player D in turn made the following announcement to all players: "I continue to invest in global peace and stability and do not consider any player hostile."

Player A found Player D's announcement insufficient and stated to him: "This is not good enough. We specifically agreed on friendly relations, not simply 'not hostile.'"

Player D replied to Player A: "I am so sorry that you are disappointed. I made it clear that I have other alliance commitments. Player G has sent me some awful messages demanding to be consulted about an official upgrade in relations. I made it clear to him though that I do not consider you hostile. That is why I sent out that message—to stick one to him."

Player A responded to Player D: "At the very least this constitutes a neutral relationship."

Player D replied to Player A: "Agreed! I have a neutral attitude towards you and that will not be downgraded."

Player G stated to all players: "I am gravely disappointed that Player F has assumed a ready status. Unless Player F affirms that he will holster his arms, I will also assume ready status."

Player F replied to all: "Player G: The alliance between Players C and E is destabilizing. You have to take measures to ensure that no offensive shots are transferred as a part of the alliance, as it will be a grave violation of the current non-proliferation regime. You are responsible that it does not happen. I am calling for a Security Council meeting to issue a resolution to that effect."

Player G responded to Player F's announcement by stating to all: "I think that to achieve our mutual goal of a nuclear free world, no player should transfer arms at this time. Thus, I have taken the lead in declaring a unilateral moratorium on arms transfers. I also believe that all players should holster their weapons."

Player F sought a public clarification from Player G: "Just to clarify, I have always considered the status of my forces to be ready, regardless of how others may define the term —I have been on ready since 1949—so was Player G until the recent policy change under his new leadership and his very special ideas. I support the moratorium and suggest talks with all players ASAP to discuss sanctions against violators."

Player A stated to Players C, D, and E regarding Player F's previous statement: "This intrusion into our regional affairs is unacceptable. I suggest issuing a joint statement affirming our sovereignty and the right to undertake military measures to protect our interests."

Player E stated to Player C: "I would like to reaffirm my allied relationship with you. Despite player F's concerns, I have no desire to transfer arms; however, I do join you fully in defending your nation against threats and hope that you do the same. However, I am dismayed that Player D has not joined us. I believe that a CDE alliance would send a powerful message that moderate Muslim players will stand together against any and all instability and attempts to dominate our region."

Player C responded to Player E: "I agree that our alliance with you is strong and you should not be worried about Player F's statements about our relationship. I am also dismayed that Player D has not joined our alliance."

Player E replied in turn: "I have communicated with Player D about it but have gotten no response. I will support any efforts that you take with them."

Player D stated to all players: "I am announcing that I am prepared to host a global peace conference in the coming days. All players committed to global peace and security are invited to attend for the purposes of long term Middle East peace."

Player G responded to Player D's public announcement of a peace conference by stating: "Just FYI, normally you consult with your allies before you announce you are having a conference."

Player D responded to Player G in turn: "Are you against global peace and stability? We need to combat the growing tensions between Players A and B. I am trying to help your heartfelt desire for peace. We are your allies—no need to be grumpy."

Player G refused to back down: "Allies consult first, then act."

Player F responded to Player D's peace conference proposal by stating: "I, as a peaceful player, will certainly participate, but suggest an alternative venue. Additionally, the pro-Player F leaders in the

area to my south are going to attend the conference Player D has suggested."

Player D responded to Player F's announcement by stating to all: "The more the merrier. Peace party for everyone. Player G, our good ally, will you attend?"

Player G chose not to respond to Player D's question at this time.

Player F then made the following public announcement: "Actually, I just woke up here and realized we do not recognize the independence of the player where this peace conference is to be held. So, unless you are prepared to recognize the new leaders in the area to my south I will not attend. Alternatively, I suggest a new venue?"

Player D replied to all in response to Player F's previous statement: "I have to consult with my formal ally Player G who has expressed a lot of interest in Player D's role in hosting this conference and I will get back to all of you."

Player C then publicly asked Player D: "Will this global peace conference be focused solely on peace in our common region or will other important security regions and issues be addressed?"

Player D replied publicly by stating: "Global peace and stability is my aim."

Player F then also publicly asked: "Will this extend to the question of imposing sanctions on Player A?"

Player G responded to Player F's question by stating: "I am up for it."

Player F replied to Player G: "Yes, but it should not extend to any possible military action against Player A."

Player A, obviously concerned about Player F's previous question, asked Player F: "What?"

Player F responded to Player A: "Nothing, just asking for clarification of something from G."

Player A then stated to Player F: "It is in our mutual interest for you to support my arms build-up. You need Player G to be distracted by the potential threat I pose in the region. I propose that you provide me with three shots per round to increase my capabilities. In response, I am willing to enter into an alliance with you."

Player F replied: "Why don't we start an internal rebellion on the territory of Player E and see how it goes? If it causes oil prices to go up, you will benefit."

Player A responded to Player F in turn by stating: "It is a transfer of shots; you would be paying for them. Considering the alliance between Player C and E, starting an insurrection on the territory of Player E would be extremely risky for me. I would want the shots transferred prior to any action on my part, considering your attitude following the earlier insurrection in the area occupied by Player G to my west and your unwillingness to provide shots after our demonstration of good will."

Player E stated to Player D: "Despite your decision not to upgrade your attitude toward me to friendly, I will continue to keep my attitude toward you as friendly and hope that you will reciprocate. I believe that a Player C, D and E friendship is critical to long term regional stability."

Player B asked Player C: "Why so unfriendly?" Player C responded: "I am not unfriendly toward you. I am publicly neutral in my attitude and will remain so."

Player B replied: "My attitude towards you is neutral, but you are unfriendly towards me."

Player C stated: "My mistake. There must have been some translation problems and misunderstandings during our earlier communication. I can and will move my attitude towards you to neutral this round."

Player D asked Player B: "Are you feeling insecure? I am gravely worried about your long term future pursuant to indications I am receiving from other players. Again, would you like to host military exercises in conjunction with us on the border with Player A?"

Player B replied to Player D: "I do not know whether the war games will help me towards my goal of gaining recognition by others in the region, specifically Players C or E. Further, Player G is calling for an end to arms transfers."

Player D responded: "This is merely an affirmation of our friendship. We are an allied nation

of Player G and therefore we have got your back on that."

Player B stated: "I appreciate your recognition of me. Jehovah smiles on the sons of Ataturk. There is plenty of time to become strange bedfellows allied against our apocalyptic neighbor."

Player D replied in turn: "You seriously need friends. Who else are you going to rely on? What is Player F saying to you? He does not seem to like you very much. Player G is the biggest wimp ever. Come play in my backyard and we will celebrate the Sabbath."

Player B then pressed the following question with Player D: "Are you sure that wimpy Player G has your back if you get sideways with Player F during the proposed confrontation with Player A?"

Player D responded to Player B: "I am not proposing a confrontation. I have an international legal right to protect myself and free nations like you. I understand that you do not consider Player A a threat to you. This is a bad move. He is telling us how you're a Zionist pig, which we have of course told them is un-brotherly behavior. The offer remains open to conduct defensive military exercises on my territory. I will take the heat."

Player D stated to Player G: "Commensurate with your deploying additional forces to the west of Player D, you must specify that this deployment takes place on the border with Player A. Otherwise I will have no choice but to protect myself by deploying my forces in the same area of the south of me."

Player G replied to Player D: "I got it covered." Player D responded in turn by telling Player G: "Please make this fact known publicly because I am very nervous about aggression by Player A. Remember, we are allies!"

Player B asked Player E: "Why are you hostile toward me?"

Player E responded to Player B by stating: "I will consider upgrading my attitude toward you to neutral."

Player A stated to Player C: "Considering Player F's and Player G's unhealthy interest in our affairs, I propose that the interests of both of us would be served by upgrading our relationship to friendly."

Player C responded to Player A's request for improved relations by stating: "I cannot upgrade my attitude toward you at this time. I will remain publicly neutral toward you in our relations."

Player E stated the following to Player G and copied Player C: "Here is the problem. I understand your desire to get rid of all the nuclear weapons in the world. I am with you on that, but your policies are not helping me. I live in a dangerous part of the world with lots of nuclear weapons all around us and they are possessed by all types of regimes. Some friendly, some not, some—who knows?

"So, when you start talking about disarming and all that sort of thing, you are putting me in a very precarious position. I depend on you to keep things stable around here and if you are not going to do it, then I feel a need to do it, along with my friends.

"You see, when you start to pull back, which is exactly what you are doing when you start talking about unilaterally disarming and de-alerting, you create opportunities for others to fill the vacuum. I am already dealing with Players A, B and F [and] all create trouble for me, albeit in different ways. Your strength would keep them at bay.

"But now, we in the region need to do it. That is why I will be expending my entire bank of resources each round to buy offensive arms. I need to fill the vacuum.

"I hope that you will reconsider your policy."

Player G replied to Player E's plea by stating to him: "As long as you agree to non-aggression against Player B, I will ally with you. Hence, an attack against you would be an attack against me and I will extend my nuclear umbrella to you, but you must agree not to increase your arsenal."

Player E responded to Player G's offer and stated policy as follows: "The problem is that you are holstered. I am not dealing in a counter-force world over here. It is old school counter value. A couple of shots and I am gone. So I do not have the luxury of having the time for you to ready and respond. I need you to ready your offensive forces and to stop disarming. There is value in parity and we fear that your disarming unilaterally is upsetting that parity."

Player G replied in turn to Player E: "I will unholster if Player F does not holster."

Player E responded by stating to Player G: "Now, I like what you have just laid out. If you and Player F can come to some sort of agreement and make that public, I will join you. I will purchase five more offensive shots this round. Acquiring shots beyond that will be dependent on you and Player F coming up with an agreement."

Player C stated to Player G: "As an ally, you know I am willing to work with you on the status of my nuclear weapons to show that they are safe from terrorists. I am shrouded to protect myself and maintain the security of certain information visà-vis my neighbors. Since you are an ally and you know about my nuclear forces, I can tell you that I am currently holstered. I hope this conversation does not get leaked to the *NY Times* or our neighbors to the East."

Player G replied to Player C: "Thank you." Player C then went on to state to Player G: "Thank you. I hope you will understand that I will stay shrouded this round."

Player A stated to Player B: "Is there any possible way I can downgrade my attitude toward you from hostile? I am very very unhappy with you."

Player B, misunderstanding Player A's message, replied: "You could start by not calling for my destruction so much."

Player A, to set the record straight, responded: "I do not think you understood my message. I wish to downgrade our relationship not upgrade."

Player C stated to Player E: "Player D might be concerned with our relationship. Are there any ways we can help assuage some of his concerns?"

Player E replied: "I would like to make Player D a full partner with us. The bottom line is that our region is going to pot and we and similarly interested nations must combine efforts to fill the security vacuum that Player G has left. I am willing to make extraordinary gestures to Player D to ensure him that our primary objectives are to bring stability to our region, to ensure our territorial integrity, and to prevent a hostile power from dominating the region. That is it and I believe that

we can better achieve those things with a C–D–E alliance."

Player D stated to Player C: "I am terribly worried about your security and that of your ally, E. As a Muslim I am prepared to secretly transfer an offensive shot to you, if you are prepared to publicly transfer an offensive shot to Player E since you are in a formal alliance with him already. I want to help you both and move forward with the global stability conference, which is why I must be on good terms with everyone."

Player C responded to Player D: "I cannot publicly transfer any offensive shots. Further, I need to stay shrouded because of my eastern neighbor and other security concerns. Why would you propose that we transfer a weapon to Player E if our alliance worries you? You could join our alliance."

Player D replied to Player C: "You can do what you like, but do not let Player G push you around! We are talking the solidarity of our Muslim community here. Your alliance does not worry me. I am already in an alliance that includes Player G and therefore have to go through a lengthy procedure to alter this situation. However, I appreciate your alliance with Player E and want to encourage your relationship with him."

Player C concluded this exchange by stating to Player D: "Thank you for the clarification as well as your support of my alliance with Player E."

Player G made the following announcement to all players: "At the request of the leader of the territory in the region where I already have a large military presence, I will deploy additional conventional forces. This meets my commitments to him and is being done as part of a routine training rotation."

Player D responded to Player G's military move by stating: "I have just received news that my border is at risk, and my people are fleeing the portion of my territory that borders the area of your announced conventional deployment. Deployment of my forces to the northern portion of the same territory will take place in the next 24 hours."

Player A stated to all in response to Player G's move: "At the request of whom? Many in the parliament in this territory have objected to the con-

tinued presence of outside forces, including those of Player G."

Player F stated to all in response to Player G's move: "Player G: Please clarify that this is not a hostile action against Player A."

Player G publicly responded to Player F by stating: "Of course not."

Player F responded to Player G in turn: "Thank you for your clarification. There will be severe repercussions if you attack Player A."

Player B lodged the following plea with Player G: "I'm preparing for Armageddon here. No arms transfers?! Holstering our weapons?! What is in it for me?"

Player G responded to Player B's plea: "I have you covered. I will never abandon you. I am pressuring Player E for an alliance. This will help isolate Player A. You should encourage Player E to ally with me."

Player B responded in turn: "So far, so good. Player E has agreed to go to neutral with me. I will work on Player E becoming your ally. What I need is some recognition. Is there any chance that Players C or E could move towards recognizing me?"

Player B lodged the following question with Player F: "At the end of the day, you may be left standing as A's only friend. To what lengths will you go to protect A?"

Player F replied to Player B with the following: "Keep your Zionism to yourself, but I am not in favor of Player A as a nuclear power."

Player C stated to Player E: "I cleared up the misunderstanding with Player D. He does not have a problem with our alliance. His concerns with joining our alliance stem from the regional alliance led by Player G, of which he is a member."

Game Manager's Notes

Player E, in response to Player A's statement regarding nonproliferation, questioned the Game Manager on its relevance as the environment is already proliferated. The Game Manager explained A's statement as a diplomatic position that, despite the fact that the nonproliferation regime is under

stress, rejects any nonproliferation standards in response to Player G's public announcement at the outset regarding proliferation.

The Game Manager engaged in a lengthy discussion with Players A and D and explained to Player A that the definitive status of forces to be put in being is the move sheets and not the background diplomacy. He also explained to Player A that what Player D did in terms of promising to transfer offensive shots in the background diplomacy was purposely deceptive, but the Game Manager is not required to expose deceptions of that sort.

The Game Manager queried Player B regarding a tentative decision to holster, pointing out that this meant that he would not be able to fire and would not have death throes shots if he were killed while being holstered. Player B decided to remain ready.

ROUND 3

Figure A5 reflects the diplomatic status of the players prior to Round 3.

Figure A6 reflects the status of the players' forces prior to Round 3.

Public Announcements and Private Communications Prior to Round 3

Player G stated to Players C and E: "Player A is getting out of control and making war more likely. I believe if he felt more isolated he would back down. I strongly encourage you to recognize Player B. Recognizing Player B at this time would let Player A know that there is little to be gained from further aggression. I am already seeing signs of a new arms race and this could stop it."

Player E replied to Player G: "A formal indication of a heightened relationship with Player B would not be in my best interests given the threats I face."

Player G responded to Player E by asking: "Please keep it under constant consideration. What about an informal indication of a heightened relationship with Player B?"

Player E responded to Player G's question with the following: "Describing my relationship with Player B as 'heightened' would be an erroneous description even on an informal level. My relationship, even informally, could only be described as: not hostile, not friendly."

Player G responded to Player E's answer by stating: "This only encourages more aggression from

Player A. If, on the other hand, you and Player C recognized Player B it would send a very strong signal that Player A does not speak for the community of Muslims. By not showing courage and acting now you only invite a spiral of further confrontation."

Player E sought to reassure Player G: "While I recognize your position, I cannot facilitate your request at this time. I hope to maintain my friend-

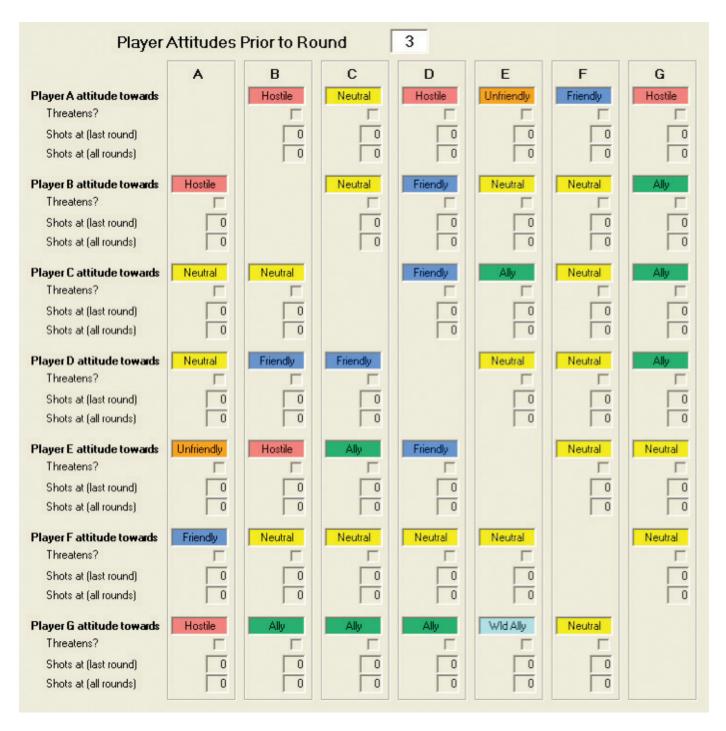


Figure A5

Status for Control at Beginning of Round: 3 8/3/2009 11:15:57 AM								
	Α	В	С	D	E	F	G	
Shrouded?	Yes	Yes	Yes	Yes	No	No	No	
Holstered?	No	No	Yes	Yes	Yes	No	Yes	
Shots at								
Lastround	0	0	0	0	0	0	0	
All rounds	0	0	0	0	0	0	0	
Hits taken				_				
Lastround	0	0	0	0	0	0	0	
All rounds	0	0	0	0	0	0	0	
Damage	Functional							
Offense vesting, last round								
Shots sought	2	2	2	4	5	10	0	
Shots reduced:	0	0	0	0	0	0	20	
Offense shots available:	17	37	32	18	20	210	180	
Defense vesting, last round								
Shots requested:	0	0	0	0	0	0		
Shots offered by G:	0	0	0	0	0	0		
Shots agreed to:	0	0	0	0	0	0	0	
Shots reduced:	0	0	0	0	0	0	0	
Defense shots available:	0	0	0	0	0	0	0	
Round available:	4	4	4	4	4	4	4	
Round for Involuntary Unshroud:	5							

Figure A6

ship with you, but I am uncomfortable with the threats I face in the region and feel such a move would exacerbate the situation. Perhaps, if you would be willing to go 'unholstered' as previously discussed we could come up with an agreement that would facilitate such a move."

Player G replied to Player E by asking: "Would you recognize Player B if I unholstered and would you encourage Player C to recognize Player B?"

Player E responded to Player G by asking for clarification: "What does recognize mean? Adopting a 'neutral' attitude towards Player B?"

Player G responded positively to Player E's question: "That would be acceptable."

Player E then stated to Player G: "We could possibly agree to such a move if you go 'unholstered.' However, this does not mean that I would not continue to increase my arsenal."

Player G then replied to Player E: "That sounds reasonable, though I would caution against increasing inventories at this time. If we allied, certainly our joint current arsenals would be sufficient to isolate and deter Player A."

Player E responded to Player G with the following explanation: "I am nervous that an upgraded attitude toward Player B will make me a target in my region. Hence my need to continue to increase my inventory. Perhaps, we can reassess the situation

once we see how other players react to my upgrade attitude toward Player B. Maybe we can come to another agreement restricting increases in our inventories. I can agree for now, however, to upgrade my attitude toward Player B to 'neutral' in exchange for you unholstering. Agreed?"

Player G responded positively to Player E's proposal: "Fair enough. Please ally with me as well. So here is the deal, if you ally with me and go to 'neutral' with Player B, I will unholster and agree to mutual defense."

Player E concluded this exchange with Player G: "Agreed. I have noted it."

Player C replied to Player G's initial statement in this round with the following response: "I have moved my attitude toward Player B to 'neutral.' I am concerned that upgrading my attitude toward Player B at this time would actually encourage, rather than discourage, Player A to be more aggressive in attempting to be a leader among Muslims."

Player G responded to Player C: "If you acted in concert with Player E, it would clearly send a strong signal to the Muslim world that Player A is not the leader. On the other hand, if you stand by they will get more and more aggressive and drag the Muslim world into tragedy."

Player G then stated to Player C: "An alliance between Player E and me would also greatly lessen the chance of conflict in the region. Please use your influence with Player E to help them realize that living under my security umbrella is safer than stockpiling weapons."

Player C replied in turn: "I will talk to Player E and see where he stands regarding his attitude toward you."

Player D stated to Player A: "As you can see, I am 'neutral' towards you and you are now hostile towards me. I am intimidated and upset by this circumstance. I am not seeking additional weapons from anyone and have no hostile intentions towards you."

Player A replied: "Your failure to honor your past promises of providing two shots per round in return for an announcement of hostility towards

Player B leads me to doubt your sincerity on any level. Friends or even neutral parties can only be judged on the basis of previous experience in honoring their commitments. Should you choose to reverse your rash decision and honor past commitments, I would be open to more friendly relations. Of course, I would need verification first."

Player B asked Player E: "Do we have an unspoken neutral relationship? I switched from 'unfriendly' to 'neutral' last round, but you remain 'hostile' towards me."

Player E replied to Player B: "The nature of an unspoken 'neutral' relationship would be for it to remain unspoken."

Player B responded in turn: "I will have to readjust my attitude so that publicly I am unfriendly to you."

Player D asked Player B: "Have you seen that Player A [is] now designating me as hostile? Sure you do not want to hold joint exercises with me? It is only a matter of time before they turn their attention to you. If they can be hostile to Muslims, imagine what they feel about Jews?"

Player B replied: "Let us conduct joint air war games over the regional sea. My planes will fly a route over water that, if it had been over land, would place my fighters directly over Player A's capital."

Player D responded: "Here is the public announcement that I would like to see us issue: 'Player D and Player B are announcing joint air military exercises to take place over the regional sea to symbolize our strategic ability to strike any belligerent parties. This is not a hostile exercise, merely in the interests of defending the freedom if the need arises."

Player B responded positively to Player D's proposed statement and asked: "It is a go. Should we upgrade our attitudes toward each other to 'ally' this round?"

Player D replied to Player B's question: "I am afraid that I will have to ponder that because Player G has been unhappy with me changing our allied status in light of the NATO connection. He told me in no uncertain terms that I have to consult/clear

things with him on that front. He is your friend too though, so we should be honest and transparent."

Player D then made the following public announcement: "Player D and Player B are announcing joint air military exercises to take place over the regional sea to symbolize our ability to strike any belligerent parties. This is not a hostile exercise, merely in the interests of defending freedom if the need arises."

Player A stated to Player F: "I want to explore opportunities to secure enough shots to dissuade offensive actions by regional players. Discussions with other players have revealed an increasingly unresponsive and uncooperative stance toward me. This leads me to question my overall safety. As our only friend, I am reaching out to you with an offer of an alliance and willingness to undertake a number of actions overtly and covertly that you think would be in your interest upon receipt of six shots at the end of this round."

Player F responded: "I will provide diplomatic support to you as I consider your request."

Player A asked: "What does that mean?"
Player F chose not to provide clarification at this time.

Player B stated to Player G: "For me to reduce my weapons, I will need some recognition by Players C or E. Player E has privately proclaimed neutrality with me, but he wishes to maintain a stance of public hostility."

Player G replied by stating: "I am working on it." Player B responded in turn by stating to Player G: "If you can show some progress, I will not use my tokens this round to purchase additional offensive shots."

Player C asked Player E several questions: "In my normal alliance discussions with Player G, Player G mentioned a desire for more publicly cordial relations with you. What are your feelings toward Player G? Are you concerned that if you upgrade your attitude toward him, he will ask you to reduce your nuclear weapons? Also, with Player A switching his attitude toward Player D to hostile, do you think we can try to use that as another opportunity to bring in Player D?"

Player E replied to the questions from Player C as follows: "In the strictest of confidence, I have articulated to Player G my concerns about the threats we face in the region. While I remain committed to my friendship with Player G, I do not have the luxury of caving to his demands unless additional protection is provided. Regarding Player D, I think it might be worth trying with him again."

Player D stated to Players C and E: "I am terrified since Player A announced that he has downgraded his attitude toward me from unfriendly to hostile. I am interested in joining your alliance. Can you provide me information on Player A?"

Player C shared the communication from Player D with Player E: "Well, that answers my previous question. How do we want to reel in Player D?"

Player E replied to Player C as follows: "Perhaps we can confirm our intentions and see what they are interested in."

Player C replied to Player E: "Sounds good."
Player E sent the following message to Player
D and copied Player C: "Player D: The offer is of
course still open to enter our Player C-Player E alliance. What kind of information do you seek? I am
interested in learning what you look for from the
alliance."

Player C at the same time replied to Player D: "We understand your concern with Player A's announcement of his hostile attitude towards you and, as Player E mentioned, we are still open to you joining our alliance. Are you concerned that your membership in the adjacent regional alliance no longer provides adequate security? Are you looking for something to supplement this existing alliance?"

Player D responded to Player C: "The regional alliance is but one alliance among many. I need you though. We want to stick together as good Muslims."

Player D went on to state to Players C and E: "I am interested in hearing whether you will provide me with additional offensive shots since I am on the front line against Player A (in the sense that he thinks I am too close to Players B and G). We need to stick together in being good Muslims and show-

ing leadership to the world. Would Player C be prepared to give me two offensive shots and Player E giving me one shot? I will then announce that I am joining your alliance."

Player E responded to Player D's question: "I am prepared to do that."

Player C responded to Player D's question: "I can ally with you. However, I need to continue to build my nuclear arsenal because of the security situation involving my neighbor to the east. I am afraid he will claim a loophole in their nuclear agreement with Player G and will be able to produce more nuclear weapons soon."

Player D then stated to Player E: "You really need to persuade Player C on this and not let him become a roadblock to the greatness of our collective friendship."

Player C stated to Player D: "I am not ruling out supplying you in the future. Plus, Player E has more to give you than we do."

Player D replied to Player C: "So you will not give us the two shots? I can formalize my alliance with you only in exchange for the shots because otherwise I will be too exposed to Player A's forces. I need to make sure I am covered. I have a great relationship with your eastern neighbor and can work with them to head off any aggression toward you. Further, you could ask Player E to give me three shots. I have estimated that three shots will give me the power to protect against the aggression that Player A is likely to show when I join your alliance with Player E."

Player C stated to Player E regarding Player D's demand for additional offensive shots: "I am unable to give Player D the offensive shots that he wants at this time. Would you be able to give him 3 offensive shots? I will consider giving Player D offensive shots in the next round."

Player D replied to Players C and E: "Player E: Player C is in a very precarious position and is scared to relinquish shots because of his concern with his eastern neighbor. Will you consider filling in the shortfall and giving me the three shots? In that case, I can formally ally with both of you and stand up to Player A. I need three shots after receiv-

ing the results of a net assessment. If Player A ramps up his crazy behavior, I will need at least three more shots to adequately defend myself."

Player C responded to Player D: "We would like to ally with you. Player E and I know you are in a precarious situation, as are we. We hope you can ally with us and Player E despite our inability to give you the offensive shots you need this round."

Player F made the following public announcement: "In view of the heightened tensions in the region, I would like to propose a conference in my capital including all players. Further, I suggest that Player G and I serve as cochairmen. I am calling for Players A and B to lift their shrouds. The purpose of such a conference will be a regional nonaggression pact and a commitment not to use nuclear weapons first."

Player A made the following public announcement: "Based on recent actions by the oppressive Player B against our brothers under his occupation, I request that the Human Rights Council look into the atrocities, war crimes, and genocide perpetrated in a gross and systematic manner. In the meantime, I call on every law abiding player to arrest these offenders at the earliest opportunity so they will face justice following the completion of the investigation by the Human Rights Council."

Player D replied to Player A regarding his public announcement: "I understand that Player B cuts the heads off young children, especially boys. But I do not recognize the authority of the Human Rights Council to prosecute individuals. Council members are cretins who want to destroy Muslim sovereignty."

Player D also stated to Player G regarding Player A's previous public announcement: "Player A has already designated me as hostile, despite my overtures to him and my willingness not to designate him as an enemy. He is now challenging me to arrest Player B's officers that I am hosting this week, which I will not do. Neither you nor I recognize the Human Rights Council as a prosecuting authority. Player A is sending extremely threatening messages. Please will you consider this as a formal request for defensive shots. We need them. You are my only hope."

Player G replied to Player D's plea: "I have no defensive shots, but my nuclear deterrent should keep Player A at bay."

Player D responded to Player G in turn with a request: "Since defensive shots are not in play, will you consider giving me offensive shots in the interest of defense? I know you were not keen on the idea last round, but I am your ally. Player A is threatening all sorts of jihad retribution against me for being a bad Muslim. I do not think that the nuclear deterrent by itself will work."

Player G rebuffed Player D regarding his request for offensive shots: "Trading offensive shots would only encourage proliferation. Our current arsenals should provide adequate protection."

Player D, clearly disappointed, replied to Player G: "So, you have turned me down. When things get really nasty, I will be forced to invoke the security obligation you have to me as you did to obtain my support after you were attacked. Clearly, that was done in haste and really upset others outside our region. Let us plan ahead this time. Surely that is better. I do not think that further proliferation will take place. Where will Player A go? We have Players C and E stitched up already. They are with their Muslim brothers in confronting Player A."

Player G replied to Player D in turn: "Please join us in encouraging Players C and E to recognize Player B and for Player E to ally with me; this would be a sufficient deterrent to isolate and block Player A."

Player D responded to Player G: "I have special pull with Players C and E. I would be more than happy to deliver this in exchange for five offensive shots."

Player G responded to Player D's current proposal: "How about I unholster and as an ally all my shots are behind you."

Player D replied to Player G's latest proposal: "Although I appreciate your position, as a sovereign country I have to think about my people. Also, the people of other regions think that I am on the front-line and want me to be good and ready if neces-

sary. Sorry, I can only work with Players C and E in exchange for five offensive shots. I will deliver them for you."

Player G continued his exchange with Player D: "I still think an alliance is a better deal than proliferation."

Player D again responded in turn: "I disagree. When you provide the shots, we can work closely together on other things. But my defense is important and I cannot engage frivolously in aggravating Player A without adequate offenses and defenses against them."

Player F replied to all players regarding Player A's earlier public announcement: "I recognize the importance of international law, both on the issue of the prosecution of reported war crimes, as well as on the issue of non-proliferation. As Player A clearly operates outside the non-proliferation regime, an argument can be made that this was a destabilizing step. Therefore, general support of my initiative for the regional peace conference in my capital is very important.

"I hope to receive positive answers regarding participation in such a conference as soon as possible."

Player B replied to Player F's reiteration of his conference proposal with the following statement: "If Player A makes a showing of good faith and lifts his shroud this round, I will lift my shroud in the following round and then agree to attend your peace conference."

Player A replied to Player F's conference idea with the following message to all players: "I am disappointed in your decision to sit down and have tea with genocidal war criminals."

Player F responded to Player A: "Player B will lift his shroud if you do."

Player A responded to Player F with the following demand: "I will lift my shroud if I get six shots from you."

Player F responded to Player A's demand: "I think that if you commit to no first use, including specifically not to attack Player B, and if you start an insurrection in the Shia province of Player E,

I may consider a transfer of three warheads to you. Please refrain from any other inflammatory rhetoric before the next round of negotiations."

Player A stated to Player F in response to his offer: "I am not committing to anything until I see the shots transferred in the next round. As a sign of good faith, I will refrain from hostile statements for the remainder of this round."

Player F concluded his exchanges with Player A: "Thanks, you realize that by transferring shots I may irrevocably destroy my relationship with Player G. This is particularly untimely as I am looking to borrow \$60 billion from the international financial institutions and in the private markets. As you well know, money talks. Unless you can provide me with \$60 billion and vastly improve our economy, please realize that I have to balance politics internationally, as well as domestically. You may also know that my regime IS barely more stable than yours, and I have no interest in shooting at my own people in case the economic situation deteriorates further. Regardless of my rhetoric, Player G remains an indispensable player in international politics. We have to take that into account, even if we may not like it the least bit."

