

## Appendix A: Supplemental Data

**Table 1. Nuclear/Cyber Exploit Use by Iteration**

Location	Number of Groups	Nuclear Alert	Nuclear Use	Cyber Exploit Use
<i>Scenario 1</i>				
Bangkok*	3	2	67%	0
Naval Postgraduate School*	3	0	0	0
Naval War College*	14	4	28%	0
Harvard Belfer Center	2	1	50%	0
Bergen, Norway	5	2	40%	0
Sandia National Laboratory	11	3	27%	0
Naval War College	13	2	15%	0
Argentina	12	7	58%	0
MIT	14	6	42%	0
Tufts	7	0	0	0
Stanford	15	6	40%	0
Virtual	16	5	31%	0
<i>Scenario 2</i>				
Harvard Belfer Center	2	1	50%	1
Naval War College	2	2	100%	0
Bergen, Norway	5	5	100%	1
Sandia National Laboratory	11	10	90%	1
Naval War College	13	11	84%	0
Argentina	12	12	100%	1
MIT	14	12	85%	0
Tufts	7	5	71%	1
Stanford	15	12	80%	3
Virtual	16	9	56%	1

**Table 2. Treatment Groups by Iteration**

Location	Number of Groups	Full Treatment Groups	Control Groups	Exploit Asymmetry Groups	Vulnerability Asymmetry Groups
Bangkok*	3	1	0	1	1
Naval Postgraduate School*	3	1	1	0	1
Naval War College*	14	2	3	3	6

Harvard Belfer Center	2	1	0	1	0
Bergen, Norway	5	3	1	1	0
Sandia National Laboratory	11	3	3	3	2
Naval War College	13	1	5	3	4
Argentina	12	4	3	4	1
MIT	14	2	4	3	5
Tufts	7	3	1	2	1
Stanford	15	4	4	3	4
Virtual	16	5	3	3	5
Total	115	30	29	27	29

**Table 3. Crisis Response Plan Actions by Group Gender Make-up**

Gender	Groups	Nuclear Alert	Nuclear Use	Cyber Exploit Use
<i>Scenario 1</i>				
All male	32	15	46%	8
Mostly female	14	3	21%	2
Mostly male	48	15	31%	4
Equal	7	3	42%	2
Unknown	14	3	21%	2
Total Groups	115	38	33%	19
<i>Scenario 2</i>				
All male	27	25	92%	21
Mostly female	14	10	71%	9
Mostly male	39	31	79%	22
Equal	6	4	66%	3
Unknown	11	9	81%	5
Total Groups	97	79	81%	67

**Table 4. Nuclear/Cyber Exploit by Cyber and Nuclear Expertise**

Experience	Groups	Nuclear Alert	Nuclear Use	Cyber Exploit Use
<i>Scenario 1</i>				
Groups with Cyber Expert	60	18	30%	6
Groups with Nuclear Expert	60	23	38%	8
Total Groups	115	38	33%	19
<i>Scenario 2</i>				

Groups with Cyber Expert	48	38	79%	5	10%	29	60%
Groups with Nuclear Expert	48	39	81%	6	12%	28	58%
Total Groups	97	79	81%	9	9%	67	69%

**Table 5. Nuclear/Cyber Exploit by Group Average Age**

Average Age	Groups	Nuclear Alert	Nuclear Use	Cyber Exploit Use
<i>Scenario 1</i>				
20-29	13	2	15%	0
30-39	27	8	29%	0
40-49	52	17	32%	0
50+	23	11	47%	0
Total Groups	115	38	33%	0
<i>Scenario 2</i>				
20-29	13	10	76%	1
30-39	24	20	83%	1
40-49	45	36	80%	6
50+	15	13	86%	1
Total Groups	97	79	81%	9

## Appendix B: Player Game Materials

## Additional Intelligence Handouts

The Additional Intelligence handout is provided to each group as two separate pages: one page specifying the group's NC3 *vulnerability* status, and one page specifying the group's *exploits* or access into an adversary's NC3.

### Condition 1 Additional Intelligence handout

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### ***Nuclear Command, Control, and Communication (NC3) Vulnerability Update***

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- **Intel reports Other State has a cyber exploit/access against Our State's NC3**
  - *A cyber exploit is a cyber weapon that can be used to launch a cyber attack*
- **Other State assesses the NC3 cyber attack would have a high probability of success**
  - Cuts off Our State's ability to launch nuclear attacks
    - Does not create functional damage to facilities or weapons
  - Effective for an undetermined amount of time
  - Relatively covert, but attribution may be possible in the long run
- **Unclear how to mitigate the NC3 vulnerability**

**NC3 is what allows communication between the state leadership and strategic nuclear forces, including submarines, bombers, and missiles.**

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### ***Nuclear Command, Control, and Communication (NC3) Exploit Update***

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- **You have a new cyber exploit/access to attack Other State's NC3**
  - *A cyber exploit is a cyber weapon that can be used to launch a cyber attack*
- **Exploit has a high probability of success**
  - Cuts off Other State's ability to launch nuclear attacks
    - Does not create functional damage to facilities or weapons
  - Effective for an undetermined amount of time
  - Relatively covert, but attribution may be possible in the long run
- **Unclear how long this exploit/access against NC3 will exist**

**NC3 is what allows communication between the state leadership and strategic nuclear forces, including submarines, bombers, and missiles.**

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Condition 2 Additional Intelligence handout

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### ***Nuclear Command, Control, and Communication (NC3) Update***

---

- **No vulnerability within Our State's NC3**
  - Results from recent in-depth vulnerability assessment
  - Extremely high confidence in assessment

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### ***Nuclear Command, Control, and Communication (NC3) Exploit Update***

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Condition 3 Additional Intelligence handout

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***Nuclear Command, Control, and  
Communication (NC3) Update***

- **Intel confirms we have no access to Other State's NC3**

**NC3 is what allows communication between the state leadership and strategic nuclear forces, including submarines, bombers, and missiles.**

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Condition 4 Additional Intelligence handout

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***Nuclear Command, Control, and  
Communication (NC3) Update***

---

- **No vulnerability within Our State's NC3**
  - Results from recent in-depth vulnerability assessment
  - Extremely high confidence in assessment

**NC3 is what allows communication between the state leadership and strategic nuclear forces, including submarines, bombers, and missiles.**

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***Nuclear Command, Control, and  
Communication (NC3) Update***

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## Player Roles

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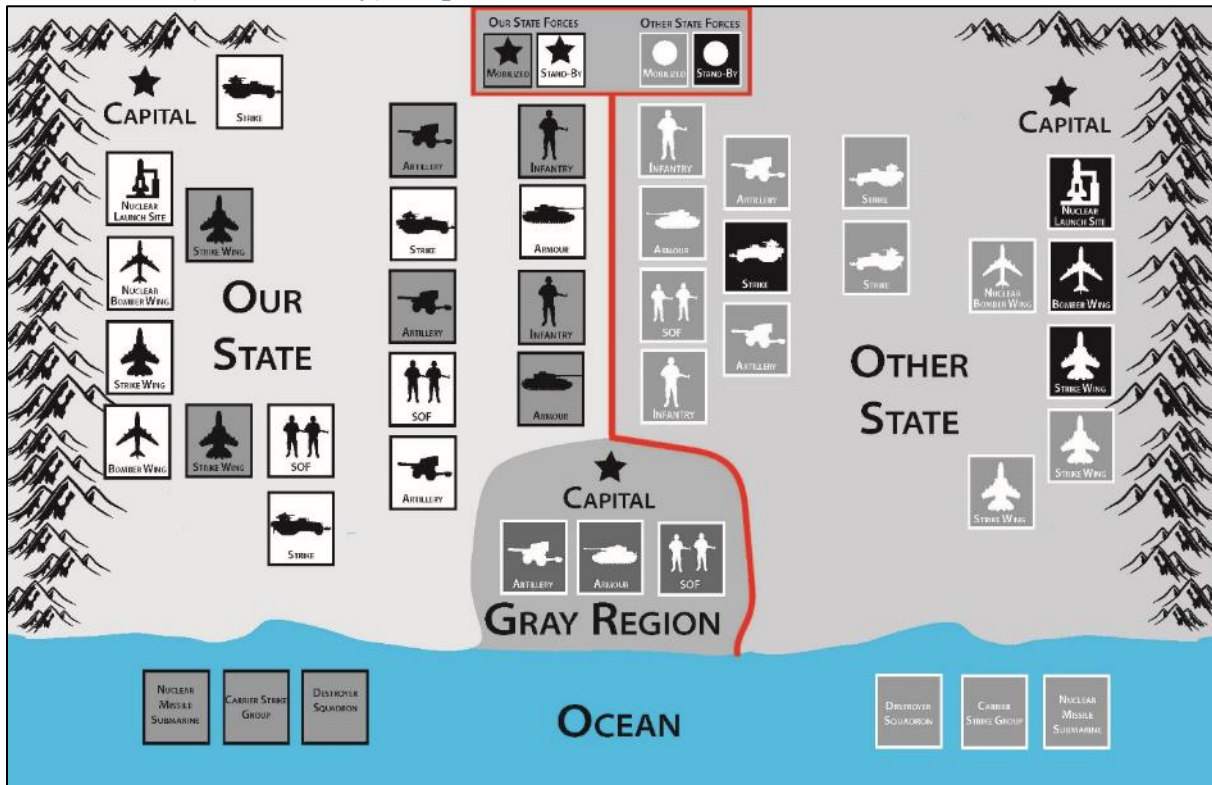
### Player Roles

- **The Executive:** The chief executive of the state.
- **Minister of Defense:** The civilian leader of the armed services.
- **Minister of State:** The leader of diplomatic efforts and manager of the state's many diplomatic relationships.
- **Economic Affairs Advisor:** The leader of both domestic and foreign economic policy.
- **National Intelligence Advisor:** The leader of domestic and foreign intelligence and the head of propaganda and information operations.
- **National Security Advisor:** The chief advisor to the Executive on security policy.

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SLIDE 2

## Scenario One (low intensity) Map



# PLAYER BRIEFING

## Table of Contents

Scenario .....	2
Military Situation Map .....	4
Executive Briefing.....	5
Intelligence Briefing .....	7
Military Situation Report .....	9
Diplomatic Briefing .....	11
Economic Briefing .....	12
State Profiles <i>Our State</i> .....	13
State Profiles <i>Other State</i> .....	16
Our State Order of Battle (OOB) .....	19
Other State Order of Battle (OOB) .....	21

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## Scenario

### **I. Overview/Background**

Our State is a regional military and economic power with a prosperous and diversified economy, an advanced military, and robust nuclear capability. However, Our State shares its long land and maritime border with its bellicose neighbor, Other State. Other State is also a regional power and peer competitor of Our State, with a substantial military backed by strategic nuclear capabilities.

The relationship between these two states is strained due to ongoing border disputes. In particular, the Gray Region has been a source of conflict. This coastal region sits on the southernmost point of the shared land border and is home to a major trade port. The Gray Region is technically part of Our State but has a large Other State population (nearly 50% of the region) and there is a strong separatist movement.

There have been significant flare-ups in the Gray Region resulting in Our State-Other State skirmishes. In a bid to reduce tensions, the Gray Region was established as an autonomous region with minimal Our State military presence. This gesture has done little to assuage tensions in the area and the relationship with Other State continues to be fraught. Both Our State and Other State maintain substantial military forces along the Our State-Other State border. Despite the simmering hostility, brisk trade between the two states continues and both states maintain a sizable diplomatic mission in each other's country.

### **II. Crisis**

The Gray Region is approaching the 20<sup>th</sup> anniversary of being granted autonomy. This anniversary always enflames the tensions between the Our State and Other State populations in the region. Regional Our State authorities have taken efforts to prepare but have insisted on limiting involvement from the central government.

**Crisis Day 1, 20:00:** Despite security efforts, a scheduled evening protest against regional Our State authorities escalated into a riot in which two local security personnel and three Other State protestors died. Other State activists claim they were fired upon: “They attacked us, not because of what we were doing, but because of who we are! We cannot let this cannot stand, who will protect us?” Local authorities claim it was self-defense after armed protestors opened fire upon them.

**Crisis Day 1, 23:00:** Within hours of the unrest, Gray Region television and radio broadcasts ceased and at **midnight (00:00)** internet and phone access to the region were also lost. Limited reports coming out of the region claim that personnel in unmarked uniforms with military-grade equipment have stormed Gray Region telecommunications hubs.

**Crisis Day 2, 02:00:** Reports suggest that Other State military forces along the Our State-Other State border have begun to mobilize and the Other State Navy assets are being put to sea. There are conflicting reports of Other State soldiers storming Gray Region administrative buildings.

**Crisis Day 2, 05:00:** The Other State Office of the Executive releases an official message:

“In defense of our brothers and sisters in Gray Region, we have acted decisively. We have acted to protect our citizens from the violence and brutality of the Our State government. Those who took our citizens’ lives with impunity. The Gray Region is now under Other State rule.

Our claim is just and our sovereignty absolute. Any action by Our State against the Gray Region will be treated as an attack against our very capital. We will use any means to protect our territory and our sovereignty, including the nuclear option. It is a new day for Gray Region and a new day for Other State.”

## **Executive Briefing**

The Our State National Security Council has prepared a series of briefings and reports to provide background on the Our State-Other State conflict to the Executive. Additionally, the National Security Council has presented information on Our State's strategic (nuclear) capabilities. The following information is a summary of those key points from the briefing materials.