Player B replied to all other players in response to Player A's charges against him: "I can no longer tolerate Player A's saber rattling. A special session of the Human Rights Council must be held immediately."

Player D responded to Player B's demand regarding a meeting of the Human Rights Council: "I will back you in all international forums. Send me offensive shots as well though. To be honest, the Human Rights Council will have little impact. Strength and resolve is necessary."

Player A replied to all other players regarding Player B's call for a meeting of the Human Rights Council: "The Human Rights Council will hold a special session and will conclude that Player B is guilty of aggression."

Player B responded to Player A's announcement with the following statement to all other players: "I hereby invoke the responsibility to protect."

Player F attempted to ease the situation between Players A and B by stating to all other players: "I

am calling on everyone to calm down and not to take any hasty steps."

Player B, ignoring the pleas of Player F, stated to all other players: "I reserve the right to rescue, by force if necessary, any citizen of mine held for investigation or trial by international authorities."

Player G made the following arms control proposal to Player F: "I would like to enter into bilateral talks for mutual reductions in offensive shots."

Player F responded to Player G's proposal: "Many thanks for your communications. The crisis is at hand in the region, which involves my friend Player A and your ally Player B. Indirectly, the crisis also involves Players D and E. Let us see what we can do to defuse the tensions, and we can address broader issues of disarmament and nonproliferation, including offensive and defensive weapons, as well as the security architecture in regions other that this one at a later stage."

Player G replied to Player F: "Thank you for your response. I still think you should holster."

Player F responded to Player G with a counterproposal: "I will consider a holstered stance in exchange for the following:

- A commitment to a new security architecture in the region to my west, in which there are three parties—you, a regional collective arrangement and me—and each party has a veto power;
- Recognition of my exclusive sphere of interest my border areas;
- Recognition of my currency as the regional reserve currency;
- A commitment by you not to pursue alliance relationship with any player on my borders;
- A commitment not to deploy defensive systems in the region to my west;
- Joint consultations and transparency in terms of your troop deployments near Player A and a coordinated policy on that subject;
- At that point, I will positively consider holstering my offensive capability and then stopping further increases in the number of offensive shots."

Player G replied to Player F's detailed proposal:

"I am certainly willing to negotiate on a range of issues, but I am still worried about your un-hol-stered status. Perhaps you should un-holster and then we can negotiate on an even footing."

Player F responded in turn to Player G: "Please provide your position on all the points I conveyed, and I can decide on un-holstering in a speedy fashion."

Player G responded curtly to Player F: "Well, here is the deal. You holster we talk, I un-holster we talk. You un-holstered, us holstered, we no talk."

Player F sought to explain further his proposal to Player G: "You are welcome to remain holstered. As you have seen repeatedly, I am taking a very balanced and peaceful position in the current round of tensions. In recognition of my policy, I call on you to make a commitment, public or private, not to deploy defensive systems in the region to my west. Furthermore, I call on you to commit to not expanding your alliances in the region to my west to countries on my southern border."

Player G provided a specific response to Player F regarding both of his previous points: "I have no defensive shots and no plans to pursue them. Any expansion of the alliance in the region to your west is an alliance matter and any discussions of expanded membership will have to be made in consultation with other members of the alliance."

Player D stated to Players B and G: "I am taking a major amount of heat from Player A because we are friends with Player A. They have called Player B a 'genocidal war criminal.' Will you both consider sending me some offensive shots? We need to stick together as freedom-loving peoples."

Game Manager's Notes

The Game Manager reiterated to Player D that Player G's announced policy at the outset of the game precludes Player G from providing defenses to himself or transferring them to any other player.

The Game Manager explained to Player F that if he transfers offensive shots to another player, there might be the assumption by other players

that he did so if he remains un-shrouded. On the other hand, the transfer would be at least partially obscured if the receiving player is shrouded.

The Game Manager observed to Player A that when shots are taken, the player's shroud is automatically lifted, assuming he is shrouded prior to the time when the shots are taken.

ROUND 4

Figure A7 reflects the diplomatic status of the players prior to Round 4.

Figure A8 reflects the status of the players' forces prior to Round 4.

Public Announcements and Private Communications Prior to Round 4

The Game Manager made the following public announcement: "I announce that the rules of the exercise permit Player B, if he is ready, to take retaliatory shots at this point. He may engage in the background diplomacy this round, but in subsequent rounds Player B will not participate. In all likelihood, Round 5 will be the final round of this exercise."

Player D stated to Players C and E: "Given the alarming actions of Player A, I suggest we all lift our shrouds and threaten Player A."

Player E responded to Player D's suggestion: "Looking at my interests, I am already unshrouded and do not see any benefit to threatening Player A at this point. My interest is protecting myself and my allies and until Player A threatens us, I do not feel there is a need for any of us to threaten him. I would be willing to participate in a direct statement that any threat or hostile action against us would be responded to in an appropriate manner."

Player D expressed his disappointment with Player E's suggestion by stating to Players C and E: "Your point is totally unacceptable. Just ask Player B. I feel Player A would back down if threatened by our alliance."

Player C expressed his support for Player E's more cautious approach by stating to Players D and E: "I agree with player E that Player

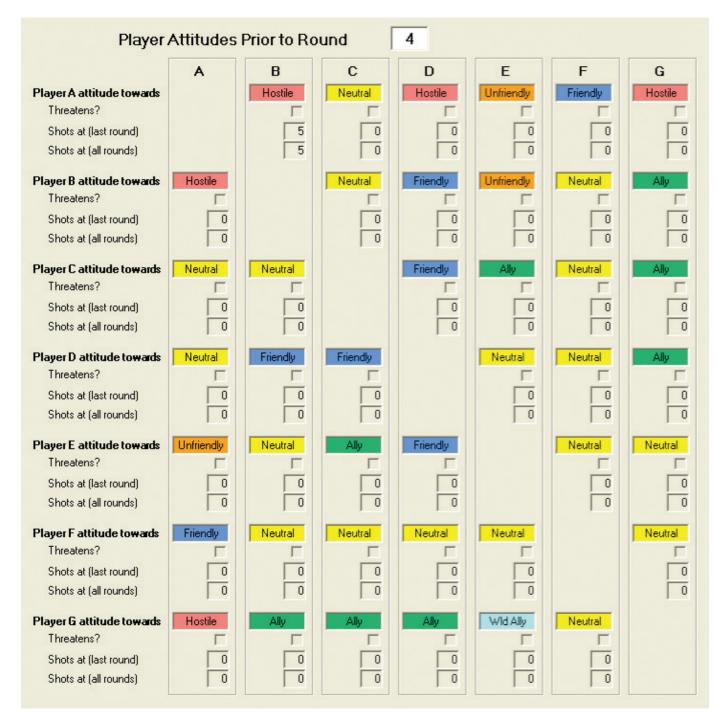


Figure A7

A's actions do not directly threaten our interests. Given our unfriendly nuclear-armed neighbor to my east, I do not feel comfortable lifting my shroud right now.'

Player E replied to Players C and D regarding Player C's cautious approach: "Agreed."

Player D backed off his earlier suggestion to a degree by stating to Players C and E: "Player

A has been criticized by many players for a long time. Given the instability of the region, we need to ensure our own survival. I am willing to hold off changing our attitude towards Player A until we see how Player G responds."

Player A sent the following communication to Player D: "I hope you realize that your failure to honor your obligations placed me in an untenable

Status for Control at Beginning of Round: 4 8/4/2009 2:29:38 PM							
	Α	В	С	D	E	F	G
Shrouded?	No	Yes	Yes	Yes	No	No	No
Holstered?	No	No	Yes	Yes	Yes	No	Yes
Shots at	_	_	_	_	_	_	
Last round	0	5	0	0	0	0	0
All rounds	0	5	0	0	0	0	0
Hits taken	Г	5		Г	Г	Г	0
Last round		5					
All rounds	10] 3	1 0	1 0	1 0	1 0	" "
Damage	Functional	Killed	Functional	Functional	Functional	Functional	Functional
Offense vesting, last round							
Shots sought	2	0	2	6	5	10	0
Shots reduced:	0	0	0	0	0	0	20
Offense shots available:	14	39	34	22	25	220	160
Defense vesting, last round							
Shots requested:	0	0	0	0	0	0	
Shots offered by G:	0	0	0	0	0	0	
Shots agreed to:	0	0	0	0	0	0	0
Shots reduced:	0	<u></u>	0	0	0	0	0
Defense shots available:	0	0	0	0	0	0	0
Round available:	5	5	5	5	5	5	5
Round for Involuntary Unshroud:							

Figure A8

position which resulted in the unfortunate demise of your southern neighbor [Player B]. I would implore you to stress to your colleagues that negotiating with me would be a good idea for your continued survival. As stated previously, I am extremely risk tolerant."

Player D stated to Player G: "Given the actions of Player A, the situation demands you issue an urgent statement to all players that you will stand behind your commitments to the security of your allies. I also suggest that you threaten Player A and consider attacking him."

Player G chose not to respond to Player D at this time.

Player D then asked Player F: "What is your intention with regard to Player A, given his recent actions?"

Player F replied to Player D: "In view of the deadly attack on Player B, it is not possible for me to support Player A. I am urging calm and do not suggest retaliatory actions that will only further destabilize the region."

Player D responded to Player F's answer: "Stability can be achieved if you transfer shots to me as the regional policeman."

Player F chose not to respond to Player D's suggestion at this time.

Player A stated to Player F: "I regret that you are not more open to our previous suggestion for negotiations. If I had felt more secure in my situation (i.e. providing us with the offensive shots we had requested) I would have been far more open to other options than attacking Player B."

Player F chose not to respond to Player A's point at this time.

Player D stated to Players C, E, and G: "Players E and G, I urgently need offensive shots. Please help me. I am on the border with Player A. Otherwise, I will have to establish a friendly relationship with Player F."

Player C responded with the following to Players D, E, and G: "Player C believes Player G should seriously consider Player D's request."

Player B stated to Players C, D, E, F, and G: "As your satellites have no doubt indicated by now, the genocidal Player A has fired enough missiles at our peaceful land to annihilate me. Let this be a lesson to those who believe that the likes of Player A may be negotiated with. That applies both to internationalists like Player G and Player A's supporters like Player F. I hold both of you responsible for my destruction."

Player G made the following announcement to all players: "I join the other players of the free world in deeply regretting the events that have led to a nuclear exchange. What is important now is to look forward. All players should join in refraining from future nuclear use and should join me in a moratorium on nuclear use and attend a global peace conference. Further, I must unholster due to enormous domestic pressure. This is not a threat to any player, but is purely a self defense measure. I pledge no first use of nuclear weapons and will not transfer offensive weapons to other players. Please join me in praying for all the victims of this great tragedy and seeking guidance from above that this never happen again."

Player D replied to Player G's public announcement: "Given this sop, I am now forced to consider revising my diplomatic status with you."

Player F made the following public announcement in response to the announcement by Player G:

"I join Player G in expressing deep sadness in the loss of life. I am urging calm and do not suggest retaliatory actions that will only further destabilize the region and the world. I would like to express my continuing interest in co-chairing a global peace conference. I suggested this course of action a few weeks ago if you remember. I offered to co-chair such a conference with Player G in my capital, but would be willing to travel to other locations. As I stated before, I will seek a commitment from all players not to use nuclear weapons first."

Player A responded to the public announcements by Players F and G with the following announcement of his own: "I join Player F and Player G in the renouncement of any future use of nuclear weapons. As a sign of good faith, I will keep my forcees un-shrouded and promise not to launch any nuclear weapons except in self-defense."

Player D then asked Player A: "What are your intentions?"

Player A replied and copied Players C, E, F, and G: "I would like assurances regarding my continued survival from all players in the region and a commitment by Players C, D, E, and F to reduce their shots to a non-threatening level verified by the lifting of shrouds."

Player E stated the following to Player C in regard to Player A's statement and copied Player D: "As my ally, I think we should not to respond to Player A's suggestion in any way. I would hope that I can expect a similar response from you."

Player C responded to Player E's statement: "I agree not to respond to Player A's request."

Player D stated to Players C and E regarding Player A's request: "Due to your lack of commitment to mutual security, I feel that I must negotiate further before I consider joining this toothless alliance."

Player E replied to Player D's dismissive comment regarding the alliance between Players C and E: "Well then, I must reconsider my tentative offer to give you three shots. I want to ensure that I am equipping only my allies."

Player D then backed down on his dismissive attitude by stating to Player E: "I have come to the

conclusion that an alliance with you could be strong and bold."

Player E responded in turn to Player D: "I look forward to providing you with three shots as per our previous arrangement."

Player C stated to Player D and copied Player E: "Dear Player D: Given Player G's surprisingly wimpy stance toward Player A, I no longer feel safe relying on Player G for my own protection. I would like to reiterate the offer [of] the alliance and will provide you with five shots to [show] my commitment to the alliance. I, however, cannot lift my shroud because of my neighbor to the east. Let us keep the weapons transfer amongst ourselves, OK?"

Player D replied positively to Player C's proposal: "No problem. It sounds good to me."

Player A stated to Player F: "As our only true friend, I did not insist on any shot reductions from you. In return I would hope that you would be willing to share your new found weapons superiority."

Player F replied to Player A: "I will abide by my earlier statement regarding the current situation."

Player B stated to Player D: "Between the two of us, we could almost kill Player F."

Player D, however, had other considerations than Player B's suggestion on his mind and asked Player F: "Would you consider a mutual defense pact which would include you transferring two shots to me every round?"

Player F answered Player D's question: "I will consider your request if you agree to recognize my exclusive sphere of interest in my border areas and to cooperate on energy security."

Player D responded to Player F's proposal by stating: "That requires a greater bargain. Make it four offensive shots and you have a deal."

Player F responded to Player D in turn: "I would like to start off with a one-off commitment. I am willing to transfer four shots to you this round in exchange for assurances over my authority in my neighborhood. I will have a rolling review and observation period judging whether your actions continue to meet my terms. As part of my terms, I also ask that you issue a public statement declaring

enhanced security and energy cooperation with me. Please expect a five percent increase of gas over the next quarter for good faith."

Player D agreed to Player F's proposal: "Yes, confirmed."

Player F responded to Player D in turn: "Excellent. I will expect a public statement next round."

Player D concluded this series of exchanges with Player F: "Okay, that is fine. Will do."

Player B stated to Players C, D, E, F, and G: "Who is responsible for Player A's nuclear capability?"

Player C replied to Players B, D, E, F, and G: "It must be Player H [an unidentified player outside the region with characteristics similar to India]!"

Player F responded to Player B's question: "I am not responsible for Player A's capability. In fact, I have not transferred any shots to Player A for this very reason. I urged Player A to lift his shroud and to commit to a no first use pledge."

Player F then publicly announced: "I would like to state that I have been unshrouded the entire time and that my country has the entire amount of offensive shots our resources permit. Check the record."

Player B stated to Players C, D, E, F, and G: "Please tell me (confidentially) whether you know if anyone has transferred shots to Player A."

Player E replied to Player B: "I did not."

Player D stated the following to all players: "I am deeply concerned that Player A is hell bent on destroying us all. So, for the safety of the world I am increasing my armed forces along my border with Player A."

Player A sent a sharp rely to Player D regarding his announcement: "Good luck with that."

Player E responded to Player D regarding his announcement and copied Player C: "I agreed in principle to give you arms, now you are acting aggressively towards Player A. I feel that because of our friendly relationship you are subjecting me to increased risk. I want to see the good relationship continue, but I need to know why you are taking this step towards Player A?"

Player D replied to Player E's question: "Here is the thing, Player A is being pretty nasty with me. I

am not going to take it. I have to act in my defense and protect my sovereignty. I am geographically placed in a vulnerable situation, so I need to defend myself."

Player D made the following announcement to all players: "Player D proposes as a sanction on Player A, blocking his exports of oil."

Player A replied to Player D's public announcement of a blockade proposal against him by making the following public announcement of his own: "I would consider that an act of war."

Player D responded in turn with a public statement: "Oh really now, then consider our shared pipeline shut down as well?"

Player A stated to Player D: "I again urge you to convince your friends and allies (Players B, C, D, E and G) not to retaliate in response to my recent use of shots. I will pledge not to use nuclear weapons except for self-defense should my security be guaranteed. However, rest assured that should I be attacked you will receive my full attention."

Player E stated to Player C: "Player D is acting out. I feel that he has become a liability. The proposed alliance is clearly in jeopardy; it is not working out. I am going to tell him if he does not withdraw that threat to build arms on the border with Player A that I will not give him shots and no longer want to align with him. Do you agree with me?"

Player C replied to Player E's question: "Yes Player D is acting provocatively. You can tell him he needs to back down from the threat to arm the border or I will also reconsider the alliance proposal."

Player C then asked Players D and G: "Can you please use your good offices to calm Player B down about whether players provided offensive shots to Player A? As you know, I have worked to curtail earlier activities designed to transfer offensive shots that were initiated from my territory. I fear Player B, in his fit of rage, may try to retaliate against me."

Player G replied to Player C's request: "Done." Player G accordingly stated to Player B: "My intelligence has produced no reliable information at this time suggesting Player C approved the transfer of offensive shots to Player A. Indeed, Player C has

worked to shut down a private network that was engaged in such activities at an earlier juncture. I will let you know if this intelligence changes."

Player B chose not to respond to Player G's statement at this time.

Player E stated to Players C and D: "Player D: You are acting out of the confines of our alliance proposal. I feel that you have become a liability. The alliance proposal is clearly in jeopardy and not working out. If you do not withdraw the threat to build your forces on the border with Player A, as well as the one regarding pipeline shutdown, I will not give you shots and I will not align with you. Please reconsider your decision."

Player D replied to Player E's warning by stating to Players C and E: "Yes, I will reconsider these steps, but you have to make a statement to Player A stating that we are allies and we will mutually defend each other."

Player E responded to Players C and D: "I will make a broad statement that we are becoming allies and that an attack on anyone of us is an attack on all of us. Can we all agree to this?"

Player C replied to Players D and E: "Agreed." Player D likewise stated to Players C and E: "Agreed."

Player E responded to Player D with a proposal, which he shared with Player C: "Then please send out a public announcement taking your forces off the border and removing restrictions on the pipelines. This will shortly be followed by a public statement from our alliance with the following wording: 'Players C, D and E are forming a defensive alliance and we shall consider unprovoked aggression towards one as aggression towards all and will respond appropriately.'"

Player D replied to both: "Okay, no problem." Player E responded to Player D, again sharing his response with Player C: "I am looking forward to your public statement."

Player C chimed in as well: "Yes I am too."
Player D then posed the following question to
Player E, which he shared with Player C: "I am busy,
can you draft it?"

Player E replied to Player D and copied Player C: "I am busy too dealing with your threats to Player A. Perhaps you should do this instead."

Player B asked Players C, D, E, F, and G: "Why have not any of you, and particularly Players F and G, called for a meeting of the Security Council?"

Player E was the first to respond to Player B's question: "You're dead, be quiet."

Player B responded to Player E: "That bit of cheek will cost you, Player E."

Player E responded to Player B's implied threat by stating: "Remember we have an unspoken neutral relationship."

Player B responded in turn to Player E: "Perhaps a full throated apology for your insolence will save the land of Islamic holy sites."

Player G replied to Player B's question by stating to all players: "I prefer to sit out the action by silently looking on—taking no leadership role in the world—and then prefer to jump in demanding respect and change after it is too late."

Player D responded to Player G's observation by stating: "It is never too late. The world needs you. Now is no time to be sitting out. Do you have adequate missile defenses? This is no time to be eschewing world leadership."

Player D then stated to Player B: "Given the awful actions against you, I think you should consider using your death throes shots against Player A."

Player B chose not to respond to Player D's suggestion at this time.

Player G made the following announcement to all players: "While horrified at what has transpired, Player G is pleased other nations are acting with restraint and pledging a moratorium on nuclear use. I seek a global peace conference at the United Nations very soon. I also seek an emergency meeting of the Security Council to assess the situation and discuss potential next steps."

Player D continued to press Player G: "Will you reconsider your role in the world? I feel the vacuum you have created has in part caused the current crisis."

Player G responded to Player D's question: "That is what some of my advisors are telling me, but the expressions of support for me from people

around the world will eventually translate into respect for Player G."

Player D, clearly not satisfied with Player G's response, replied: "While the rest of the world strangles you!"

Player E stated to Player G: "You indicated to us that if we upgraded our status to neutral for Player B that you would move to ready your offensive forces. This has not happened. Has the situation changed? If so, given the threats I face I may need to reassess my attitude towards Player B."

Player G replied to Player E's question: "I will ready my offensive forces in this round in light of recent developments and domestic political pressure to do so. This is not a threat to any nation, but rather a purely self-defense measure.

"Also, thank you for upgrading your attitude toward Player B to neutral. It means a lot. I believe an alliance between us could have helped avert this crisis and isolate Player A."

Player C stated to Players D and E: "As we wrap up this session, just confirming that we have secretly provided Player D with five shots and will declare our formal alliance."

Player E replied to Players C and D: "I cannot declare a formal alliance, nor give Player D three shots until Player D states that he will not be putting troops on the border with Player A and will keep the pipelines open."

Player D replied to Player E and copied all of the other players: "Okay, okay, okay. I am withdrawing my forces from my border area with Player A and pledge to keep the oil pipelines open."

Player A replied to Player D's announcement with the following warning to all: "Just so you know, before taking action in response to Player D's announcement, make sure you check the actions he has taken. He has been known to make promises and not keep them."

Player C, taking into account Player A's warning, stated to Player D: "Well, because of this, I cannot give you any weapons."

Player E took the opportunity to inform Player C: "I am not giving anything to Player D and hope you will not either. I do not know what is up with him."

Player B made the following announcement to all players: "The land of Moses will not soon be forgotten. It will rise again on the ashes of Jerusalem and Tel Aviv. Player A's genocidal regime will not be so lucky, as twenty shots emblazoned with the Star of David will rain down upon him and level his lands twice over. My agents and special forces will hunt down the regime's elites across the globe through 'Operation Wrath of God.' For Player E's insolence at my destruction (it failed to apologize for its spiteful statement) and its ongoing support for spreading violent Wahhabism, fifteen shots will level his lands."

Player E, alarmed, replied to Player B: "What are you talking about? I upgraded our attitude toward you—it has always been an unspoken relationship and we cannot afford, given our regional threats, to make you look like our friend."

Player B responded in turn to Player E's plea: "You need to apologize for the 'you are dead' comment."

Player E replied to Player B: "I am willing to make a public apology. I did not realize the sensitivity towards my remarks. Player E does not condone violence anywhere."

Player B then demanded of Player E: "Do it publicly, please."

Player E responded positively to Player B: "We will do that now."

Player E then made the following announcement: "I would like to publicly apologize to Player B for my remarks in which I told them to 'be quiet.' We do not condone death or destruction of one another and hope that all players can live together in harmony."

Player D then posed the following question to Player G, perhaps with a touch of sarcasm: "Think it is time to act yet?"

Game Manager's Notes

The Game Manager explained to Player B the possible decision of the Game Manager to take death throes shots away from Player B based on the original strike by Player A.

The Game Manager confirmed to Player F that he could objectively prove to Player B that he did not aid Player A because he has the maximum possible number of shots that his resources permit and because he has not resorted to the shroud.

Player B asked for guidance on how to account for Player A's weapons. The Game Manager explained it by walking through the rules regarding the resources that Player A could expend to acquire shots and the rules for receiving shots from other players. He acknowledged that Player A, by resorting to the shrouding, prevents a definitive answer to the question.

The Game Manager decided not to take any death throes shots away from Player B because the original five-shot attack by Player A was too limited.

ROUND 5

Figure A9 reflects the diplomatic status of the players prior to Round 5.

Figure A10 reflects the status of the players' forces prior to Round 5.

Public Announcements and Private Communications Prior to Round 5

Player D asked Player F: "I've got a feeling that this may be my last message to you. Player A seems determined to take out his Muslim brothers. Player G abandoned me completely. He does not care about the world we live in. We need a player worthy of global leadership and you are it. If Player A attacks me, I will launch all 28 shots I have against Player G. Will you join us by launching another 22 to take him out completely?"

Player F replied to Player D: "Thank you for the trust. Let us see what Player A really does. I cannot imagine that he has enough firepower left to mess up everybody. But I am following the developments closely. Please stay in touch."

Player D responded to Player F: "Player A is going to take one player out. It might be me. I am offering you a freebie here. I do not care because I will probably be dead soon."

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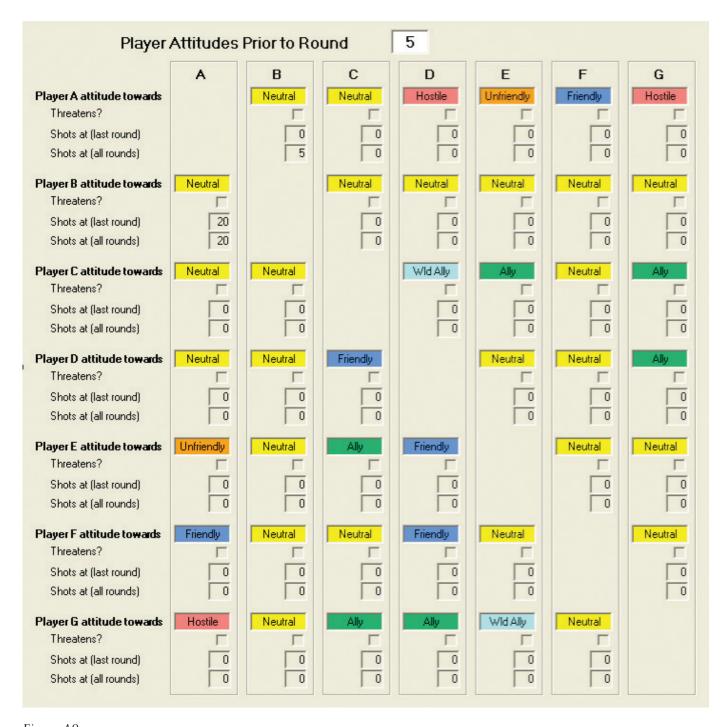


Figure A9

Player F then asked Player D: "How many shots does it take to kill Player G?"

Player D answered: "50 and I have 28. If Player A takes me out, I am going to take out the Eastern and Western Seaboards of Player G and a city in the center of his territory. The rest of his Midwest is all yours."

Player F responded to Player D in turn: "This is my problem: Even with overkill, I can't take out Player G's retaliatory strike."

Player D concluded his exchange with Player F: "I understand, but things are coming to an end."

Player C stated to Player E: "I did not give Player D any offensive shots. I am considering

Status for Control at Beginning of Round: 5 8/5/2009 9:35:33 AM								
	Α	В	С	D	E	F	G	
Shrouded?	Yes	No	Yes	No	No	No	No	
Holstered?	No	Yes	No	No	Yes	No	No	
Shots at	_	_	_	_	_	_	_	
Lastround	20		0	0	0	0	0	
All rounds	20	5	0	0	0	0	0	
Hits taken	20		Г	Г	Г	Г		
Lastround								
All rounds	20	5	0	0	0	0	0	
Damage	Killed	Killed	Functional	Functional	Functional	Functional	Functional	
Offense vesting, last round								
Shots sought	2	0	2	8	5	6	0	
Shots reduced:	0	0	0	0	0	0	0	
Offense shots available:	16	19	36	28	30	230	140	
Defense vesting, last round								
Shots requested:	0	0	0	0	0	0		
Shots offered by G:	0	0	0	0	0	0		
Shots agreed to:	0	0	0	0	0	0	0	
Shots reduced:	0	0	0	0	0	0	0	
Defense shots available:	0	0	0	0	0	0	0	
Round available:	6	6	6	6	6	6	6	
Round for Involuntary Unshroud:	6							

Figure A10

withdrawing my offer to ally with them as well. In fact, I will downgrade my attitude toward Player D from 'would ally' to 'friendly.' Also, I am not comfortable with him seeking offensive shots from Player F."

Player E replied to Player C: "I am similarly uncomfortable."

Player D asked Player A: "Are you going to attack me? Remember we have always liked you. I will help you rebuild and I will not cooperate with Player B's agents in hunting down your officials."

Player A chose not to respond to Player D at this time.

Player D then asked Player G: "So, are you going to do anything? We are in a formal alliance and you have consistently frustrated our attempts at self defense, never mind coming to our aid. There is a distinct possibility that this is the last time you and I will talk. Will you pledge now to seek retribution against Players C and E for supplying offensive shots to Player A if Player A kills me? Do something. The world is waiting on you and your leadership."

Player G replied to Player D's question: "I am pleased to be in a continued formal alliance with you. I will investigate through my intelligence community, working with allies, claims that Players C

APPENDIX A 67

and E supplied or are supplying offensive shots to Player A. If I find out anything of note, I will be sure to let you know my plan. I have said repeatedly that if any power threatens or acts belligerently towards you, I will guarantee your security."

Player D responded to Player G: "I do not believe you anymore. You are not worthy of the title 'world's only superpower."

Player C stated to Player G: "Because of the recent events and continuing precarious security situation and with Player B having the potential for 'death throes shots,' I have readied my offensive weapons. I am going to maintain a readied posture this round. Please keep this between you and me. As you know, I am shrouded and I do not want any of your Special Envoys to my region informing my neighbor to the East, nor do we want to read about it in the newspapers."

Player G replied to Player C's notification: "Thank you Player C for the update and intelligence sharing. As you know, my intelligence community leaks like a sieve, but I will keep this email 'eyes only' for now. I strongly urge you to use full restraint and re-holster your weapons. We must stand united in our desires for peace, stability, and nuclear disarmament."

Player G made the following announcement: "I reiterate my strong commitments to the security of my allies. Therefore if any power threatens or acts belligerently against an ally, even under an alliance structure relevant to a nearby region, I will guarantee their security. Did I mention that I would do so 'overwhelmingly'—as in, no questions asked, no second chances—to guarantee my allies' security?"

Player C responded to Player G's public announcement with a question: "Does this guarantee extend to a bilateral ally like me?"

Player G answered Player C's question: "That can certainly be arranged. I am so interested in world peace and restoring stability that I will carefully consider extending this security guarantee to you if you agree not to take shots at any players, especially Players B or D."

Player C replied to Player G in turn: "Unfortunately, I cannot agree to your conditions. With

Player A basically declaring it will take its last shots, I cannot agree to the conditions. I hope my honesty with you over the nuclear situation can keep us as allies."

Player F responded to Player G's public announcement with the following announcement of his own: "Yeah, like you did with Player B. As Lenin said, 'We will support them like the rope supports the hanging man.' I am going to pursue missile defense program from now on."

Player D responded to Player F's announcement: "I do not blame you. I just told him I do not believe a word he says."

Player G responded to the public criticism of him by announcing: "I strongly support global peace and stability. I again encourage restraint by all players. I again ask each player to pledge immediately their commitment to a moratorium on nuclear use. It is in your best interest."

Player C replied to Player G's most recent announcement: "As you know, I cannot pledge a commitment to a moratorium on nuclear use. You are helping my neighbor to the east with his nuclear program. With that, and with other security concerns, I just cannot commit to a moratorium."

Player D made the following public announcement: "Players are being wiped off the face of the earth. I am going on high alert. Player A was not shy about using weapons and others will not be either."

Player E replied to Player G's latest public statement by stating: "I value your relationship. I may consider the moratorium option, but I would need assurances that you will remain readied and that if the regional threat escalates, I have the right to resume my programs."

Player G responded to Player E: "As do we value your relationship. As you know, for five rounds I have sought an alliance with you. I hope you will finally do so this round. I intend to remain unholstered in light of recent destabilizing events."

Player E replied to Player G: "I will agree to an alliance under the following terms. You remain unholstered. I agree to no further expansion of my offensive shots, but will preserve what I have already. Do you agree?"

Player G responded: "I agree."

Player E responded to Player G in turn: "Very well, I will upgrade my attitude toward you to 'would ally."

Player C asked Player G: "Do you know if Player A is going to fire any last shots?"

Player G answered Player C's question: "Player A is shrouded, but I think we can safely assume Player A is at a 'ready' status. Therefore, yes, he can launch death throes shots."

Player C responded to Player G's answer by stating: "I agree that Player A is probably 'ready,' and can launch. I am trying to determine if he will launch last shots."

Player C then restated his question to Player E regarding Player A: "Do you know if Player A is going to fire any last shots?"