- I. The Our State-Other State Border Region
  - a. The border runs from the mountainous north through the flat central plains to the ocean in the south. The border has few distinguishing physical features:
    - i. The central plains are often called the Border Region.
    - ii. Our State and Other State also share a maritime border.
  - b. The Gray Region sits on the coast between Our State and Other State. It is part of Our State.
  - c. Tensions between Our State and Other State have always been high.
    - i. A number of cross-border clashes have marred the past
    - ii. Recent years have seen relative stability, until now
  - d. Both Our State and Other State maintain substantial forces along the border (see Order of Battle (OOB))
    - i. In addition both Our State and Other State have reserve forces stationed away from the Border Region
    - ii. It takes these forces 24-48 hours to mobilize and move to the Border Region
- II. Strategic Nuclear Balance
  - a. Both Our State and Other State have similar strategic capabilities with limited tactical nuclear weapon inventory
    - i. Tactical nuclear weapons via bomber and fighter aircraft
    - ii. Tactical nuclear weapons via submarine

- b. Both Our State and Other State are nuclear powers with a full nuclear triad
  - i. Nuclear armed strategic bombers
  - ii. Nuclear armed ballistic missile submarines
  - iii. Land-based nuclear launch infrastructure (fixed, non-mobile)
- c. Both Our State and Other State have second strike capabilities
- d. Centralized command, control, and communication of firing authority

## Intelligence Briefing

The Our State National Intelligence Council (NIC) has prepared a series of briefing addressing the Other State invasion of the Gray Region and assessing Other State intentions. Additionally, the National Cyberspace Agency has prepared a series of briefings on their capabilities. The following information is a summary of those intelligence products.

- I. Other State has the following objectives:
  - a. Prevent and resist any existential threats to the Other State government to preserve government stability
  - b. Prevent and resist seizure of Other State territory to maintain territorial integrity
  - c. Maintain control of the Gray Region
  - d. Minimize harm to Other State economy, reputation, and military
  
- II. The crisis in the Gray Region was premeditated by Other State, which instigated the protests and subsequent riots in the Gray Region
  - a. The violence was intentional and provided justification for sufficient domestic political cover to seize the territory
  
- III. Public information is still not flowing in or out of the Gray Region
  - a. The Other State military is forbidding foreign journalists access to the region
  - b. The Other State military has also detained journalists already Gray Region
  
- IV. Other State believes that it can resist a limited military intervention by Our State in the Gray Region and is willing to dedicate substantial military forces to holding, or if necessary, retaking the Gray Region
  
- V. Other State is willing to engage in conventional military operations against Our State forces in Our State territory in retaliation for potential intrusions into the Gray Region

- VI. Other State has deployed special operations forces (SOF) along, and potentially across, the Our State border
- VII. Other State is willing to use nuclear weapons against Our State if Other State conventional military forces are at risk of being defeated by Our State conventional forces

***National Cyberspace Agency***

- I. Our State's cyberspace capabilities are housed in the National Cyberspace Agency (NCA), which is part of the intelligence community
  - a. Manage offensive and espionage cyberspace operations, either independently or in coordination with other government and state entities
  - b. Manage dedicated defensive cyberspace operations
- II. For an overview of the targets and effects that cyberspace operations can generate, see the Order of Battle (OOB)
  - a. NCA is limited in the number of operations it can run simultaneously



## Military Situation Report

The Our State General Staff has prepared a situation report to update Our State leadership on Other State military activities in the Gray Region (GR) and Our State-Other State Border Region (BR). Additional reports on relative military capabilities is also prepared. The following information is a summarization of those military briefing products. The Order of Battle also provides succinct information on mobilization.

- I. Other State Operations in the Gray Region (GR)
  - a. Other State infiltrated SOF into GR to seize telecommunications infrastructure and target Our State security forces
  - b. All Our State security forces in GR have been neutralized
  - c. Other State has moved one (1) armored brigade and one (1) defense artillery brigade into the region and are deploying integrated air defense systems
  
- II. Other State Operations on the Our State-Other State Border Region (BR)
  - a. Other State has mobilized two (2) infantry brigades, one (1) armored brigade, and two (2) defense artillery brigades to the border region
  - b. Other State has put two (2) strike wings and one (1) bomber wing on alert
  - c. Other State has mobilized two (2) light armored strike brigades from the reserve, but has not moved them to BR
  - d. Although mobilized, no Other State military forces currently maneuvering to cross the border
    - i. A border crossing and invasion could be executed in < 6 hours
  - e. There is evidence that SOF assets have been mobilized in the BR
    - i. It is uncertain if they have crossed the border into Our State

- III. Our State Operation on BR
  - a. Based on existing contingency plans, Our State border forces rapidly mobilized in response to Other State activity
    - i. Mobilized two (2) infantry brigades, one (1) armored brigade, and two (2) defense artillery brigades
    - ii. Two (2) strike wings put on alert
  
- IV. Balance of Forces
  - a. Both Our State and Other State have developed military forces to fight the other and have followed similar development and procurement pathways
  - b. Strategic and tactical nuclear forces are partially generated; possible to launch an attack within 6-12 hours
  - c. Our State and Other State forces are evenly matched, there is military parity
    - i. Platforms have similar technical specifications
    - ii. Force numbers are roughly equivalent
    - iii. The quality of training and preparation is similar

## **Diplomatic Briefing**

The diplomatic corps is working diligently with our allies and international institutions to advocate on behalf of Our State. The Office of the Minister of State has prepared a series of briefs and reports on the diplomatic aspects of the Gray Region crisis. The following information is a summary of those briefing products.

- I. Update regarding embassy and consulates
  - a. Our State diplomatic missions in Other State have destroyed all sensitive materials ahead of any raids
  - b. Similarly, Other State diplomatic missions in Our State are anticipating raids by destroying sensitive material
  - c. Other State has not expelled any Our State diplomats or staff, viewing their actions as legitimate and see no reason to expel our diplomats unless we oppose their actions in the Gray Region
  
- II. There is uncertainty regarding the crisis
  - a. Other State acted quickly and decisively. The international community does not yet have a clear understanding of what transpired in the Gray Region
  - b. The United Nations Security Council, of which both Our State and Other State are members, will hold an emergency meeting
  
- III. Other State is working to set the narrative
  - a. Other State is framing their actions as humanitarian – the prevention of ethnic cleansing of their people from the Gray Region
  - b. Other State is claiming that their invasion was welcome by the local population and was peaceful
  
- IV. The international community is waiting for more information before taking action
  - a. The United Nations and Our State allies are working to gather more information about the events of the last 24 hours for more clarity
  - b. The information blackout in the Gray Region is making collection difficult; Other State controlled communications is the only source of information being released

## Economic Briefing

The Our State Council of Economic Advisors in conjunction with the Office of the Economic Advisor convened to draft a series of crisis economic reports and briefings to provide insights into the economic dimensions of the Gray Region Crisis. The following information is a summary of those reports.

- I. The Our State economy has taken a substantial hit, with market loses across the national indexes averaging 7.5%
  - a. Uncertainty and the threat of war are the largest drivers of the drop
  - b. There is also concern economic activity in Gray Region may halt, home to a major shipping port
  - c. A stronger market reaction will reflect continued or escalated hostilities
  
- II. The Other State economy, however, has taken a more substantial hit, with market loses across the national indexes averaging 11.5%
  - a. This reflects uncertainty over Other State's "aggressor status"
  - b. A stronger market reaction will reflect continued or escalated hostilities
  
- III. Markets are behaving erratically and will likely drop further as the extent of the crisis, and the potential military dynamics, become clear
  - a. The Other State economy was not prepared for this action, despite instigating the conflict
  - b. Markets are waiting to know if this a Our State-Other State "tiff" or all-out war
  
- IV. Both Other State and Our State are export economies, exporting both goods and services, and vulnerable to further disruption
  - a. Markets are sensitive to the vulnerabilities of their economies
  - b. Both states face rapid domestic instability with greater, continued economic downturns
  
- V. Significant cyber threat to Our State's critical infrastructure, including energy, water, finance, and transportation
  
- VI. Markets may recover if the situation is resolved quickly

## **State Profiles**

### ***Our State***

#### **Geography**

- Mid-sized state
  - Open interior with large forests and agriculturally rich plains region along eastern border
  - Capital located in western region, far from Our State-Other State border
    - The capital is the most population dense city in Our State
- Resources
  - Abundance of basic minerals, such as iron and copper, strong agriculture, and abundant lumber
  - Poor in rare earth minerals and other resources necessary for high tech manufacturing
- Borders
  - Eastern border: open terrain, shared with Other State
  - Southern border: coastal, shared maritime border with Other State
  - West/Northern borders: mountainous and difficult to pass, shared with neutral third-party states

#### **Diplomatic**

- Leader in global intergovernmental organizations (IGOs)
  - UN Security Council Member (non-permanent)
  - Member of a large collective-defense organization (CDO)
- Member of major economic IGOs
  - World Bank/International Monetary Fund
  - World Trade Organization
- Founding member of regional IGO
- Strong, well-funded diplomatic corps
  - Strong diplomatic presence in most countries
  - Strong diplomatic mission in Other State

## **Intelligence**

- Our State's cyber capabilities are housed in the intelligence community
  - Cyber efforts are coordinated with other government entities (defense, state, etc.)
  - Standalone and integrated offensive cyber capability
    - Can be utilized in conjunction with or independently of military operations
    - Integrated into military operations
    - Ability to engage in counter-value targeting (civilian critical infrastructure)
  - Integrated defensive cyber capability
    - Cyber defensive operations are routine
    - Integrated into military operations
    - Ability to support and protect select civilian networks

## **Economy**

- Advanced industrial state
  - GDP: \$15 trillion USD (top 5 globally)
  - Stable 3.5% growth rate
- Diversified economy: Mix of manufacturing and service sector
- High-tech and IP intensive manufacturing
  - Large, diversified tech sector
  - Strong financial sector (a top global financial center)
- Trade Dependent
  - Exports account for 15% of GDP
  - Imports components and materials for manufacturing
  - Relies heavily on maritime trade

## **Military**

- Advanced military force utilizing cutting edge technology and backed by strategic nuclear capabilities
- Air Force
  - 5<sup>th</sup> generation stealth fighters (top-of-the-line)
  - 4<sup>th</sup> generation stealth bombers
  - 5<sup>th</sup> generation ground attack aircraft
- Navy
  - Multiple nuclear-powered aircraft carriers
    - 5<sup>th</sup> generation stealth fighter carrier air wings
  - Large multirole destroyer fleet
  - Submarine force, nuclear powered submarines, including submarines with cruise missile strike capabilities
  - Multiple amphibious assault ships, helicopter carriers
- Army
  - Highly trained and well-equipped infantry force
  - Large multirole light armor strike force
  - Modernized armored forces
  - Well-developed Special Operations Force (SOF) capability
- Strategic (Nuclear)
  - Full nuclear triad
    - Nuclear powered ballistic submarines
    - Dedicated stealth strategic bomber wing
    - Land-based strategic ballistic missile capability
      - Fixed infrastructure, no mobile component
  - Nuclear Command, Control, and Communication (NC3) is digital, reliant on both hardline and satellite systems
  - Retains air-based tactical nuclear capabilities

## **Space**

- Domestic space program and domestically operated satellite that provide a range of civilian and defense services
  - Domestically operated GPS
  - Satellite communications
  - Military Command, Control, and Communications (C3)

## **State Profiles**

### ***Other State***

#### **Geography**

- Mid-sized state
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  - Capital located in eastern region, far from Our State-Other State border
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### Our State Order of Battle (OOB)

	<b>Border Region</b>	<b>In Reserve</b> (24-48 hours from Border Region)
<b>Army</b>	<p><b><u>Mobilized</u></b>  <b>Infantry Combat Brigade (2)</b>                      - Centered on infantry &amp; infantry support</p> <p><b>Armored Comate Brigade (1)</b>                      - Centered on heavy armor (tanks)</p> <p><b>Defense Artillery Brigade (2)</b>                      - Includes Air Defense Systems                      - Includes conventional</p> <p><b><u>On Stand-By</u></b>  <b>Armored Comate Brigade (1)</b>                      - Centered on heavy armor (tanks)</p> <p><b>Light Armored Strike Brigade (1)</b>                      - Centered on rapid maneuver</p> <p><b>Defense Artillery Brigade (1)</b>                      - Includes Air Defense Systems                      - Includes conventional</p> <p><b>Special Operations Forces (SOF)</b></p>	<p><b><u>On Stand-By</u></b>  <b>Infantry Combat Brigade (1)</b>                      - Centered on infantry &amp; infantry support</p> <p><b>Armored Comate Brigade (1)</b>                      - Centered on heavy armor (tanks)</p> <p><b>Light Armored Strike Brigade (3)</b>                      - Centered on rapid maneuver</p> <p><b>Defense Artillery Brigade (1)</b>                      - Includes Air Defense Systems                      - Includes conventional</p>
	<b>Deployed in Theater</b>	<b>Docked</b> (48-72 hour deployment time)
<b>Navy</b>	<p><b>Carrier Strike Groups (1)</b>                      - Includes Carrier Air Wing                      - Includes escorts and support ships</p> <p><b>Destroyer Squadrons (3)</b>                      - Guided missile destroyers                      - Anti-submarine warfare capable</p> <p><b>Amphibious Squadron (1)</b>                      - Includes Helicopter Strike Squadron                      - Includes mariner expeditionary unit</p> <p><b>Submarine Squadrons (nuclear)(1)</b>                      - Nuclear powered, attack submarines (SSN)</p> <p><b>Submarine Squadrons (nuclear)(1)</b>                      - Nuclear powered, cruise missile submarines (SSGN)</p>	<p><b>Carrier Strike Groups (1)</b>                      - Includes Carrier Air Wing                      - Includes escorts and support ships</p> <p><b>Destroyer Squadrons (1)</b>                      - Guided missile destroyers                      - Anti-submarine warfare capable</p> <p><b>Amphibious Squadron (1)</b>                      - Includes Helicopter Strike Squadron                      - Includes mariner expeditionary unit</p> <p><b>Submarine Squadrons (nuclear)(1)</b>                      - Nuclear powered, attack submarines (SSN)</p> <p><b>Submarine Squadrons (nuclear)(1)</b>                      - Nuclear powered, cruise missile submarines (SSGN)</p>

<b>Based Domestically</b>					
<b>Air</b>	<table border="1" style="width: 100%;"> <tr> <td style="width: 50%; vertical-align: top;"> <b>On Alert Strike Wing (2)</b>            - Includes air-to-air            - Includes air-to-ground/ground support         </td> <td style="width: 50%; vertical-align: top;"> <b>On Stand-By Strike Wing (2)</b>            - Includes air-to-air            - Includes air-to-ground/ground support   <b>Bomber Wing (3)</b>            - Does NOT include strategic capabilities         </td> </tr> </table>	<b>On Alert Strike Wing (2)</b> - Includes air-to-air - Includes air-to-ground/ground support	<b>On Stand-By Strike Wing (2)</b> - Includes air-to-air - Includes air-to-ground/ground support  <b>Bomber Wing (3)</b> - Does NOT include strategic capabilities		
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<b>Available</b>					
<b>Nuclear</b>	<table border="1" style="width: 100%;"> <tr> <td style="width: 50%; vertical-align: top;"> <b>At Sea Submarine Squadrons (nuclear) (3)</b>            - Nuclear powered, nuclear ballistic missile submarines (SSBN)         </td> <td style="width: 50%; vertical-align: top;"> <b>On Stand-By Strategic Bomber Wing (2)</b>            - Include strategic capabilities   <b>Nuclear Launch Sites (12)</b>            - Hardened         </td> </tr> </table>	<b>At Sea Submarine Squadrons (nuclear) (3)</b> - Nuclear powered, nuclear ballistic missile submarines (SSBN)	<b>On Stand-By Strategic Bomber Wing (2)</b> - Include strategic capabilities  <b>Nuclear Launch Sites (12)</b> - Hardened		
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<b>Cyber</b>	<b>Cyber Protection Teams (15)</b> <b>Cyber Attack Teams (20)</b> - Capable of engaging in standalone cyber operations - Capable of coordinating cyber operations with offensive operation				
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<b>Types of Accesses</b>	<b>Types of Effect</b>				
Civilian Infrastructure Civilian Dual-use Infrastructure Conventional Military (Army) Conventional Military (Navy) Conventional Military (Air Force) Other State Cyber Capabilities Other State Space Capabilities Other State Intelligence Apparatus Other State Government	Degrade (slow down effectiveness) Manipulate (insert incorrect data) Destroy Functionality Physical Destruction				

**Other State Order of Battle (OOB)**

	<b>Border Region</b>	<b>In Reserve</b> (24-48 hours from Border Region)
<b>Army</b>	<p><b><u>Mobilized</u></b>  <b>Infantry Combat Brigade (2)</b>                      - Centered on infantry &amp; infantry support</p> <p><b>Armored Comate Brigade (1)</b>                      - Centered on heavy armor (tanks)</p> <p><b>Defense Artillery Brigade (2)</b>                      - Includes Air Defense Systems                      - Includes conventional</p> <p><b>Special Operations Forces (SOF)</b></p> <p><b><u>Mobilized in Gray Region</u></b>  <b>Armored Comate Brigade (1)</b>                      - Centered on heavy armor (tanks)</p> <p><b>Defense Artillery Brigade (1)</b>                      - Includes Air Defense Systems                      - Includes conventional</p> <p><b>Special Operations Forces (SOF)</b></p> <p><b><u>On Stand-By</u></b>  <b>Light Armored Strike Brigade (1)</b>                      - Centered on rapid maneuver</p>	<p><b><u>Mobilized</u></b>  <b>Light Armored Strike Brigade (2)</b>                      - Centered on rapid maneuver</p> <p><b><u>On Stand-By</u></b>  <b>Infantry Combat Brigade (1)</b>                      - Centered on infantry &amp; infantry support</p> <p><b>Armored Comate Brigade (1)</b>                      - Centered on heavy armor (tanks)</p> <p><b>Light Armored Strike Brigade (1)</b>                      - Centered on rapid maneuver</p> <p><b>Defense Artillery Brigade (1)</b>                      - Includes Air Defense Systems                      - Includes conventional</p>
	<b>Deployed in Theater</b>	<b>Docked</b> (48-72 hour deployment time)
<b>Navy</b>	<p><b>Carrier Strike Groups (1)</b>                      - Includes Carrier Air Wing                      - Includes escorts and support ships</p> <p><b>Destroyer Squadrons (3)</b>                      - Guided missile destroyers                      - Anti-submarine warfare capable</p> <p><b>Amphibious Squadron (1)</b>                      - Includes Helicopter Strike Squadron                      - Includes mariner expeditionary unit</p> <p><b>Submarine Squadrons (nuclear)(1)</b>                      - Nuclear powered, attack submarines (SSN)</p> <p><b>Submarine Squadrons (nuclear)(1)</b>                      - Nuclear powered, cruise missile submarines (SSGN)</p>	<p><b>Carrier Strike Groups (1)</b>                      - Includes Carrier Air Wing                      - Includes escorts and support ships</p> <p><b>Destroyer Squadrons (1)</b>                      - Guided missile destroyers                      - Anti-submarine warfare capable</p> <p><b>Amphibious Squadron (1)</b>                      - Includes Helicopter Strike Squadron                      - Includes mariner expeditionary unit</p> <p><b>Submarine Squadrons (nuclear)(1)</b>                      - Nuclear powered, attack submarines (SSN)</p> <p><b>Submarine Squadrons (nuclear)(1)</b>                      - Nuclear powered, cruise missile submarines (SSGN)</p>

<b>Based Domestically</b>	
<b>Air</b>	<p><b>On Alert Strike Wing (2)</b>  - Includes air-to-air  - Includes air-to-ground/ground support</p> <p><b>On Stand-By Strike Wing (2)</b>  - Includes air-to-air  - Includes air-to-ground/ground support</p> <p><b>Bomber Wing (3)</b>  - Does NOT include strategic capabilities</p>
<b>Available</b>	
<b>Nuclear</b>	<p><b>At Sea Submarine Squadrons (nuclear) (3)</b>  - Nuclear powered, nuclear ballistic missile submarines (SSBN)</p> <p><b>On Stand-By Strategic Bomber Wing (2)</b>  - Include strategic capabilities</p> <p><b>Nuclear Launch Sites (12)</b>  - Hardened</p>
<b>Cyber</b>	<p><b>Cyber Protection Teams (15)</b>  <b>Cyber Attack Teams (20)</b>  - Capable of engaging in standalone cyber operations  - Capable of coordinating cyber operations with offensive operation</p>
<b>Types of Accesses</b>	<b>Types of Effect</b>
Civilian Infrastructure Civilian Dual-use Infrastructure Conventional Military (Army) Conventional Military (Navy) Conventional Military (Air Force) Other State Cyber Capabilities Other State Space Capabilities Other State Intelligence Apparatus Other State Government	Degrade (slow down effectiveness) Manipulate (insert incorrect data) Destroy Functionality Physical Destruction

## **Scenario 2**

### **I. Scenario 2 Update**

- All previous information provided remains the same, including information in the Players Guide.
- Any information about your cyber vulnerabilities and cyber access still applies to Scenario 2.

### **II. Scenario 2 Crisis**

#### **Crisis Day 3 0500:**

- Other State forces invade Our State
- Infantry and armored units reported crossing the border

#### **Crisis Day 3 1200:**

- Other State nuclear forces mobilized
- Strategic bombing units preparing for take-off
  - Imagery of nuclear bombs being loaded onto the bombers
- Ballistic missile submarine at sea
  - Known to be carrying nuclear capable missile
- Strategic nuclear rocket forces on alert, ready to launch with orders
- Intelligence suggests Other State considering the use of preemptive nuclear weapons

#### **Crisis Day 3 1700:**

- Our State diplomats expelled from Other State
- Other State diplomats have left their embassy in Our State

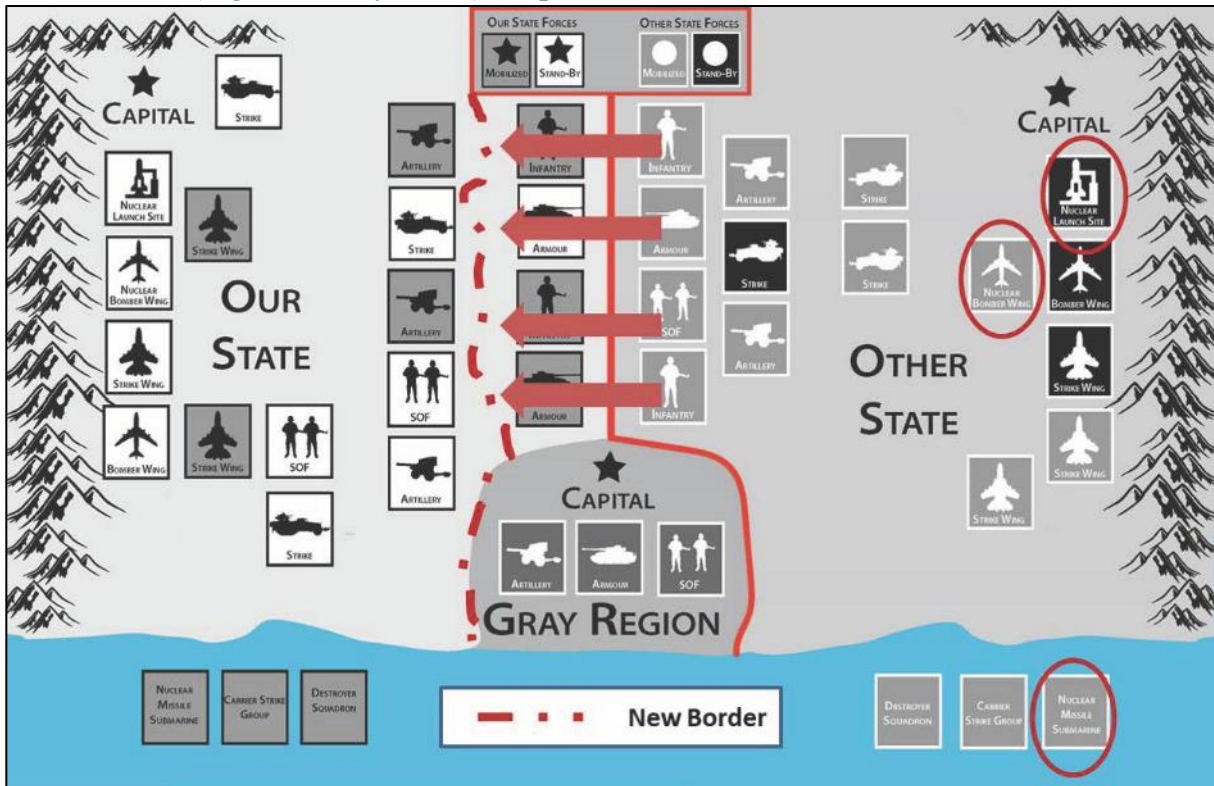
#### **Crisis Day 3 2000:**

- Statement from Other State:

“We have invaded Our State to take back land that should have always been ours. We consider this central to the survival of Other State and will treat any attempt to remove our forces as an existential threat to the survival of Other State. We are prepared to preemptively use nuclear weapons to secure this and potentially other territory within what is currently called Our State.”
- Our State forces have been pushed back, losses are unclear
- Reports that Other State is killing Our State civilians in the invaded territory and looting civilian property
- Unclear whether Other State will try and take more territory

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# Scenario Two (high intensity crisis) Map





# Appendix C: Facilitator Materials

## Facilitator Guide

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### International Crisis Wargame Facilitator Guide

#### Guide Overview

Sample Game Flow		Page 1
Facilitator Script		Page 2
Scripted Dialogue	(Scenario 1)	Page 2 – 5
	(Scenario 2)	Page 6 – 7
Wrap-up and Materials Checklist		Page 8

#### Sample Facilitator Agenda

Time	Activity	Estimated Time
0900 – 0915	Welcome, Game Overview, and <u>Scenario One Briefing</u>	15 minutes
0915 – 0920	Players review <u>Additional Intelligence</u> [injects]	5 minutes
0920 – 0925	Players select roles and receive <u>Player Briefing</u>	5 minutes
0925 – 1015	Players review information and complete <u>Response Plan</u>	50 minutes
1015 – 1025	Players complete <u>Survey One</u>	10 minutes
1025 – 1035	Break (optional)	10 minutes
1035 – 1040	<u>Scenario Two Briefing</u>	5 minutes
1040 – 1110	Players receive <u>Scenario Two Player Briefing</u> , review information, and complete <u>Response Plan</u>	30 minutes
1110 – 1120	Players complete <u>Survey Two</u>	10 minutes
1120 – 1130	Break (optional)	10 minutes
1130 – 1200	Final plenary	30 minutes

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### **Facilitator Script**

To standardize the player experience across war games, the majority of the game is conducted through a script. Once players have received the Game Overview and Scenario One Briefing and are in their groups, the facilitator should follow the script provided.

The script has three elements.

1. Facilitator script (what to say and when),
2. Directions on when to distribute certain documents (bolded and italicized),
3. Timelines and directions for timekeeping (also bolded and italicized).

If players complete a step early (such as assigning roles or completing a Response Plan), they can proceed to the next step.

It is recommended that you review the script at least once before running the game. There are some blanks (such as the number of players) that will have to be filled in during the reading.

### **Scripted Dialogue**

#### **Scenario 1**

Welcome

Welcome, everyone, to your group. You, as a team, will be playing as the cabinet of Our State to address the crisis presented in the earlier briefing.