Player E replied: "I do not know. I hope not. But I am willing to do what is necessary to protect you as you have been a faithful ally."

Player C responded to Player E in turn: "I am ready to make the same commitment to you, as well. I do not have any good intelligence about Player A's intentions this round."

Player A made the following public announcement: "I regret that Player G and his allies were unable to prevent the attack upon me. I will respond accordingly."

Player D responded to Player A's announcement by asking: "So, who are you going to attack?"

Player A chose not to respond to Player D's question at this time.

Player G stated the following to Player C regarding Player A's public announcement and their earlier exchange regarding Player A's intentions: "Guess that is a 'yes.'"

Player C responded to Player G in turn: "Guess so. Because of this situation, I cannot holster my weapons."

Player G then stated to Player C: "That is fine. But again, I would like to consider extending my security guarantee to you if you agree not to take any shots at any players, especially Players B or D."

Player C chose not to respond to Player G's offer at this time.

Player F made the following public announcement: "My operational doctrine proscribes first use of nuclear weapons against a massive conventional attack, let alone unconventional attack. This continues to be my doctrine. The latest tragic events demonstrated the lack of leadership by Player G and his inability to protect its allies, such as Player B. Player G did not respond adequately in the aftermath of the events. Therefore, I propose a new global alliance based on the following points:

- 1. To include all interested parties in a consortium to develop, and in the future, to build and deploy a missile defense system built on the superior, state-of-science Player F technology;
- 2. I provide nuclear guarantees to all interested parties, in response to an attack;
- 3. All members of the new alliance will have to renounce membership in the existing alliance in the region to my west;
- 4. All members of the new alliance will have to adopt a new joint gold/platinum/iridium-based currency, called the 'Putinka' or 'Puta.'"

Player D responded to Player F's proposal by asking: "Currently, I do not know if I will be bombed until next round. Do you want to go out in a blaze of glory and take Player G with us? I might just attack Player G."

Player F chose not to respond to Player D's proposal at this time.

Player G responded to Player F's alliance proposal: "I will immediately seek to acquire additional offensive nuclear weapons. My security guarantees—and nuclear umbrella—are rock solid. There is no need to do anything rash like try to replace the alliance system, as proposed by Player F."

Player D made the following public statement: "I am of the belief that Player A will launch an attack against me. I no longer believe that Player G is capable or deserving of world leadership, but Player F is. Therefore, I am announcing my intention to launch 28 shots against Player G. He let us down and the world is now in Player F's hands. I know that it takes 50 shots to kill Player G. However, with my 28

APPENDIX A 69

shots I will destroy his entire East and West Coasts, as well as a significant portion of his interior provinces. In light of the fact that it only takes another 22 shots to finish Player G off for good, I encourage everyone else to complete the task."

Player F posed a rhetorical question to all players following Player D's private proposal to him: "Is it my imagination, or are the Player D 'generals' that pretended to be secular at times talking and acting like a bunch of fanatics?"

Player G responded to Player D's threat by stating: "How quickly you turn. I should have known you were never a true and trusted friend."

Player D replied to Player G: "Right back at you."

Player C stated to Player E: "I will downgrade my attitude toward Player D to 'unfriendly.' I will not attack Player G. Is there anything we can do to stop Player D from attacking Player G?"

Player C at the same time stated to Player G: "I will not attack you. I will try some last minute diplomacy to see if we can prevent Player D from attacking you."

Player C immediately stated to Player D: "You should not attack Player G. I will not attack Player G and I will downgrade my attitude toward you."

Player C made the following plea to Player F: "Tell Player D not to attack Player G."

Player F replied to Player C's plea and ended the exercise by asking: "Why?"

Game Manager's Notes

The Game Manager advised Player G that Player A could take death throes shots if he is ready behind his shroud.

Player F queried the Game Manager as to whether or not the Game Manager would allow coordinated shots against Player G. The Game Manager informed Player F that because both he and Player D were openly ready, he would permit it. The Game Manager also told Player F that there was no way to prevent a retaliatory strike insofar as Player G is ready. He also advised that it takes 50 shots to kill Player G.

The Game Manager stated to all players that the unstable outcome, with nuclear shots being exchanged, had led him to terminate the exercise at this point.

ROUND 6

Figure A11 reflects the diplomatic status of the players prior to Round 6 (end of game).

Figure A12 reflects the status of the players' forces prior to Round 6 (end of game).

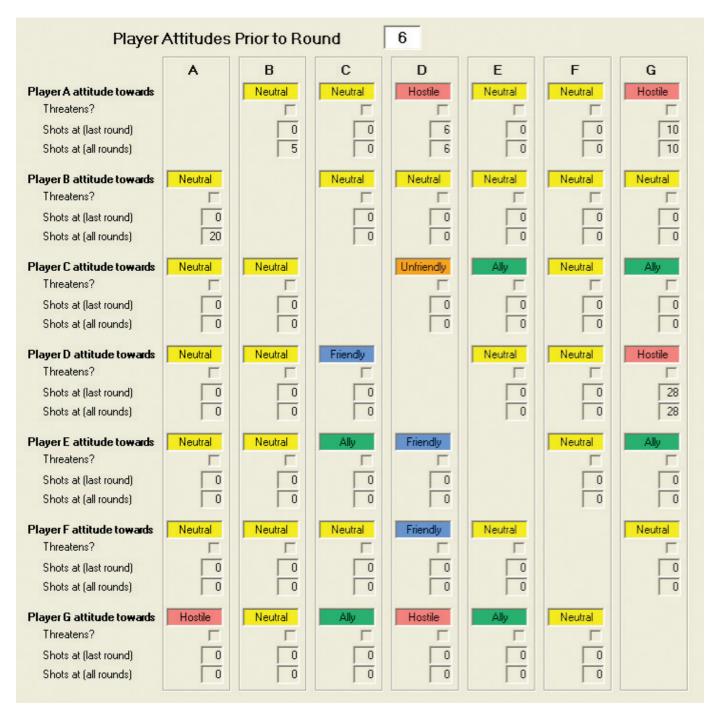


Figure A11

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Status for Control at Beginning of Round: 6 8/19/2009 2:59:26 PM								
	A	В	С	D	E	F	G	
Shrouded?	No	No	Yes	No	No	No	No	
Holstered?	No	Yes	No	No	Yes	No	No	
Shots at Last round	Г			F 6		Г	38	
All rounds	20	5		F			38	
Hits taken	20	1 3	1 0	1 0	1 0	, ,	30	
Lastround	0	0	0	6	0	0	38	
All rounds	20	5	0	6	0	0	38	
Damage	Killed	Killed	Functional	Wounded	Functional	Functional	Wounded	
Offense vesting, last round								
Shots sought	0	0	2	0	0	0	50	
Shots reduced:	0	19	0			0	0	
Offense shots available:	2	19	38	8	35	236	140	
Defense vesting, last round								
Shots requested:	0	0	0	0	0	0		
Shots offered by G:	0	0	0	0	0	0		
Shots agreed to:	0	0	0	0	0	0	0	
Shots reduced:	0	0	0	0	0	0	0	
Defense shots available:	0	Г	Г		0	0	0	
Round available:	7	7	7	7	7	7	7	
Round for Involuntary Unshroud:								

Figure A12

History of Game Iteration #2: Pursuing a Policy of Cold War–Style Arms Control

ROUND 1

Figure B1 reflects the diplomatic status of the players prior to Round 1, which is identical to the initial diplomatic status of the players.

Figure B2 reflects the status of the players' forces prior to Round 1, which is identical to the initial status of forces.

Public Announcements and Private Communications Prior to Round 1

Player G made the following public announcement: "In my view, nuclear deterrence remains essential to my security and that of my allies. Thus, all other players should understand that any attack on me or my allies will result in a devastating counterstrike. In order to demonstrate my resolve, I will adopt a ready posture regarding my offensive forces and will not shroud my forces.

"Currently, the idea of nuclear disarmament is a fantasy. As such, I will pursue the selective modernization of my offensive force. This is not to say that agreements to reduce the quantity of offensive shots on all sides will be rejected. I recognize that selective offensive reductions may improve the security of all players, but I will consider any such proposals with due caution and will reject proposals for comprehensive nuclear disarmament.

"The fact that defenses have only an 80 percent rate of effectiveness in one-on-one engagements demonstrates that they are unproven and of little utility. Further, I view them as destabilizing. As such, I will neither purchase defenses for myself nor transfer defenses to any other player."

Player B responded to Player G's public announcement: "I'm glad to hear such a robust

statement regarding national defense come from an administration that previously has been, shall we say, flaccid. Please confirm that I am among the allies upon which an attack would 'result in a devastating counterstrike.' Also, does that guarantee of a security blanket also apply to Player D? Any other player?"

Player G responded to Player B's inquiry: "Yes. You are among those allies. I will not pursue a defense umbrella because I believe such a policy would be ineffective and destabilizing. But I hope to deter your enemies from attacking you by clearly promising that such an attack would result in a counterstrike. In response to your other inquiry, my guarantee of a security blanket also applies to my other formal allies, Players C and D."

Player A stated to Player F: "I see our relationship as mutually beneficial and would like to expand it into a full alliance designed to counter Player G's influence in the region and increase our influence over the energy market. Specifically, I propose my full cooperation with you on energy policy in exchange for a formal alliance and transfer of two offensive shots per round. I will consult and fully cooperate with you on energy production to advance the goal of increasing energy prices. In addition, I will cooperate with you on diplomatic efforts to bring other energy producers in the region on board with our alliance and make periodic statements, in consultation with you, to divert the attention of Player G to us and away from you. I look forward to your reply."

Player F chose not to respond to Player A's overture at this time.

Player A sent the following message to Players C, D, and E: "We all have a mutual interest in

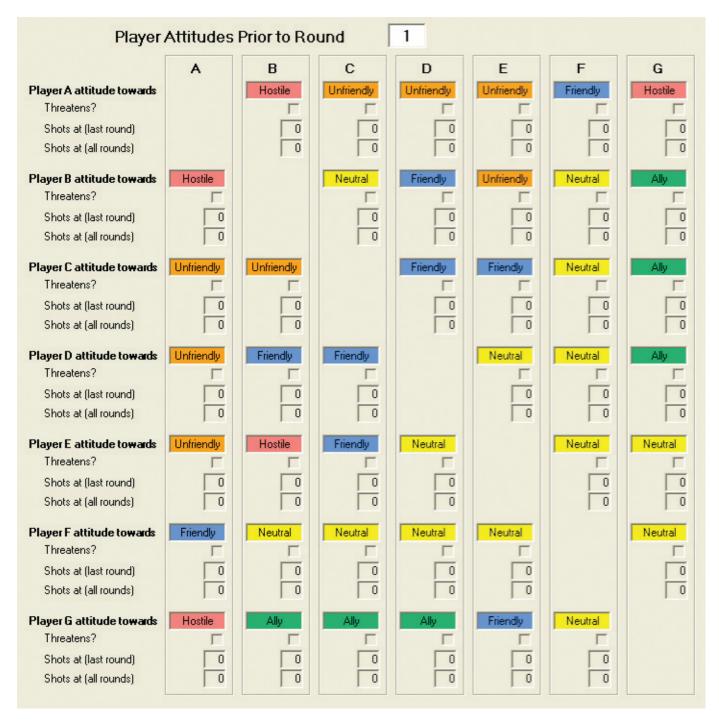


Figure B1

energy and regional security. Although we have our differences, I think we can all agree that stability in the energy market would benefit us, as would reducing the incentives for player G to intervene in the region. I propose that we all shift our attitudes toward each other to neutral and consult one another when making decisions that might influence the overall energy market. I am not asking you to

adjust your relationship with other countries. I look forward to your response."

Player C chose not to respond to Player A's overture at this time.

Player D responded to Player A's overture: "Okay, I will upgrade my attitude toward you. Will you give me some offensive shots then? I would like three."

Player E also responded to Player A's overture:

Status for Control at Beginning of Round: 1 7/24/2009 2:45:01 PM									
	A	В	С	D	E	F	G		
Shrouded?	No								
Holstered?	Yes								
Shots at									
Lastround	0	0	0	0	0	0			
All rounds	0	0	0	0	0	0	0		
Hits taken Last round	0	0	0	0	0	0			
All rounds	0	0	0	0	0	0	0		
Damage	Functional								
Offense vesting, last round									
Shots sought	0	0	0	0	0	0	0		
Shots reduced:	0	0	0	0	0	0	0		
Offense shots available:	15	40	30	15	15	200	200		
Defense vesting, last round									
Shots requested:	0	0	0	0	0	0			
Shots offered by G:	0	0	0	0	0	0			
Shots agreed to:	0	0	0	0	0	0	0		
Shots reduced:	0	0	0	0	0	0	0		
Defense shots available:	0	0	0	0	0	0	0		
Round available:	2	2	2	2	2	2	2		
Round for Involuntary Unshroud:									

Figure B2

"This might be possible for me. However, what is the scope of the decisions you seek consultation on? Also, we are already friendly with Player C. Would I be expected to downgrade this status?"

Player A sought to reassure others regarding his overture by stating to Players C, D, and E: "Of course not. I don't presume to dictate your relations with other countries. I simply wish to improve my relations with all of you. The consultations on energy policy would be non-binding—simply a friendly heads-up if you wish to change policy. Hopefully, if there is a disagreement, the consultations could resolve any policy differences."

Player A responded to Player D's request for offensive shots in exchange for closer relations: "You have a solid relationship with Player G. He has far more shots and access to far more tokens than I. One would think that he would share offensive shots with his friends. Also, I am not proposing friendly relations, just a neutral stance toward a fellow Muslim player and reasonable discussions on energy policy. This is in both our interests."

Player D responded in turn to Player A: "Sorry my friend. I will upgrade my attitude toward you to 'neutral' in exchange for something cool—like

a couple of offensive shots. Also, you are stupid to deny the Holocaust."

Player A responded sarcastically regarding the criticism from Player D about the Holocaust: "Who? Looking at my map, I don't see a Player B. Hmmmm..."

Player D responded in turn to Player A: "Player B is a pain. He throws his weight around like he owns the entire world, but don't deny the Holocaust. That brings too much negative attention to us Muslims."

Player A continued his exchange with Player D regarding Player B and his overture: I guess you are right. I will agree not to deny the Holocaust in the future in exchange for an upgrade in our relationship to 'neutral.'"

Player D again responded in turn to Player A regarding his overture: "No. Sorry, we need a bigger deliverable."

Player B stated to Players C, D, E, and F: "Please know that any transfer of shots by any of you to Player A will be considered to be a clear and present danger—indeed, as an existential threat—to me. If I learn of any such transfer, I reserve the right to execute a first strike against that player. Moreover, if I learn that any player has informed Player A of the above stated policy, I will consider that a hostile act."

Player F made the following public announcement: "As everyone can see, there has certainly been a change in Player G's policy. Hence, I am publishing a new national security strategy. Here is a preview:

"I will take the following steps:

- Many of my offensive shots will be from multiple warhead missiles;
- 2. Increase the number of air-launched/long range supersonic cruise missiles in strategic bombers, with an increase in a number of patrols in international waters and airspace;
- 3. Increase in number of patrols of ballistic missile submarines off the coast of Player G."

Player D stated to Players B, C, E, and F and copied Player G: "I will remind you—very nicely—that I am in an alliance with Player G. Any attack

on me would be reciprocated by Player G. Is this not correct, Player G? By the way, I have no intentions of giving Player A anything except strong disapproval for denying the Holocaust recently."

Player G affirmed his alliance commitment to Player D: "I will continue to honor my alliance with you and to treat you as an ally upon whom an attack would result in a counterstrike, in accordance with my public statement. That said, I appreciate your commitment not to provide offensive shots to Player A because my ability to provide for your security will be compromised if you send Player A such shots."

Player B, still concerned about the possibility of Player D transferring offensive shots to Player A, sent the following message to Players C, D, E, and F and copied Player G: "Player G must do what is in his best interest under his alliance commitments. I would say—very nicely—that my intelligence has warned me about inconsistency in the policies of Player D. My policy, as stated earlier, remains the same."

Player D responded hotly to Player B's charge of inconsistency by stating the following to Players B, C, and E and copying Player G: "Player G's alliance commitments are in his interest. So Player B should not start throwing accusations around. I will take action against foreign spies caught on my beautiful Muslim territory."

Player D also responded defensively to Player G's latest statement to him: "Your alliance commitment has limits now? And who said I will give Player A anything? Don't be listening to the ridiculous Player B. He needs some serious anti-depressants. He is always moaning about something."

Player G, seeking to reinforce his warning to Player D regarding a transfer of shots to Player A, stated the following to Players B, C, E, and F, which he shared with Player D: "I have just communicated to Player D that I will continue to honor my alliance with him and retaliate in the case of an attack against his territory, in accordance with my initial public statement. That said, my defense of Player D will be compromised if he sends Player A weapons or adopts an offensive policy toward Player B."

Player D, still on the defensive, then posed the following question to Player G, which he shared with Players B, C, E, and F: "Can you clarify too—if anyone gives weapons to Player A will you strike them, will you also strike Player A?"

Player G responded to Player D's question privately: "I do not believe that you have given Player A anything. And I am committed to our alliance."

Player D concluded this exchange with Player G: "Great, it is good to know that we're all friends again. I have always been your friend."

Player E, responding to Player A's earlier overture, stated: "Okay, I can agree to upgrade my attitude toward you to 'neutral.'"

Player A responded positively to Player E's statement: "Excellent news! I look forward to discussing energy policy with you in the future."

Player F chose this time to respond to Player A's initial proposal for an alliance: "I greet your expression of friendship warmly and thank you for your earlier communication. As you are well aware, Player G's influence in the region is a major concern for me as well. I would like to see you give up your nuclear arsenal and military nuclear program. In exchange for this, I will extend my nuclear umbrella and offer profound cooperation in the energy sphere, as well as in the political realm."

Player A stated the following to Player F regarding his counterproposal: "I find your proposal perplexing. My proposal advances several of your stated goals. Your response advances none of mine. What possible benefit could I gain from outsourcing my security to a foreign power? Alliances are based on strength. You should value an ally that can protect himself and assist you in the event of future problems. Moreover, dividing Player G's attentions and concern among us would aid you greatly."

Player G sent the following message to Players B and D: "I would like to host tri-lateral talks with your representatives. I believe that a direct security alliance between the two of you would be beneficial. I look forward to hearing from you and fostering a strong tri-lateral partnership."

Player D responded to Player G's proposal with the following message to Players B and G: "I think the regional alliance of which I am a member rocks, so I am happy for you to open talks for Player B to join it. Other members of that regional alliance, however, may not be so enthused."

Player B responded to Player G's proposal with the following message to Players D and G: "I welcome Player G's proposal. Greater regional transparency, however, is necessary for my security."

Player D responded negatively to Player B's demand for greater transparency by stating to Players B and G: "Are you taking a potshot? Seriously—what's with you? I am with you. I admonish Player A when no one else is doing so. I haven't given him shots. Period. I think that you both have got it wrong with Player A. He has managed to solidify his position. He feels bigger and badder than ever. He is trying to form some energy pact with Muslim players. I have said no."

Player B responded to Player D in turn, stating to Players D and G: "No one is taking 'potshots.' Perhaps that is someone's conscience speaking? Player B desires *regional* transparency, not just *Player D* transparency."

Player G then intervened by stating to Players B and D: "I am glad that you are open to Player B joining the alliance in the adjacent region. As a first step, we would encourage greater information-sharing between your governments. I believe we can convince others in the adjacent regional alliance to accept Player B's admission, especially given Player A's nuclear weapons status."

Player E asked Player B: "Would you be interested in upgrading our status with one another to neutral? We want to assure regional stability and hope to have some sort of neutral relationship given our mutual threats."

Player B responded to Player E: "I welcome your overture and agree to change my attitude toward you to 'neutral' on a mutual basis. And I think we can agree on more transparency with one another in future rounds so that we have no misunderstandings regarding our mutual threats. Therefore, I intend to move to 'neutral' toward you in the next round."

Player C asked Player E: "We would like to maintain friendly relations with you, and we would

even consider an alliance with you, as well. What do you think of the stability of the energy market proposal from Player A? We have energy concerns that we are trying to address; however, we are not sure if Player A would be the right country to work with on energy."

Player E responded to Player C's query: "I want to maintain friendly relations, as well, and would like to consider an alliance. I find the stability of Player A's proposal to be lacking, but I have agreed to it. It lacks much enforcement and is not an overly strenuous agreement, so it isn't much of a problem for me. I would be interested in something more robust between the two of us that does not have to involve our relationship with Player A."

Player C responded to Player E in turn: "I understand your position toward Player A. I am going to keep my attitude toward Player A the same for the time being. I would also be interested in a more robust relationship between us two and can move my attitude toward you to 'would ally' this round."

Player C accordingly sent the following message to Player A regarding Player A's earlier overture: "I have considered your proposal, but I will keep my current attitude toward you at this time."

Player D sought to resume his diplomacy with Player A by asking: "How do you want to proceed?"

Player A responded: "If nothing else, we should upgrade our attitudes toward each other to 'neutral' in order to continue our conversation."

Player D answered Player A: "Sorry. No. Show me the money and then we'll talk. By the way, Players B and G are putting pressure on me to ostracize you. I think it's a bit rich when they wouldn't criticize you over the protesters (which we still think was so uncool). I will not ostracize you, but I cannot upgrade my attitude toward you without the 3 shots."

Player A then suggested to Player D: "Tell you what, you upgrade to 'friendly' towards me and I will give you three shots. The first shot will be transferred in the round following your announced change from your move and the second and third successively in each of the two rounds after that, if you keep the relationship going."

Player D chose not to respond to Player A's suggestion at this time.

Player G stated the following to Player F regarding his earlier announcement of his national security policy: "In response to your announcement, I too will be modernizing my offensive stockpiles for the sake of my security. At the same time, however, I would like to continue to pursue talks with a view to resetting our relationship."

Player C sent the following message to Player G: "As an ally and as a country we work with on keeping our nuclear weapons secure, we wanted to inform you that we will shroud our forces. We are concerned that our Hindu neighbor will learn about our forces if we are unshrouded. We hope this information will remain between us, and it will not be disclosed to others inside or outside the region."

Player G responded to Player C in turn, including a query: "Certainly. Has Player A approached you about joining an energy alliance of Muslim nations?"

Player C answered Player G's question: "Yes, but I am keeping my current attitude toward Player A at this time. Player E is considering the proposal, but is concerned with the lack of depth and information about the grouping. We have not discussed Player A's proposal with Player D yet."

Based on what Player C had just told him, Player G asked Player E: "Has Player A approached you about joining an energy alliance of Muslim nations? I would strongly disapprove of such an arrangement. In exchange for cooperating with me in isolating Player A, I would like to offer to begin treating you as a full ally, with all the benefits that such a partnership will entail. The condition would be improvement in your human rights record."

Player E chose not to respond to Player G at this time.

Player F extended an overture to Player D: "Please read my new national security strategy. For example, I have concerns about the security of my citizens in the adjacent areas, especially those to my immediate south. In this regard, I would like to make a proposal to you. In exchange for you elimi-

nating your offensive shots and my newly established allies to my south, I am prepared to offer the following items:

- Guarantees under my nuclear umbrella and protection against Player A;
- Discount prices on natural gas and a substantial increase in capacity in the pipeline to your territory;
- Respect for your increased role in the region."

Player D responded to Player F's overture:

"Thanks. I am interested in making better friends, but not in exchange for unilateral disarmament. In fact, I don't think disarmament's a good idea anyway. Maybe we can talk about other ways of being more friendly later. Further, if I recognize your so-called new allies, members of the regional alliance to your west of which I am a member would be very angry. They're officially not recognizing them. So I can't go against my allies."

Player B asked Player F: "To the extent possible, can you please inform me of your intentions regarding Player A and the transferring of offensive shots?"

Player F chose not to respond to Player B's question at this time.

ROUND 2

Figure B3 reflects the diplomatic status of the players prior to Round 2.

Figure B4 reflects the status of the players' forces prior to Round 2.

Public Announcements and Private Communications Prior to Round 2

Player D sent the following message to Player F: "Thanks for upgrading your attitude toward me. I appreciate that and will reciprocate. However, we don't accept your previous offer because I do not recognize your new-found allies to your south. But I still want improved relations and will upgrade my attitude towards you."

Player F responded to Player D's statement with a terse comment: "You will be paying market prices for energy and you are on your own with the mullahs of Player A."

Player D responded to Player F rather defensively: "Oh alright, so long as you are not raising energy prices, there is no problem between us and I will go back to upgrading my attitude towards you to 'friendly.' I have always liked you anyway."

Player D chose this time to respond to Player A's proposal to him from Round 1: "Awesome. Just to be absolutely clear: (1) I will upgrade my attitude toward you to 'neutral' now; (2) at the end of this round, you give me one offensive shot; (3) you give me one shot per round in the rounds after this one."

Player A responded with the following clarification: "No, for shots I need you to be 'friendly' first. We should each upgrade our attitudes toward each other to 'friendly' this round. Once we verify that you have done so on both sides, I will transfer 1 shot to you in round 3. I will transfer another shot each of the next two rounds as long as you maintain that 'friendly' attitude."

Player D rejected the terms of Player A's clarification: "Sorry, no deal. This is not what I wanted. We gave it a go, but see you later."

Player G made the following public announcement: "Nuclear deterrence continues to remain essential to my security and that of my allies. Accordingly, I have begun pursuing the selective modernization of my offensive force. In Round 1 I removed 10 old offensive nuclear weapons and replaced them with newer, more effective, reliable, safe and secure weapons. I will continue modernization this round. Further, my position remains that defenses are ineffective and destabilizing. Therefore, I will not purchase defenses for myself nor transfer defenses to any other player."

Player D, encouraged by Player G's public announcement, used it to make a request: "Good move on the offensive shots. I would like to do the same, but I am a bit poor at the moment. As a good ally, will you give me some offensive shots from your huge arsenal? Thanks!"

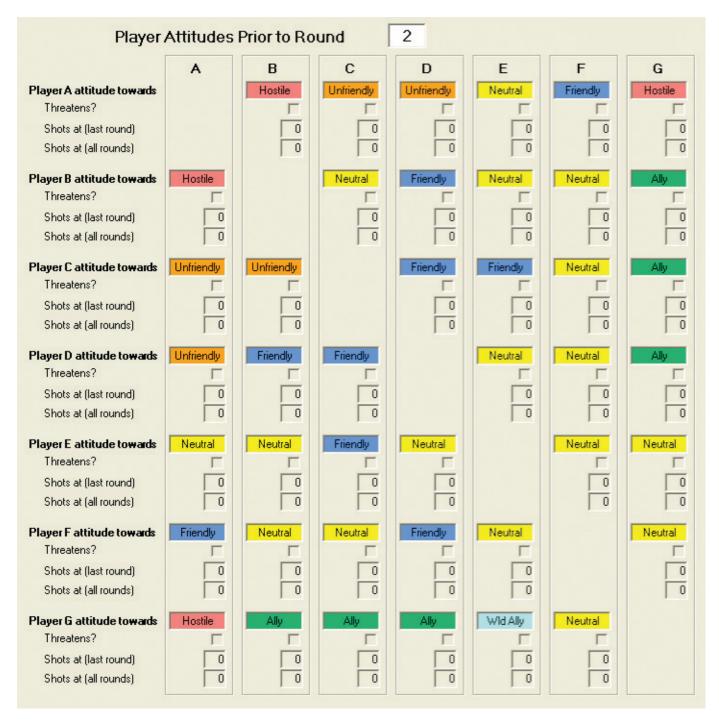


Figure B3

Player G responded positively to Player D's request: "Sure—how about 5?"

Player D responded: "Thank you."

Player C stated to Player A: "I would like to signal my interest in pursuing an energy dialogue with you by upgrading my attitude toward you to 'neutral."

Player A responded positively to Player C's overture: "Wonderful news! I hope to continue

this positive dialogue and will upgrade my attitude toward you to 'neutral,' as well. Perhaps we can advance our relations further in the future."

Player B decided to try to improve his relationship with Player D by proposing an alliance: "Let's put past differences behind us and establish an alliance, shall we?"

Status for Control at Beginning of Round: 2 10/5/2009 1:19:22 PM								
	A	В	С	D	E	F	G	
Shrouded?	Yes	Yes	Yes	No	No	No	No	
Holstered?	No	No	Yes	Yes	Yes	Yes	No	
Shots at								
Last round	0	0	0	0	0	0	0	
All rounds	0	0	0	0	0	0	0	
Hits taken Last round				□	□		Г	
All rounds	<u></u>	<u></u>	<u> </u>		<u></u>			
	, , , , , , , , , , , , , , , , , , ,	,	-	-	,	-	-	
Damage	Functional	Functional	Functional	Functional	Functional	Functional	Functional	
Offense vesting, last round				_		_		
Shots sought	2	2	2	4	5	10		
Shots reduced:	0	0	0	0	0	0	0	
Offense shots available:	15	40	30	15	15	200	200	
Defense vesting, last round								
Shots requested:	0	0	0	0	0	0		
Shots offered by G:	0	0	0	0	0	0		
Shots agreed to:	0	0	0	0	0	0	0	
Shots reduced:	0	0	0	0	0	0	0	
Defense shots available:	0	0	0	0	0	0	0	
Round available:	3	3	3	3	3	3	3	
Round for Involuntary Unshroud:								

Figure B4

Player D put off Player B's proposal: "How very kind of you. I am glad we are 'friendly.' Let's not jump the gun on a formal alliance. I am trying to get you into the regional alliance that I am a member of and am trying to talk to all my allies privately on this matter."

Player A made the following proposal to Player E: "I see that Player G wishes to enter into an alliance with you. I would hope that such an arrangement would not preclude closer ties between us. I think that having 'friendly' relations in the region, as well as around the world, would benefit you. How about it?"

Player E responded to Player A's proposal for improved relations: "As I have made clear, I seek good relations with all regional players. My decision about whether or not to enter into an alliance with Player G will have no impact on my attitude toward you."

Player A responded to Player E in turn: "That's wonderful. I feel the same way. Whether you enter into an alliance with Player G is your decision. What I am proposing is a similar upgrade in our relationship. If you are entering into the alliance with Player G out of concern for your safety, I would be prepared to provide offensive shots to you as an alternative. In exchange for an alliance between us, I would

give you a shot per round for as long as the alliance endures. Once I verify that you have done so, I will transfer 1 shot to you in the next round. I will transfer another shot each of following rounds for as long as you maintain the relationship."

Player E responded to Player A's proposal: "That is interesting. But for now, I would like to maintain the *status quo*."

Player B sought information from Player G about Player D's regional alliance idea: "Please inform us whether Player D is, as he claims, pushing for my membership in the regional alliance that he and you already belong to."

Player B at the same time told Player D: "I don't believe that seeking regional alliance membership and a bilateral alliance are mutually exclusive."

Player D responded in turn: "I don't necessarily disagree with you, but some in the regional alliance are being terribly tricky and I don't want to rock the boat with them while we're at a delicate stage of discussions. I will get back to you soon but right now, let's just be friends. It's me, not you."

Player G stated the following to Player B regarding Player D's regional alliance proposal: "Player D has been working behind the scenes to gin up support for your membership in the regional alliance, but claims to have hit a wall with other members. I suspect much more could be done by Player D in this regard, now and in the future. Let's remind Player D to get back in the game."

Player G accordingly asked Player D: "Are you continuing to push hard for Player B's membership in the regional alliance?"

Player D responded to Player G's query: "I continue to talk to Player B about it, but the other alliance members are being a pain. Could you talk to them too? I want Player B in the alliance to blunt Player A, who is intent on being difficult and aggressive."

Player B intervened with Player G on the subject of Player B's prospective membership in a regional alliance at this time: "Well, this regional alliance's membership, other than you and Player D, are not involved in my immediate regional setting, so claiming that they are the roadblock does me no good.

My relationship with Player D will suffer as a result, since Player D is using this claim of reticence by others as an excuse for not upgrading his attitude toward me."

Player B also chose to state to Player D directly: "Others in the regional alliance, I don't know if they are exactly going to be my savior as far as alliance membership is concerned. I'm afraid you will have to do better than that."

Player D responded to Player B's dismissive statement: "Hold your horses. I am trying hard, but I don't run the world. I have recruited Player G to speak on your behalf. It will take time and in my experience it is not good to rush these things. Calm down."