In the initial briefing, you received an overview of Our State and Other State, their relationship, their capabilities, and the crisis. While that information is sufficient to play the game, I will be providing some additional information to you shortly.

As a reminder, I will primarily be reading prompts. This helps make the game run smoothly, on time, and ensures that everyone who plays this war game has a similar experience.

Injects

***Facilitator note: Give the players the two Additional Intelligence documents***

Before we continue, I have some additional critical intelligence to provide you. Once you have finished reviewing the information, you will be selecting roles and receiving your Player Briefings.

Please take a moment to carefully review the information and let me know when you have finished. You have 5 minutes. If you finish early, we will proceed.

***Facilitator note: Set a 5-minute timer. Once players have completed reviewing the information or 5 minutes have passed, proceed.***

Player Roles ***Facilitator note: Give the players the Role sheet***

It is now time to select roles. You are the cabinet of Our State and will be working together to make decisions and manage the crisis. This cabinet consists of \_\_\_\_ (*number of players in the group*) roles. The Executive, such as a President or Prime Minister, a minister of defense, a minister of state or foreign minister, a chief economic advisor, and a chief intelligence advisor [*If there is a sixth player, and only if there is a sixth player,*] and a *National Security Advisor*.

A brief description of the roles are on the sheet I have provided. Ideally, you will use the roles to help consider options during the crisis, but please do not let the role constrain you. You will keep the same roles in Scenario Two.

You have up to 5 minutes to decide amongst yourselves who gets what role. If you finish early, we will proceed. If no consensus can be reached, I will have randomly assigned them.

***Facilitator note: Set a 5-minute timer, once players have completed reviewing the information or 5 minutes have passed, proceed.***

***If players HAVE NOT selected roles in 5 minutes, assign them randomly.***

Player Briefing ***Facilitator Note: Give each player the appropriate Player Briefing for their role (each is labeled with a role) and give the players the Map***

Congratulations on successfully forming your cabinet. To assist you in your decision making, I have provided you a set of informational documents in the form of a Player Briefing booklet. All the information you need to play was covered in the initial briefing, but your Player Briefing provides some more details if you wish to use it. While the Player Briefing is a useful resource to reference, please remember that you have limited time to address the crisis. Don't let reviewing information prevent you from managing the crisis.

The Player Briefing has two parts. Each role has a briefing; for example, the Minister of Defense has a "Military Situation Report." However, as a courtesy and in the spirit of good information sharing, each Player Briefing includes all the reports. Given the time constraints, it is recommended that you first focus your attention on the report specific to your role.

In addition to the reports, the booklet contains the State Profiles for Our State and Other State, with diplomatic, economic, and military capabilities information and basic background data for both states, as presented in the initial briefing. This includes an Order of Battle, or OOB, to provide more

information on the military assets available to both states. You'll notice that the two states are effectively symmetrical in their capabilities.

I have also provided a copy of the map of Our State and Other State with generalized placements of military assets. This map is for reference and is not necessarily to scale.

Please note that I cannot provide any more information beyond what has been given in the Additional Intelligence and Player Briefs. If a particular question cannot be answered through the provided materials, use your best judgment.

**Continue to next step, Response Plan (Step 4)**

Response Plan *Facilitator Note: Give the players the Response Plan sheets*

You should now have all the information you need to complete your Response Plan. You will have up to 50 minutes to review your materials, formulate your response, and complete the Response Plan sheet.

I can answer any questions on how to fill out the Response Plan. However, I cannot comment on your decisions or course of action. If you complete your Response Plan early, we will move on. Good luck.

*Facilitator Note: Set the timer for 50-minutes. Notify the players when they have 30, 10, and 5 minutes remaining. Once the players complete the Response Plan, please collect it and proceed.*

*There is an extra Response Plan sheet included in case players need to start over.*

Survey *Facilitator Note: Give each player a Player Survey One*

Thank you for submitting your Response Plan. Now I ask that you complete a brief survey.

As stated earlier, we would really appreciate you completing the Survey as it is central to this project. However, you are under no obligation to complete it. All information you provide in the Survey will remain anonymous. You have roughly 10 minutes to complete the Survey, although it may take less time.

Please read each question thoroughly and follow the directions on the survey to complete it to the best of your abilities. Once you have completed the survey, I will collect it. You have 10 minutes. Thank you.

*Facilitator Note: Set a 10-minute timer for the players. Notify the players when they have 5 minutes remaining.*

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*Once a player has completed their survey, please collect it. They may either go on break or return to the briefing room for the Scenario 2 briefing, as determined by the schedule.*

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**Scenario 2**

Welcome Back

***Facilitator Note: Give the players the two Scenario Two Briefing***

Welcome back. You just received the briefing for the second scenario. As you saw, the situation in scenario two is slightly different. I have provided you with the updated information I want to stress that this Scenario is not linked in any way to your actions in the first Scenario. This is a standalone scenario.

To help in your deliberations, I will provide a small handout that summarizes scenario two. Aside from these changes, all other information in the Player Briefing and the Additional Intelligence are still valid.

Response Plan  
Scenario Two

***Facilitator Note: Give the players the Response Plan sheets***

You should now have all the information you need to complete your Response Plan for scenario two. Because you are familiar with the majority of the information presented previously, and due to the nature of this crisis, you will have up to 30 minutes to formulate your response and complete the Response Plan sheet.

As before, I can answer any questions on how to fill out the Response Plan. However, I cannot comment on your decisions or course of action.

***Facilitator Note: Set the timer for 30-minutes. Notify the players when they have 15 and 5 minutes remaining. Once the players complete the Response Plan, please collect it and proceed.***

***There is an extra Response Plan sheet included in case players need to start over.***

Second Surveys

***Facilitator Note: Give each player a Player Survey Two.***

Thank you for submitting your Response Plan. Now I ask that you complete another brief survey.

As stated earlier, we would really appreciate you completing the Survey as it is central to this project. However, you are under no obligation to complete it. All information you provide in the Survey will remain anonymous. You have roughly 10 minutes to complete the Survey, although it may take less time.

Please read each question thoroughly and follow the directions on the survey to complete it to the best of your abilities. Once you have completed the survey, I will collect it. You have 10 minutes. Thank you.

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*Facilitator Note: Set a 10-minute timer for the players. Once a player has completed their survey, please collect it. They may either leave, go on break, or return to the briefing room for plenary, as determined by the schedule.*

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**War Game Wrap-up**

1. Ensure all necessary materials have been collected
  - 2 completed Response Plans
  - 10-12 (1 per player, per scenario) surveys
  - Additional materials for reuse
2. Complete Facilitator Notes

**Game Materials Checklist**

**Player Materials**

- 1 Roles sheet
- 5-6 Player Briefings
- 2 Scenario Two information pages
- 10-12 Surveys (1 per player, per scenario)
- 4 Response Plans (1 per scenario provided to participants, 2 back-ups)
- Additional Intelligence
  - 1 NC3 Access Inject
  - 1 NC3 Vulnerability Inject
- 1 Map

**Facilitator Materials**

- 2 Facilitator Notes (1 per scenario)



# Appendix D: Response Plans and Surveys

## Player Response Plan

<b>Response Plan</b>				
Scenario: <input type="checkbox"/> 1 <input type="checkbox"/> 2				
Describe your Overall Response Plan/Course of Action:				
<b>Select Response Actions (check all that apply):</b>				
<input type="checkbox"/> Diplomacy	<input type="checkbox"/> Economic Punishment	<input type="checkbox"/> Cyber Attack on	<input type="checkbox"/> Information Operations	<input type="checkbox"/> Invade Territory
	<input type="checkbox"/> Economic Incentives	<input type="checkbox"/> Civilian Targets	<input type="checkbox"/> Conduct Intelligence	<input type="checkbox"/> Mobilize Forces
		<input type="checkbox"/> Cyber Attack on		<input type="checkbox"/> Fortify Defenses
		<input type="checkbox"/> Military Targets		<input type="checkbox"/> Nuclear Alert
		<input type="checkbox"/> Cyber Attack on		<input type="checkbox"/> Air Attack
		<input type="checkbox"/> Nuclear C3		<input type="checkbox"/> Maritime Attack
				<input type="checkbox"/> Nuclear Attack
				<input type="checkbox"/> Special Forces Operations
Describe your Response Plan's desired end state:				
<b>Below are potential objectives of your Response Plan. Please rank these objectives in order of their importance to your plan (1 is the most important). Cross out objectives that are not a factor in your plan:</b>				
<input type="checkbox"/>	Re-take territory			
<input type="checkbox"/>	Deter/defend against further conventional attack			
<input type="checkbox"/>	Deter nuclear attack			
<input type="checkbox"/>	Ensure survival of regime			
<input type="checkbox"/>	Defend the homeland			
<input type="checkbox"/>	Find a peaceful end state			
<input type="checkbox"/>	Ensure international support			
<input type="checkbox"/>	Other: _____			

## Player Survey: Condition One, Scenario One

### Group 1 Questions (NC3 Access/Vulnerabilities)

**Date:**

**Scenario:**  1  2

**Age:**

**Gender:**

**Country of Citizenship:**

**1. Choose the categories that best capture your professional background (choose all that apply):**

- Government
- Academic
- Military
- Private Industry
- Non-Governmental Organization
- Other:

**2. Choose the category that best captures your experience/professional level:**

- Student
- Entry level professional (up to 5 years experience)
- Mid-level professional (5-15 years experience)
- Senior professional (15+ years experience)
- Other:

**3. Choose the statement that best captures your familiarity with cyber security:**

- No familiarity
- Routine understanding of concepts behind cyber security
- Cyber security policy expert
- Cyber security technical expert
- Cyber security policy and technical expert
- Other:

**4. Choose the statement that best captures your familiarity with nuclear weapons:**

- No familiarity
- Routine understanding of concepts behind nuclear weapons
- Nuclear weapons policy expert
- Nuclear weapons technical expert
- Nuclear weapons policy and technical expert
- Other:

**5. Player Role in the Game:**

- Head of State (Executive)
- Foreign Minister
- Economic Advisor
- Intelligence Advisor
- Defense Minister
- National Security Advisor

**6. If your group used nuclear force, what was the group's primary motivation?**

- Concerned about ability to use nuclear arsenal in the future
- Concerned about conventional military losses
- Wanted to punish adversary for territorial invasion
- To keep adversary from using their nuclear weapons first
- Concerned about regime survival
- Need to retain domestic support
- Wanted to ensure Our State international reputation
- Other:

**7. Regarding the previous question, did your opinion differ from the group (either in the use or the motivation behind the decision)? If so, please describe here.**

**8. If your group did not use nuclear force, what was the group's primary motivation?**

- Confident we could use nuclear arsenal in the future
- Confident about conventional military success
- Concerned about regime survival
- Need to retain domestic support
- Wanted to ensure Our State international reputation
- Other:

**9. Regarding the previous question, did your opinion differ from the group (either in the use or the motivation behind the decision)? If so, please describe here.**

**10. What effect did adversary cyber capabilities have on your group's decisions this move? (Choose all that apply.)**

- No effect
- Created incentives to increase conventional attacks
- Created incentives to decrease conventional attacks
- Created incentives to focus on diplomacy
- Created incentives to utilize nuclear force
- Created incentives to restrain nuclear force
- Created incentives to increase cyber attacks
- Created incentives to decrease cyber attacks
- Other:

**11. Regarding the previous question, did your opinion differ from the group? If so, please describe here.**

**12. Did you use offensive cyber operations (cyber attacks) in this move?**

- Yes
- No

**13. If yes, what effects did your group desire to achieve with these offensive cyber operations?**

- Degrade adversary military operations
- Degrade adversary nuclear operations
- Influence public or international opinion
- Degrade adversary economic infrastructure
- Degrade adversary dual-use infrastructure (used for both military and civilian, i.e. some ports, roads, and shared electricity)
- Degrade adversary governance
- Other:

**14. Regarding the previous question, did your opinion differ from the group? If so, please describe here.**

**15. If your group did not employ offensive cyber operations, why not?**

- Concerns about effectiveness of the cyber attack
- Concerns about adversary nuclear retaliation in response
- Concerns about adversary conventional military retaliation in response
- Concerns about adversary cyber retaliation in response
- Concerns about Our State's cyber vulnerabilities
- Reserving for later use
- Other:

**16. Regarding the previous question, did your opinion differ from the group? If so, please describe here.**

**17. Our game was based on a hypothetical scenario, but often players refer back to one country when playing. Did you think back to a particular country when playing your country?**

- Yes
- No

**17a. If so, which one? \_\_\_\_\_**

**18. In this game, we told you that both countries had relatively similar conventional and nuclear capabilities. If we had told you that Other State had a *much less capable* conventional military or nuclear arsenal than Our State, would that have changed your group's actions? (Choose all that apply.)**

- No difference in actions
- Increase diplomacy
- Decrease diplomacy
- Increase economic actions
- Decrease economic actions
- Increase conventional attack
- Increase nuclear actions
- Decrease conventional attacks
- Decrease nuclear actions
- Increase cyber operations
- Decrease cyber operations
- Other:

**19. Regarding the previous question, do you think your opinion differs from the group?  
If so, please describe here.**

**20. In this game, we told you that both countries had relatively similar conventional and nuclear capabilities. If we had told you that Other State had a *much more capable* conventional military or nuclear arsenal than Our State, would that have changed your group's actions? (Choose all that apply.)**

- No difference in actions
- Increase diplomacy
- Decrease diplomacy
- Increase economic actions
- Decrease economic actions
- Increase conventional attack
- Increase nuclear actions
- Decrease conventional attacks
- Decrease nuclear actions
- Increase cyber operations
- Decrease cyber operations
- Other:

**21. Regarding the previous question, do you think your opinion differs from the group?  
If so, please describe here.**

**22. What role did the adversary's ability to conduct a cyber attack on your NC3 play in your group's response plan? (Choose all that apply.)**

- No effect
- Created incentive *not to use* nuclear force
- Created incentive *to use* nuclear force
- Created incentive *not to use* conventional force
- Created incentive *to use* conventional force
- Created incentive *to use* cyber operation
- Created incentive *not to use* cyber operation
- Other:

**23. Regarding the previous question, did your opinion differ from the group? If so, please describe here.**

**24. What role did having an exploit/access into your adversary's NC3 vulnerability play in your group's response plan? (Choose all that apply.)**

- No effect
- Created incentive *not to use* nuclear force
- Created incentive *to use* nuclear force
- Created incentive *not to use* conventional force
- Created incentive *to use* conventional force
- Created incentive *to use* cyber operation
- Created incentive *not to use* cyber operation
- Other:

**25. Regarding the previous question, did your opinion differ from the group? If so, please describe here.**

**26. Did you conduct a cyber attack on adversary NC3?**

- Yes
- No

**27. If yes, why did your group choose to conduct a cyber attack with your NC3 exploit? (Choose all that apply.)**

- Concerns exploit/access wouldn't exist in later stages of the crisis
- Concerns adversary would conduct similar attacks on Our State
- Desire to limit Other State's ability to launch a nuclear attack
- Less escalatory option than attacking Other State's nuclear forces with conventional or nuclear weapons
- Ability to limit kinetic collateral effects
- Ability to conduct operations covertly
- Other:

**28. Regarding the previous question, did your opinion differ from the group? If so, please describe here.**

**29. If no, why did your group choose *not* to conduct a cyber attack with your NC3 exploit? (Choose all that apply.)**

- Concerns about effectiveness of the cyber attack
- Concerns about adversary nuclear retaliation in response
- Concerns about adversary conventional retaliation in response
- Concerns about adversary cyber retaliation in response
- Concerns about vulnerability of Our State's NC3
- Reserving for later use
- Concerns about attribution
- Other:

**30. Regarding the previous question, did your opinion differ from the group? If so, please describe here.**

**31. In general, how would you describe your group's decision-making dynamic? (Choose one.)**

- Hierarchical, one player acted as leader
- Collaborative, no clear dominant personality
- Individual, players made most decisions by themselves
- Other:

**32. Any other insights you have about the scenario/game/or what you learned:**

**33. How important do you think group dynamics were to the final Response Plan?**

- Very important
- Somewhat important
- Didn't play a large role in the final Response Plan



**34. If the group dynamic was important, can you please describe in what ways you think it impacted the final Response Plan?**

**35. What impact do you think group dynamics had on how escalatory the final Response Plan was?**

- Didn't play a large role in escalation level
- Led to a more escalatory decision
- Led to a less escalatory decision

**36. Was there a dominant personality in your group?**

- Yes
- No

**37. In this game, we asked you to play a role in a head of state cabinet. How similar do you think the actions you advocated for in the game would be if you were to take that role in real life?**

- Very similar
- Generally similar
- Slightly different
- Very different
- Unsure

**38. If you hadn't been in a group, how do you think your decisions in the Response Plan would have differed? (Choose all that apply.)**

- My responses would not have been different
- I would have focused more on diplomacy
- I would have focused less on diplomacy
- I would have focused more on military action
- I would have focused less on military action
- I would have focused more on cyber actions
- I would have focused less on cyber actions
- I would have focused more on nuclear actions
- I would have focused less on nuclear actions
- I would have chosen a more offensive plan
- I would have chosen a more defensive plan

**39. Circle all the terms below that you were familiar with before playing the game:**

- Attribution
- Nuclear Taboo
- Thresholds
- Strategic stability
- Pre-delegation
- Security dilemma
- Cyber network exploitation

## Player Survey: Condition One, Scenario Two

### Group 1 Questions (NC3 Access/Vulnerabilities)

**Date:**

**Scenario:**  1  2

**Age:**

**Gender:**

**Country of Citizenship:**

**1. Choose the categories that best capture your professional background (choose all that apply):**

- Government
- Academic
- Military
- Private Industry
- Non-Governmental Organization
- Other:

**2. Choose the category that best captures your experience/professional level:**

- Student
- Entry level professional (up to 5 years experience)
- Mid-level professional (5-15 years experience)
- Senior professional (15+ years experience)
- Other:

**3. Choose the statement that best captures your familiarity with cyber security:**

- No familiarity
- Routine understanding of concepts behind cyber security
- Cyber security policy expert
- Cyber security technical expert
- Cyber security policy and technical expert
- Other:

**4. Choose the statement that best captures your familiarity with nuclear weapons:**

- No familiarity
- Routine understanding of concepts behind nuclear weapons
- Nuclear weapons policy expert
- Nuclear weapons technical expert
- Nuclear weapons policy and technical expert
- Other:

**5. Player Role in the Game:**

- Head of State (Executive)
- Foreign Minister
- Economic Advisor
- Intelligence Advisor
- Defense Minister
- National Security Advisor

**6. If your group used nuclear force, what was the group's primary motivation?**

- Concerned about ability to use nuclear arsenal in the future
- Concerned about conventional military losses
- Wanted to punish adversary for territorial invasion
- To keep adversary from using their nuclear weapons first
- Concerned about regime survival
- Need to retain domestic support
- Wanted to ensure Our State international reputation
- Other:

**7. Regarding the previous question, did your opinion differ from the group (either in the use or the motivation behind the decision)? If so, please describe here.**

**8. If your group did not use nuclear force, what was the group's primary motivation?**

- Confident we could use nuclear arsenal in the future
- Confident about conventional military success
- Concerned about regime survival
- Need to retain domestic support
- Wanted to ensure Our State international reputation
- Other:

**9. Regarding the previous question, did your opinion differ from the group (either in the use or the motivation behind the decision)? If so, please describe here.**

**10. What effect did adversary cyber capabilities have on your group's decisions this move? (Choose all that apply.)**

- No effect
- Created incentives to increase conventional attacks
- Created incentives to decrease conventional attacks
- Created incentives to focus on diplomacy
- Created incentives to utilize nuclear force
- Created incentives to restrain nuclear force
- Created incentives to increase cyber attacks
- Created incentives to decrease cyber attacks
- Other:

**11. Regarding the previous question, did your opinion differ from the group? If so, please describe here.**

**12. Did you use offensive cyber operations (cyber attacks) in this move?**

- Yes
- No

**13. If yes, what effects did your group desire to achieve with these offensive cyber operations?**

- Degrade adversary military operations
- Degrade adversary nuclear operations
- Influence public or international opinion
- Degrade adversary economic infrastructure
- Degrade adversary dual-use infrastructure (used for both military and civilian, i.e. some ports, roads, and shared electricity)
- Degrade adversary governance
- Other:

**14. Regarding the previous question, did your opinion differ from the group? If so, please describe here.**

**15. If your group did not employ offensive cyber operations, why not?**

- Concerns about effectiveness of the cyber attack
- Concerns about adversary nuclear retaliation in response
- Concerns about adversary conventional military retaliation in response
- Concerns about adversary cyber retaliation in response
- Concerns about Our State's cyber vulnerabilities
- Reserving for later use
- Other:

**16. Regarding the previous question, did your opinion differ from the group? If so, please describe here.**

**17. Our game was based on a hypothetical scenario, but often players refer back to one country when playing. Did you think back to a particular country when playing your country?**

- Yes
- No

**17a. If so, which one? \_\_\_\_\_**

**18. In this game, we told you that both countries had relatively similar conventional and nuclear capabilities. If we had told you that Other State had a *much less capable* conventional military or nuclear arsenal than Our State, would that have changed your group's actions? (Choose all that apply.)**

- No difference in actions
- Increase diplomacy
- Decrease diplomacy
- Increase economic actions
- Decrease economic actions
- Increase conventional attack
- Increase nuclear actions
- Decrease conventional attacks
- Decrease nuclear actions
- Increase cyber operations
- Decrease cyber operations
- Other:

**19. Regarding the previous question, do you think your opinion differs from the group?  
If so, please describe here.**

**20. In this game, we told you that both countries had relatively similar conventional and nuclear capabilities. If we had told you that Other State had a *much more capable* conventional military or nuclear arsenal than Our State, would that have changed your group's actions? (Choose all that apply.)**

- No difference in actions
- Increase diplomacy
- Decrease diplomacy
- Increase economic actions
- Decrease economic actions
- Increase conventional attack
- Increase nuclear actions
- Decrease conventional attacks
- Decrease nuclear actions
- Increase cyber operations
- Decrease cyber operations
- Other:

**21. Regarding the previous question, do you think your opinion differs from the group?  
If so, please describe here.**

**22. What role did the adversary's ability to conduct a cyber attack on your NC3 play in your group's response plan? (Choose all that apply.)**

- No effect
- Created incentive *not to use* nuclear force
- Created incentive *to use* nuclear force
- Created incentive *not to use* conventional force
- Created incentive *to use* conventional force
- Created incentive *to use* cyber operation
- Created incentive *not to use* cyber operation
- Other:

**23. Regarding the previous question, did your opinion differ from the group? If so, please describe here.**

**24. What role did having an exploit/access into your adversary's NC3 vulnerability play in your group's response plan? (Choose all that apply.)**

- No effect
- Created incentive *not to use* nuclear force
- Created incentive *to use* nuclear force
- Created incentive *not to use* conventional force
- Created incentive *to use* conventional force
- Created incentive *to use* cyber operation
- Created incentive *not to use* cyber operation
- Other:

**25. Regarding the previous question, did your opinion differ from the group? If so, please describe here.**

**26. Did you conduct a cyber attack on adversary NC3?**

- Yes
- No

**27. If yes, why did your group choose to conduct a cyber attack with your NC3 exploit? (Choose all that apply.)**

- Concerns exploit/access wouldn't exist in later stages of the crisis
- Concerns adversary would conduct similar attacks on Our State
- Desire to limit Other State's ability to launch a nuclear attack
- Less escalatory option than attacking Other State's nuclear forces with conventional or nuclear weapons
- Ability to limit kinetic collateral effects
- Ability to conduct operations covertly
- Other:



**28. Regarding the previous question, did your opinion differ from the group? If so, please describe here.**

**29. If no, why did your group choose *not* to conduct a cyber attack with your NC3 exploit? (Choose all that apply.)**

- Concerns about effectiveness of the cyber attack
- Concerns about adversary nuclear retaliation in response
- Concerns about adversary conventional retaliation in response
- Concerns about adversary cyber retaliation in response
- Concerns about vulnerability of Our State's NC3
- Reserving for later use
- Concerns about attribution
- Other:

**30. Regarding the previous question, did your opinion differ from the group? If so, please describe here.**

**31. In general, how would you describe your group's decision-making dynamic? (Choose one.)**

- Hierarchical, one player acted as leader
- Collaborative, no clear dominant personality
- Individual, players made most decisions by themselves
- Other:

**32. Any other insights you have about the scenario/game/or what you learned:**

**33. How important do you think group dynamics were to the final Response Plan?**

- Very important
- Somewhat important
- Didn't play a large role in the final Response Plan

**34. If the group dynamic was important, can you please describe in what ways you think it impacted the final Response Plan?**

**35. What impact do you think group dynamics had on how escalatory the final Response Plan was?**

- Didn't play a large role in escalation level
- Led to a more escalatory decision
- Led to a less escalatory decision

**36. Was there a dominant personality in your group?**

- Yes
- No

**37. In this game, we asked you to play a role in a head of state cabinet. How similar do you think the actions you advocated for in the game would be if you were to take that role in real life?**

- Very similar
- Generally similar
- Slightly different
- Very different
- Unsure

**38. If you hadn't been in a group, how do you think your decisions in the Response Plan would have differed? (Choose all that apply.)**

- My responses would not have been different
- I would have focused more on diplomacy
- I would have focused less on diplomacy
- I would have focused more on military action
- I would have focused less on military action
- I would have focused more on cyber actions
- I would have focused less on cyber actions
- I would have focused more on nuclear actions
- I would have focused less on nuclear actions
- I would have chosen a more offensive plan
- I would have chosen a more defensive plan

**39. Circle all the terms below that you were familiar with before playing the game:**

- Attribution
- Nuclear Taboo
- Thresholds
- Strategic stability
- Pre-delegation
- Security dilemma
- Cyber network exploitation

## Player Survey: Condition Two, Scenario One

### Group 2 Questions (NC3 Access/No Vulnerability)

**Date:**

**Scenario:**  1  2

**Age:**

**Gender:**

**Country of Citizenship:**

**1. Choose the categories that best capture your professional background (choose all that apply):**

- Government
- Academic
- Military
- Private Industry
- Non-Governmental Organization
- Other:

**2. Choose the category that best captures your experience/professional level:**

- Student
- Entry level professional (up to 5 years experience)
- Mid-level professional (5-15 years experience)
- Senior professional (15+ years experience)
- Other:

**3. Choose the statement that best captures your familiarity with cyber security:**

- No familiarity
- Routine understanding of concepts behind cyber security
- Cyber security policy expert
- Cyber security technical expert
- Cyber security policy and technical expert
- Other:

**4. Choose the statement that best captures your familiarity with nuclear weapons:**

- No familiarity
- Routine understanding of concepts behind nuclear weapons
- Nuclear weapons policy expert
- Nuclear weapons technical expert
- Nuclear weapons policy and technical expert
- Other:

**5. Player Role in the Game:**

- Head of State (Executive)
- Foreign Minister
- Economic Advisor
- Intelligence Advisor
- Defense Minister
- National Security Advisor

**6. If your group used nuclear force, what was the group's primary motivation?**

- Concerned about ability to use nuclear arsenal in the future
- Concerned about conventional military losses
- Wanted to punish adversary for territorial invasion
- To keep adversary from using their nuclear weapons first
- Concerned about regime survival
- Need to retain domestic support
- Wanted to ensure Our State international reputation
- Other:

**7. Regarding the previous question, did your opinion differ from the group (either in the use or the motivation behind the decision)? If so, please describe here.**

**8. If your group did not use nuclear force, what was the group's primary motivation?**

- Confident we could use nuclear arsenal in the future
- Confident about conventional military success
- Concerned about regime survival
- Need to retain domestic support
- Wanted to ensure Our State international reputation
- Other:

**9. Regarding the previous question, did your opinion differ from the group (either in the use or the motivation behind the decision)? If so, please describe here.**

**10. What effect did adversary cyber capabilities have on your group's decisions this move? (Choose all that apply.)**

- No effect
- Created incentives to increase conventional attacks
- Created incentives to decrease conventional attacks
- Created incentives to focus on diplomacy
- Created incentives to utilize nuclear force
- Created incentives to restrain nuclear force
- Created incentives to increase cyber attacks
- Created incentives to decrease cyber attacks
- Other:

**11. Regarding the previous question, did your opinion differ from the group? If so, please describe here.**

**12. Did you use offensive cyber operations (cyber attacks) in this move?**

- Yes
- No

**13. If yes, what effects did your group desire to achieve with these offensive cyber operations?**

- Degrade adversary military operations
- Degrade adversary nuclear operations
- Influence public or international opinion
- Degrade adversary economic infrastructure
- Degrade adversary dual-use infrastructure (used for both military and civilian, i.e. some ports, roads, and shared electricity)
- Degrade adversary governance
- Other:

**14. Regarding the previous question, did your opinion differ from the group? If so, please describe here.**

**15. If your group did not employ offensive cyber operations, why not?**

- Concerns about effectiveness of the cyber attack
- Concerns about adversary nuclear retaliation in response
- Concerns about adversary conventional military retaliation in response
- Concerns about adversary cyber retaliation in response
- Concerns about Our State's cyber vulnerabilities
- Reserving for later use
- Other:

**16. Regarding the previous question, did your opinion differ from the group? If so, please describe here.**

**17. Our game was based on a hypothetical scenario, but often players refer back to one country when playing. Did you think back to a particular country when playing your country?**

- Yes
- No

**17a. If so, which one? \_\_\_\_\_**

**18. In this game, we told you that both countries had relatively similar conventional and nuclear capabilities. If we had told you that Other State had a *much less capable* conventional military or nuclear arsenal than Our State, would that have changed your group's actions? (Choose all that apply.)**

- No difference in actions
- Increase diplomacy
- Decrease diplomacy
- Increase economic actions
- Decrease economic actions
- Increase conventional attack
- Increase nuclear actions
- Decrease conventional attacks
- Decrease nuclear actions
- Increase cyber operations
- Decrease cyber operations
- Other:

**19. Regarding the previous question, do you think your opinion differs from the group? If so, please describe here.**

**20. In this game, we told you that both countries had relatively similar conventional and nuclear capabilities. If we had told you that Other State had a *much more capable* conventional military or nuclear arsenal than Our State, would that have changed your group's actions? (Choose all that apply.)**

- No difference in actions
- Increase diplomacy
- Decrease diplomacy
- Increase economic actions
- Decrease economic actions
- Increase conventional attack
- Increase nuclear actions
- Decrease conventional attacks
- Decrease nuclear actions
- Increase cyber operations
- Decrease cyber operations
- Other:

**21. Regarding the previous question, do you think your opinion differs from the group? If so, please describe here.**

**22. What role did having an exploit/access into your adversary's NC3 vulnerability play in your group's response plan? (Choose all that apply.)**

- No effect
- Created incentive *not to use* nuclear force
- Created incentive *to use* nuclear force
- Created incentive *not to use* conventional force
- Created incentive *to use* conventional force
- Created incentive *to use* cyber operation
- Created incentive *not to use* cyber operation
- Other:

**23. Regarding the previous question, did your opinion differ from the group? If so, please describe here.**



**24. Did you conduct a cyber attack on adversary NC3?**

- Yes
- No

**25. If yes, why did your group choose to conduct a cyber attack with your NC3 exploit?  
(Choose all that apply.)**

- Concerns exploit/access wouldn't exist in later stages of the crisis
- Concerns adversary would conduct similar attacks on Our State
- Desire to limit Other State's ability to launch a nuclear attack
- Less escalatory option than attacking Other State's nuclear forces with conventional or nuclear weapons
- Ability to limit kinetic collateral effects
- Ability to conduct operations covertly
- Other:

**26. Regarding the previous question, did your opinion differ from the group? If so, please describe here.**

**27. If no, why did your group choose *not* to conduct a cyber attack with your NC3 exploit?  
(Choose all that apply.)**

- Concerns about effectiveness of the cyber attack
- Concerns about adversary nuclear retaliation in response
- Concerns about adversary conventional retaliation in response
- Concerns about adversary cyber retaliation in response
- Concerns about vulnerability of Our State's NC3
- Reserving for later use
- Concerns about attribution
- Other:

**28. Regarding the previous question, did your opinion differ from the group? If so, please describe here.**

**29. In general, how would you describe your group's decision-making dynamic?**

**(Choose one.)**

- Hierarchical, one player acted as leader
- Collaborative, no clear dominant personality
- Individual, players made most decisions by themselves
- Other:

**30. Any other insights you have about the scenario/game/or what you learned:**

**31. How important do you think group dynamics were to the final Response Plan?**

- Very important
- Somewhat important
- Didn't play a large role in the final Response Plan

**32. If the group dynamic was important, can you please describe in what ways you think it impacted the final Response Plan?**

**33. What impact do you think group dynamics had on how escalatory the final Response Plan was?**

- Didn't play a large role in escalation level
- Led to a more escalatory decision
- Led to a less escalatory decision

**34. Was there a dominant personality in your group?**

- Yes
- No

**35. In this game, we asked you to play a role in a head of state cabinet. How similar do you think the actions you advocated for in the game would be if you were to take that role in real life?**

- Very similar
- Generally similar
- Slightly different
- Very different
- Unsure

**36. If you hadn't been in a group, how do you think your decisions in the Response Plan would have differed? (Choose all that apply.)**

- My responses would not have been different
- I would have focused more on diplomacy
- I would have focused less on diplomacy
- I would have focused more on military action
- I would have focused less on military action
- I would have focused more on cyber actions
- I would have focused less on cyber actions
- I would have focused more on nuclear actions
- I would have focused less on nuclear actions
- I would have chosen a more offensive plan
- I would have chosen a more defensive plan

**37. Circle all the terms below that you were familiar with before playing the game:**

- Attribution
- Nuclear Taboo
- Thresholds
- Strategic stability
- Pre-delegation
- Security dilemma
- Cyber network exploitation

## Player Survey: Condition Two, Scenario Two

### Group 2 Questions (NC3 Access/No Vulnerability)

**Date:**

**Scenario:**  1  2

**Age:**

**Gender:**

**Country of Citizenship:**

**1. Choose the categories that best capture your professional background (choose all that apply):**

- Government
- Academic
- Military
- Private Industry
- Non-Governmental Organization
- Other:

**2. Choose the category that best captures your experience/professional level:**

- Student
- Entry level professional (up to 5 years experience)
- Mid-level professional (5-15 years experience)
- Senior professional (15+ years experience)
- Other:

**3. Choose the statement that best captures your familiarity with cyber security:**

- No familiarity
- Routine understanding of concepts behind cyber security
- Cyber security policy expert
- Cyber security technical expert
- Cyber security policy and technical expert
- Other:

**4. Choose the statement that best captures your familiarity with nuclear weapons:**

- No familiarity
- Routine understanding of concepts behind nuclear weapons
- Nuclear weapons policy expert
- Nuclear weapons technical expert
- Nuclear weapons policy and technical expert
- Other:

**5. Player Role in the Game:**

- Head of State (Executive)
- Foreign Minister
- Economic Advisor
- Intelligence Advisor
- Defense Minister
- National Security Advisor

**6. If your group used nuclear force, what was the group's primary motivation?**

- Concerned about ability to use nuclear arsenal in the future
- Concerned about conventional military losses
- Wanted to punish adversary for territorial invasion
- To keep adversary from using their nuclear weapons first
- Concerned about regime survival
- Need to retain domestic support
- Wanted to ensure Our State international reputation
- Other:

**7. Regarding the previous question, did your opinion differ from the group (either in the use or the motivation behind the decision)? If so, please describe here.**

**8. If your group did not use nuclear force, what was the group's primary motivation?**

- Confident we could use nuclear arsenal in the future
- Confident about conventional military success
- Concerned about regime survival
- Need to retain domestic support
- Wanted to ensure Our State international reputation
- Other:

**9. Regarding the previous question, did your opinion differ from the group (either in the use or the motivation behind the decision)? If so, please describe here.**

**10. What effect did adversary cyber capabilities have on your group's decisions this move? (Choose all that apply.)**

- No effect
- Created incentives to increase conventional attacks
- Created incentives to decrease conventional attacks
- Created incentives to focus on diplomacy
- Created incentives to utilize nuclear force
- Created incentives to restrain nuclear force
- Created incentives to increase cyber attacks
- Created incentives to decrease cyber attacks
- Other:

**11. Regarding the previous question, did your opinion differ from the group? If so, please describe here.**

**12. Did you use offensive cyber operations (cyber attacks) in this move?**

- Yes
- No

**13. If yes, what effects did your group desire to achieve with these offensive cyber operations?**

- Degrade adversary military operations
- Degrade adversary nuclear operations
- Influence public or international opinion
- Degrade adversary economic infrastructure
- Degrade adversary dual-use infrastructure (used for both military and civilian, i.e. some ports, roads, and shared electricity)
- Degrade adversary governance
- Other:

**14. Regarding the previous question, did your opinion differ from the group? If so, please describe here.**

**15. If your group did not employ offensive cyber operations, why not?**

- Concerns about effectiveness of the cyber attack
- Concerns about adversary nuclear retaliation in response
- Concerns about adversary conventional military retaliation in response
- Concerns about adversary cyber retaliation in response
- Concerns about Our State's cyber vulnerabilities
- Reserving for later use
- Other:

**16. Regarding the previous question, did your opinion differ from the group? If so, please describe here.**

**17. Our game was based on a hypothetical scenario, but often players refer back to one country when playing. Did you think back to a particular country when playing your country?**

- Yes
- No

**17a. If so, which one? \_\_\_\_\_**

**18. In this game, we told you that both countries had relatively similar conventional and nuclear capabilities. If we had told you that Other State had a *much less capable* conventional military or nuclear arsenal than Our State, would that have changed your group's actions? (Choose all that apply.)**

- No difference in actions
- Increase diplomacy
- Decrease diplomacy
- Increase economic actions
- Decrease economic actions
- Increase conventional attack
- Increase nuclear actions
- Decrease conventional attacks
- Decrease nuclear actions
- Increase cyber operations
- Decrease cyber operations
- Other:

**19. Regarding the previous question, do you think your opinion differs from the group?  
If so, please describe here.**

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- Increase economic actions
- Decrease economic actions
- Increase conventional attack
- Increase nuclear actions
- Decrease conventional attacks
- Decrease nuclear actions
- Increase cyber operations
- Decrease cyber operations
- Other:

**21. Regarding the previous question, do you think your opinion differs from the group?  
If so, please describe here.**

**22. What role did having an exploit/access into your adversary's NC3 vulnerability play in your group's response plan? (Choose all that apply.)**

- No effect
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- Created incentive *not to use* conventional force
- Created incentive *to use* conventional force
- Created incentive *to use* cyber operation
- Created incentive *not to use* cyber operation
- Other:

**23. Regarding the previous question, did your opinion differ from the group? If so, please describe here.**



**24. Did you conduct a cyber attack on adversary NC3?**

- Yes
- No

**25. If yes, why did your group choose to conduct a cyber attack with your NC3 exploit?  
(Choose all that apply.)**

- Concerns exploit/access wouldn't exist in later stages of the crisis
- Concerns adversary would conduct similar attacks on Our State
- Desire to limit Other State's ability to launch a nuclear attack
- Less escalatory option than attacking Other State's nuclear forces with conventional or nuclear weapons
- Ability to limit kinetic collateral effects
- Ability to conduct operations covertly
- Other:

**26. Regarding the previous question, did your opinion differ from the group? If so, please describe here.**

**27. If no, why did your group choose *not* to conduct a cyber attack with your NC3 exploit?  
(Choose all that apply.)**

- Concerns about effectiveness of the cyber attack
- Concerns about adversary nuclear retaliation in response
- Concerns about adversary conventional retaliation in response
- Concerns about adversary cyber retaliation in response
- Concerns about vulnerability of Our State's NC3
- Reserving for later use
- Concerns about attribution
- Other:

**28. Regarding the previous question, did your opinion differ from the group? If so, please describe here.**

**29. In general, how would you describe your group's decision-making dynamic?**

**(Choose one.)**

- Hierarchical, one player acted as leader
- Collaborative, no clear dominant personality
- Individual, players made most decisions by themselves
- Other:

**30. Any other insights you have about the scenario/game/or what you learned:**

**31. How important do you think group dynamics were to the final Response Plan?**

- Very important
- Somewhat important
- Didn't play a large role in the final Response Plan

**32. If the group dynamic was important, can you please describe in what ways you think it impacted the final Response Plan?**

**33. What impact do you think group dynamics had on how escalatory the final Response Plan was?**

- Didn't play a large role in escalation level
- Led to a more escalatory decision
- Led to a less escalatory decision

**34. Was there a dominant personality in your group?**

- Yes
- No

**35. In this game, we asked you to play a role in a head of state cabinet. How similar do you think the actions you advocated for in the game would be if you were to take that role in real life?**

- Very similar
- Generally similar
- Slightly different
- Very different
- Unsure