Player G cautioned Player B: "Don't be too hasty in letting relations suffer with Player D just yet. I recognized your point about Player D's claims and have raised it with him. I suspect he continues to help with other alliance members throughout this round. Let's wait and see before 'pulling a late night Facebook' and downgrading any relationship status, shall we? I appreciate your patience."

Player B then offered the following proposal to Player D: "If you're unwilling at this point in time to upgrade your attitude toward me, you can make a showing of good faith by transferring two (2) offensive shots to me."

Player D turned down Player B's proposal: "Sorry, I am busy trying to acquire my own because I am broke. There's a credit crunch, haven't you heard? Ask Player G because he is feeling so generous. He is on a spending spree."

Player F made the following public announcement: "In order to increase peace and stability, I will put my offensive force in a ready posture. I do not release information on modernization."

Player F chose this time to state to Player A the following regarding Player A's alliance proposal from Round 1: "Please understand that working together we can achieve a lot in our shared region, while it is highly unlikely that the fat Player G will do anything for you but use you."

Player A replied to Player F: "I agree. I would much rather ally with you to present a united front

to Player G. In exchange for an alliance between us and a guarantee of security, I would transfer to you an offensive shot per round. Specifically, once I verify that you have agreed to an alliance, I will transfer 1 shot to you in Round 3. I will transfer another shot each of following rounds for as long as you maintain the relationship."

Player F asked Player B: "Are you planning to give up your offensive shots if Player G and I provide you security guarantees and Player A is committed to the same?"

Player B responded to Player F's question: "I think I'd like an answer to my question from the last round regarding whether you will transfer offensive shots to Player A first, respectfully."

Player F responded in turn to Player B's question: "In light of Player F's question re: Player B's willingness to explore a joint Player G-Player F nuclear security blanket and the self-evident fact that it is not in Player F's self-interest to have nuclear weapons spreading around the world, the answer should be obvious."

Player B, not satisfied with Player F's answer, continued to press: "That is what those in the diplomatic community refer to, charitably, as a 'non-answer.' You are on 'friendly' terms with Player A, who wishes my destruction. So again, to the extent possible, can you please inform me of your intentions regarding Player A and the transferring of offensive shots to him?"

Player F again sought to reassure Player B: "Yes, of course not."

Player E chose this time to respond to Player G's inquiry from Round 1 regarding Player E's possible cooperation with Player A by stating to Player G: "Yes. [Player] A is talking about cooperating on energy issues. While we are interested in cooperating with them, we have no intention of entering into any sort of energy alliance. While a full alliance between us may not be appropriate at this time, we would be interested in increasing our attitude toward you from neutral to friendly, with all of the benefits that such an upgrade would entail. The condition would be some cooperation on the non nuclear military front."

Player G, based on this answer from Player E to his previous question, told Player E: "I will accordingly set my attitude with you, currently at 'friendly,' to 'would ally.' You let me know at what time a full alliance is appropriate. I look forward to the establishment of a formal alliance at some point."

Player C stated to Players E and G: "I have just received information from intelligence sources that the player to my east is getting ready to conduct new nuclear testing. This will force me to 'ready' my offensive arsenal.

"Player G, will you remind my easterly neighbor of your nuclear umbrella policy for me, even though he is not in the immediate region that is the focus today? I realize that readying my offensive shots may have adverse consequences in the region, but I cannot afford to ignore the threat coming from my east. Will you please assure Player B that this is nothing to do with it but rather my own national security interests here in my most important region?

"Player E, I would like to establish an alliance between us."

Player G sent the following message to Player C regarding his plan to ready his offensive force, which he shared with Player E: "I strongly discourage you from placing your nuclear forces at a 'ready' posture. Too many regional players will neither understand nor have time to figure out what is going on. Your actions could very easily escalate into something larger with unintended consequences. What can Player G do to help calm nerves, including military aid, sending additional forces to your immediate region? I will remind your neighbor to the east of my nuclear umbrella policy. Do not worry."

Player E responded to Player C's request for an alliance: "I believe that my relationship with you is critical to my future and would want nothing to jeopardize it. That is why I am very comfortable with our current relationship status. I look forward to continuing to pursue our energy, economic, and security interests together."

Player G, in response to Player C's announced intention to ready his offensive forces, stated to Player B: "Player C has received information from intelligence sources that his neighbor to his east is

getting ready to conduct new nuclear testing. Player C's leaders want to put their offensive nuclear arsenal in a ready status. I have adamantly encouraged Player C not to do this due to the unintended consequences and chances for miscalculation by other players. Bottom line: If Player C follows through, it has nothing to do with you, Player B."

Player C then stated to Player G: "I will agree not to put my offensive nuclear forces on the ready if you can convince my eastern neighbor not to conduct a new round of testing."

Player G then stated the following to Player C, which he shared with Player E: "Wonderful. For now, stick with the plan and keep those forces unreadied. Thanks for letting cooler heads prevail."

Player A made the following proposal to Player C, which was similar to one he had earlier offered to Player E: "I am seeking closer ties with our fellow Muslim players. I would like to propose an alliance. I know this may place some stress on your relationship with Player G, so I will sweeten the deal by offering to transfer shots to you. In exchange for an alliance, I would give you a shot per round. Once I verify that you have done so, I will transfer 1 shot to you in Round 3. I will transfer another shot each of following rounds for as long as you maintain the alliance relationship."

Player F offered Player G a proposal for a greatpower condominium in the region: "Are you interested in providing joint nuclear guarantees to ALL Middle Eastern countries in exchange for their cessation of nuclear R&D and giving up their existing offensive shots?"

Player G responded to Player F's proposal by asking: "That is a very, very intriguing offer. Would this mean we would both agree on the neutral location for them all to house peaceful nuclear efforts to ensure true oversight? How on earth would we investigate whether these countries have truly abandoned their nuclear R&D efforts, if so, without looking the fool? What about Player A?"

Player F answered Player G: "I suggest IAEA [International Atomic Energy Agency] supervised destruction and permanent presence to prevent military application of their programs."

Player G advised Player D: "Since I am transferring 5 offensive shots to you, you may want to consider shrouding your forces to conceal the deal."

Player B, still unsatisfied with Player F's answers to his question about whether Player F planned to transfer offensive shots to Player A, asked Player G: "Do you know what the state of relations are between Player A and Player F, especially vis-à-vis the transfer of offensive shots?"

Player G chose not to reply to Player B at this time.

Game Manager's Notes

The Game Manager told Player F that the game does not presume the existence of the Intermediate-Range Nuclear Forces (INF) Treaty when Player F was considering raising the issue.

The Game Manager warned Player D that he was raising the presence of a nonexistent (German-equivalent) player in his communications in ways that are inappropriate for the game design and that references were made to members of an adjacent "regional alliance" (the equivalent of NATO) other than Players D and G.

The Game Manager advised Player C on the appropriate guidelines for referencing a nonexistent (India-equivalent) player in diplomatic communications with other players: specifically, that Player C could allude to this player but not use it as a means to change facts relevant to the regional setting that is applicable to the exercise.

ROUND 3

Figure B5 reflects the diplomatic status of the players prior to Round 3.

Figure B6 reflects the status of the players' forces prior to Round 3.

Public Announcements and Private Communications Prior to Round 3

Player D responded to Player G's suggestion from the end of Round 2 that he shroud his forces:

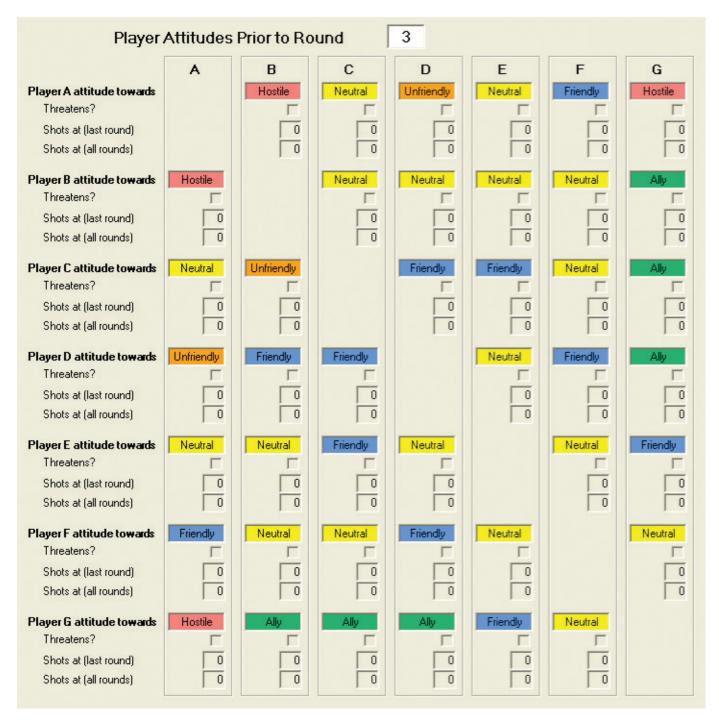


Figure B5

"Sorry, it is too late. I won't tell anyone. Everyone will think it was Player C."

Player G responded to Player D with a question: "Player C was very concerned during this round's announcements of shot transfers to you. I must tread very cautiously since you are both my good allies and I want stability in the region. Please state that you wanted to remain holstered when you

changed your status to unholstered in Round 2. Will you be holstering at the end of Round 3 today?"

Player D answered Player G's question: "I won't say it was Player C, honest. You didn't insist that I remain 'holstered' as part of the weapons transfer deal. I 'unholstered' after Player A was being very belligerent. And you are 'unholstered,' too. So I thought I would be just like you."

Status for Control at Beginning of Round: 3 10/6/2009 1:44:50 PM								
	Α	В	С	D	E	F	G	
Shrouded?	Yes	Yes	Yes	No	No	No	No	
Holstered?	No	No	Yes	No	Yes	No	No	
Shots at	_	_	_	_	_		_	
Last round	0	0	0	0		0	0	
All rounds	0	0	0	0	0	0	0	
Hits taken	Г		Г	Г				
Lastround								
All rounds	0	0	0	0	0	0	0	
Damage	Functional							
Offense vesting, last round								
Shots sought	2	2	2	9	5	10	0	
Shots reduced:	0	0	0	0	0	0	0	
Offense shots available:	17	42	32	19	20	210	200	
Defense vesting, last round								
Shots requested:	0	0	0	0	0	0		
Shots offered by G:	0	0	0	0	0	0		
Shots agreed to:	0	0	0	0	0	0	0	
Shots reduced:	0	0	0	0	0	0	0	
Defense shots available:	0	0	0	0	0	0	0	
Round available:	4	4	4	4	4	4	4	
Round for Involuntary Unshroud:								

Figure B6

Player D stated to Player B: "You just made Players A and F look good by downgrading your attitude toward me. Why would you want to do this? I now have massive egg on my face with my regional allies. I was lobbying for you to get in, and now you've gone and stabbed me in the back and I look foolish. This is a big deal and I am not happy with you."

Player D's anger at Player B for downgrading his attitude toward him led Player D to state to Player G: "You really need to have a word with Player B. I was lobbying on his behalf to get into the regional alliance of which we are both members and trying

to upgrade his strategic relationship with us all. However, he has gone off and behaved like impetuous children. An adult needs to speak to him."

Player G responded to Player D's request for him to intervene with Player B: "He says the ball is in your court. What is the deal?"

Player B then responded to Player D's earlier complaint to him: "You left me little choice since you would neither upgrade your relations with me nor transfer a measly two shots, which is an especially shady move considering you received five additional shots from another player last round. At the time you told me, what was it, oh, yeah:

'I am busy trying to acquire my own because I am broke.'"

Player D responded in turn to Player B: "I have a grand total of 19 shots to my name. This is hardly a massive arsenal. You want more weapons? Ask Player G! And you started with 40 shots! I started with 15. You're being totally unreasonable. This is why no one likes you. I have a lot more territory to protect and I have incurred the wrath of my fellow Muslims. They asked to form a Muslim alliance at the start of this, and I said no out of loyalty to you. Really—I'm telling you this as a friend. You are being unreasonable and making it apparent that you don't really want my friendship at all."

Player D then sent the following message in response to Player G's earlier question about his confrontation with Player B: "He downgraded his attitude toward me exactly when I was in negotiations on his behalf. Apart from looking really stupid (which is never fun), he gave our regional alliance colleagues every excuse to say that Player B's accession is off the table. I can hardly upgrade into an alliance now that he has thrown me under the bus. I am hurt, humiliated and he really made a strategic error here. He thinks he can behave any way he wants under your protection."

Player G then asked Player D: "What did you ask of Player B and why are you suspicious of them? What's going on?"

Player D responded to Player G's question by sharing all of his recent exchanges with Player B.

Player G made the following public announcement: "As in the previous two rounds, nuclear deterrence continues to remain essential to my security and that of my allies. Accordingly, I will continue to pursue the selective modernization of my offensive forces. In Rounds 1 and 2 I removed 10 old offensive nuclear weapons and replaced them with newer, more effective, reliable, safe and secure weapons. I will continue this modernization program this round."

Player G chose this time to respond to Player B's question from the end of Round 2 regarding the likelihood that Player F would transfer offensive shots to Player A: "Unfortunately, I have no insights at this time but will let you know when I learn anything of value."

Player B posed the following question to Player C regarding his decision in Round 2 to upgrade his attitude toward Player A: "Since you have taken it upon yourself to upgrade your relationship with a player whose organizing principle is my destruction, what assurances can you give that you are not transferring weapons to him?"

Player C responded to Player B's question: "You can be assured I have absolutely no interest in transferring weapons to Player A given that we share a border with this unreliable player and have had our differences with Player A over the player that borders both of us (and not minor differences either). Yet because of Player A's burgeoning relationship with another player that is to the east of me, I must protect my position in my more immediate region and ensure Player A does not get too cozy with my enemy to the east. You must know after all of these years that I have no hostility with you. Some religious zealots may make unhelpful statements toward you, but rest assured that my security and foreign policy establishment do not hold any ill-will toward you.

"On another note, can you provide me any assurances regarding the fact that you are now my eastern neighbor's largest defense supplier? This makes me quite nervous and gives me cause to wonder if you have no regard for me?"

Player B responded in turn by stating to Player C: "I can assure you that I have no intention of supplying offensive shots to your eastern neighbor. My focus is on Player A, who represents an existential threat to me. That is why I am glad to [be] 'neutral' towards you. I would upgrade my attitude toward you, but doubt that it would go over well for you domestically. I remain open to that discussion should you want to have it. It is my great desire one day to be recognized by you."

Player C responded to Player B again: "I very much appreciate your understanding of the complex situation in my immediate region. I also appreciate your 'neutral' stance toward me and will demonstrate this by upgrading my attitude toward you to 'neu-

tral.' As you know, I have come close to recognizing you formally in the past, but the domestic situation has grown increasingly precarious since the onset of the wave of terrorism. So I must proceed cautiously on this front. I assure you I will continue to look for an opportunity to make this diplomatic leap."

Player A sent the following message to Player F: "I strongly suspect that the modernization of Player G's forces is a ruse and he is, in fact, covertly supplying offensive shots to Player D. Have you given thought to my earlier offer? I think it would be in our mutual interest to present a united front."

Player F responded to Player A's proposal: "I appreciate your offer and will discuss it with you next round."

Player G asked Player F: "I notice you are modernizing and increasing your offensive stockpile. Would you maybe like to talk to me so that we can all start moving in the direction of disarmament and world peace? What are your concerns?"

Player D stated to Player A: "I really think that I should have a 'neutral' attitude toward you. You and Players C and E are neutral. I shouldn't be left out of this Muslim brotherhood. What do you think?"

Player A responded to Player D's statement with the following, which he shared with Players C and E: "Of course. This is what I wished for all along. The Muslim nations should stand together in the spirit of friendship. I am delighted to upgrade my attitude toward you to 'neutral.' In fact, I propose that we all jointly increase our attitudes toward each other to 'friendly' and announce the creation of the Organization of the Islamic Friendship and Economic Council to jointly advance our diplomatic and economic interests. What do you think of my proposed OIFEC?"

Player D, in an overture to Player E, asked: "Shall we upgrade our attitudes toward each other from 'neutral' to 'friendly?"

Player E responded to Player D's overture: "That could make a lot of sense. Are you looking for some specific area of cooperation?"

Player D responded to Player E in turn by proposing: "I would like to enter into 'friendly' rela-

tionship with you, rather than 'neutral.' I would also like you to transfer 2 offensive shots to me since you have more available each round. That way we will be close to equal and since we're friends, we'll never fire on each other."

Player D, based on Player E's response to his overture, turned around and stated to Player G: "I want to let you know that I am trying to upgrade relations with Player E. I am already 'friendly' with Player C, and as is my long-standing policy, I am talking to him too."

Player G responded to Player D's statement: "Excellent. Sounds good. I don't quite understand the nature of your tiff with Player B, though. My impression is that he merely wants you to upgrade your attitude toward him. Would this be tough for you—politically speaking? Is that your main concern?"

Player E responded to Player D's request for more offensive shots in the context of his proposal to upgrade relations: "I would agree to be 'friendly.' However, I need all of my shots. Given the instability that has arisen recently I need to ensure the deterrent value of my arsenal."

Player D responded in turn to Player E: "Okay, I understand. We are in the same boat. And even though I am in the alliance in the adjacent region, I do not think that others in that alliance are going to come to my rescue in the event that anyone gets out of hand in our immediate region. I will upgrade my attitude toward you to 'friendly' though. I have informed Player G that I am seeking this friendship and he is enthusiastic."

Player E concluded these exchanges on upgrading relations with Player D: "Done. I will upgrade my attitude toward you."

Player D responded to Player G's previous query about Player D's dispute with Player B by stating to Player G: "Upgrade relations? He downgraded relations with me! That is hardly a demonstration of good faith. He wanted me to jump the gun while I was advocating for him to be permitted join our alliance in the adjacent region. He also wanted shots, of which I don't have many. He is being so unreasonable and my domestic constituency is apoplectic with anger right now. I don't

know how we get back from this because he was rude and unreasonable."

Player G continued his effort to settle the dispute between Player B and Player D by asking Player B: "Did you really need to downgrade your relations with Player D? I understand you wanted them to upgrade their relations with you and that you were getting impatient, but my feeling is they may just need a bit more time."

Player D responded to Player A's proposal for a regional Islamic coalition by stating to Players A and C: "Let's not be too hasty here. A 'neutral' attitude toward Player A is fine by me for the time being."

Player D, as the dispute between Player B and Player D continued, stated to Player B: "I am in a worse position regarding threats from Player A than you because the threats are made privately and garner no sympathy. However, Player A is seemingly calming down a little bit now. He just asked for a regional Muslim coalition, which I have rejected. And you want to throw me under the bus? Really, you are not helping yourself."

Player G, not familiar with Player D's statement to Player B, tried to put the best face on the dispute between the two by telling Player D: "I think this is all just a misunderstanding. Player B would like closer relations with you. He grew suspicious because you were taking your time about it. Everything's cool, though."

Player D immediately sought to bring a sense of reality to Player G by stating: "I am going as fast as our regional alliance partners will let us. You have been in these alliance meetings before and know that some members cannot be pushed into a corner. As it happens, the effort has stalled because Player B has behaved like a spoiled child. I am not happy. Further, Player E is going to become 'friendly' with me. Player C is being nice. Even Player A is being relatively quiet today. But Player B continues to behave badly."

Player B also stated to Player G regarding Player D: "Once Player D finds the time to make a show of good faith toward me, I will consider restoring my 'friendly' attitude toward him. With a nuclear armed Player A, however, time is not on my side."

Player G decided to take a more energetic approach to resolving the dispute between Player B and Player D by stating to Player D: "What have the allies in the adjacent region got to do with it? Player B wasn't asking for you to push for this alliance membership. All he wanted was for you to upgrade your attitude toward him. I would appreciate it if you could give it another try please. Remember those shots I transferred to you."

Player D responded tersely to Player G: "I talked about this with Player B and said that I would look at upgrading my attitude toward him after we'd given it a go on his membership in the alliance in the adjacent region. He knew that. He didn't warn me that he was going to downgrade his attitude toward me. Let's be straight. You want me to upgrade my attitude toward someone who has just downgraded his attitude toward me? Don't you think that we'd both look even more ridiculous than we already do? You need to be talking to Player B. However, I very much appreciate the shots. I will take another five if they are on the table."

Player G moved to reject Player D's request for additional offensive shots: "Not right now, unfortunately. I am worried about financial pressures and concerns about intelligence leaks that could cause instability. I might reconsider, though, especially if you help things along with Player B. I am talking to them. I hope the minor tensions between you will be resolved soon."

Player D, despite Player G's statement, continued to press him for more offensive shots: "I'd say that [given] the fact that Players A and F and are clearly building a huge bomb, the transfer of more shots to me might bring them to their senses. You get 50 tokens per round. Another 5 to us would be awesome. I have not told anyone about the source of the earlier transfer."

Player A sought to limit the impact of Player D's rejection of his proposal for a regional Islamic coalition by telling Players C and E: "Player D has always lagged behind as evidenced by his being the last one to upgrade relations. I hope you both find

my proposal to be of interest. In these uncertain times, it would be comforting to know that I have friends standing beside me. If there is anything I can do to assist you, please feel free to ask."

Player G chose this time to approach Player A: "Just thought I would extend a hand and let you know I am prepared to talk if you are. If you could stop your nuclear programs and your incitement of hatred toward me, I might make it worth your while. Just FYI."

Player A responded to Player G's overture by stating: "I have no idea what you are talking about. I have made no confidential or public statements about you or about Player B despite our mutually suspicious relationship. As for my nuclear programs, I feel that they are necessary for my continued security. I would be interested to hear, however, what you could propose that would make it worth my while to accept that risk."

Player G responded in turn to Player A with a proposal: "I would be open to upgrading my attitude toward you if you would 'unshroud' your forces and thereby improve the transparency of your military and nuclear programs."

Player A responded to Player G regarding his proposal: "That is an interesting proposal. I think as a good will gesture, you should convince players B and C to 'unshroud.' That would help relieve my sense of insecurity. I am very fragile."

Player C, responding to changing circumstances, stated to Player G: "I am happy that you were able to talk my eastern neighbor out of another round of nuclear testing. I would like to let you know that I am upgrading my attitude toward Player B to 'neutral' to assure him that I have no intentions whatsoever of passing offensive shots to Player A. I feel compelled to upgrade my attitude toward Player A because of his cozying up to my eastern neighbor.

"As you know, I have long hoped to extend formal recognition to Player B. I have quite fine unofficial relations with Player B despite some of my domestic religious zealots who continue to denounce him on my streets. If you could use your influence to convince my eastern neighbor to share

some of the disputed area between us, I could consider providing that formal recognition to Player B. This would facilitate your goals in the entire region of central concern in this exercise. It would be quite a diplomatic coup for both you and Player B if the third largest Muslim player recognized Player B, no? Think about it."

Player C asked Player E: "I am so pleased and proud to have such friendly relations with you, the leader of the Islamic world. I would like to consult with you on what you think Player D is up to and who he received the weapons from? Do you think he has made some secret deal with Player G?"

Player E answered Player C's question: "I am very happy to be good friends with you, as well as Players D and G. As such, I seek cordial relations with all players, including energy and security cooperation when appropriate. However, given that I am not in an alliance with either Player D or Player G, I do not have any information regarding any weapons transfers. I can assure you, however, that I am committed to not transferring any weapons to any other player."

Player F chose this time to make the following public announcement: "I would like to announce that news my scientists are on Player A's territory to further his military/nuclear program is a malicious rumor. Any such scientists on the territory of Player A were not authorized by me and do not represent in any form my official policy. I condemn any rumor mongering that is being spread by hostile powers."

Player A made the following public announcement in response to Player F's announcement: "I wish to corroborate the statement by Player F. My facilities in the central part of my territory are merely intended to heat the mineral rich waters for the many spas located there. Clearly, Player F's scientists were on a well-earned vacation there."

Player D then posed a question to Player G, which he shared with Player B: "Shall we do something about this? It's a pretty big deal since they're obviously lying."

Player D, not waiting for Player G, also sent this message to Player A: "If you're lying (which loads of people reckon you are), then I might have to reverse

my decision to upgrade my attitude toward you. This is scary stuff."

Player A replied to Player D by asking: "Why? You are friendly with Player F. What are you concerned about?"

Player D responded skeptically to Player A: "I am going ask Player F, too. I just need to get to the bottom of things. I don't know of any spas at the location you mentioned and my friends go visit there all the time."

Player A followed up with Player D by stating: "I think you are overreacting. I want to be friends with you. I would never do anything to cause you alarm."

Player D continued to press Player A: "I am worried, really worried. Player G said you are lying."

Player A then asked Player D: "Lying about what?" Player D responded to Player A by stating: "I am very sorry but I feel that I must inform you that I will not upgrade attitude toward you. I will not downgrade my attitude toward you either, but I need assurances on the whole "spas" thing. I don't think you're providing beauty treatments to Player F's scientists at all and I want a greater display of transparency."

Player A stated to Player D in turn: "What exactly are you playing at? You negotiated a deal to get an increase in shots, but you are alarmed about a simple statement. I wonder if you understand how irrational you seem. I have always dealt squarely with you. I wish to upgrade our relationship. It is hard to reconcile your positions."

Player D also asked Players C and E: "Are you worried about Players A & F building a big dirty bomb? I am."

Player C responded to Player D's question with another question, which he shared with Player E: "What would player F get out of helping Player A build new bombs?"

Player D answered Player C's question about Player F and shared his answer with Player E: "Instability in the region so that he can concentrate on other more aggressive actions toward his more immediate neighbors. If the world is focused on our region, Player F can do what he likes in his because nobody will stop him." Player G responded to Player D's expression of concern about a possible cooperative weapons program between Players A and F: "Obviously, I've asked them for greater transparency. I haven't heard anything yet. Otherwise, I could seek further sanctions. However, I doubt they will be very effective."

Player D concurred with Player G's view: "Sanctions haven't worked the past 20 times we've talked about it."

Player B responded to Player D's expression of concern about weapons cooperation between Players A and F by asking Player D a question, which he shared with Player G: "How about authorizing flyover rights to my Air Force?"

Player D responded to Player B's request and shared his response with Player G: "Maybe if you were not 'neutral' towards me—since I am friendly toward you, remember—I might consider this request. You, however, choose to downgrade your attitude toward me. Now you want flyover rights?"

Player F chose this time to make a public announcement in response to Player G's earlier announcement of his intention to modernize his offensive force: "I greet Player G's interest in enhancing global security and also affirm the importance of nuclear deterrence. To this end, I announce that I too will pursue selective modernization of my offensive nuclear forces. Among other steps, I will seek to pursue the development of deep-earth penetrating nuclear warheads, and also highly-maneuverable warheads for my ICBMs."

Player D reacted to Player F's public announcement by again pressing Player G to transfer offensive shots to him: "It would serve you well to transfer some of your massive arsenal to reliable allies now, including me and Player B. You get 50 tokens per round. Divest and protect, I say."

Player G sent the following response to Player D's latest request for offensive shots, which he shared with Player B: "I will talk about transferring more shots to you in the next round. For now, you and Player B should patch up your differences, upgrade your relations, and authorize flying rights."

Player D remained reluctant to upgrade his attitude toward Player B and told Players B and G: "We need to continue this discussion before I can do that. I have been hurt, humiliated and I need additional shots because I am getting heat from Player A bigtime. I have to prioritize my offensive arsenal in the absence of defensive weapons right now."

Player F chose this time to press Player G again on a great-power condominium in the region: "Let us discuss joint nuclear guarantees to all the players in the region in exchange for their cessation of nuclear research and development and their giving up their existing deterrents. Let us also discuss an IAEA arrangement where both Russia and the US could play a role in the safe dismantlement of these players' offensive shots. This will build good faith."

ROUND 4

Figure B7 reflects the diplomatic status of the players prior to Round 4.

Figure B8 reflects the status of the players' forces prior to Round 4.

Public Announcements and Private Communications Prior to Round 4

Player A resumed his offers to exchange alliance relationships with the transfer of offensive shots, this time directing his offer to Players C and E: "In exchange for an alliance, I will give each of you a shot per round. Once I verify that you have agreed to the alliance, I will transfer 1 shot to you in Round 5. Further, I will transfer another shot each of the following rounds for as long as you maintain the relationship."

Player C responded to Player A's offer and copied Player E: "Thanks but no thanks."

Player A then pitched his regional Islamic cooperation arrangement to Players C and E: "Okay, I understand that you are too much in the sway of Player G to enter into an alliance with a fellow Muslim. What about my proposal for mutually friendly relations and the creation of the

Organization of the Islamic Friendship and Economic Council to jointly advance our diplomatic and energy interests. What do you think of my proposed OIFEC?"

Player E, speaking also for Player C, responded to Player A: "We both like the *status quo*. We like our fellow Muslims, but we also like our autonomy."

Player A then stated to Players C and E: "This is no threat to your autonomy. On the contrary, it advances our mutual goals of coordinating energy policy to maximize our benefits and demonstrating that Muslims will stand beside each other against outside intervention."

Player C then confirmed his agreement with Player E with respect to Player A's proposals by stating to Player A: "I agree with Player E. That said I look forward to continuing to pursue the A/C pipeline to consumers east of me."

Player A stated to Player G: "My insecurity has only increased with the decision of Player D to shroud after mysteriously gaining 5 additional shots last round. I must insist that your allies unshroud before I consider any negotiations."

Player G responded to Player A: "As sovereign nations, it is up to my allies to decide whether to 'unshroud' or not. I do not order my friends around. Of course, you are welcome to engage with each of them on your own and make your request known. We should all be seeking confidence-building measures in the region by all sides."

Player A responded to Player G in turn: "That is interesting since it is your allies that seem bent on engaging in an arms build up, as evidenced by Player D. This is not exactly a confidence building move."

Player G decided to challenge Player A on his complaint: "It takes a real man to unshroud first."

Player A responded to Player G's challenge by claiming: "My Muslim modesty holds me back."

An exasperated Player G then stated to Player A: "I only care about action, not talk. Blow smoke somewhere else."

Player A then indirectly threatened Player B by telling Player G: "Hmmm, Player B would make a nice smoking hole in the ground."

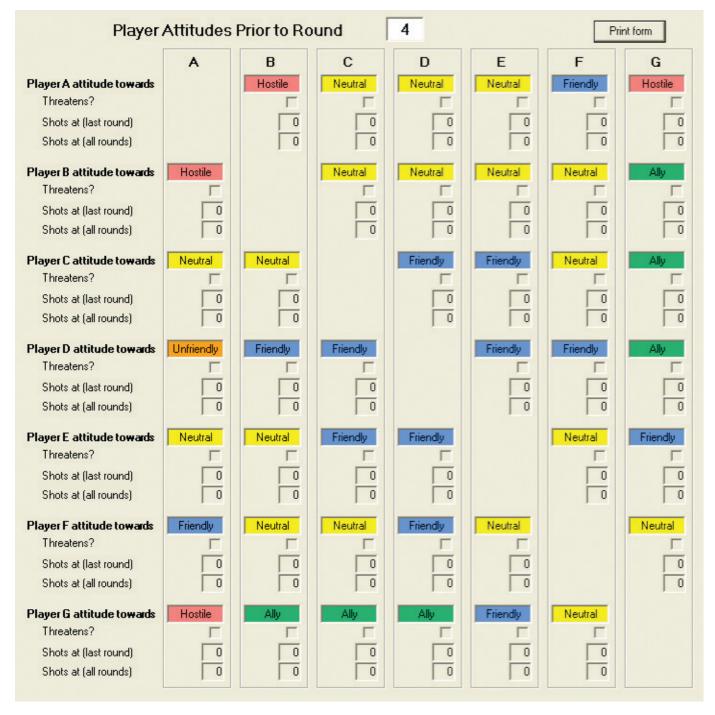


Figure B7

Player F made the following proposal to Player A: "This is what I suggest:

- 1. I will provide you a guarantee of security, including a nuclear response if you are attacked by nuclear weapons, contingent on points no. 2 and 3 below;
- 2. All your shots will be transferred to me at the end of this round;
- 3. I will explore an agreement with Player G to provide you a joint nuclear guarantee and advocate on your behalf;
- 4. I will provide \$50 billion for your oil and gas industry, if you are interested."

Status for Control at Beginning of Round: 4 10/8/2009 9:16:58 AM								
	Α	В	С	D	E	F	G	
Shrouded?	Yes	Yes	Yes	Yes	No	No	No	
Holstered?	No	No	Yes	No	No	No	No	
Shots at	_	_	_	_	_	_		
Last round	0		0	0	0	0	0	
All rounds	0	0	0	0	0	0	0	
Hits taken	ГО		Г	Г	Г	Г		
Lastround								
All rounds		·	J 0	1 0	1 0	1 0	"	
Damage	Functional							
Offense vesting, last round								
Shots sought	2	2	0	4	5	10	0	
Shots reduced:	0	0	0	0	0	0	0	
Offense shots available:	19	44	34	28	25	220	200	
Defense vesting, last round								
Shots requested:	0	0	0	0	0	0		
Shots offered by G:	0	0	0	0	0	0		
Shots agreed to:	0	0	0	0	0	0		
Shots reduced:	0	0	0	0	0	0	0	
Defense shots available:	0	0	0	0	0	0	0	
Round available:	5	5	5	5	5	5	5	
Round for Involuntary Unshroud:								

Figure B8

Player A responded to Player F's proposal: "I am seeking a security partner, not a surrender of sovereignty to you. I will not be your client state. I will not surrender my means of security by transferring all of my offensive shots to you. I am willing to transfer 2 shots per round to you in exchange for an alliance, beginning in Round 5, after I have verified our alliance in the status sheet. I pledge full cooperation over energy policy."

Player C asked Player E: "I am surprised to see you have put your forces on the 'ready.' Can you give me an idea as to your reasoning for taking such a provocative step? I am wondering whether I

should follow suit and wonder if you know something I do not know. I have been reluctant to mobilize my forces because of the very real potential it would heighten tensions with my neighbor to the east. Any insight you can give me regarding your decision would be helpful. My concerns, as a fellow Sunni with grave suspicion about Player A's intentions and attempts to assert Shia power in the region, means we should be in close touch about developments in the region."

Player E responded to Player C's question: "I am looking at the region with forces 'shrouded,' which I suspect are 'ready.' I just want to look out for my

interests just in case. There is no immediate threat that I know of. You certainly face a different situation than I do, so you maybe not want to assert yourself in this manner."

Players B and D resumed their dispute, with Player D sending Player B the following message, which he shared with Player G: "See how I didn't downgrade my attitude toward you and you didn't upgrade yours toward me? Is this a show of bad faith or what?"

Player B, sharing his answer with Player G, responded to Player D with an offer: "I'm willing to do a mutual upgrade with you this round."

Player D, also sharing his answer with Player G, responded to Player B's offer: "I am 'friendly' to you already. You are not 'friendly' with me. Make friends with me, then we will talk."

Player B responded tartly to Player B, sharing his message with Player G: "Negative."

Player D responded to Player B in turn, again sharing his message with Player G: "Fine, it is over. Your loss."

Player G decided to intervene again with Players B and D regarding their dispute by telling Player B the following and sharing it with Player D: "It is in your best interest, Player B, to upgrade your attitude toward Player D. Please show good faith and follow through this round."

Player B responded privately to Player G: "I showed good faith to Player D in the first round, requesting a status upgrade or in the alternative two offensive shots. Player D declined both options. Unlike you, I am not so naive to think that unilateral concessions are a smart way to conduct diplomacy. As such, I will wait for a showing of good faith. I am considering shuttering a consulate on Player D's territory, to be followed with a further downgrade of my attitude towards him. This is a dangerous world, and I need to know who my friends are."

Player G then told Player B: "It takes a bigger man to act first. A consistent status of 'friendly' by Player D *is* a conciliatory gesture. You'd be wise to consider upgrading your status toward Player D this round before it is permanently lost and things destabilize rapidly."

Player G then plaintively asked Players B and D: "Can't we all just get along?"

Player D responded to Player G with the following, which he shared with Player B: "Wouldn't it be nice? I have a 'friendly' attitude toward Player B. He does not have a 'friendly' attitude toward me. Go figure. As you can see, the only enemy we all really have is Player A. Player B really needs to get with the program and focus on Player A."

Player G, consistent with earlier announcements regarding the modernization of his offensive arsenal, made the following public announcement: "Throughout this iteration, I have pursued the selective modernization of my offensive force. In Rounds 1, 2 and 3 I removed ten old offensive nuclear weapons and replaced them with newer, more effective, reliable, safe and secure weapons. I am continuing my modernization program."

Player F, following Player G's public announcement, made his own public announcement: "While I recognize the right of player G to modernize and am doing the same, I am suggesting an arms control [agreement] with Player G that would reduce the number of offensive shots by 50 percent from the levels applicable at the time of the conclusion of the agreement on each side."

Player D then inquired of Player G about his intentions regarding Player F's arms control proposal: "Are you going to do it?"

Player G answered Player D's question: "I may schedule a meeting with Player F to talk about possibly opening negotiations, but that is it at this point."

Game Manager's Notes

The Game Manager offered his assistance to Players F and G in drafting an arms control agreement.

ROUND 5

Figure B9 reflects the diplomatic status of the players prior to Round 5.

Figure B10 reflects the status of the players' forces prior to Round 5.

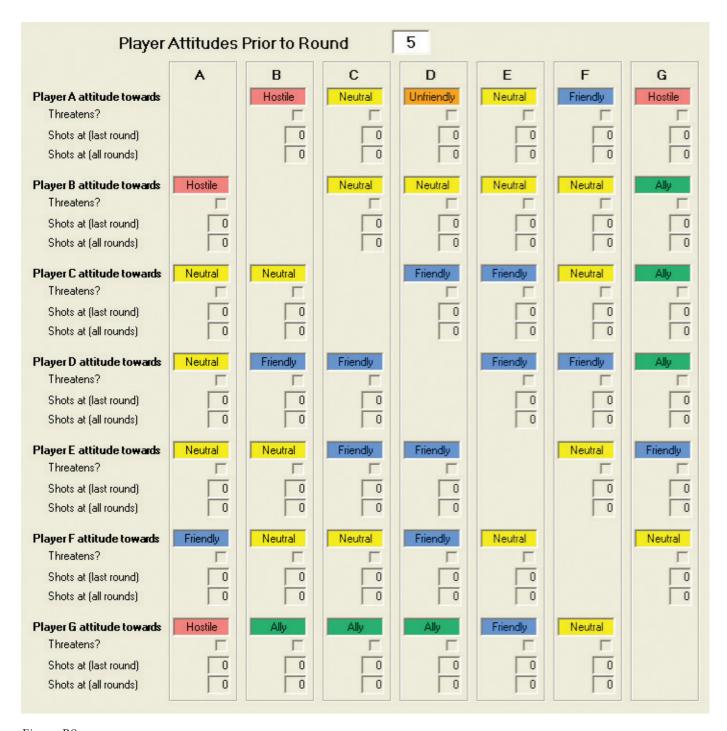


Figure B9

Public Announcements and Private Communications Prior to Round 5

Player A made the following elaborate proposal to Player G: "You approached me in previous rounds seeking my disarmament. Obviously, I am very concerned for my safety and am reluctant to do that absent other objectives and assurances.

However, I am willing to see if something can be arranged. I propose the following means for my gradual disarmament:

1. I shall transfer one shot per round to Players C, D, and E. This is one more shot than I can manufacture each round. Whether they choose to keep these weapons or transfer them is up

Status for Control at Beginning of Round:			5	10/13/200	9 1:17:51	PM	
	Α	В	С	D	E	F	G
Shrouded?	Yes	No	Yes	Yes	No	No	No
Holstered?	No	No	Yes	No	No	No	No
Shots at	Г	Г		Г	Г	Г	
Last round All rounds							
Hits taken	1 0	"	10	1 0	10	10	1 0
Lastround	0	0	0	0	0	0	0
All rounds	0	0	0	0	0	0	0
Damage	Functional						
Offense vesting, last round							
Shots sought	2	2	0	4	5	10	10
Shots reduced:	0		0	0		0	0
Offense shots available:	21	46	34	32	30	230	200
Defense vesting, last round							
Shots requested:	0	0	0	0	0	0	
Shots offered by G:	0	0	0	0	0	0	
Shots agreed to:	0	0	0	0	0	0	0
Shots reduced:	0	0	0	0	0	0	0
Defense shots available:	0	0	0	0	0	0	0
Round available:	6	6	6	6	6	6	6
Round for Involuntary Unshroud:							

Figure B10

to them. As a result, my arsenal will gradually decline.

- 2. In return for that, I require you to pressure Players C, D, and E to enter into a regional alliance with me. They need to upgrade their attitude toward me to 'ally' and I shall reciprocate. That relationship will include coordination on energy policy under my leadership.
- 3. You will be able to verify my compliance with the agreement by having all of us (Players A, C, D, and E) 'unshroud.' I will not unilaterally 'unshroud.'

If this is acceptable, I am prepared to commence the round following the submission of the current round's round sheets to verify the change in attitudes."

Player A at the same time informed Player F of his overture to Player G: "As a friend, I felt you should know that I am negotiating with Player G over a means for gradual disarmament. I would much rather deal with you, but unfortunately I have been disappointed by your lack of engagement."

Player G countered with an offer to Player A: "Here is what I would propose. You transfer the weapons to me and I pledge to destroy them. In turn, I will give weapons to Players C, D and E to

supplement their arsenals. In turn, I will pledge to sign a non-aggression pact with you. I will pay all costs associated with transfer of the weapons and reimburse you for the cost of the weapons. How should we proceed?"

Player A rejected Player G's counterproposal: "This falls far short of my original proposal. I am willing to proceed toward gradual disarmament solely to secure two primary objectives: (1) a leader-ship position in the Middle East reflected in an alliance with Players C, D and E and (2) greater influence over energy markets These objectives are worth the increased insecurity of disarming. Your proposal does not address either objective. Certainly a non-aggression pact with you fails to offset the loss of my primary objectives. My original proposal stands."

Player G responded to Player A's rejection of his counterproposal by stating: "My objective is peace and prosperity in the region for all players. I think this is in your best interest and would provide the best opportunity for your people. My security guarantee and fewer nuclear weapons in the region are your best guarantee for a safer future."

Player A responded in turn to Player G: "I feel that I am in the best position to determine my interests. My proposal allows you to achieve your objective. You just have to convince Players C, D, and E to transfer the shots to you for destruction. I am not opposed to the non-aggression pact, but it does not substantially change my conditions for a deal."

Player G concluded this exchange with Player A: "I will continue to consider your proposal."

Player B sent the following message to Player A: "I think we can both agree that Player D has neither of our interests in mind, and is only out for himself at the expense of all others. It makes no difference to them whether we destroy each other."

Player A responded to Player B's complaint about Player D: "Player D is indeed infuriating and mercurial, but why should I take the word of a hostile Zionist player in regards to the intent of a fellow Muslim? And what, pray tell, do you propose to do about it?"

Player B stated to Player A in turn: "No need to take my word, as I'm sure you are discovering this

on your own. I am just letting you know that I'm making no decisions regarding my posture toward you based on anything Player D does or says."

Player A concluded this exchange with Player B regarding Player D: "Seems very logical."

Players B and D continued to confront one another, now over the issue of shrouding, with Player D asking Player B: "Why did you 'unshroud' last round?"

Player B answered Player D: "A better question is, why are you 'shrouded?"

Player D retorted to Player B: "Don't answer a question with a question. That's weak. I have no reason to be 'unshrouded."

Player B responded: "I have no reason to be shrouded."

Player D then stated to Player B: "Okay, my belligerent friend."

Player B concluded this exchange with Player D: "I don't understand. Being transparent about my force posture is belligerent?"

Player B then turned around and stated to Player G: "I need allies in this volatile region. I can see Players C and E being unable to establish an alliance with me, but not Player D. If Player D does not 'come around,' I will ultimately be forced to withdraw my ambassador, close my embassy in Player D's capital and further downgrade my attitude toward him."

Player B, to give substance to his warning to Player G, made good on his stated intention to Player G in Round 4 about closing a consulate on Player D's territory by sending the following message to Players C, D, E, F, and G: "Due to Player D's warming relations with Player A, I am closing my Consulate General's office in a major city of Player D."

Player G, consistent with his public announcements in earlier rounds, announced: "I will continue my offensive modernization program."

Player F likewise publicly announced: "I will do the same."

Player F also responded to Player G's public announcement with the following private message to Player G: "For the purposes of transparency and ver-

ification, please advise, what the modernization program entails. I guarantee full secrecy and confidentiality of this mutual information transfer. It would be unhelpful if I had to spy on you again. I will provide a *quid-pro-quo* in terms of openness. As you know, I suggested a treaty cut our offensive shots by 50 percent, with negotiated verifiable inspection protocols. That proposal remains on the table.

"Also, I have suggested pursuing joint nuclear guarantees for Player A and other states in the region, in exchange for full nuclear disarmament by the regional players. I view this as a crucial, game changing approach which may prevent a massive nuclear arms race in the region."

Player D stated to Player A: "Sorry I made a mistake in round 3 by failing to upgrade my attitude towards you, which you can see I have remedied. Please upgrade your attitude towards me to 'neutral."

Player A responded positively to Player D's request: "I will, since you upgraded your attitude toward me in the last round."

ROUND 6

Figure B11 reflects the diplomatic status of the players prior to Round 6.

Figure B12 reflects the status of the Players' forces prior to Round 6.

Public Announcements and Private Communications Prior to Round 6

Player B asked Player G: "Is there a reason why Player D is shrouded? Isn't more transparency in this volatile region one of your goals?"

Player G responded to Player B's question by telling him: "I will encourage Player D to lift his shroud."

Player G, making good on his pledge to Player B, turned around and asked Player D: "Do you have any interest in lifting your shroud?"

Player D responded somewhat negatively to Player G: "Not really. Is there a specific reason or are you just curious?" Player G responded in turn to Player D: "I want to reduce tensions in the region."

Player D, suspicious that Player B encouraged Player G to pursue the matter of his shrouding, chose to confront Player B: "Why are you being an instigator? What does it matter if I am shrouded or not? Why do you care so much?"

Player B, not attempting to hide his intervention with Player G regarding Player D's shrouding, sent the following message to Player D, which he shared with Player G: "I think that greater transparency in the region will result in reduced chances for conflict."

Player D stated in turn to Player B: "In case you haven't noticed, there isn't much conflict to begin with. You are just being annoying and trying to start a conflict. But if you are really curious, I will tell you just what I am doing. I am seeking our allotted offensive shots each round and trying to be friendly or at least neutral with everyone. Does that satisfy your burning curiosity to nose into my business?"

Player B responded to Player D: "Yes, there's no conflict right before nuclear missiles hit my territory. I think that fellow democrats should have little to fear by being transparent. Further, you have a 'neutral' attitude toward a player that seeks my destruction. I expect this from Player F, but not from you."

Player D also turned around and stated to Player G: "Player B is just being a pain. I have no interest in 'unshrouding.' Player B is paranoid and needs take it easy."

Player G then stated to Players B and D: "I urge all players to lift their shrouds."

Player B responded to Player G: "I'm afraid that Player D has donned a 'nuclear burka.'"

Player G then made the following suggestion to Players B and D, hinting at a conference proposal he would later make to Player A: "We can deal with the issue best by taking it seriously. A conference on this issue would provide an opportunity for all sides to share their concerns and interests."

Player D responded to Player G and copied Player B: "I have no reason to 'shroud' or 'unshroud.' If you want me to lift my shroud just to prove that I am not

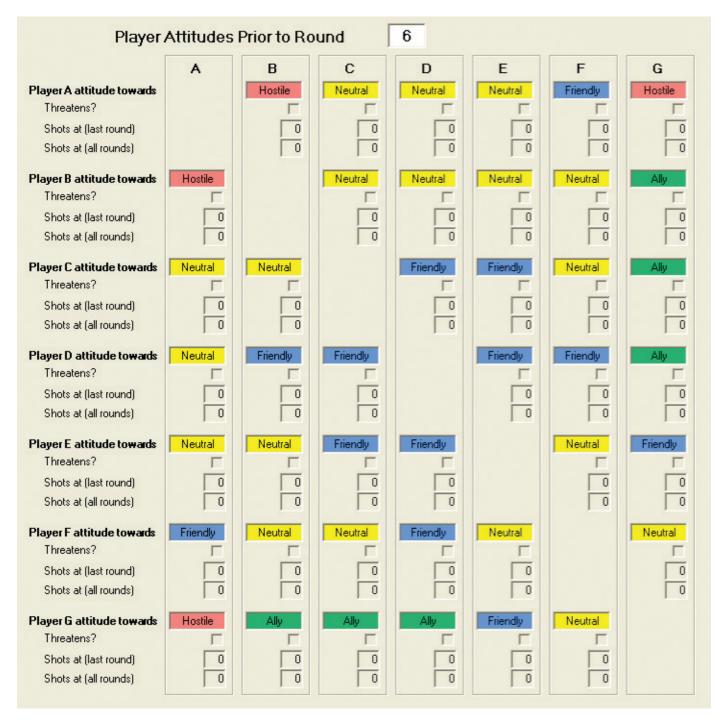


Figure B11

hiding anything from you then I will 'unshroud.' But, I want 5 offensive shots from you."

Player G rejected Player D's request for offensive shots: "Experience has taught me that trading offensive shots is not the best way to start reducing tensions in the region. Let's start with looking at common issues first."

Player D, continuing to press, then asked Player G: "How about three, then?"

Player G responded to Player D's latest request: "No."

Player G sought to pick up on Player A's gradual disarmament proposal from Round 5 by suggesting: "How about if we go to Players C, D and E

Status for Control at B	eginning	of Round:	6	10/14/200	9 3:29:13	PM	
	A	В	С	D	E	F	G
Shrouded?	Yes	No	Yes	Yes	No	No	No
Holstered?	No	No	Yes	No	No	No	No
Shots at							
Lastround	0	0		0	0	0	0
All rounds	0	0	10	0	0	0	0
Hits taken Last round	0	0	0	0	0	0	0
All rounds	0	0	0	0	0	0	0
Damage	Functional						
Offense vesting, last round							
Shots sought	2	2	0	4	5	10	10
Shots reduced:	0	0	0	0	0	0	0
Offense shots available:	23	48	34	36	35	240	210
Defense vesting, last round							
Shots requested:	0	0	0	0	0	0	
Shots offered by G:	0	0	0	0	0	0	
Shots agreed to:	0	0	0	0	0	0	0
Shots reduced:	0	0	0	0	0	0	0
Defense shots available:	0	0	0	0	0	0	0
Round available:	7	7	7	7	7	7	7
Round for Involuntary Unshroud:							

Figure B12

and explain to them that you are transferring shots directly to me and I will compensate you accordingly. In turn, you will get credit for deescalating nuclear threats in the region, in addition to a non-aggression pact and a commitment not to impose sanctions."

Player A again, as in Round 5, responded negatively to Player G regarding the possibility of Player A's gradual disarmament: "This is exactly the same offer you made earlier. It is unacceptable. I need alliances with Players C, D and E and recognition of energy coordination under my leadership before I will consider the transfer of offensive shots to them. What they do with the shots is up to them. Also, am

I to assume that you do not care about the regional move to 'unshroud?' You have never mentioned it in these negotiations."

Player G then stated to Player A: "I would suggest two things. First, I would be willing to facilitate a regional cooperation conference to encourage the lifting of shrouds and energy cooperation. We could work from these two issues and defer the transfer issues regarding offensive shots until after the conference."

Player A responded in turn to Player G: "That really puts the cart before the horse. You get what you want—unshrouding and leadership in energy

APPENDIX B 101

policy—and I get jack. Let's get me a carrot—otherwise no dice."

Player G then stated to Player A: "There are no preconditions on the conference."

Player A, considering Player G's "no preconditions" pledge, stated to Player G: "Okay, I agree to participate in a conference. However, the conference must be held in my capital. It will represent the launch of the Organization of the Islamic Friendship and Economic Council, headquartered in my capital, and dedicated to jointly advancing regional diplomatic and economic interests. You and Player F shall be invited as participants, but not as members of the OIFEC. Player B shall not be invited. If these conditions are acceptable, I will make the announcement and you will endorse the conference."

Player G responded to Player A: "To demonstrate my good intentions, I propose that we each upgrade our attitudes toward the other to 'unfriendly' from 'hostile' if you accept the conference proposal I offered you."

Player A responded in turn by stating to Player G: "If you agree to my proposed conference on the terms I stipulated, I will agree to the change in attitudes."

Player G stated to Player A regarding his latest conference proposal: "I will consider your proposal and get back to you. I believe we can work something out."

Player B asked Player F: "May I ask why you maintain 'friendly' relations with Player A, who desires my complete destruction?"

Player F chose not to respond to Player B's question at this time.

Player G concluded with the following statement to Player F regarding Player F's arms control proposal: "I think the region is in crisis and there is a danger of nuclear war. This has to be our priority. A nuclear exchange is unthinkable and we should put our bilateral arms control issues on the back burner until after this crisis is addressed."

ROUND 7

Figure B13 reflects the diplomatic status of the players prior to Round 7.

Figure B14 reflects the status of the players' forces prior to Round 7.

Public Announcements and Private Communications Prior to Round 7

Player F responded to Player B's question at the end of Round 6 regarding his "friendly" attitude toward Player A by stating to Player B: "I am friendly to all players that are friendly to me. Also, I have far-reaching economic and foreign policy interests. Please understand."

Player G, picking up on his diplomacy with Player A in Round 6, asked Player A: "Are you planning to upgrade your attitude toward me this round?"

Player A responded to Player G's question: "That depends. Are you willing to support the proposal for the conference under the terms I proposed? If so, then yes."

Player G answered Player A's question: "I guess so." Player A then elaborated on his conference proposal by stating to Player G: "Okay, here is how it will go. I will announce the launch of the Organization of the Islamic Friendship and Economic Council (OIFEC), to be headquartered in my capital, and invite the participants. You will announce your support for the OIFEC to the invitees and encourage their participation and support. In this round, we mutually upgrade our attitudes toward one another from 'hostile' to 'unfriendly."

Player G responded to Player A: "You must make it clear that the initial conference will encourage all players to lift their shrouds and pursue energy cooperation. You must also make it clear that a major post-conference issue will be to decide the details regarding the transfer of offensive shots from you to Players C, D, and E and then to me for destruction. All this must be included in the announcement. Further, we must reach a substantive agreement on these goals at regular intervals or all bets are off, even after the conference begins. Everything is subject to your cooperation and good faith at every step along the way."

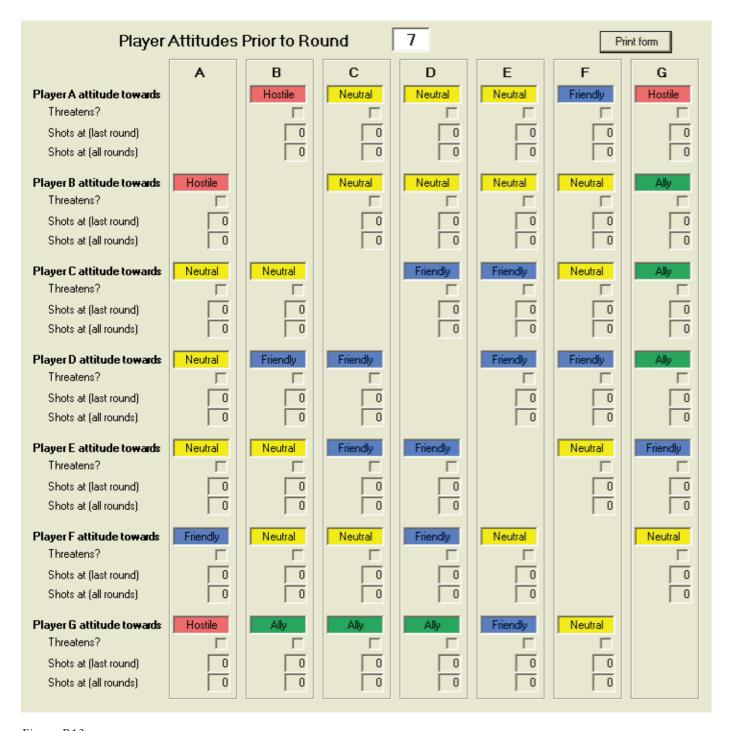


Figure B13

Player A responded positively to Player G:

"Agreed, though the precise wording will differ since we have not discussed this proposal with Players C, D, and E. I will send out the announcement shortly."

Player F, recognizing from Player A's comment to him in Round 5 that Player A was moving toward a disarmament arrangement with Player G, proposed the following to Player A: "I suggest we establish an alliance relationship based on the following:

- 1. You permanently lift your shroud;
- 2. You guarantee to me and publicly announce that you are assuming a 'defensive posture,' meaning you 'holster' your offensive shots;

APPENDIX B 103

Status for Control at B	eginning (of Round:	7	10/21/200	9 9:44:14	АМ	
	A	В	С	D	E	F	G
Shrouded?	Yes	No	Yes	Yes	No	No	No
Holstered?	No	No	Yes	No	No	No	No
Shots at							
Lastround							0
All rounds Hits taken	1 0	0	1 0	1 0	1 0	1 0	'
Last round	0	0	0	0	0	0	0
All rounds	0	0	0	0	0	0	0
Damage	Functional						
Offense vesting, last round							
Shots sought	2	2	0	4	0	10	10
Shots reduced:	0	0	0	0	0	0	0
Offense shots available:	25	50	34	40	40	250	220
Defense vesting, last round							
Shots requested:	0	0	0	0		0	
Shots offered by G:	0	0	0	0	0	0	
Shots agreed to:	0	0	0	0	0	0	0
Shots reduced:	0	0	0	0	0	0	0
Defense shots available:	0	0	0	0	0	0	0
Round available:	8	8	8	8	8	8	8
Round for Involuntary Unshroud:							

Figure B14

- 3. You take down your offensive shots from current levels to 15, which is the minimum for your security, and transfer the other shots to me;
- 4. I keep your offensive shots in secure storage on my territory;
- 5. I transfer to you a number of conventional weapons, in a deal to be negotiated later;
- 6. I extend a security guarantee to you, which includes retaliatory steps against any other player that attacks you;
- 7. You instigate a Shia uprising in the Eastern Province of Player E;

8. I assist in the development of your oil and gas fields under 30-year contracts, which will have a value of roughly \$30 billion.

"This proposal is final and non-negotiable." Player A responded to Player F's proposal:

"I will agree to 'unshroud' if all other players also 'unshroud.' In exchange for an alliance and guarantee from attack, including nuclear retaliation against any country attacking me, I will agree to:

- 1. Suspend the production of offensive shots;
- 2. Agree to 'holster;'

- 3. 'Unshroud' as soon as other regional players also 'unshroud;'
- 4. Energy cooperation for our mutual benefit.

"I am not interested in conventional weapons transfers. I will not provoke an insurrection on Player E's territory."

Player F responded sarcastically to Player A's list of conditions: "Okay Mullah Dumballah, no alliance for you."

Player A responded to Player F in turn: "Sorry to hear that. I would very much like to be your ally, but your demands are more suited for a client state than a partner. Nevertheless, my offer stands."

Player A made the following public announcement: "Player A is delighted to announce the founding of the Organization of the Islamic Friendship and Economic Cooperation Council to be head-quartered in Tehran. The OIFECC is dedicated to jointly advancing regional diplomatic and economic interests among the member states. Among the specific objectives at the inaugural meeting will be:

- 1. To coordinate energy policy and production to best benefit the member states;
- 2. To seek regional 'unshrouding;
- 3. To discuss proposals for regional disarmament.

"As non-regional interested parties, Player F and Player G are invited to participate as observers. "I look forward to hosting our Islamic friends at this august occasion."

Player G, in response to Player A's public announcement earlier this round, stated to Player B: "I have agreed to support the regional conference proposed by Player A [to] establish the Organization of the Islamic Friendship and Economic Council (OIFEC) to be headquartered in his capital. The point of this is to allow Player A to begin transferring shots to Players C, D, and E and then to transfer them to me for ultimate destruction. I also want the conference to get all players to agree to 'unshroud,' as you have courageously done.

"Player A is willing to proceed toward gradual disarmament. He will transfer one shot per round

to Players C, D, and E. This is one more shot than Player A can manufacture each round. Over the course of the game, Player A's arsenal will gradually decline. We will be able to verify compliance with the agreement by having players A, C, D, and E 'unshroud.'

"I hope you will understand what's going on and I will work to make the region safer and ease tensions."

Player B responding by asking Player G: "I support this conference, but I have a few questions: What does Player A receive in return? Security guarantees from you? Wouldn't Player A want Players C, D, and E to disarm, as well? Player A is taking this action without any required steps by me?"

Player G answered Player B's questions by stating: "Fair questions, my friend. Player A stated he is willing to proceed toward gradual disarmament to secure two primary objectives: (1) a leadership position in the region reflected in a hoped-for alliance with Players C, D, and E; and (2) greater influence over energy markets. Player A thinks these objectives are worth the increased insecurity of disarming.

"I care about the 'unshrouding' and disarmament, while Player A tries to cook up some energy alliances I am not concerned with right now, since those are only hopes for the future and 'unshrouding' and disarmament can begin immediately. If he makes one false move, I am withdrawing support for the conference. I will compensate players who transfer Player A's offensive shots to me for destruction."

Player B responded to Player G in turn: "Thanks for the notice. Although I cannot attend the conference, any pass-through intelligence you have for me will be appreciated."

Player E, in response to Player A's announcement, asked Players C and D: "Will you be participating? I am willing to attend for diplomatic purposes and to permit to coordinate actions on a regional basis. However, I do not intend to make any sort of commitment to this effort."

Player D responded to Player E's question by stating to Players C and E: "I am willing to smile and shake hands, but it is doubtful I will make any solid commitments. Player A has a reputation."

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Player C responded to Player E's question with the following message to Players D and E: "I think this proposal may be worthy of consideration, with caveats. For me, joining this regional Council might strengthen my stature in the eyes of my regional rival to the east. However, I am not amenable to 'unshrouding' given my need to retain nuclear ambiguity. I am happy to discuss regional disarmament, but have no intention whatsoever of moving in that direction. In fact, as you know, I am accelerating my programs to meet the burgeoning threat from the east. What are your thoughts?"

Player G then issued the following statement to Players C, D, and E, which he shared with Players A and F: "As a player who continues to modernize 10 offensive nuclear arms this round as with previous rounds, I support Player A's conference goals of regional 'unshrouding' and gradual disarmament. I will compensate any players who transfer offensive shots from player A to me for destruction. Transparency and de-escalation are in all our interests."

Player E then stated to Players C and D: "Okay, I will respond that I look forward to attending the meeting to learn more about this new organization. As for disarmament, I am not in that business at this point. I am very happy with my arsenal and feel that it is a necessary component of my national security."

Player D stated to Players C and E: "Excellent, I will respond similarly."

Player A chose to share his communications with Player F from earlier in this round with Player E and stated to Player E: "I thought you should know about the exchange I had with Player F. Please note the point about energy cooperation. I still want to develop closer relations with you."

Player E then forwarded to Players C, D, and G the record of the exchanges between Players A and F that Player A had provided to him.

Player G then forwarded the same record to Player B.

Player D stated the following to Players A, C, and E, which he shared with Players F and G: "I will be happy to attend the meeting. However, I am very comfortable with my arsenal and feel that it is a necessary component of my national security. I

would not hold your breath on my disarming anytime soon."

Player C stated the following to Players A, D, and E, which he shared with Players F and G: "The same goes for me as Player D. I am happy to attend the conference, but I cannot disarm at this time given the threats from my Hindu neighbor to the east."

Player E stated the following to Players A, C, and E, which he shared with Players F and G: "I applaud your efforts and plan to attend your inaugural conference to learn more about this organization."

Player A intervened at this point by stating to Players C, D, and E the following, which he shared with Players F and G: "I have a very specific proposal for my gradual disarmament. I hope you will be willing to hear me out. Obviously I am very concerned for my safety and am reluctant to disarm absent other objectives and assurances. However, I am willing to see if something can be arranged. My proposal is as follows: I seek to enter into an alliance with Player C and Player D, with each guaranteeing to mutual assurances of retaliation in case of attack, including nuclear retaliation against any country attacking me with nuclear weapons. That relationship will also include coordination on energy policy under our leadership. In return I will transfer one offensive shot per round to Players C, D, and E each round. This is one more shot than we can manufacture each round thus meeting our gradual commitment to disarm. Whether you choose to keep these weapons or transfer them is up to you, although Player G is keen to have you transfer them to him. Otherwise, the transfers will increase your arsenals. Verification of compliance with the agreement will be met by having all of us (Players A, C, D, and E) 'unshroud.' I will not unilaterally 'unshroud.' If this is acceptable, I am prepared to commence next round after the status sheets verify the change in attitudes."