**36. If you hadn't been in a group, how do you think your decisions in the Response Plan would have differed? (Choose all that apply.)**

- My responses would not have been different
- I would have focused more on diplomacy
- I would have focused less on diplomacy
- I would have focused more on military action
- I would have focused less on military action
- I would have focused more on cyber actions
- I would have focused less on cyber actions
- I would have focused more on nuclear actions
- I would have focused less on nuclear actions
- I would have chosen a more offensive plan
- I would have chosen a more defensive plan

**37. Circle all the terms below that you were familiar with before playing the game:**

- Attribution
- Nuclear Taboo
- Thresholds
- Strategic stability
- Pre-delegation
- Security dilemma
- Cyber network exploitation

Player Survey: Condition Three, Scenario One

**Group 3 Questions (No NC3 Access/Vulnerabilities)**

**Date:**

**Scenario:**  1  2

**Age:**

**Gender:**

**Country of Citizenship:**

**1. Choose the categories that best capture your professional background (choose all that apply):**

- Government
- Academic
- Military
- Private Industry
- Non-Governmental Organization
- Other:

**2. Choose the category that best captures your experience/professional level:**

- Student
- Entry level professional (up to 5 years experience)
- Mid-level professional (5-15 years experience)
- Senior professional (15+ years experience)
- Other:

**3. Choose the statement that best captures your familiarity with cyber security:**

- No familiarity
- Routine understanding of concepts behind cyber security
- Cyber security policy expert
- Cyber security technical expert
- Cyber security policy and technical expert
- Other:

**4. Choose the statement that best captures your familiarity with nuclear weapons:**

- No familiarity
- Routine understanding of concepts behind nuclear weapons
- Nuclear weapons policy expert
- Nuclear weapons technical expert
- Nuclear weapons policy and technical expert
- Other:

**5. Player Role in the Game:**

- Head of State (Executive)
- Foreign Minister
- Economic Advisor
- Intelligence Advisor
- Defense Minister
- National Security Advisor

**6. If your group used nuclear force, what was the group's primary motivation?**

- Concerned about ability to use nuclear arsenal in the future
- Concerned about conventional military losses
- Wanted to punish adversary for territorial invasion
- To keep adversary from using their nuclear weapons first
- Concerned about regime survival
- Need to retain domestic support
- Wanted to ensure Our State international reputation
- Other:

**7. Regarding the previous question, did your opinion differ from the group (either in the use or the motivation behind the decision)? If so, please describe here.**

**8. If your group did not use nuclear force, what was the group's primary motivation?**

- Confident we could use nuclear arsenal in the future
- Confident about conventional military success
- Concerned about regime survival
- Need to retain domestic support
- Wanted to ensure Our State international reputation
- Other:

**9. Regarding the previous question, did your opinion differ from the group (either in the use or the motivation behind the decision)? If so, please describe here.**

**10. What effect did adversary cyber capabilities have on your group's decisions this move? (Choose all that apply.)**

- No effect
- Created incentives to increase conventional attacks
- Created incentives to decrease conventional attacks
- Created incentives to focus on diplomacy
- Created incentives to utilize nuclear force
- Created incentives to restrain nuclear force
- Created incentives to increase cyber attacks
- Created incentives to decrease cyber attacks
- Other:

**11. Regarding the previous question, did your opinion differ from the group? If so, please describe here.**

**12. Did you use offensive cyber operations (cyber attacks) in this move?**

- Yes
- No

**13. If yes, what effects did your group desire to achieve with these offensive cyber operations?**

- Degrade adversary military operations
- Degrade adversary nuclear operations
- Influence public or international opinion
- Degrade adversary economic infrastructure
- Degrade adversary dual-use infrastructure (used for both military and civilian, i.e. some ports, roads, and shared electricity)
- Degrade adversary governance
- Other:

**14. Regarding the previous question, did your opinion differ from the group? If so, please describe here.**

**15. If your group did not employ offensive cyber operations, why not?**

- Concerns about effectiveness of the cyber attack
- Concerns about adversary nuclear retaliation in response
- Concerns about adversary conventional military retaliation in response
- Concerns about adversary cyber retaliation in response
- Concerns about Our State's cyber vulnerabilities
- Reserving for later use
- Other:

**16. Regarding the previous question, did your opinion differ from the group? If so, please describe here.**

**17. Our game was based on a hypothetical scenario, but often players refer back to one country when playing. Did you think back to a particular country when playing your country?**

- Yes
- No

**17a. If so, which one? \_\_\_\_\_**

**18. In this game, we told you that both countries had relatively similar conventional and nuclear capabilities. If we had told you that Other State had a *much less capable* conventional military or nuclear arsenal than Our State, would that have changed your group's actions? (Choose all that apply.)**

- No difference in actions
- Increase diplomacy
- Decrease diplomacy
- Increase economic actions
- Decrease economic actions
- Increase conventional attack
- Increase nuclear actions
- Decrease conventional attacks
- Decrease nuclear actions
- Increase cyber operations
- Decrease cyber operations
- Other:

**19. Regarding the previous question, do you think your opinion differs from the group?  
If so, please describe here.**

**20. In this game, we told you that both countries had relatively similar conventional and nuclear capabilities. If we had told you that Other State had a *much more capable* conventional military or nuclear arsenal than Our State, would that have changed your group's actions? (Choose all that apply.)**

- No difference in actions
- Increase diplomacy
- Decrease diplomacy
- Increase economic actions
- Decrease economic actions
- Increase conventional attack
- Increase nuclear actions
- Decrease conventional attacks
- Decrease nuclear actions
- Increase cyber operations
- Decrease cyber operations
- Other:

**21. Regarding the previous question, do you think your opinion differs from the group?  
If so, please describe here.**

**22. What role did the adversary's ability to conduct a cyber attack on your NC3 play in your group's response plan? (Choose all that apply.)**

- No effect
- Created incentive *not to use* nuclear force
- Created incentive *to use* nuclear force
- Created incentive *not to use* conventional force
- Created incentive *to use* conventional force
- Created incentive *to use* cyber operation
- Created incentive *not to use* cyber operation
- Other:



**23. Regarding the previous question, did your opinion differ from the group? If so, please describe here.**

**24. In general, how would you describe your group's decision-making dynamic? (Choose one.)**

- Hierarchical, one player acted as leader
- Collaborative, no clear dominant personality
- Individual, players made most decisions by themselves
- Other:

**25. Any other insights you have about the scenario/game/or what you learned:**

**26. How important do you think group dynamics were to the final Response Plan?**

- Very important
- Somewhat important
- Didn't play a large role in the final Response Plan

**27. If the group dynamic was important, can you please describe in what ways you think it impacted the final Response Plan?**

**28. What impact do you think group dynamics had on how escalatory the final Response Plan was?**

- Didn't play a large role in escalation level
- Led to a more escalatory decision
- Led to a less escalatory decision

**29. Was there a dominant personality in your group?**

- Yes
- No

**30. In this game, we asked you to play a role in a head of state cabinet. How similar do you think the actions you advocated for in the game would be if you were to take that role in real life?**

- Very similar
- Generally similar
- Slightly different
- Very different
- Unsure

**31. If you hadn't been in a group, how do you think your decisions in the Response Plan would have differed? (Choose all that apply.)**

- My responses would not have been different
- I would have focused more on diplomacy
- I would have focused less on diplomacy
- I would have focused more on military action
- I would have focused less on military action
- I would have focused more on cyber actions
- I would have focused less on cyber actions
- I would have focused more on nuclear actions
- I would have focused less on nuclear actions
- I would have chosen a more offensive plan
- I would have chosen a more defensive plan

**32. Circle all the terms below that you were familiar with before playing the game:**

- Attribution
- Nuclear Taboo
- Thresholds
- Strategic stability
- Pre-delegation
- Security dilemma
- Cyber network exploitation

## Player Survey: Condition Three, Scenario Two

### Group 3 Questions (No NC3 Access/Vulnerabilities)

**Date:**

**Scenario:**  1  2

**Age:**

**Gender:**

**Country of Citizenship:**

**1. Choose the categories that best capture your professional background (choose all that apply):**

- Government
- Academic
- Military
- Private Industry
- Non-Governmental Organization
- Other:

**2. Choose the category that best captures your experience/professional level:**

- Student
- Entry level professional (up to 5 years experience)
- Mid-level professional (5-15 years experience)
- Senior professional (15+ years experience)
- Other:

**3. Choose the statement that best captures your familiarity with cyber security:**

- No familiarity
- Routine understanding of concepts behind cyber security
- Cyber security policy expert
- Cyber security technical expert
- Cyber security policy and technical expert
- Other:

**4. Choose the statement that best captures your familiarity with nuclear weapons:**

- No familiarity
- Routine understanding of concepts behind nuclear weapons
- Nuclear weapons policy expert
- Nuclear weapons technical expert
- Nuclear weapons policy and technical expert
- Other:

**5. Player Role in the Game:**

- Head of State (Executive)
- Foreign Minister
- Economic Advisor
- Intelligence Advisor
- Defense Minister
- National Security Advisor

**6. If your group used nuclear force, what was the group's primary motivation?**

- Concerned about ability to use nuclear arsenal in the future
- Concerned about conventional military losses
- Wanted to punish adversary for territorial invasion
- To keep adversary from using their nuclear weapons first
- Concerned about regime survival
- Need to retain domestic support
- Wanted to ensure Our State international reputation
- Other:

**7. Regarding the previous question, did your opinion differ from the group (either in the use or the motivation behind the decision)? If so, please describe here.**

**8. If your group did not use nuclear force, what was the group's primary motivation?**

- Confident we could use nuclear arsenal in the future
- Confident about conventional military success
- Concerned about regime survival
- Need to retain domestic support
- Wanted to ensure Our State international reputation
- Other:

**9. Regarding the previous question, did your opinion differ from the group (either in the use or the motivation behind the decision)? If so, please describe here.**

**10. What effect did adversary cyber capabilities have on your group's decisions this move? (Choose all that apply.)**

- No effect
- Created incentives to increase conventional attacks
- Created incentives to decrease conventional attacks
- Created incentives to focus on diplomacy
- Created incentives to utilize nuclear force
- Created incentives to restrain nuclear force
- Created incentives to increase cyber attacks
- Created incentives to decrease cyber attacks
- Other:

**11. Regarding the previous question, did your opinion differ from the group? If so, please describe here.**

**12. Did you use offensive cyber operations (cyber attacks) in this move?**

- Yes
- No

**13. If yes, what effects did your group desire to achieve with these offensive cyber operations?**

- Degrade adversary military operations
- Degrade adversary nuclear operations
- Influence public or international opinion
- Degrade adversary economic infrastructure
- Degrade adversary dual-use infrastructure (used for both military and civilian, i.e. some ports, roads, and shared electricity)
- Degrade adversary governance
- Other:

**14. Regarding the previous question, did your opinion differ from the group? If so, please describe here.**

**15. If your group did not employ offensive cyber operations, why not?**

- Concerns about effectiveness of the cyber attack
- Concerns about adversary nuclear retaliation in response
- Concerns about adversary conventional military retaliation in response
- Concerns about adversary cyber retaliation in response
- Concerns about Our State's cyber vulnerabilities
- Reserving for later use
- Other:

**16. Regarding the previous question, did your opinion differ from the group? If so, please describe here.**

**17. Our game was based on a hypothetical scenario, but often players refer back to one country when playing. Did you think back to a particular country when playing your country?**

- Yes
- No

**17a. If so, which one? \_\_\_\_\_**

**18. In this game, we told you that both countries had relatively similar conventional and nuclear capabilities. If we had told you that Other State had a *much less capable* conventional military or nuclear arsenal than Our State, would that have changed your group's actions? (Choose all that apply.)**

- No difference in actions
- Increase diplomacy
- Decrease diplomacy
- Increase economic actions
- Decrease economic actions
- Increase conventional attack
- Increase nuclear actions
- Decrease conventional attacks
- Decrease nuclear actions
- Increase cyber operations
- Decrease cyber operations
- Other:

**19. Regarding the previous question, do you think your opinion differs from the group?  
If so, please describe here.**

**20. In this game, we told you that both countries had relatively similar conventional and nuclear capabilities. If we had told you that Other State had a *much more capable* conventional military or nuclear arsenal than Our State, would that have changed your group's actions? (Choose all that apply.)**

- No difference in actions
- Increase diplomacy
- Decrease diplomacy
- Increase economic actions
- Decrease economic actions
- Increase conventional attack
- Increase nuclear actions
- Decrease conventional attacks
- Decrease nuclear actions
- Increase cyber operations
- Decrease cyber operations
- Other:

**21. Regarding the previous question, do you think your opinion differs from the group?  
If so, please describe here.**

**22. What role did the adversary's ability to conduct a cyber attack on your NC3 play in your group's response plan? (Choose all that apply.)**

- No effect
- Created incentive *not to use* nuclear force
- Created incentive *to use* nuclear force
- Created incentive *not to use* conventional force
- Created incentive *to use* conventional force
- Created incentive *to use* cyber operation
- Created incentive *not to use* cyber operation
- Other:

**23. Regarding the previous question, did your opinion differ from the group? If so, please describe here.**

**24. In general, how would you describe your group's decision-making dynamic? (Choose one.)**

- Hierarchical, one player acted as leader
- Collaborative, no clear dominant personality
- Individual, players made most decisions by themselves
- Other:

**25. Any other insights you have about the scenario/game/or what you learned:**

**26. How important do you think group dynamics were to the final Response Plan?**

- Very important
- Somewhat important
- Didn't play a large role in the final Response Plan

**27. If the group dynamic was important, can you please describe in what ways you think it impacted the final Response Plan?**

**28. What impact do you think group dynamics had on how escalatory the final Response Plan was?**

- Didn't play a large role in escalation level
- Led to a more escalatory decision
- Led to a less escalatory decision