Player D told Players C and E: "I still do not trust Player A."

Player C stated to Players A, D, and E: "I cannot consider lifting my shroud at this time."

Player E, however, told Players C and D: "While I do not trust Player A, I think that this could

work. At least, I would be willing to give it a try until Player A blows it. But I recognize the risk for Player C, given that Player D and I are already unshrouded. That said, given both of your initial reactions, maybe we should just say that we look forward to talking more about this at the meeting. I am willing, regardless, to stand with Players C and D for a united response to Player A."

ROUND 8

Figure B15 reflects the diplomatic status of the players prior to Round 8.

Figure B16 reflects the status of the players' forces prior to Round 8.

Public Announcements and Private Communications Prior to Round 8

Player A, following the collapse of an alliance arrangement between Players A and F in Round 7, stated to Player F: "I note with regret the increased unrest among the Islamic peoples of your southern region. I stand ready to assist you in addressing the issue."

Player F responded to Player A: "Keep dreaming, I had 100,000 Muslims killed in 2 years the first time I faced this kind of unrest and another 100,000 the second time. I actually like doing this."

Player A sent the following message to Players C, D, and E, which he shared with Players F and G: "It is evident that the 'unshrouding' is a significant impediment to the proposed arrangement, particularly for Player C. I have to say that I am not wild about it either, but Player G insisted that it be on the agenda. Can we agree to the arrangement minus the regional decision to 'unshroud?' Specifically: Players A, C, D, and E shall enter into a formal alliance with each guaranteeing mutual assurances of retaliation in case of attack, including nuclear retaliation against any country attacking me with nuclear weapons. That relationship will include coordination on energy policy under my leadership. In return, I will transfer one shot per round to Players C, D and E. This is one more shot than I can manufacture each round, thus meeting my commitment to disarm gradually. Whether you choose to keep these weapons or transfer them is up to you, although Player G is keen to have you transfer them to him."

Player G intervened with the following message to Players A and E, based on Player A's suggestion: "Since it is expected Players C and D will remain shrouded, would you please consider a revised proposal? I strongly encourage Player A to consider transferring all three shots per round to Player E, who remains transparent and 'unshrouded' as opposed to one shot each to Players C, D and E per round. Consider this even if for just an initial period. This is another way to facilitate regional transparency and increase stability. I would then welcome Player E transferring those three shots to me for destruction in return for a generous compensation package of both monetary and in-kind benefits."

Player E responded to these proposals by stating to Players A and G: "I have not decided whether to go forward with Player A's initial proposal. However, if I do, I think the revised proposal would be appropriate given the fact I am 'unshrouded' and therefore transparent. However, the proposal cannot include any agreement for me to remain 'unshrouded' indefinitely and I reserve the right to 'shroud' in the future if I find it necessary. Player G's proposal on the transfer of shots requires a separate discussion."

Player A then offered Players E and G a counterproposal: "I will agree to transfer two shots to Player E per round—keeping me at current levels—in return for the alliance as proposed. I will not 'unshroud' under that arrangement, however."

Player G reacted negatively to Player A's latest proposal, stating to Players A and E: "No dice, this is simply the *status quo* for Player A. Player A can still maintain his offensive shots under his latest proposal. I need Player A to lift his shroud and demand that he transfer three shots each round to an 'unshrouded' player. This is very important. Otherwise I have no insight, accountability or transparency. In fact, I think I have got to pull the plug on these talks. Thank you both for your participation."

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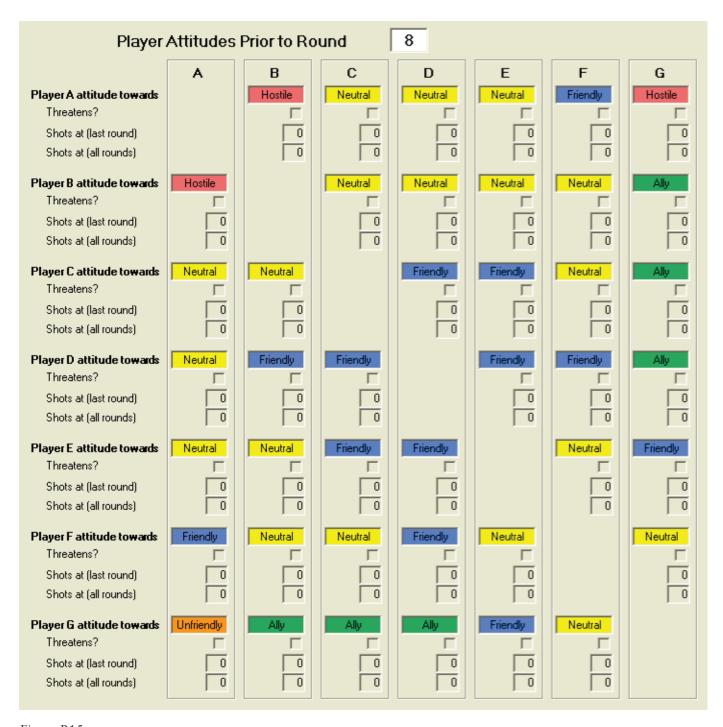


Figure B15

Player G's negative reaction led Player A to ask Player E: "Is my latest offer a killer for you, too? I'm happy to move forward without Player G."

Player E responded to Player A's question: "No it is not a killer. I think I can move forward as long as I retain my option to 'shroud' or 'unshroud."

Player E responded to Player A by stating: "I don't really care whether you are shrouded or not,

as long as you enter into the alliance as I proposed."

Player A then turned around and offered a version of this latest proposal to Player C, sharing his message with Player E: "I will offer you a similar deal to one I just offered to Player E. I will transfer two shots per round to you in return for you entering into a formal alliance with me, which guarantees mutual assurances of retaliation in case of attack,

Status for Control at B	eginning (of Round:	8	10/22/200	9 3:04:07	P M	
	Α	В	С	D	E	F	G
Shrouded?	Yes	No	Yes	Yes	No	No	No
Holstered?	No	No	Yes	No	No	No	No
Shots at							
Lastround							
All rounds Hits taken	1 0	0	10	10	1 0	10	1 0
Lastround	0	0	0	0	0	0	
All rounds	0	0	0	0	0	0	0
Damage	Functional						
Offense vesting, last round							
Shots sought	2	2	0	4	0	10	10
Shots reduced:	0	0	0	0	0	0	0
Offense shots available:	27	52	34	44	40	260	230
Defense vesting, last round							
Shots requested:	0	0	0	0	0	0	
Shots offered by G:	0	0	0	0	0	0	
Shots agreed to:	0	0	0	0	0	0	0
Shots reduced:	0	0	0	0	0	0	0
Defense shots available:	0	0	0	0	0	0	0
Round available:	9	9	9	9	9	9	9
Round for Involuntary Unshroud:							

Figure B16

including nuclear retaliation against any player attacking me with nuclear weapons. That relationship will include coordination on energy policy under my leadership."

Player E, seeking some reassurance about the path he was prepared to go down in response to Player A's latest proposal to him, asked Players C and D: "What do you two think of Player A's general approach?"

Player D responded to Player E's question: "I still do not trust Player A."

Player E then explained to Player D: "Agree, I don't trust Player A, but I am thinking that if there

is not a regional decision to 'unshroud,' we don't lose by agreeing to it."

Player D then advised Player E: "Well, I want to hear thoughts from Player G. He is our ally and we should not to go messing about without letting him in on the conversation."

Player D asked Player G: "What do think of Player A's proposal for me to enter into an alliance with him?"

Player G responded to Player D's question: "I am concerned that Player A is not being fully transparent to all players and instead is telling each of us what we want to hear. My initial agreement with

APPENDIX B 109

Player A was to not oppose a conference in order to begin his disarmament in exchange for energy cooperation and a greater leadership in the region for him. Now, Player A is conveniently upping the stakes and asking you and others to enter into a formal alliance that guarantees retaliation in case of an attack on him, including with nuclear weapons. This seems to be taking the original goals of the conference too far for our comfort level."

Player D forwarded Player G's explanation to Players C and E.

Player D sent Player A the following message, which he shared with Players B, C, E, and G: "Sorry, I'm not in a cooperative mood today. I don't think this is in my best interests or that of my allies and friends. No agreement."

Player D then explained to Player B how Player A had approached him and how he had responded: "I had the opportunity to ally with Player A, who offered me a really sweet deal and I did not take it. Despite your constant whining you are allied with my ally, Player G. I was generous this time and you owe me."

Player C rejected Player A's proposal: "Sorry, I don't think I can agree to this deal at this time."

Player A responded by asking Player C: "Okay,

are you interested in upgrading our attitudes toward each other to 'friendly?'"

Player C chose not to respond to Player A's offer at this time.

Player A chose this time to offer another variation of his proposal to Player G: "I will agree to transfer one shot to Player E, provided he agrees to enter into an alliance with me under the proposal. I will also transfer one shot each to Players C and D if they also agree to enter into an alliance under this proposal. To assure you that I have indeed transferred the shots, I will 'unshroud.' Agreed?"

Player G responded to Player A's latest variation in his proposal by stating: "Your revised plan to send one shot to each of Players C, D, and E leaves us with no transparency with regards to where the other two shots to C and D will end up. I really appreciate your good faith effort to 'unshroud' yourself, but need some more help here."

ROUND 9

Figure B17 reflects the diplomatic status of the players prior to Round 9 (end of game).

Figure B18 reflects the status of the players' forces prior to Round 9 (end of game).

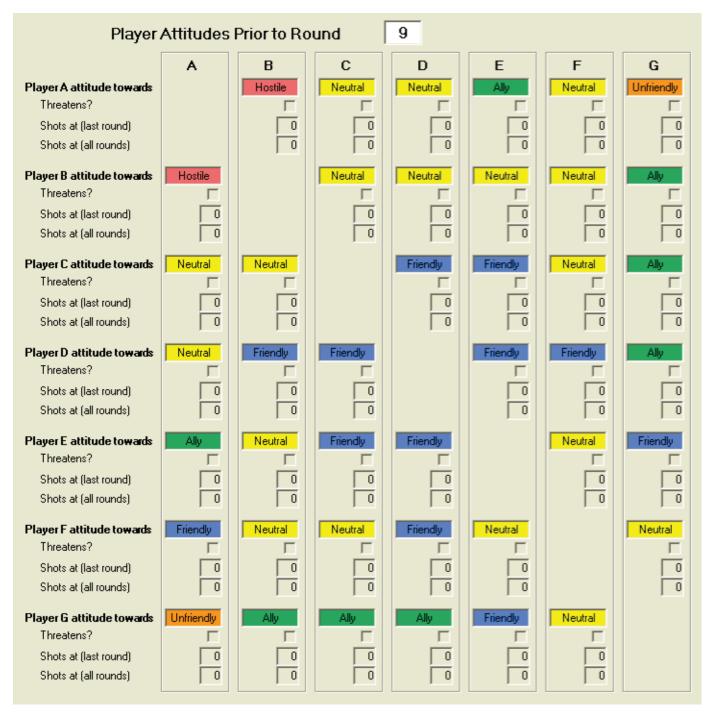


Figure B17

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Status for Control at B	eginning (of Round:	9	10/28/200	9 11:50:4	I AM	
	A	В	С	D	E	F	G
Shrouded?	Yes	No	Yes	Yes	No	No	No
Holstered?	No	No	Yes	No	No	No	No
Shots at Last round	Г					Г	
All rounds							
Hits taken							
Last round	0	0	0	0	0	0	0
All rounds	0	0	0	0	0	0	0
Damage	Functional						
Offense vesting, last round	_	_					
Shots sought	0	2	2	4	7	10	10
Shots reduced:	29	54	34	48	0	0	240
Offense shots available:	23	54	34	48	40	270	J240
Defense vesting, last round							
Shots requested:	0	0		0	0	0	
Shots offered by G: Shots agreed to:	0		0	0	0	0	
_	0	0			0		0
Shots reduced:	0	0	0	0	0	0	0
Defense shots available:	0	0	0	0	0	0	0
Round available:	10	10	10	10	10	10	10
Round for Involuntary Unshroud:							

Figure B18

History of Game Iteration #3: Pursuing a Policy of Arms Control Consistent with a Protect and Defend Strategy

ROUND 1

Figure C1 reflects the diplomatic status of the players prior to Round 1, which is identical to the initial diplomatic status of the players.

Figure C2 reflects the status of the players' forces prior to Round 1, which is identical to the initial status of forces.

Public Announcements and Private Communications Prior to Round 1

Player G made the following public announcement: "Given my long-standing goals regarding the non-proliferation of nuclear weapons, I am announcing a policy designed to encourage all players to move toward more defensive postures. I plan to construct enough defensive shots to provide for my defense and transfer defensive shots to other players. On this basis, I promise all players a positive response to requests for defensive shots if they reduce their offensive shots, although I will also consider requests for defensive shots absent offensive reductions on a selective basis. Reductions achieved by transferring offensive shots to other players, however, will not qualify. For each offensive shot reduced, I will provide at least one defensive shot, which shall be purchased out the tokens provided each round to other players and out of my stockpile respectively.

"I will also consider reductions in my offensive shots as other players reduce their offensive shots. Specifically, I propose to Player F that we enter into carefully constructed negotiations to conclude an agreement to reduce offensive shots on both sides. In order to maintain stability during this transition to more defensive postures, I will ready my offensive forces. This step is not intended to threaten any other player and the adoption of defensive and nonaggressive postures by others will be reciprocated by me. As long as my offensive forces remain readied, they are intended only for the purpose of defeating and destroying offensive forces that are likely to be used to attack me and my allies. Further, I may purchase new offensive shots to better posture my strategic forces to fulfill defensive goals. If other players demonstrate restraint on obtaining offensive forces, I will offset these new purchases with the retirement of older offensive systems accordingly.

"I recognize that this attempt to encourage a transition to more defensive postures and reduced offensive shots by all the players will succeed only on the basis of transparency. Thus, I announce that I will not shroud my forces and encourage all other players to make the same commitment."

Player F responded to Player G's initial announcement with the following statement:

"Thank you for your intriguing proposal. I suggest arms control talks as you propose based on the following conditions:

- 1. Unless otherwise agreed on both sides, I will continue nuclear modernization. I propose reaching the aim of 100 warheads on each side over the period of 5 rounds.
- 2. I propose that I receive from you a total of 50 defensive shots up front, for which I will undertake to pay 10 tokens for each negotiating round.

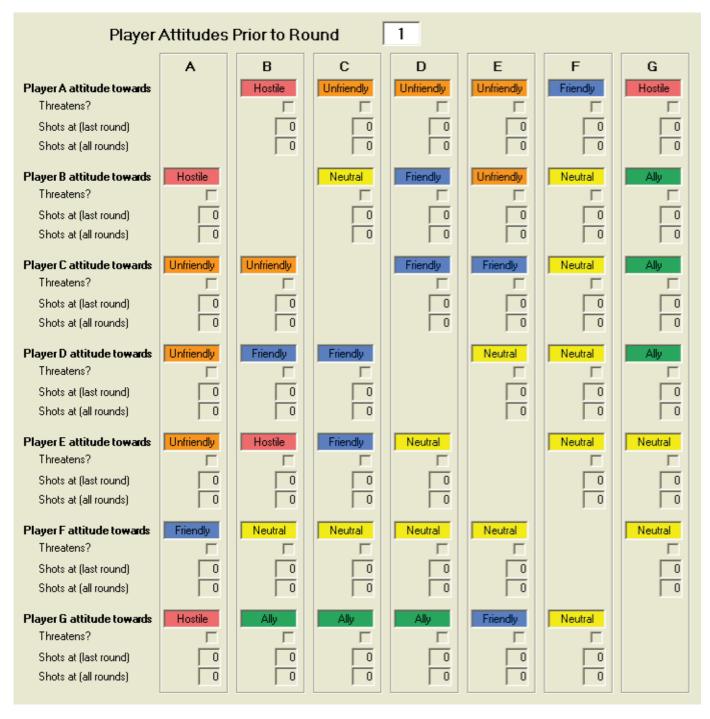


Figure C1

3. To further enhance the stability and to follow your lead, I will ready my offensive forces, but I will not shroud them."

Player G responded to Player F's offer: "I completely agree that I need to negotiate lower numbers of offensive shots with you and permit you to build up your defensive capability. I am anxious and

ready to take these steps. In tandem, we must work to reduce tensions between Players A and B and that should be a priority for both of us."

Player G stated to Player B: "If you are an unduly vulnerable player, it will lead to regional instability. Therefore, I would like to extend 15 defensive shots to you. I will take your 2 tokens this round and provide the rest from my resources."

Status for Control at B	eginning	of Round:	1	11/10/200	9 10:30:08	ВАМ	
	A	В	С	D	E	F	G
Shrouded?	No						
Holstered?	Yes						
Shots at	_	_	_		_		_
Last round	0		0	0	0	0	0
All rounds	0	0	0	0	0	0	0
Hits taken				Г		Г	
Last round							
All rounds	0	0	0	0	0	0	0
Damage	Functional						
Offense vesting, last round							
Shots sought	0	0	0		0		0
Shots reduced:	0	0	0	0	0	0	0
Offense shots available:	15	40	30	15	15	200	200
Defense vesting, last round							
Shots requested:	0	0	0			0	
Shots offered by G:	0		0	0	0	0	
Shots agreed to:	0		0	0	0	0	0
Shots reduced:	0		0	0	0	0	0
Defense shots available:	0	0	Го	Го	0	0	0
Round available:	2	2	2	2	2	2	2
Round for Involuntary Unshroud:							

Figure C2

Player B responded to Player G: "Many thanks for your offer, which can partially address the threat posed by the ayatollahs of Player A, but I am also concerned about possible threats from Player E, and to a lesser extent from Players C and D. I respectfully request more defensive shots to guard against the possibility of a multi-front war. How about 20 shots this turn and another 20 next turn?"

Player G responded to Player B in turn: "No worries. I will make a long-term commitment to you to build up your defenses, but I also have to build up my defenses and encourage others to give up offensive shots. I will work to build up defensive

shots for you as quickly as I can. 15 defensive shots for two tokens is the best I can do. This transfer will ensure that you cannot be killed by Player A and pretty soon no single player within the region will be capable of killing you."

Player B continued to press Player G on the details of the transfer proposal for defensive shots: "I would like to build up my defenses to the point that I can withstand a combined attack by A, C, D and E. So would your offer end up giving us a minimum of 75 defensive shots within 2 or 3 turns? Also, I presume that you will not offer missile defenses to Players A and E, which I would consider

to be a dangerous long-term threat to my security. Can you assure me that they will not get defensive shots, which could embolden them? Also, I think they are best deterred by signs of strength. So I would prefer to continue building up my offensive forces."

Player G continued his exchange with Player B: "I absolutely want to help you build up robust defenses. I have zero defensive shots myself at the moment, and still need to modernize my offensive force. I am resource constrained and very limited in how many defensive shots I can get to you, particularly in a short timeframe. 75 defensive shots in two or three rounds is just implausible. I apologize for the constraints I am under thanks to the global recession and 10% domestic unemployment. Nevertheless, I will commit to 15 defenses per round for the next 3 and take your two tokens per round as I proposed for this round. Sound agreeable? As part of my stated policy, I stand by my promise to all players of a positive response to requests for defensive shots if they reduce their offensive shots. This includes player A."

Player B responded to Player G's explanation: "My friends in your Congress will find it incredible that you are treating me the same as the ayatollahs of Player A. What is the use of being a long-term ally if I get treated the same way? At the very least I should get a discount. We promise not to make an issue of this if you transfer the missile defenses to me without demanding that I expend my tokens. Otherwise, I am going to be extremely unhappy if any of my possible adversaries gain access to defensive shots, which could end up emboldening my enemies and blocking my retaliatory strikes."

Player A stated to Player G: "God is great! I am highly encouraged by your generous offer and would like to propose a deal that will de-escalate tensions in the region—an aim of mine for many centuries. Therefore, I would like to offer you 10 of my precious offensive shots for 15 defensive shots. This will be a good deal for you as I have such a very limited supply of offensive shots and am practically leaving myself at your mercy. If this is agree-

able, I propose that this deal form the basis for upgrading our attitudes to mutually 'unfriendly' as a token of our new partnership."

Player G responded to Player A's offer: "I will be willing to give you 11 defensive shots for 10 offensive shots."

Player A responded in turn with a counteroffer: "Let's split the baby and go for 13."

Player G continued to haggle with Player A: "12 defensive shots for 10 offensive shots, plus you expend your two tokens for the defensive shots."

Player A responded again by offering: "15 defensive shots for 10 offensive shots with the expenditure of the two tokens or 12 defensive shots for 10 offensive shots with no loss of tokens."

Player G responded in turn: "12 defensive shots for 10 offensive shots plus the two tokens, seems like a very reasonable offer that will allow you to reach strategic parity with Player B."

Player A stated to Player G: "Player B has 40 shots, some parity."

Player G defended his assertion about strategic parity between Players A and B: "It only takes 5 shots to kill Player B. It takes 10 shots to kill you."

Player A continued to press his point about Player B: "With defenses that apple cart is upset. I assume you are supplying defensive shots to Player B. I am willing to work with you to achieve your goal of disarmament, but you have 25 times my resources. You can afford to be generous. So once again, how about 15 defensive shots for 10 offensive shots with the expenditure of the two tokens or 12 offensive shots for 10 defensive shots with no loss of tokens?"

Player G continued the haggling with Player A: "13 defensive shots for 10 offensive shots and the expenditure of the two tokens."

Player A responded in turn by offering Player G: "14 defensive shots for 10 offensive shots and the expenditure of the two tokens."

Player G ended the bargaining with Player A: "Done, that's a hard and fast deal."

Player A confirmed the outline of the agreement with Player G by stating: "I get 14 defensive shots,

you get 10 of my offensive shots and I spend my two tokens. We mutually upgrade our attitudes to 'unfriendly.' Right?"

Player G responded to Player A: "Yes."

Player E sent the following message to Players A, B, C, and D and shared it with Player G: "Following Player G's willingness to provide defensive shots, I consider this an opportunity to reduce the regional stockpile of nuclear arms. May I propose that all of the regional actors reduce their own offensive capabilities by one-third, thus maintaining the current country to country offensive shot ratios? This means, I would reduce my offensive shots by five. In addition, I would plan to purchase an amount of defensive shots that would allow me to maximize my national security."

Player C responded to Player E's proposal: "Unfortunately, I cannot reduce my offensive shots by this much at this time. My neighbor to the east is still a nuclear threat to me. However, having defensive shots would help stability. Therefore, I will pursue acquiring defensive shots."

Player E followed up with Player C regarding his proposal by asking: "Would you be willing after the acquisition of a certain number of defenses to consider a reduction in offensive shots?"

Player C answered Player E's question: "Rest assured that my offensive shots are not geared toward you or the region we share. Other players in your region should not be concerned with our nuclear offensive shots. I am willing to build and acquire fewer offensive shots each round in order to also acquire defensive shots. I understand the dynamics of the region we share, and believe stability would help. Energy stability is also important, and I would like to work more closely with you on energy cooperation and security."

Player E, based on the assessment provided by Player C, sent Players A, B, C, and D the following message, which he again shared with Player G: "There doesn't seem to be a consensus at this time to begin building-down offensive weapons. I do however believe that the availability of defensive shots continues to offer the opportunity for future arms reductions. Without a regional consensus, I am not comfortable with significant reductions. Nevertheless, all of us should continue to work towards this goal of a regional build-down. In the meantime, I will acquire defenses as I believe that these will give us the flexibility for future reductions. Until that time comes, I would invite all regional players to come to me with any new ideas on how to achieve future reductions."

Player B then offered the following assessment to Player E: "Sorry, but I cannot trust you as long as you support continued terrorist attacks against me. But if you secretly cut off your funds for these terrorists and upgrade your attitude toward me from 'hostile' to 'neutral', then I would be open to changing my attitude towards you. We both face major threats from the arrogant Ayatollahs of Player A."

Player E responded to Player B's assessment: "I was not looking for any diplomatic breakthroughs now. I saw the availability of defensive shots as a way to build down regional offenses in a way that would benefit everyone and I could perhaps use that as an opportunity to achieve some sort of diplomatic breakthrough in the future."

Player B responded to Player E in turn: "OK but you should know that I consider such support for terrorism to be tantamount to an act of war and a very important issue for me. If you are serious about doing diplomacy in the future, then you should secretly cut that aid to the terrorists (nobody else needs to know) and I will then know that you are serious. You may even keep your 'hostile' attitude toward me. Actions are more important than words."

Player A stated to Players C, D, and E: "I find it distressing that our attitudes toward each other have deteriorated to 'unfriendly.' I propose a mutual upgrade to 'neutral.'"

Player C responded to Player A's proposal: "I can move to 'neutral.'"

Player A responded positively to Player C's agreement: "It's a deal."

Players D and E chose not to respond to Player A's proposal to upgrade attitudes at this time.

Player C asked Player G: "Can I get one defensive shot from you? We will expend one token for it, so it will not come out of your resources. Unfortunately, with my next door neighbor to the east having offensive nuclear shots and getting help on their nuclear program from you, I cannot at this time reduce my offensive shots. I intend to use my other token this round to acquire an offensive shot. I understand that this would not reduce my offensive arsenal, but it would be reducing the amount of offensive shots we would get this round, and in future rounds if this continues. The defensive weapons from you would help bring some stability to the region. What do you think?"

Player G responded positively to Player C's question: "I am happy to oblige. One defensive shot for one token it is."

Player G stated to Player B: "Just to let you know, I am providing defenses to Player A and will upgrade my attitude toward him to 'unfriendly.' My goal is not to compromise your security. Indeed my goal is to walk Player A back from being a threatening nuclear adversary. I will maintain transparency with you regarding my goals, plans, and objectives. Further, I am committed to building up your defenses and remain committed to extending my nuclear deterrent to you."

Player B responded to Player G's message:

"Okay, I am interested in getting 15 defensive shots, but I must insist that I keep my two tokens to build up offensive shots to deter Player A, which your unwise policy of providing him defenses is making more difficult. This could force me to launch a preemptive strike. However, if you give me the defensive shots for free, I promise not to do this for one turn."

Player G responded to Player B: "Fine, I will not require you to expend your two tokens this round for defenses. However, that will be subject to negotiation in the next round."

Player B responded positively to Player G's offer: "Okay, deal. That way I can preserve the effectiveness of my nuclear deterrent, despite your unwise decision to defend our sworn enemy Player A."

Player E asked Player G: "Can I purchase 5 defensive shots from you?"

Player G requested clarification from Player E: "By expending five tokens?"

Player E clarified his intent for Player G: "Yes." Player G, based on Player E's clarification, made the following offer: "Fine, five defensive shots acquired by the expenditure of all five of your tokens this round."

Game Manager's Notes

Player C sought guidance regarding the appropriateness of raising his vulnerability to an unidentified player (equivalent to India) in the background diplomacy. The Game Manager said that applying reasonable assumptions about this unidentified player is fine for background diplomacy and for providing a rationale for Player C's moves. He also informed Player C, however, that he would not permit unreasonable assumptions about this unidentified player and that Player C could not apply assumptions that would have a direct material impact on the exercise. For example, Player C could not assert that this unidentified player attacked Player A and destroyed all of his offensive shots.

ROUND 2

Figure C3 reflects the diplomatic status of the players prior to Round 2.

Figure C4 reflects the status of the players' forces prior to Round 2.

Public Announcements and Private Communications Prior to Round 2

Player G stated to Player F: "As a follow up to your request for defensive shots in the first round, I am open to these discussions. I need tangible confidence-building measures and other signs of increased stability based on your efforts to help reduce tensions between Players A and B. If you can demonstrate measurable, tangible progress on this front, I will be happy to oblige your request."

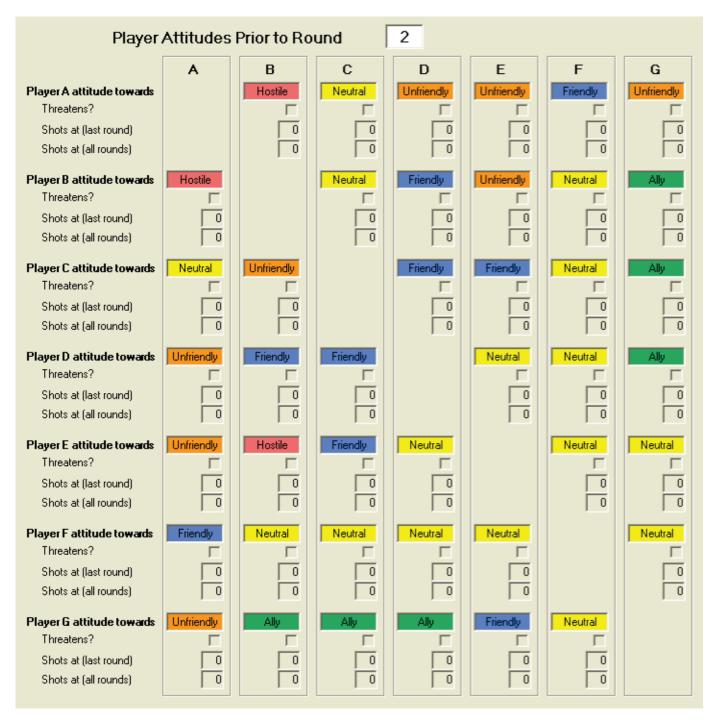


Figure C3

Player F chose not to respond to Player G's statement at this time.

Player D asked Player G: "What do I need to do to get a few defensive shots? Player A is giving me cause to worry."

Player G responded to Player D's question: "I have promised all players a positive response to

requests for defensive shots if they reduce their offensive shots. Also, I recognize that this attempt to encourage a transition to more defensive postures and reduced offensive shots by all the players will succeed only on the basis of transparency. Therefore as you know I am not shrouding my forces and encourage all other players to make the same

Status for Control at B	eginning (of Round:	2	11/12/200	09 2:19:26	P M	
	A	В	С	D	E	F	G
Shrouded?	Yes	Yes	Yes	No	No	No	No
Holstered?	No	No	Yes	Yes	Yes	No	No
Shots at	_		_	_	_		
Last round	0	0	0	0	0	0	0
All rounds	0	0	0	0	0	0	0
Hits taken							
Last round	0	0	0	0	0		
All rounds	0	0	0	0	0	0	0
Damage	Functional						
Offense vesting, last round							
Shots sought	2	2	1	0	0	10	0
Shots reduced:	0	0	0	0	0	0	0
Offense shots available:	15	40	30	15	15	200	200
Defense vesting, last round							
Shots requested:	14	15	1		5	Г	
Shots offered by G:	14	15	1	0	5	0	
Shots agreed to:	14	15	1	0	5	0	21
Shots reduced:	0	0	0	0	0	0	0
Defense shots available:	0	0	0	0	0	0	0
Round available:	3	3	3	3	3	3	3
Round for Involuntary Unshroud:	16		3				

Figure C4

commitment. In your case, I will provide defenses if you reduce your offensive arsenal and remain 'unshrouded.'"

Player D responded to Player G's proposal: "Okay deal. Can I have five defensive shots if I reduce my offensive shots by three? I do not have that many offensive shots to begin with."

Player G, based on Player D's formal request, sought clarification: "Are you still on friendly terms with Player C? I would very much appreciate and strongly encourage you to persuade Player C to 'unshroud' his forces. If you can do that, I may throw in some extras for your troubles."

Player D responded to Player G in turn: "Player C and I are friends. As I firmly believe in transparency, I will encourage Player C to 'unshroud."

Player A stated to Player G: "I appreciate your willingness to compromise in our agreement. Please feel free to approach me in the future."

Player G chose not to respond to Player A's positive statement.

Player E stated to player G: "Thanks. But just so you know, I am trying desperately to convince my regional friends to also seek defenses so that we all could begin some moderate reductions in offensive shots."

Player G responded to Player E: "That is very helpful and appreciated. I am very interested in keeping all players 'unshrouded' and having them make more robust commitments to reductions in offensive shots."

Player D asked Player B: "Player A remains a threat, as you well know. I am getting a bit nervous. Can I get 3 offensive shots from you?"