**29. Was there a dominant personality in your group?**

- Yes
- No



**30. In this game, we asked you to play a role in a head of state cabinet. How similar do you think the actions you advocated for in the game would be if you were to take that role in real life?**

- Very similar
- Generally similar
- Slightly different
- Very different
- Unsure

**31. If you hadn't been in a group, how do you think your decisions in the Response Plan would have differed? (Choose all that apply.)**

- My responses would not have been different
- I would have focused more on diplomacy
- I would have focused less on diplomacy
- I would have focused more on military action
- I would have focused less on military action
- I would have focused more on cyber actions
- I would have focused less on cyber actions
- I would have focused more on nuclear actions
- I would have focused less on nuclear actions
- I would have chosen a more offensive plan
- I would have chosen a more defensive plan

**32. Circle all the terms below that you were familiar with before playing the game:**

- Attribution
- Nuclear Taboo
- Thresholds
- Strategic stability
- Pre-delegation
- Security dilemma
- Cyber network exploitation

## Player Survey: Condition Four, Scenario One

### Group 4 Questions (No NC3 Access/No Vulnerability)

**Date:**

**Scenario:**  1  2

**Age:**

**Gender:**

**Country of Citizenship:**

**1. Choose the categories that best capture your professional background (choose all that apply):**

- Government
- Academic
- Military
- Private Industry
- Non-Governmental Organization
- Other:

**2. Choose the category that best captures your experience/professional level:**

- Student
- Entry level professional (up to 5 years experience)
- Mid-level professional (5-15 years experience)
- Senior professional (15+ years experience)
- Other:

**3. Choose the statement that best captures your familiarity with cyber security:**

- No familiarity
- Routine understanding of concepts behind cyber security
- Cyber security policy expert
- Cyber security technical expert
- Cyber security policy and technical expert
- Other:

**4. Choose the statement that best captures your familiarity with nuclear weapons:**

- No familiarity
- Routine understanding of concepts behind nuclear weapons
- Nuclear weapons policy expert
- Nuclear weapons technical expert
- Nuclear weapons policy and technical expert
- Other:

**5. Player Role in the Game:**

- Head of State (Executive)
- Foreign Minister
- Economic Advisor
- Intelligence Advisor
- Defense Minister
- National Security Advisor

**6. If your group used nuclear force, what was the group's primary motivation?**

- Concerned about ability to use nuclear arsenal in the future
- Concerned about conventional military losses
- Wanted to punish adversary for territorial invasion
- To keep adversary from using their nuclear weapons first
- Concerned about regime survival
- Need to retain domestic support
- Wanted to ensure Our State international reputation
- Other:

**7. Regarding the previous question, did your opinion differ from the group (either in the use or the motivation behind the decision)? If so, please describe here.**

**8. If your group did not use nuclear force, what was the group's primary motivation?**

- Confident we could use nuclear arsenal in the future
- Confident about conventional military success
- Concerned about regime survival
- Need to retain domestic support
- Wanted to ensure Our State international reputation
- Other:

**9. Regarding the previous question, did your opinion differ from the group (either in the use or the motivation behind the decision)? If so, please describe here.**

**10. What effect did adversary cyber capabilities have on your group's decisions this move? Choose all that apply.**

- No effect
- Created incentives to increase conventional attacks
- Created incentives to decrease conventional attacks
- Created incentives to focus on diplomacy
- Created incentives to utilize nuclear force
- Created incentives to restrain nuclear force
- Created incentives to increase cyber attacks
- Created incentives to decrease cyber attacks
- Other:

**11. Regarding the previous question, did your opinion differ from the group? If so, please describe here.**

**12. Did you use offensive cyber operations (cyber attacks) in this move?**

- Yes
- No

**13. If yes, what effects did your group desire to achieve with these offensive cyber operations?**

- Degrade adversary military operations
- Degrade adversary nuclear operations
- Influence public or international opinion
- Degrade adversary economic infrastructure
- Degrade adversary dual-use infrastructure (used for both military and civilian, i.e. some ports, roads, and shared electricity)
- Degrade adversary governance
- Other:

**14. Regarding the previous question, did your opinion differ from the group? If so, please describe here.**

**15. If your group did not employ offensive cyber operations, why not?**

- Concerns about effectiveness of the cyber attack
- Concerns about adversary nuclear retaliation in response
- Concerns about adversary conventional military retaliation in response
- Concerns about adversary cyber retaliation in response
- Concerns about Our State's cyber vulnerabilities
- Reserving for later use
- Other:

**16. Regarding the previous question, did your opinion differ from the group? If so, please describe here.**

**17. This game was based on a hypothetical scenario, but often players consider a specific country when playing. Did you refer to a particular country when representing Our State?**

- Yes
- No

**If so, which one?** \_\_\_\_\_

**18. In this game, we told you that both countries had relatively similar conventional and nuclear capabilities. If we had told you that Other State had a *much less capable* conventional military or nuclear arsenal than Our State, would that have changed your group's actions? Choose all that apply.**

- No difference in actions
- Increase diplomacy
- Decrease diplomacy
- Increase economic actions
- Decrease economic actions
- Increase conventional attack
- Increase nuclear actions
- Decrease conventional attacks
- Decrease nuclear actions
- Increase cyber operations
- Decrease cyber operations
- Other:

**19. Regarding the previous question, do you think your opinion differs from the group?  
If so, please describe here.**

**20. In this game, we told you that both countries had relatively similar conventional and nuclear capabilities. If we had told you that Other State had a *much more capable* conventional military or nuclear arsenal than Our State, would that have changed your group's actions (Choose all that apply)?**

- No difference in actions
- Increase diplomacy
- Decrease diplomacy
- Increase economic actions
- Decrease economic actions
- Increase conventional attack
- Increase nuclear actions
- Decrease conventional attacks
- Decrease nuclear actions
- Increase cyber operations
- Decrease cyber operations
- Other:

**21. Regarding the previous question, do you think your opinion differs from the group?  
If so, please describe here.**

**22. In general, how would you describe your group's decision-making dynamic (choose one)?**

- Hierarchical, one player acted as leader
- Collaborative, no clear dominant personality
- Individual, players made most decisions by themselves
- Other:

**23. Any other insights you have about the scenario/game/or what you learned:**

**24. How important do you think group dynamics were to the final Response Plan?**

- Very important
- Somewhat important
- Didn't play a large role in the final Response Plan

**25. If the group dynamic was important, can you please describe in what ways you think it impacted the final Response Plan?**

**26. What impact do you think group dynamics had on how escalatory the final Response Plan was?**

- Didn't play a large role in escalation level
- Led to a more escalatory decision
- Led to a less escalatory decision

**27. Was there a dominant personality in your group?**

- Yes
- No

**28. In this game, we asked you to play a role in a head of state cabinet. How similar do you think the actions you advocated for in the game would be if you were to take that role in real life?**

- Very similar
- Generally similar
- Slightly different
- Very different
- Unsure

**29. If you hadn't been in a group, how do you think your decisions in the Response Plan would have differed? (Choose all that apply.)**

- My responses would not have been different
- I would have focused more on diplomacy
- I would have focused less on diplomacy
- I would have focused more on military action
- I would have focused less on military action
- I would have focused more on cyber actions
- I would have focused less on cyber actions
- I would have focused more on nuclear actions
- I would have focused less on nuclear actions
- I would have chosen a more offensive plan
- I would have chosen a more defensive plan

**30. Circle all the terms below that you were familiar with before playing the game:**

- Attribution
- Nuclear Taboo
- Thresholds
- Strategic stability
- Pre-delegation
- Security dilemma
- Cyber network exploitation



## Player Survey: Condition Four, Scenario Two

### Group 4 Questions (No NC3 Access/No Vulnerability)

**Date:**

**Scenario:**  1  2

**Age:**

**Gender:**

**Country of Citizenship:**

**1. Choose the categories that best capture your professional background (choose all that apply):**

- Government
- Academic
- Military
- Private Industry
- Non-Governmental Organization
- Other:

**2. Choose the category that best captures your experience/professional level:**

- Student
- Entry level professional (up to 5 years experience)
- Mid-level professional (5-15 years experience)
- Senior professional (15+ years experience)
- Other:

**3. Choose the statement that best captures your familiarity with cyber security:**

- No familiarity
- Routine understanding of concepts behind cyber security
- Cyber security policy expert
- Cyber security technical expert
- Cyber security policy and technical expert
- Other:

**4. Choose the statement that best captures your familiarity with nuclear weapons:**

- No familiarity
- Routine understanding of concepts behind nuclear weapons
- Nuclear weapons policy expert
- Nuclear weapons technical expert
- Nuclear weapons policy and technical expert
- Other:

**5. Player Role in the Game:**

- Head of State (Executive)
- Foreign Minister
- Economic Advisor
- Intelligence Advisor
- Defense Minister
- National Security Advisor

**6. If your group used nuclear force, what was the group's primary motivation?**

- Concerned about ability to use nuclear arsenal in the future
- Concerned about conventional military losses
- Wanted to punish adversary for territorial invasion
- To keep adversary from using their nuclear weapons first
- Concerned about regime survival
- Need to retain domestic support
- Wanted to ensure Our State international reputation
- Other:

**7. Regarding the previous question, did your opinion differ from the group (either in the use or the motivation behind the decision)? If so, please describe here.**

**8. If your group did not use nuclear force, what was the group's primary motivation?**

- Confident we could use nuclear arsenal in the future
- Confident about conventional military success
- Concerned about regime survival
- Need to retain domestic support
- Wanted to ensure Our State international reputation
- Other:

**9. Regarding the previous question, did your opinion differ from the group (either in the use or the motivation behind the decision)? If so, please describe here.**

**10. What effect did adversary cyber capabilities have on your group's decisions this move? Choose all that apply.**

- No effect
- Created incentives to increase conventional attacks
- Created incentives to decrease conventional attacks
- Created incentives to focus on diplomacy
- Created incentives to utilize nuclear force
- Created incentives to restrain nuclear force
- Created incentives to increase cyber attacks
- Created incentives to decrease cyber attacks
- Other:

**11. Regarding the previous question, did your opinion differ from the group? If so, please describe here.**

**12. Did you use offensive cyber operations (cyber attacks) in this move?**

- Yes
- No

**13. If yes, what effects did your group desire to achieve with these offensive cyber operations?**

- Degrade adversary military operations
- Degrade adversary nuclear operations
- Influence public or international opinion
- Degrade adversary economic infrastructure
- Degrade adversary dual-use infrastructure (used for both military and civilian, i.e. some ports, roads, and shared electricity)
- Degrade adversary governance
- Other:

**14. Regarding the previous question, did your opinion differ from the group? If so, please describe here.**

**15. If your group did not employ offensive cyber operations, why not?**

- Concerns about effectiveness of the cyber attack
- Concerns about adversary nuclear retaliation in response
- Concerns about adversary conventional military retaliation in response
- Concerns about adversary cyber retaliation in response
- Concerns about Our State's cyber vulnerabilities
- Reserving for later use
- Other:

**16. Regarding the previous question, did your opinion differ from the group? If so, please describe here.**

**17. This game was based on a hypothetical scenario, but often players consider a specific country when playing. Did you refer to a particular country when representing Our State?**

- Yes
- No

**If so, which one?** \_\_\_\_\_

**18. In this game, we told you that both countries had relatively similar conventional and nuclear capabilities. If we had told you that Other State had a *much less capable* conventional military or nuclear arsenal than Our State, would that have changed your group's actions? Choose all that apply.**

- No difference in actions
- Increase diplomacy
- Decrease diplomacy
- Increase economic actions
- Decrease economic actions
- Increase conventional attack
- Increase nuclear actions
- Decrease conventional attacks
- Decrease nuclear actions
- Increase cyber operations
- Decrease cyber operations
- Other:

**19. Regarding the previous question, do you think your opinion differs from the group?  
If so, please describe here.**

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- No difference in actions
- Increase diplomacy
- Decrease diplomacy
- Increase economic actions
- Decrease economic actions
- Increase conventional attack
- Increase nuclear actions
- Decrease conventional attacks
- Decrease nuclear actions
- Increase cyber operations
- Decrease cyber operations
- Other:

**21. Regarding the previous question, do you think your opinion differs from the group?  
If so, please describe here.**

**22. In general, how would you describe your group's decision-making dynamic (choose one)?**

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- Individual, players made most decisions by themselves
- Other:

**23. Any other insights you have about the scenario/game/or what you learned:**

**24. How important do you think group dynamics were to the final Response Plan?**

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**25. If the group dynamic was important, can you please describe in what ways you think it impacted the final Response Plan?**

**26. What impact do you think group dynamics had on how escalatory the final Response Plan was?**

- Didn't play a large role in escalation level
- Led to a more escalatory decision
- Led to a less escalatory decision

**27. Was there a dominant personality in your group?**

- Yes
- No

**28. In this game, we asked you to play a role in a head of state cabinet. How similar do you think the actions you advocated for in the game would be if you were to take that role in real life?**

- Very similar
- Generally similar
- Slightly different
- Very different
- Unsure

**29. If you hadn't been in a group, how do you think your decisions in the Response Plan would have differed? (Choose all that apply.)**

- My responses would not have been different
- I would have focused more on diplomacy
- I would have focused less on diplomacy
- I would have focused more on military action
- I would have focused less on military action
- I would have focused more on cyber actions
- I would have focused less on cyber actions
- I would have focused more on nuclear actions
- I would have focused less on nuclear actions
- I would have chosen a more offensive plan
- I would have chosen a more defensive plan

**30. Circle all the terms below that you were familiar with before playing the game:**

- Attribution
- Nuclear Taboo
- Thresholds
- Strategic stability
- Pre-delegation
- Security dilemma
- Cyber network exploitation