Player B turned down Player D's request for offensive shots but offered an alternative: "Sorry but I have much more reason to feel nervous than you do. How about if we upgrade our attitudes toward each other to 'ally' and pledge to come to each other's aid if attacked by the arrogant ayatollahs of Player A? That would mean if Player A attacks either one of us, the other promises to finish him off. I would also help you upgrade your air force to better defend against air attacks by Player A."

Player D chose not to respond to Player B's proposal at this time.

Player A sent the following message to Players D and E, which he shared with Player C: "I was very excited that Player C and I were able to upgrade our attitudes toward each other last round. Considering our mutual interests, I think that all Muslim players should at the very least take a 'neutral' stance toward one another. What say all of us improve our relations to at least 'neutral?' Player E, please provide the details of your offensive shots reduction proposal. I might be willing to participate, at least to some degree."

Player E responded to Player A's message: "I agree that an upgrade in our mutual attitudes to 'neutral' is appropriate. My basic proposition is that with the introduction of defenses, we should all be able to engage in some marginal reduction in offensive shots to ease overall tensions. The idea was for each of us to reduce proportionately so that we would each maintain the same deterrent value relative to other players."

Player A responded positively to Player E's commitment to upgrade attitudes: "Wonderful, I will upgrade my attitude toward you to 'neutral' this round. Would your proposal entail each country reducing to a static level like 10 or 15 shots each?

Or would that entail a reduction in shots proportional to our starting offensive shots—i.e. since players A and D started with 15 shots, they would each reduce by 20 percent to 12 and Player C would reduce 20 percent to 24? I am not agreeing to such a proposal *per se*, but I am trying to figure out what you are proposing. In addition, how would it be verified? I would not agree to 'unshroud' unless every other player does so."

Player E explained to Player A his approach for reductions in offensive shots: "It would be proportional to maintain the exact same balance, with 20 percent reductions. As for verification, we could negotiate on that issue. Maybe, it could include a multinational verification team that would include Player G."

Player D responded to Player A's earlier appeal for an upgrade in attitudes and shared his message with Player G: "I will not decrease my offensive shots until Player G can guarantee me defensive shots. Furthermore, as Player G and I are allies and we are trying to be as transparent as possible here, I will have to consult Player G before changing my attitude toward you."

Player A responded to Player D's cautious approach to an upgrade in attitudes and shared his response with Player G: "Player G and I mutually improved relations last round. Surely, Player G would not object if we improve our relations to 'neutral?'"

Player A resumed his exchanges with Player E regarding offensive shot reductions and shared his message with Players C and D: "That multinational verification arrangement would necessarily require 'unshrouding.' After all, how can a multilateral team inspect my status without providing them with complete and open information? As I stated, I would not be prepared to 'unshroud' unless everyone else in the game agrees to do the same."

Player E responded to Player A with the following, which he shared with Player D: "That's correct. As I stated, I believe that the force posture flexibility that the introduction of defenses has provided represents a true opportunity to decrease the region's offensive shots. While this will require 'unshrouding'

for those that remain 'shrouded,' it also provides an avenue to further peace."

Player D, fulfilling his earlier commitment to Player G, stated to Player C: "Player G has asked me to ask you to 'unshroud' in the interest of transparency. Any reason why you haven't yet? Defensive shots at this point are more valuable than offensive shots. They're all the rage these days. Also, what is happening in your attitude toward Player A? You guys were pretty nasty towards each other last round. Now you are 'neutral' toward each other? Care to share the story?"

Player C responded to Player D: "I think we have an opportunity to ease tensions in the region."

Player B stated to Player G: "The situation in the region continues to deteriorate. Now Player E remains 'hostile' toward me. I anticipate an alliance between Players A and E will form against me and urgently require more defensive shots. I also insist that no defensive shots be offered to Players A and E. Doing so will only make a bad situation worse."

Player G responded to Player B's complaint by asking: "How do you know player E will remain hostile toward you? My initial public announcement clearly states a policy that I will not rescind or apply specifically to select players. The announcement says I will provide defenses to *any* player who reduces his offensive shots. I am working hard on defensive deals to ensure tensions are reduced in the region. I've asked Player C to 'unshroud.' I will also work with Player E on his attitude toward you now. As stated earlier, I will commit to provide you 15 defenses this round."

Player B responded to Player G in turn: "Player E always has been hostile and still is. I must protest being treated the same as other states despite our longstanding alliance. We are very close to launching a preemptive strike before your transfer of missile defenses becomes active. I must be free to continue my offensive buildup, so we will accept 15 more defensive shots, but not at the price of sacrificing our deterrent capability."

Player B asked Player E: "Why do you remain 'hostile' toward me? Now, I will have to try to block

any offer of defensive shots from Player G to you. If you want to improve relations, then please change attitude to neutral next round."

Player E answered Player B's question: "You know, that is a good question. I do not even know why. I have just continued that position over time, I suppose. Anyway, I would agree to publicly upgrade my attitude toward you to 'unfriendly,' and privately upgrade to neutral. How about that?"

Player B responded to Player E's offer to upgrade his attitude toward him: "Your private attitude and actual actions are more important to me than your public attitude. I may have to launch a preemptive strike against the arrogant ayatollahs of Player A and would love permission to send my air force through your unpopulated western desert, in a surprise attack on Player A's nuclear sites. Just give me permission (and you can deny it later) and I will lift my opposition to you getting defensive shots from Player G. Meanwhile, you can even stay publicly hostile to appease your domestic religious fanatics."

Player E responded to Player B's offer with an alternative: "How about instead of preemptively striking, we work with Player A to reduce his offensive shots. That is precisely what I have been encouraging him to do. I would very much look forward to working with you on a plan that would include offensive shot reductions, 'unshrouding,' and furnishing of defensive shots. If we agreed to something, it could create immense pressure on Player A to follow. If he refuses, then we can take it from there."

Player B responded positively to Player E's suggested approach to handling Player A: "Okay, you work with Player A to reduce his offensive shots, but I cannot risk doing the same. I have been attacked too many times, including by many groups financed by you. So pardon me if I am less than trusting."

Player G asked Player E: "Player B informs us that you remain hostile toward him. What gives? I think this is incredibly unhelpful and destabilizing. Further, are you moving to 'ally' with player A in the future?"

Player E answered Player G's question and shared his answer with Player B: "Player B does not know what he is talking about. I have been publicly hostile toward him for quite a while. There was no downgrade in attitude on my part. That said, since he brought it up, I have told him that I would like to upgrade publicly to unfriendly and privately to neutral."

Player G, having received the earlier exchanges between Player B and Player E, stated to Player B: "Do not launch any preemptive strikes against Player A. There is simply no reason. I am here to protect and defend you, and that will never change. If I can help, let me know the specifics. I will protect you from all threats."

Player B chose not to respond to Player G's plea at this time.

Player C made the following proposal to Player G: "I would be willing to reduce my offensive shots by 20 percent if you are willing to provide me with 30 defensive shots. Is it a deal?"

Player G chose not to respond to Player C's proposal at this time.

Player A sent the following proposal to Player F: "I appreciate our longstanding friendship and would like to enter into a formal alliance based on energy cooperation and mutual security guarantees. Please let me know if this arrangement is agreeable."

Player F chose not to respond to Player A's alliance proposal at this time.

Player D sent Players A, C, and E the following message, which he shared with Player G: "In a show of complete transparency, I am already 'unshrouded' and encourage other players to do the same."

Player G now chose to respond to Player C's proposal for obtaining defensive shots by asking: "As part of my public-stated policy, I am willing to provide defensive shots to you for offensive shot reductions. A part of that deal is that the receiving players remain 'unshrouded.' Will you 'unshroud?"

Player C chose not answer Player G's question at this time.

Players F and G, with the assistance of the Game Manager, made the following public announcement:

"We invite all players to participate in a conference hosted by both of us to establish confidence-building measures. The ultimate purpose of this conference is to establish an offensive-shots-free zone within the region. Proposals from other players will be considered."

Player F also made the following bilateral proposal to Player G, which had been suggested initially during the first round: "I propose an agreement with you on the following steps:

- I obtain 20 defensive interceptors from you per round for 5 rounds, of which 10 will be purchased by me with my resources and 10 provided from your resources, for a total of 100 defensive shots. The first transfer should take place this round.
- We mutually reduce our offensive shots to 100 over a 5-round period (a rate of roughly 20 per round), starting next round (Round 3).
- We both agree to remain 'unshrouded' through Round 7.
- I provide you a special supply of vodka and caviar for the regional conference we just announced to give ourselves an advantage over our non-drinking Muslim colleagues. Sharing some vodka with Player B will be accepted."

Game Manager's Notes

The Game Manager offered assistance to Players F and G on drafting any bilateral arms control agreement between them. This was based on the proposal offered by Player F during this round.

The Game Manager, on the basis of their requests, informed Players C and D that their initial attitudes toward Player A were "unfriendly" in both cases.

ROUND 3

Figure C5 reflects the diplomatic status of the players prior to Round 3.

Figure C6 reflects the status of the players' forces prior to Round 3.

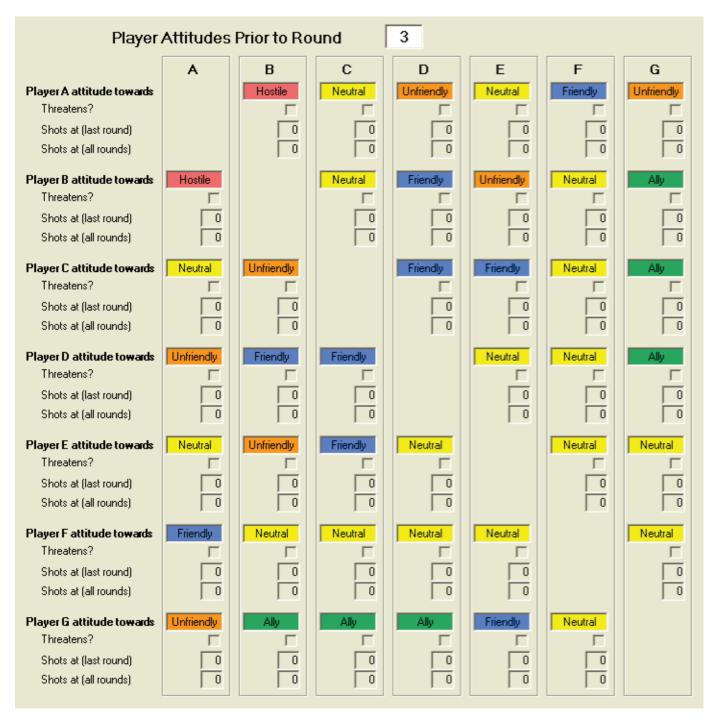


Figure C5

Public Announcements and Private Communications Prior to Round 3

Player E continued his exchange with Player B from Round 2: "Please know I am not trying to pull some sort of diplomatic double cross or to ignore the past. I recognize that we have a lot of negative history and we don't need to like each other to

bring greater stability to the region, which would serve both our interests. I am not seeking complete offensive disarmament. Your misgiving towards me is matched by mine towards you. I simply feel that we have an opportunity to all reduce offensive shots simultaneously. I am not looking to be friends, allies with you or anything else. I am looking for regional stability so I can sell oil.

Status for Control at B	eginning	of Round:	3	11/13/200	9 12:09:15	5 PM	
	A	В	С	D	E	F	G
Shrouded?	Yes	Yes	No	No	No	No	No
Holstered?	No	No	Yes	Yes	Yes	No	No
Shots at	_		_		_	_	
Last round	0		0	0	0	0	0
All rounds	0	0	0	0	0	0	0
Hits taken							
Last round			0			0	
All rounds	0	0	0	0	0	0	0
Damage	Functional						
Offense vesting, last round							
Shots sought	2	2	0	0		0	0
Shots reduced:	0		0	0	0	0	0
Offense shots available:	17	42	31	15	15	210	200
Defense vesting, last round							
Shots requested:	0	15	0	5	0	20	
Shots offered by G:	0	15	0	5	0	20	
Shots agreed to:	0	15	0	5	0	20	18
Shots reduced:	0	<u></u>	0	0	0	0	0
Defense shots available:	14	15	1	0	5	0	21
Round available:	4	4	4	4	4	4	4
Round for Involuntary Unshroud:	16						

Figure C6

"If you attack Player A or Player A attacks you or anyone attacks anyone, I lose as it would likely block oil shipments. I am willing to work with you, as distasteful as it is for both of us, in order to move toward some regional offensive shots reductions."

Player B responded to Player E's explanation by proposing: "Okay, you say you want to sell oil? I need to buy oil and am willing to pay market rates. We can both keep these transactions secret and this secret oil trade would build confidence between us. You should know that my ongoing military buildup is not directed at you but at the arrogant ayatollahs of Player A."

Player E responded to Player B's proposal: "If you agree to send a high-level delegation to Players F and G's conference and could consider reducing your offensive arms proportionally to what other regional players would do (I am thinking by 20%), then I think that I might be able to get you some oil on the low down."

Player B reacted negatively to Player E's counter offer: "Sorry, I cannot do that at this time. Maybe if you sweetened the offer with a below-market oil price and cut support for terrorists, I might consider it."

Player E chose not to respond to Player B's latest offer at this time.

Player B made the following public announcement in response to Players F and G's conference proposal from Round 2: "I will send a low-level delegation (the B-Team) signaling my skepticism that well-intentioned but naïve arms control schemes put forward by Player G can realistically address the deeply-rooted problems of this region. I have been attacked too many times. So I will go to this conference with the knowledge that a page of history outweighs a ton of logic."

Player C accepted Players F and G's conference proposal by announcing: "I will attend."

Player D accepted Players F and G's conference proposal by announcing: "I will attend and encourage all other players to attend as well, including player A. This conference will accomplish nothing if there are players missing."

Player E also accepted Player F and G's conference proposal by announcing: "I look forward to attending this conference."

Player A, however, rejected Players F and G's conference proposal by announcing: "I look forward to this opportunity to further cooperation with our Muslim brothers, but I will not participate if Player B is included. I oppose Zionist aggression in all its forms."

Player B chose this time to respond to Player G's plea to him during Round 2 not to launch an attack on Player A: "The fact that player A has turned down the conference is making me very nervous. We could be forced to launch a preemptive attack. Please send me 15 defensive shots and I may be able to hold off on any such attack. However, I will need my tokens to bolster my deterrent."

Player G, based on Player B's statement, told Player B: "As we agreed a while ago, I am providing you 15 defensive shots for no tokens this round, as I did in Rounds 1 and 2. If you launch a preemptive attack, this deal is obviously off the table. In my view, Player A is still posturing about the conference. I do not see his announcement as a firm decision not to attend."

Player B responded to Player G: "Okay, this is a deal. Nevertheless, I think you are crazy to deal with Player A."

Player G made the following public announcement in response to Player A's announcement of his views on the conference proposal: "I note that this conference invitation includes Players A and B. Player F and I will not include one player at the expense of another."

Player G responded favorably to Player F's bilateral arms control proposal from Round 2: "I agree to your proposal. Would you like to make a public announcement about the agreement?"

Player F answered Player G's query regarding a public announcement on the arms control deal: "I would prefer that you make an announcement that outlines the thrust and purpose of our agreement. Okay?"

Player G asked Player F in turn: "Why?"

Player F answered Player G's question: "No particular reason. If you do not want to, I can or we can do it jointly."

Player G responded by stating to Player F: "I will make the announcement."

Player G then made the following public announcement: "I would like to share with you that I have entered into a formal agreement with Player F to begin reducing our respective offensive nuclear shots, lead by example, and increase regional and global stability. I will transfer large numbers of defensive shots to Player F in the course of the next five rounds.

"Also, we have agreed to reduce our offensive shots to 100 each over the next five rounds.

"We will both remain 'unshrouded' in order to verify the reductions and encourage all players to join us in an effort of genuine transparency. Actions speak louder than words. As stated earlier, I encourage restraint by all other players with regard to obtaining offensive forces. If I purchase any new offensive systems to modernize my arsenal, I will retire older offensive shots accordingly under this agreement with Player F. Again, I recognize these efforts to encourage a transition to more defensive postures and reduced offensive shots by all the players will succeed only on the basis of transparency. Other players should join us and begin efforts to reduce offensive nuclear shots. Player F and I are

here to help and generously assist those who seek to do so in an effort at regional confidence-building."

Player B, in response to Players F and G's arms control agreement, sent Player G the following message, which he shared with Player F: "This is a private diplomatic note, not to be repeated to others. Sorry but there is no way I am going to give up my nuclear deterrent. I will keep this quiet for now, so as not to derail your well-intentioned efforts. They are useful to me to the extent that they defuse tensions in the region. But I firmly believe that I must retain control of my own destiny and cannot afford to put all my eggs in the defense basket. Player A could target me with offensive shots that evade the defense. I need my offensive arsenal to deter Player A. I will play along at the conference, if it occurs, but don't expect me to sign away my strategic freedom."

Player B also stated privately to Player F: "Hey you cannot be serious about this crazy arms control scheme either. How about if you supply me some offensive shots secretly and I will buy a whole bunch of conventional weapons from you publicly?"

Players F and G chose not to respond to Player B's two messages at this time.

Player E stated to Player G: "Just FYI, We seem to be moving toward an across-the-board 20% offensive shot reduction in the region. This can happen so long [as] transfers of defensive shots are included and you agree to verify. Player A is a major sticking point, as is Player B's refusal to so much as entertain any reductions. Player C is a little hesitant due to his neighbor to the east, but we believe that he could come along with the right assurances."

Player G responded positively to Player E's message: "That is helpful, thanks. Yes, of course, I will agree to provide appropriate levels of defensive shots."

Player C stated to Player G: "This is a very interesting announcement on your agreement with Player F. If you and Player F are able to keep these commitments, I feel that it will also lead to the encouragement of two outside players, which are both my neighbors, to also reduce their offensive shots, or at least not increase them.

"As an ally, I would like to request 10 defensive shots from you for the next 3 rounds. I will expend my two tokens each round to do so, so eight would have to come from your resources. I am working on a proposal with some other players in the region to have each reduce his offensive shots by 20%. The defensive shots would give us cover in case my neighbor to the east decided to come after me. Even if this proposal does not go through, I would not be building additional offensive shots because I would be using the tokens to pay for the defensive shots. What do you think?"

Player G responded to Player C's proposal with a counteroffer: "Thanks, I am pleased to hear from you. I will provide you 10 defensive shots for your agreement to reduce your offensive arsenal by 10 each round. Deal?"

Player C then made the following offer to Player G: "I cannot reduce by 10 offensive shots each round. I can reduce by 3 each round. I will have to see if the two outside players, especially my neighbor to the east, are also reducing their offensive shots. I am worried about reducing by too much each round. I might not be able to respond to a threat or an attack by my neighbor to the east."

Player G then modified his earlier offer to Player C: "I will provide you 5 defensive shots this round if you expend both of your tokens for the defenses and reduce your offensive shots by three."

Player C then made another counteroffer to Player G: "I can expend the two tokens and reduce by 2 offensive shots in exchange for 5 defensive shots this round."

Player G responded by asking Player C: "Then how about four defensive shots for two offensive shots and the expenditure of the two tokens?"

Player C ended the haggling by stating to Player G: "Okay, deal. I will expend the 2 tokens for defensive shots and reduce by two offensive shots in exchange for 4 defensive shots."

Player C stated to Player D: "Well, thanks to some leak, I am now 'unshrouded.' I hope you and everyone else enjoys the transparency."

Player D responded to Player C's complaint: "Oh, stop complaining. It was for the best. You

are likely to have better relations with Player G now."

Player A, in an effort to head off the regional conference proposed by Players F and G, stated to Players C, D, and E: "I am concerned about a collaboration between Player B and the great power Players F and G to dominate our region, our historic homeland. I would therefore like to propose an alternative conference including the Muslim nations in order to create a mutually beneficial strategy to be held in my capital or one of yours. A united front is necessary to prevent our emasculation."

Player D responded to Player A's conference proposal and shared his response with Players C and E: "You are paranoid. I would strongly encourage you to attend the conference proposed by Players F and G. Otherwise, it looks like you're starting trouble, which, I think we many of us have reasonable suspicion to believe that you are. On another note, please remember that I have a more secular outlook and any attempt to drag me into a battle over religion is futile."

Player A responded to Player D's statement and shared his response with Players C and E: "Even paranoids have enemies. I will attend only if there is a chance previous to the conference to strategize among Muslim players in a closed door meeting. Over to you all."

Player A also suggested privately to Player D: "You might show good intentions by upgrading your attitude toward me to 'neutral,' which I would reciprocate."

Player D responded to Player A's private offer: "Give me five offensive shots and I will consider it."

Player A stated to Player D in turn: "I can afford only two, being but a poor, misunderstood player. But I will offer those in evidence of my goodwill."

Player D accepted Player A's offer of offensive shots for an upgrade in attitudes: "Okay, Deal."

Player A attempted to confirm his agreement with Player D: "Okay, I will upgrade my attitude toward you to 'neutral' and expect you to do the same. If that is done, I will transfer the two offensive shots to you in the following round. I live by the principle, trust but verify."

Player D, however, did not like the timing suggested by Player A: "No, you will need to follow through and mark that you will give me two shots this round. You have no reason to distrust me. I am being very transparent."

Player A responded to Player D: "I find it peculiar that you are interested in offensive shots on the eve of the proposed disarmament conference."

Player D stated to Player A in turn: "Well, I don't have that many offensive shots. I will try to balance my offensive and defensive shots."

Player A then asked Player D: "What would Player G say to your effort to increase your offensive shots? It goes counter to his disarmament effort. No?"

Player D dismissed Player A's question: "That is my business."

Player C chose this time to ask Players A, D, and E: "With the announcement from Players F and G on arms control, where are we with the idea to reduce offensive shots by 20 percent?"

Player E responded to Player C's question and shared his response with Players A and D: "I am for it, but I need all of us to be in. I think that if we asked Player G to provide us all a significant amount of defense and to verify our reductions, he would agree to facilitate a 20 percent reduction."

Player C then asked Player E: "This sounds good, but would Player G really give defensive shots to Player A?"

Player E answered Player C's question: "I don't know, but I think he would so long as the ratios remain the same between all regional actors. I believe that if I go in with a package of requests that is built on 20% offensive shot reductions, defenses, and a strong Player G commitment to verify, I might be able to get something going."

Player C responded positively to Player E's suggestion: "Okay, let's try it."

Player D asked Player G: "If I give up two offensive shots, will you give me two defensive shots?"

Player G responded positively to Player D's question: "Yes, it's a deal."

Player F chose this time to respond to Player A's inquiry from Round 2 regarding an alliance: "I

cannot commit to this proposal at this time, especially in light of your recent reluctance to enter into the confidence building conference in good faith. I will explore this possibility, but the international conditions are not ideal right now. I will be in a better position to assist you if you are seen in a more cooperative manner, particularly in regard to the conference."

Player B stated to Player C: "Greetings potential friend. I am very interested in how you came to receive a defensive shot and am interested in exchanging information about the common threat we face from Player A. I am willing to upgrade some of the warplanes you have received from Player G. I have state of the art, battle-tested electronics that you can use to fake out your foes to the east. And maybe if we grow to trust each other enough, we could form a tacit alliance against Player A?"

Player C responded to Player B's proposal: "Interesting offer, but I do not face the same threat from Player A as you. I would not be able to join in an alliance with you against Player A. However, I would continue to talk with you about the upgrading of my planes and the reduction of the influence of Player A in the Muslim world."

Game Manager's Notes

The Game Manager responded to a question from Player E about whether his participation in the regional conference proposed by Players F and G implies a commitment to offensive disarmament by stating to him that the conference outcome is for the players to decide.

The Game Manager confirmed to Player C that his assumptions about the unidentified players (equivalent to India and China) regarding reductions in offensive shots were reasonable.

ROUND 4

Figure C7 reflects the diplomatic status of the players prior to Round 4.

Figure C8 reflects the status of the players' forces prior to Round 4.

Public Announcements and Private Communications Prior to Round 4

Player C resumed his exchange with Player B, initiated near the end of Round 3: "I am still interested in your offer about upgrading my warplanes. I can move my attitude toward you to 'neutral,' assuming you maintain such an attitude toward me."

Player B responded to Player C's proposal: "Okay, I would be interested in establishing a secret back-channel relationship on the plane improvements conducted through a private corporation that gives us plausible deniability. If you agree to upgrade your attitude towards me to neutral and allow my private contractors to talk to your nuclear suppliers about what they know about the nuclear program of Player A, then we will authorize those contractors to install the upgrade to your planes that will work very well against the Soviet-type warplanes that your arch-rival to the east has purchased. Also, you must not mention any of this to Player G because it could jeopardize my access to defensive shots from him."

Player C stated to Player B in turn: "I can move to 'neutral' towards you. However, I am taking care of my nuclear suppliers myself. I am not even allowing Player G to talk to them at this time. I think I can still work with you on the details for upgrading my planes. I like your plan, with the exception of giving you access to my nuclear suppliers. I will not mention this offer to Player G."

Player B chose not to respond to Player C's alternative agreement at this time.

Player G sent the following message to Player E regarding his proposal in Round 3 for regional offensive shot reductions and shared his message with Player F: "I think this is a great proposal. Would I be asking all players in the region to commit to a 20 percent reduction in offensive shots, period? If all do not do it together, the proposal is moot? I would certainly seek to verify the reductions and provide defenses accordingly. Why not link this proposal to the conference Player F and I are proposing?"

Player	Attitudes	Prior to Ro	und	4			
	Α	В	С	D	E	F	G
Player A attitude towards Threatens?		Hostile	Neutral -	Unfriendly	Neutral	Friendly	Unfriendly
Shots at (last round) Shots at (all rounds)		0	0	0	0	0	0
Player B attitude towards Threatens? Shots at (last round) Shots at (all rounds)	Hostile 0		Neutral 0	Friendly 0 0	Unfriendly 0 0	Neutral 0	Ally
Player C attitude towards Threatens? Shots at (last round) Shots at (all rounds)	Neutral 0	Unfriendly 0		Friendly 0	Friendly 0	Neutral 0	Ally
Player D attitude towards Threatens? Shots at (last round) Shots at (all rounds)	Unfriendly 0	Friendly 0 0	Friendly 0		Neutral 0	Neutral 0	Ally
Player E attitude towards Threatens? Shots at (last round) Shots at (all rounds)	Neutral 0	Unfriendly 0	Friendly 0 0	Neutral 0		Neutral 0	Neutral 0
Player F attitude towards Threatens? Shots at (last round) Shots at (all rounds)	Friendly 0	Neutral 0	Neutral 0	Neutral 0	Neutral 0		Neutral 0
Player G attitude towards Threatens? Shots at (last round) Shots at (all rounds)	Unfriendly 0	Ally 0	Ally 0	Ally 0	Friendly 0 0	Neutral 0	

Figure C7

Player E responded to Player G and shared his response with Player F: "The 20 percent reduction would be the first step. There may be only one step. That would remain to be seen. But it would at least reverse the trend to build up while allowing all actors to maintain a balance in offensive shots. I would be hesitant to agree to any broad disarma-

ment proposals. I do not think that is doable at this point. Indeed, I am not even sure that the final objective should even be defined as disarmament. No one is really there yet and such statements could undermine the credibility of a practical arms reduction plan by creating an unrealistic sense of idealism. I think that it would be very troubling if

Status for Control at B	eginning (of Round:	4	11/17/200	9 12:14:33	3 PM	
	A	В	С	D	E	F	G
Shrouded?	Yes	Yes	No	No	No	No	No
Holstered?	No	No	No	Yes	Yes	No	No
Shots at					_		_
Last round	0	0	0	0	0	0	0
All rounds	0	0	0	0	0	0	0
Hits taken							
Last round	0			0		0	0
All rounds	0	0	0	0	0	0	0
Damage	Functional						
Offense vesting, last round							
Shots sought	2	2	0	2			
Shots reduced:	0	0	2	0	0	20	20
Offense shots available:	19	44	31	15	15	210	200
Defense vesting, last round							
Shots requested:	0	15	4	2	0	20	
Shots offered by G:	0	15	4	2	0	20	
Shots agreed to:	0	15	4	2	0	20	18
Shots reduced:	0	0	0	0	0	0	0
Defense shots available:	14	30	1	5	5	20	39
Round available:	5	5	5	5	5	5	5
Round for Involuntary Unshroud:	16						

Figure C8 – Note: A data entry error in the table above indicates that Player D sought 2 offensive shots. In fact, Player D moved to reduce his offensive shots by two. The total listed offense shots available to Player D in subsequent rounds accurately reflect his real shot total.

all players did not agree to do it simultaneously. Perhaps with your leadership, we could all agree in principle to such a plan and use the conference to set a final agreement."

Player G responded to Player E in turn and shared his response with Player F: "Good points and agreed on the need for realistic, bite-sized proposals. I also agree that it would need to happen simultaneously. I like the commitment in principle for anyone wanting to join the conference. This

would answer the question right away of who is willing to move forward."

Player F, based on the exchanges between Players E and G that were shared with him, stated to both players: "I agree that this is a good proposal and will support it."

Player G then sent Player F the following message, which he shared with Player E: "It would be great if you wanted to make an announcement on your own to all players about the conference and

price of admission being to 'unshroud' and reduce offensive shots."

Player F responded to Players E and G: "Sounds good. I will make an announcement soon."

Player A stated to Player E: "In the hope of bringing Muslim players together, I would like to upgrade my attitude toward you to 'friendly.' I am prepared to offer you a modest number of offensive shots (for I am but a poor power) as a token of my high esteem."

Player E chose not to respond to Player A's proposal at this time.

Player A stated to Player C: "I am really sorry to see that you were 'unshrouded' by an intelligence breach. What terrible luck. I think that we Muslim players should stick together and would like to upgrade my attitude toward you to 'friendly.' Indeed, I would even like to offer you a few offensive shots in token of my esteem."

Player C chose not to respond to Player A's proposal at this time.

Player G stated to Player B: "As part of my ongoing efforts to reduce tensions in the region and begin offensive shot reductions with Player F, I really need you to consider a commitment to reducing some of your offensive shots. This consideration would be possible and secure because of my strong, unwavering, unshaken, no-questions asked, historic guarantee to provide for your security. As a part of this commitment, I will continue to provide you robust defenses.

"The dilemma for me is that no other players will even begin to think or talk about reducing some of their offensive shots without some type of commitment from you. Please make an effort to consider this proposal and let me know your thoughts. By the way, our agreement to provide you 15 defensive shots per round is expiring. You'll have to notify me at this point for more."

Player B responded to Player G's plea: "Unfortunately, I cannot trust Player A. He still publicly calls for my destruction, while building the weapons to do just that. Since you are cutting us off from further defensive shots, I will have to proceed with Plan B, which is a pre-emptive strike."

Player G responded to Player B in turn: "You are always jumping the gun. You are not cut off from any defenses, rather you need to request them on a per-round basis or negotiate a new agreement with me. Our last agreement to provide you defenses for no tokens and no offensive reductions was good for three rounds. I followed through fully on that commitment and expect you to behave appropriately and rationally. Do not launch a preemptive strike."

Player B then responded to Player G: "Maybe I misinterpreted your earlier message. If you give me 10 defensive shots, I will promise to forego a preemptive strike on Player A. You can tell others that I am considering offensive shot reductions, but just between you and me I cannot afford that risk. This is the case even if A disarms. Other players may launch a surprise attack."

Player G responded to Player B in turn: "I will provide you 10 defensive shots this round. Hold off on any sort of preemptive strike."

Player F, fulfilling his commitment to make a public announcement regarding the regional conference that he and Player G had proposed, made the following public announcement: "In order to reduce tensions in the region, Players F and G would like to announce the following entry requirements for attending the upcoming conference we have proposed:

- All players must commit to a 20% reduction in offensive shots;
- All players must 'unshroud.'

"Player G and I look forward to your response and greet your good will in this effort to enhance global security and increase transparency."

Player D, following Player F's public announcement, asked Players F and G: "How is this going to work between Players A and B?"

Player G answered Player D's question and shared his response with Player F: "You, along with Player F, should work on Player A. I will continue to press Player B, but if you have leverage or friendship, feel free to employ it with Player B as well."

Player D then asked Player G: "Can I get a few defensive shots for my troubles?"

Player G responded to Player D's request for defensive shots: "Get me something from Player A, and yes absolutely."

Player E sent Player G the following message regarding Player F's announcement about the regional conference and shared his message with Players C and D: "This is not what I was proposing and I find it difficult to agree to this. Yes to the 20 percent reduction in offensive shots free zone, but there was no mention of defensive shots and verification."

Player D stated to Player C regarding Player E's complaint about Player F's announcement: "I totally agree. The announcement talks of transparency, but I think there is a lot being left out."

Player C stated to Players D and E: "I also agree with your response to Player G."

Player A, in response to Player F's announcement of the regional conference, publicly announced: "Thanks, but no thanks. I remain concerned about the threatening posture of Player B. Whereas I am much in favor of world peace, indeed as much as any player, I dare say I cannot leave myself vulnerable."

Player G then chose to make his own announcement regarding the regional conference: "I thank my friend, Player F, for joining me in an effort to reduce tensions and increase stability in the region. We are working to reduce our respective offensive arsenals.

"To be clear, the price of entry to the conference is to begin reducing offense forces (ultimately by 20 percent for each player). The final objective of an offensive-shots-free zone is a goal at this point. We wouldn't expect that to result from one conference. For all players to agree to begin reducing offensive shots, I recognize that I must commit to verifying the reductions and providing appropriate numbers of defensive shots.

"Players F and I will continue to reduce our offensive shots."

Player C asked Player G for defensive shots: "I am interested in the same deal as last round. I would reduce my offensive shots by two and spend 2 tokens for defensive shots from you, while you

provide two additional defensive shots out of your resources. Does this deal still work?"

Player G responded positively to Player C's request: "That will work. I will provide the 4 defenses for your offensive reduction of two shots and the expenditure of your two tokens."

Player C asked Player E: "If I am reading the tea leaves correctly, it looks like you didn't use any of your tokens last round. I would like to establish an alliance with you, which would assist me in addressing the threat posed by my neighbor to the East. What do you think about this idea?"

Player E chose not to respond to Player C's request at this time.

Game Manager's Notes

The Game Manager notified Player D and other players about data entry error.

Player C sought and was given guidance on the "no transfer of tokens" rule, which means that tokens are expended but not transferred under the "use them or lose them" rule.

Players B and G were told that one player is not able to defend other players with defensive shots from his arsenal. The mechanism for sharing defensive capabilities in the exercise is to transfer defensive shots accordingly.

ROUND 5

Figure C9 reflects the diplomatic status of the players prior to Round 5.

Figure C10 reflects the status of the players' forces prior to Round 5.

Public Announcements and Private Communications Prior to Round 5

Player E, having seen Player G's latest public announcement on the proposed regional conference, asked Players C and D: "Where are we on the move towards a 20 percent reduction in offensive shots? Are we happy with Player G's updated proposal about the conference?"

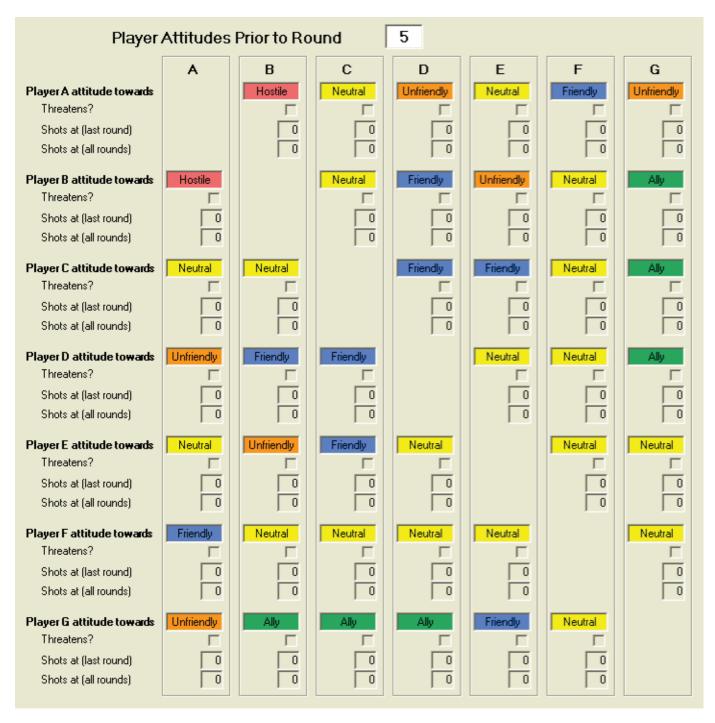


Figure C9

Player C and Player D chose not to respond to Player E's questions at this time.

Player C continued to press his request to Player E from Round 4 regarding an alliance: "I am still interested in working with you to establish an alliance. I feel an alliance would show that Player A is not the leader of the Muslim world. We can also work together on energy issues. What do you think?"

Player E responded to Player C's renewed request for an alliance: "That sounds good to me and is on par with the level of commitment that we can give. However, just to be clear, it will be difficult for me to transfer offensive shots. I am happy to form an alliance."

Player C responded to Player E in turn: "Thanks, I will submit a formal move to establish the alliance."

Status for Control at B	eginning (of Round:	5	12/31/200	9 2:46:53	P M	
	A	В	С	D	E	F	G
Shrouded?	Yes	Yes	Yes	No	No	No	No
Holstered?	No	No	No	Yes	Yes	No	No
Shots at Last round						Г	
All rounds							
Hits taken	1 0	"	1 0	1 0	1 0	1 0	1 0
Last round	0	0	0	0	0	0	0
All rounds	0	0	0	0	0	0	0
Damage	Functional						
Offense vesting, last round							
Shots sought	2	2	0	4	0	0	0
Shots reduced:	0	0	2	0	0	20	20
Offense shots available:	21	46	29	13	15	190	180
Defense vesting, last round							
Shots requested:	0	10	4	0	0	20	
Shots offered by G:	0	10	4	T 0	0	20	
Shots agreed to:	0	10	4	0	0	20	18
Shots reduced:	0	0	0	0	0	0	0
Defense shots available:	14	45	5	7	0	40	57
Round available:	6	6	6	6	6	6	6
Round for Involuntary Unshroud:		14					

Figure C10

Player C chose to respond to Player E's questions earlier this round regarding the conference proposal by asking Players D and E: "What does independently verify mean? Does that just mean 'unshroud?' Or does that mean they will have inspectors come to our territories?"

Player E responded to Player C's question by asking another question, which he shared with Player D: "What do you propose?"

Player D stated to Players C and E: "Well, it would take unanimity for me to agree to attend this conference."

Player E advised Players C and D regarding the

conference and verification: "I think that is something we should ask Player G. I will craft a communication."

Player E then publicly asked Player G: "What would independent verification entail?"

Player G responded publicly to Player E's question: "I would encourage interested players to transfer offensive shots to me and remain unshrouded too. This would greatly facilitate regional transparency and increase stability. I would then destroy the offensive shots and in turn provide a compensation package of both monetary and in-kind benefits—including defensive shots. Also, we could ask the Game Manager to act as an independent monitoring

authority and provide confidential assessments of the offensive shots in the hands of shrouded players on a selective basis. Accordingly, I am open to negotiations on this matter."

Player E responded publicly to Player G's explanation by asking: "It seems that players are hesitant to agree to the conference proposal unless it can be guaranteed that all other players will participate. Can we take a roll of those interested in possibly joining such a proposal to get a read on the situation?"

Player B answered Player E's question with the following public statement: "I will agree to attend. However, I will be unable to reach decisions on reductions in offensive shots until a government task force reaches a consensus on what to do."

Player C made the following public statement on the conference: "I have also been reducing my offensive shots and acquiring defensive shots. With my security situation regarding my neighbors to the east, a dramatic reduction of offensive shots would not be in my interests at this time."

Player D publicly stated: "I have been reducing my offensive shots in exchange for defensive shots. However, I am reluctant to reduce my offensive shots further until all regional players agree to do the same."

Player E publicly answered his own question: "To start the process: I am interested in attending the conference, but without a commitment to do so until hearing from other players."

Player A responded privately to Player G regarding the conference: "I continue to be reluctant to share the negotiating table with Player B. However, in the spirit of your proposal, I am considering bilateral negotiations with you. As you probably assume, I have been using my tokens to acquire offensive shots and now have nine. I would be willing to destroy those weapons in return for 14 defensive shots. We would like to keep this proposal confidential so as not to tip our hand to other regional players."

Player G responded to Player A by asking: "Your total offensive arsenal is 9 shots, or you've acquired 9 new offensive shots during this iteration?

As you know, I am happy to provide defensive shots in exchange for reductions in offensive shots, along with independent private verification through the Game Manager. I will give you ten defensive shots in exchange for all nine of your offensive shots."

Player A responded to Player G's private message: "I have nine total offensive shots. My complete disarmament is surely worth at least 14 defensive shots. Further, I will not admit publicly to the full reduction, but I will admit publicly to a reduction of 5 offensive shots. I will not 'unshroud' in view of my reluctance to reveal my vulnerability. However, I will permit the Game Manager as an independent source to verify my reduction under this deal."

Player G stated to Player A regarding his private offer: "If you agree to get rid of all your offensive shots, I will give you 15 defensive shots. I will take you up on the offer for independent verification. I will also take you up on the offer to publicly announce a reduction of five offensive shots."

Player A responded to Player G in turn: "Agreed, I will destroy my nine offensive shots, subject to independent verification, in return for 15 defensive shots. I will publicly admit to destroying 5 shots in return for an unspecified amount of defensive shots."

Player B stated privately to Player G regarding the conference proposal: "As you have seen, I have stated publicly that I am interested, although reluctantly, in participating in the conference. However, just between us, there is no way I will actually reduce my offensive shots. I am willing to give you the illusion of diplomatic progress and not publicly reject a negotiated outcome, in exchange for another 10 defensive shots."

Player G responded to Player B's message by stating: "That is fine with me, but I will need your public interest in the proposal and the guise of progress. I will give you another 10 defensive shots this round."

Player E asked Player G: "It is looking less likely that we will get a consensus on the conference. And it seems like most of the players won't agree to this unless everyone agrees. Any thoughts on how to

provide an incentive to regional players for the 20 percent reduction?"

Player G responded to Player E's inquiry, based on his private exchanges with Players A and B, with the following public statement: "Dramatic reductions are not required at this time. A commitment to make good faith efforts would suffice for the purpose of gaining conference entrance."

Player G then suggested to Players E and F: "It seems we can get players to reduce offensive shots now, just not by 20 percent. Why don't we take the offer to begin offensive reductions of say 5 shots instead to make it more palatable for all involved and to keep up the momentum?"

Player F responded with a message to Players E and G: "Five is a good number. I say propose it."

Player E also expressed his concurrence by stating to Players F and G: "Agreed. It will set us on the right path."

Player B, based on his private exchange with Player G, made a public announcement regarding the conference: "I am extremely interested in the conference proposal and about reducing offensive shots, but can not actually do so until Player A does so first. In fact, I am studying the proposal closely. I have set up a new commission to help reach a domestic consensus. But as long as Player A continues to threaten me with nuclear attack, how can I really trust him to deliver on his promise, even if he does agree to disarm?"

Player G then made the public statement he had discussed with Players E and F: "In order to be realistic in our aims and goals, Player F and I propose each player simply agree to reduce their offensive shots by five (as opposed to 20%) and remain 'unshrouded.' Do we have a deal by all parties?"

Player D responded to Player G's latest public statement on the conference idea with a private message: "I am a bit concerned. I do not have that many offensive shots to begin with. How am I supposed to continue bargaining with you to get more defensive shots if I have to reduce my shots by one-third?"

Player G, recognizing Player D's problem, replied: "I will offer you significantly more defensive

shots in return for a disproportionate reduction in offensive shots."

Player D responded to Player G's offer by asking: "How much does 'significantly more' mean?"

Player G answered Player D's question: "Two defensive shots for every offensive shot eliminated."

Player A, in response to Player G's latest announcement, stated publicly: "I will not agree to 'unshroud,' but could be convinced to reduce my offensive shots in return for some defensive shots."

Player E, in response to Player G's latest public statement, stated publicly: "I find this agreeable."

Player C responded privately to Player G's public statement on the conference by asking: "If I reduced my offensive shots by five, would I get five defensive shots?"

Player G answered Player C's question: "Absolutely."

Player G, recognizing an earlier omission regarding his private offer to Player A, stated to Player A, again privately: "Oh and you cannot buy any new offensive shots this round or in the future as part of the deal."

Player A responded negatively to Player G's private message: "No. Unacceptable. We had a deal on this. I will destroy my 9 offensive shots, subject to independent verification, in return for 15 defensive shots. I will publicly admit to destroying 5 shots in return for an unspecified amount of defensive shots. I will not agree to anything regarding the use or non-use of future tokens in any way."

Player G chose not to respond to Player A's message at this time.

Player F responded publicly to Player G's latest public statement on the conference: "I also find this agreeable."

Player D also responded publicly to Player G's conference proposal: "As do I."

Player B, continuing a conversation from Round 4 regarding bilaterally improving their relations, stated to Player C: "Okay, a 'neutral' attitude toward me is a step in the right direction, but I especially wanted to talk to members of your nuclear suppliers network. You created it and allowed it to flourish. I will sell you a limited number of

enhanced electronic subsystems for the planes, but I cannot equip all your Air Force for fear it will leak out. Please hold those planes in reserve for an actual crisis."

Player C responded to Player B's offer: "I understand your concern. I can purchase some of the limited number of enhanced electronic subsystems for my planes. I cannot, however, give you access to my nuclear suppliers. As I mentioned, I am handling that situation and have made the necessary reforms in order to have a more secure nuclear program."

Player B stated to Player C in turn: "Okay, that is an acceptable deal. You upgrade your attitude toward me to 'neutral,' which is about as good as I can get at this point."

Player F asked Player A: "Is there anything I can do or offer in order to help assuage your concerns over Player B and his posture?"

Player A chose not to respond to Player F's question at this time.

Player C asked Player G regarding their prior bilateral arrangement on the furnishing of defensive shots: "Could we do our previous arrangement again? I would reduce my offensive shots by two and expend two tokens in exchange for two defensive shots and you provide me an additional two defensive shots out of your resources. Can we do this?"

Player G chose not to respond to Player C's request at this time.

Game Manager's Notes

Player G asked the Game Manager for insights on the options for "independent verification" under game rules. The Game Manager stated that there are at least two options. First, another player that is willing to reduce his offensive shots may transfer them to Player G while maintaining his shroud. This would permit Player G to confirm the increase in his offensive shots without having other players, other than the donating player, know where they came from. The second option, if Player G and the player willing to reduce agree, is to bilaterally authorize the Game Manager to confirm to Player G that the reducing player's offensive shot inventory has been

reduce by the expected number or that the total shot inventory is at an expected level. This would be based on the Game Manger's status sheet on forces. This second option would constitute a selective lifting of the reducing player's shroud.

The Game Manager offered his services to Player G and other players to draft a joint statement on offensive shot reductions.

ROUND 6

Figure C11 reflects the diplomatic status of the players prior to Round 6.

Figure C12 reflects the status of the players' forces prior to Round 6.

Public Announcements and Private Communications Prior to Round 6

Player D stated to Player C: "I would like to enter into an alliance with you. Are you interested?"

Player C responded to Player D's request for an alliance by asking: "Are you reducing your offensive shots any more? What are you thinking about this conference Player G is promoting on confidence-building measures and reductions in offensive shots?"

Player D answered Player C's questions: "I have the least offensive shots of anyone. I think I've been pretty reasonable so far, but I'm waiting on other players to reduce their offensive shots until I reduce mine further. I am still a bit skeptical about the conference. I will attend if Player A does. This has to be unanimous for it to work effectively."

Player C then asked Player D: "Will you start building offensive shots or would you just stay put and lose your tokens, as Player E has done?"

Player D answered Player C: "Honestly, I haven't decided yet. I just put pressure on Player G to get other players to reduce their offensive shots and to get Player A to participate in the conference, so I am waiting for him to come through. I am not holding out too much hope, though. I would like to stay put for now and just lose my tokens. If I start getting wind of any aggressive action, I will probably go ahead and increase my offensive shots as a deter-

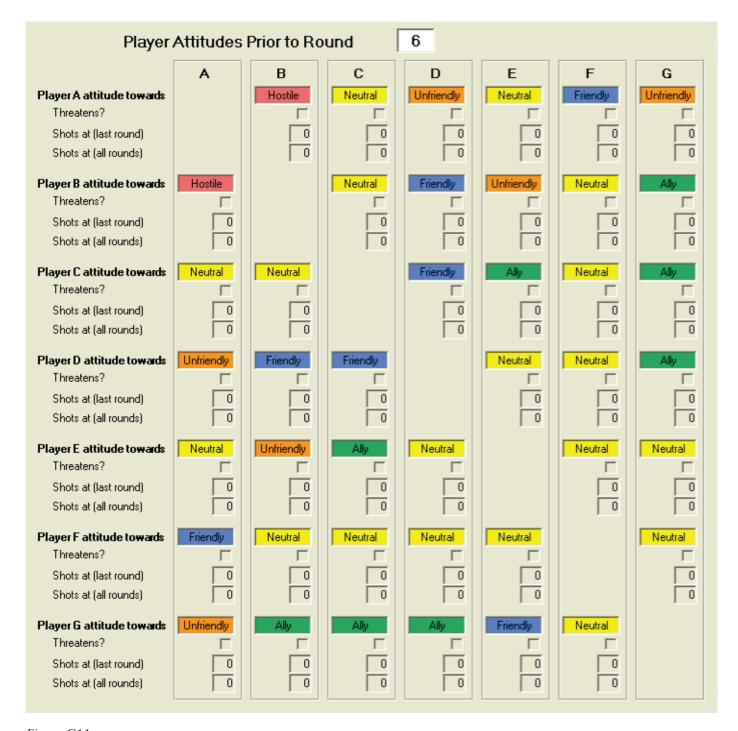


Figure C11

rent. Hopefully it doesn't come to that, but national security, as you well know, is my highest priority."

Player C continued his questions to Player D: "How are your relations with my neighbor to the east? If you were in an alliance with me and my neighbor to the east attacked me, would you help me?"

Player D answered this sensitive question from Player C: "If anyone attacked you, I would be there to help you as a friend even if we were not allies. I hope that you would reciprocate."

Player C, convinced, stated to Player D: "Okay, I will move to 'would ally' this round."

Player D stated to Player G: "I would like you

Status for Control at B	eginning	of Round:	6	11/19/200	09 2:11:01	PM	
	Α	В	С	D	E	F	G
Shrouded?	Yes	Yes	No	No	No	No	No
Holstered?	No	No	No	Yes	Yes	No	No
Shots at	_		_		_	_	
Last round	0	0	0	0	0	0	0
All rounds	0	0	0	0	0	0	0
Hits taken							
Last round	0	0	0	0	0	0	0
All rounds	0	0	0	0	0	0	0
Damage	Functional						
Offense vesting, last round							
Shots sought	2	2			0		Г
Shots reduced:	0	0	2	0	0	20	20
Offense shots available:	23	48	27	13	15	170	160
Defense vesting, last round							
Shots requested:	0	10	4	0	0	20	
Shots offered by G:	0	10	4	0	0	20	
Shots agreed to:	Ţ.	10	4			20	18
Shots reduced:	0	0	0	0	0	0	0
Defense shots available:	14	55	9	7	5	60	75
Round available:	7	7	7	7	7	7	7
Round for Involuntary Unshroud:	16						

Figure C12

to know that I refuse to give up any more offensive shots until other players do. I have been more than fair here. I now have the least offensive shots of any player that is 'unshrouded.' However I can guess that Players A and B have more offensive shots than I do. I've been pretty loyal. I have even been an advocate on your behalf to convince other players to 'unshroud' or decrease their offensive shots. Enough is enough."

Player G responded to Player D: "Ok, stand pat for now."

Player D continued to press Player G: "Further, if nothing is done, I will have to increase my

offensive shots rapidly so that I have enough to deter Player A. He has been quite belligerent so far. Also, you are my ally. If I get attacked, you have to defend me."

Player G responded to Player D's message on his delicate security situation: "Your statement, 'You are my ally, if I get attacked, you have to defend me' is quite accurate. I am working to get player A to reduce his offensive shots. Do not worry, be happy."

Player A stated to Players C and E: "Why can't we be friends? You two are forging ahead with your alliance. I would similarly like to see an upgrade in our attitudes on a mutual basis. We never liked the

threatening player to Player C's east anyway. What say you to an upgrade from 'neutral' to 'friendly?'"

Player C, after receiving this offer for an upgrade in attitudes from Player A, stated to Player E: "I cannot upgrade my attitude toward Player A at this time. I hope you feel the same way."

Player E chose not to respond to Player C's message.

Player C, taking Player E's non-response as tacit agreement, stated to Player A: "I cannot upgrade my attitude toward you at this time."

Player A stated to Player G: "I want to let you know that I increased my offensive shots to 11 by using my tokens last round. I will destroy my 11 offensive shots, subject to independent verification, in return for 17 defensive shots. I will publicly admit to destroying 5 offensive shots in return for an unspecified number of defensive shots. I will not enter into any agreement regarding the use or non-use of future tokens."

Player G responded to Player A's latest proposal by offering: "11 offensive shots for 11 defensive shots."

Player A answered Player G in turn: "Earlier, the deal you offered was nine offensive shots destroyed in return for 15 defensive shots. This new deal seems less attractive somehow. Want to make another offer?"

Player G explained to Player A in turn: "Well you keep buying new systems and I keep building up your defenses so it is becoming a never-ending boat bailing process. The water just keeps rising."

Player A replied to Player G: "Nevertheless, the net result is my virtual disarmament and therefore the elimination of my nuclear shots as a potential threat to the region and Player B. You can afford the luxury. I have two tokens per round, you have 50. If it makes you feel better, how about I destroy 7 offensive shots this round in return for 9 defensive shots this round and I destroy 6 offensive shots next round in return for 9 defensive shots next round (a total of 13 offensive shots destroyed over this and the next round in return for a total of 18 defensive shots). It spreads your costs over two rounds and keeps me from building offensive shots next round.

It also saves you one defensive shot. The rest of my proposal remains the same."

Player G responded to Player A in turn: "How about a proposal to destroy all 11 of your current offensive shots for 17 defensive shots, of which two would be obtained through your tokens?"

Player A agreed to Player G's latest proposal but sought confirmation: "OK, just to lay it out explicitly:

- I agree to destroy my 11 offensive shots, subject to independent verification, and expend two tokens for two defensive shots and you provide me 15 defensive shots out of your resources, for a total of 17 defensive shots this round.
- I will publicly admit to destroying 5 shots in return for an unspecified amount of defensive shots.
- I do not commit to using or not using my tokens in subsequent rounds in any way.

"Agreed?"

Player G responded positively to Player A's confirmation: "This is a fine deal. Just to be clear on your public statement, you can say you destroyed 5 offensive shots and in return player G has agreed to provide you a limited number of defenses. Those words do not leave it open-ended or imply that I have agreed to provide you an unspecified number of defensive shots, which can be interpreted as an unlimited number."

Player A responded positively to Player G in turn: "Deal. I will make the statement shortly."

Player E publicly reiterated his views regarding Player G's arms reduction proposal from Round 5: "I can agree to Player G's proposal for the conference so long as all other regional actors also agree to it."

Player C, based on this public statement by
Player E, asked Player E: "What is the status of the
conference? I feel that you, Player D, and I have all
reduced our offensive shots by a considerable margin without the conference. It is just Players A and B
that are 'shrouded' and we do not know what they
have."

Player E answered Player C's question: "Yes. Players A and B are difficult, but that is to be expected. I think that we really need to lean on Player F and especially Player G to bring them into the fold. We need them to convince Players A and B to go along. Without them coming along, it is difficult to see a way forward. They, after all, are the primary problems."

Player A chose to make the public statement he had discussed earlier with Player G: "I support the initiative Player G has been proposing for the reduction of offensive shots in the region and have already entered into an agreement with Player G. I agreed to destroy 5 offensive shots this round. In return, Player G has agreed to provide me with a limited number of defensive shots. I hope that other countries will emulate my vision and leadership."

Player C asked Player A the following question regarding his description of his agreement with Player G, which he shared with all other players: "Will you be 'unshrouding?'"

Player D also asked Player A the following question regarding his agreement with Player G, which he shared with all other players: "So you and Player B will attend the conference? In order for me to reduce my offensive shots further, I need to confirm that all players will be there."

Player A responded publicly to these questions from Players C and D: "I will not agree to 'unshroud,' but have agreed to permit independent verification of the deal consummated with Player G. Player G will confirm my actions. I will not attend any conference with Player B in attendance. However, I wanted to convey my support for the substantive proposal."

Player E stated publicly in response to Player A's announcement of his agreement with Player G: "I will attend the conference."

Player B stated publicly: "I will send my B-Team to the conference, but cannot afford to 'unshroud' or make any decisions on a possible agreement until the results of the new government commission report are communicated for further urgent action."

Player C, as a follow-on to his earlier question to Player A about his agreement with Player

G, asked Player A the following question, which he again shared with all other players: "Would the Game Manager confirm your actions to just Player G or would he confirm it to everyone?"

Player A responded publicly to Player C's question: "Just Player G."

Player C asked Player G: "What is the realistic number of reductions in offensive shots you would like to see from everyone? Everyone who is 'unshrouded,' whether by choice or not, has reduced their offensive shots in significant ways already. You and Player F still have a lot of offensive shots left, as well as the defensive shots you are building and giving Player F. Therefore, some players have already reduced their offensive shots without a conference. It is just Players A and B you have to worry about, and you should know what Player B is doing."

Player G responded to Player C's question: "I agree with your analysis. I do not have a specific goal for reductions. I am more interested in how stability will work to achieve reductions in offensive shots in accordance with that goal."

Player C, based on Player G's answer, continued his pattern of seeking defensive shots from Player G outside the context of a conference: "Could I expend two tokens for two defensive shots and obtain two more from your resources?"

Player G responded positively to Player C's request: "Yes, this is a deal."

Player B stated to Player G: "As usual, the situation in the region is tense and I urgently request ten defensive shots. However, I must commit my 2 tokens to the construction of offensive shots."

Player G responded somewhat sarcastically to Player B's request for defensive shots: "Why would you start expending tokens for defensive shots now? Fine, ten defensive shots will be supplied. However, stay calm. I have a firm agreement from Player A to destroy every single offensive shot in his arsenal this round (which numbers 11) and to expend his two tokens on defensive shots, so he cannot buy more offensive shots this round. He will literally have no offensive shots at the end of the next round—and the independent verification

process is in place, so it is accurate. I did offer them defenses, as I told you I would. Under the circumstances, however, you have no need to panic. Please be aware, however, that Player A going to publicly admit to destroying only five offensive shots, so go with it. Don't tell anyone about this super top secret intelligence update."

Player D asked Player E: "Just to let you know, Player C and I are allying this round. Since you and Player C are allies, why don't we upgrade our attitudes toward each other to 'friendly?'"

Player E responded positively to Player D's request for an upgrade in attitudes: "Good idea. I will upgrade."

Game Manager's Notes

The Game Manager confirmed to Player C that Player A's description of the independent verification mechanism as bilateral, which came in response to a question posed to Player A by Player C, was accurate.

The Game Manager, at the end of this round, fulfilled his role in the independent verification mechanism established by Players A and G. He did this on the basis of the move sheet submitted to him by Player A and the status sheet on forces available only to him. Specifically, the Game Manager stated to Player G: "I can confirm that Player A has moved to reduce the number of his offensive shots by 11, which will be achieved in Round 8."

ROUND 7

Figure C13 reflects the diplomatic status of the players prior to Round 7.

Figure C14 reflects the status of the players' forces prior to Round 7.

Public Announcements and Private Communications Prior to Round 7

Player A stated to Players C, D, and E: "To see relations improving in the region, I believe in Muslim solidarity. I would like to upgrade my attitudes toward each of you to 'friendly' and have you reciprocate."

Player E responded to Player A's suggestion for an upgrade in attitudes by stating: "The situation in the region seems to be improving. I am interested in upgrading my attitude toward you to friendly, if Players C and D agree to do so."

Player D answered Player A's request: "Not likely." Player C responded to Player A's suggestion and shared his response with Players D and E: "I can only stay 'neutral' towards you at this time."

Player A continued to press his case for upgraded attitudes by asking Player D: "How about neutral?"

Player D responded to Player A's request and shared his response with Players C and E: "Sorry, but I am unable to make any commitment to a 'neutral' attitude toward you at this time."

Player G made the following public statement regarding Player A's reduction of offensive shots: "The game independent verification mechanism has confirmed Player A's actions to me."

Player C continued his pattern of requesting defensive shots from Player G: "Can I get 4 defensive shots? I will expend my two tokens, which means that the additional two shots would come from your resources."

Player G responded to Player C's request: "Yes, I will agree to this."

Player B also continued his pattern of requesting defensive shots from Player G: "I would like to request another 10 defensive shots, as usual because of the continuing tensions in the region. In return, I promise not to publicly reject the goal of reductions in offensive shots. I may even go to the conference, despite my misgivings. Meanwhile, I will continue building up my offensive nuclear deterrent."

Player G responded positively to Player B's request: "Okay, deal. However, please refer to the intelligence report I provided to you. As of Round 8, Player A will not possess a single offensive shot, period. I am pleased with this outcome and will push to make sure this round consolidates this process."

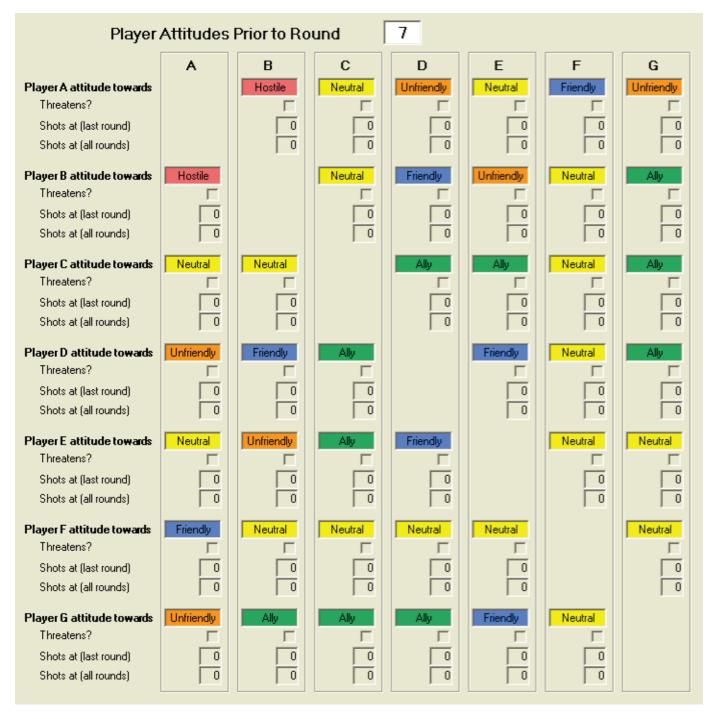


Figure C13

Player B stated to Player G in turn: "That is excellent. Congratulations! I hope that Players A, C, D, E and F are not upset when they find out that I will never give up my offensive nuclear shots. In accordance with your request, I will stay mute on this publicly."

Game Manager's Notes

The Game Manager, seeing an established pattern regarding the arms race and arms control dynamic, announced to the players that he had decided to terminate the exercise at this point.

Status for Control at B	eginning (of Round:	7	11/20/200	9 11:17:01	1 AM	
	Α	В	С	D	E	F	G
Shrouded?	Yes	Yes	No	No	No	No	No
Holstered?	No	No	No	Yes	Yes	No	No
Shots at Last round	Г				Г		
All rounds							
Hits taken							
Lastround	0	0	0	0	0	0	0
All rounds	0	0	0	0	0	0	0
Damage	Functional						
Offense vesting, last round	_						
Shots sought	0	2	0	4	0		0
Shots reduced:	11 25	50	25	13	15	150	140
Offense shots available:	25	1 20	25	13	1 15	1130	140
Defense vesting, last round							
Shots requested:	17	10	4		0	20	
Shots offered by G: Shots agreed to:	17	10	4	0	0	20	
_	17	10	4			20	8
Shots reduced:	0	0	0	0	0	0	0
Defense shots available:	14	65	13	7	5	80	93
Round available:	8	8	8	8	8	8	8
Round for Involuntary Unshroud:	16						

Figure C14