



CARNEGIE
ENDOWMENT FOR
INTERNATIONAL PEACE

Conflict and Cooperation in the Asia-Pacific Region

A Strategic Net Assessment

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I. Overview

II. Future Security Environments

III. Implications and Recommendations

IV. Military-Political Approaches



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I. Overview

Overview

Chapter 1: Domestic Political and Social Stability

Chapter 2: Defense Spending and Military Capabilities

**Chapter 3: National and Transnational Objectives, Military Doctrines,
and Approaches to the Use of Force**

Chapter 4: Interstate Bilateral and Multilateral Relationships

Chapter 5: Future Security Environments

- I. Status Quo Redux
- II. Asia-Pacific Cold War
- III. Pacific Asia-Pacific
- IV. Asian Hot Wars
- V. Challenged Region

Chapter 6: Implications and Recommendations

Strategic Risks

Strategic Opportunities

Conditions

Recommendations

General Trends

Conflictual Trends

- Domestic instability in key states: China, North Korea, Russia
- Arms races, military crises, and the nuclearization of the Korean peninsula
- Adverse changes in foreign policies toward greater assertiveness / ultra-nationalism
- Growing lack of confidence in and unity within the U.S.-led alliance system

Cooperative / Positive Trends

- Prioritization of peaceful economic development
- Economic integration and transnational and nontraditional security threats
- Absence of strongly aggressive national objectives and military doctrines
- Some prospects for cooperation among U.S. Allies
- Low likelihood of a U.S.-China military conflict over Taiwan



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II. Future Security Environments

Security Environments

Five different security environments in the Asia-Pacific over the next 25 years (in order of likelihood):

- I. **Status Quo Redux:** Constrained but ongoing economic and political competition alongside continuing cooperation.
 - National objectives and military doctrines are development-oriented and restrained; suspicions remain regarding security intentions and capabilities, fueling competition and increasing levels of defense spending.
 - The U.S.-led hub-and-spokes alliance system remains a major feature of the regional security order; high levels of economic and political engagement; sensitive issues (e.g. territorial disputes) remain unresolved.

Security Environments

II. **Asia-Pacific Cold War:** Deepening regional bipolarization and militarization, driven by a worsening U.S.-China strategic and economic rivalry.

- Decision to move away from the status quo environment due to a political-military crisis or the emergence of ultra-nationalist leadership; zero-sum conception of national interests and greatly intensifying security competition, including an intense arms race over the ability to control the first and second island chain.
- Efforts to expand bilateral and multilateral trade at the expense of the other side; cooperation on transnational issues virtually disappears; reductions in the level of economic interdependence among major powers.

Security Environments

III. Pacific Asia-Pacific: Increased U.S.-China and regional cooperation and tension reduction.

- Stable and enduring balance of power, with investment in the resolution or management of transnational issues and the creation of significant regional security structures that reduce distrust.
- High levels of verifiable restraint in the development and deployment of certain types of military capabilities; deepening levels of economic integration; the development of more effective global energy cooperation.

Security Environments

IV. **Asian Hot Wars:** Episodic but fairly frequent military conflict in critical hotspots, emerging against a cold war backdrop.

- Mutually hostile domestic political environments; the emergence in both the U.S. and China of ultranationalist leaderships, with possible domestic instability in China. Polarization as third parties pressured to choose sides; cooperation on transnational issues virtually disappears; no bilateral or multilateral security assurances; reductions in the level of economic interdependence among major powers.
- War-oriented national objectives and military doctrines; efforts to strengthen or create military alliances; severe crises due to deterrence miscalculation and “tests” of resolve. Sustained, very high levels of defense spending.

Security Environments

IV. **Challenged Region:** A region beset by social, economic, and political instability and unrest separate from U.S.-China competition.

- Focus on domestic and transnational challenges; low economic growth rates; possible domestic instability in China. Alliances and multilateral mechanisms increasingly focus on managing transnational issues.
- Drivers of security competition or crises become less important; focus on stabilizing such problems in order to permit resolving overwhelming transnational threats. Defense spending declines or remains level; credible security assurance mechanisms and improvements in managing crises.



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III. Implications and Recommendations

Strategic Risks

Primary Risks

- A shift in national resources toward security competition
- Increased tests of resolve and political-military crises
- A United States more embroiled in third-party disputes
- Greater challenges to the unity and power of the U.S. alliance system

Secondary Risks

- Exclusionary political and economic arrangements
- Severe domestic instability and violent regime collapse in North Korea
- Domestic instability and nationalist forces in China
- U.S. miscalculations or overreaction in response to a more powerful and assertive China

Strategic Opportunities

- Common support for continued economic growth
- The absence of deeply adversarial and existential disputes
- Continuing American strength
- The possibility of a more flexible China
- The possibility of more cooperation in dealing with North Korea
- The imperative to cooperate in dealing with transnational threats

Recommendations

- **Clarify and prioritize primary, secondary, and tertiary** U.S. interests and policy methods in the Asia-Pacific
- **Conduct** an unprecedented U.S.-China strategic dialogue on the long-term future of the Asia-Pacific
- **Undertake** a range of strategic assurances between the United States and China
- **Clarify and strengthen** the U.S. position on maritime disputes
- **Develop** a coordinated force for SLOC defense, including the Chinese
- **Provide** greater support for a variety of crisis management mechanisms
- **Establish** a forum for the discussion of energy security issues
- **Strengthen** ASEAN institutions and increase engagement with individual ASEAN states



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IV. Military-Political Approaches

Military-Political Approaches

Robust Forward Presence

- A deterrence-centered response designed to retain unambiguous allied regional primacy through either highly ambitious and forward deployment-based military concepts, such as Air-Sea Battle, or approaches more oriented toward long-range blockades, such as Offshore Control

Conditional Offense/Defense

- A primacy-oriented response that nonetheless avoids both preemptive, deep strikes against the Chinese mainland and obvious containment-type blockades and stresses both deterrence and reassurance in a more equal manner

Defensive Balancing

- A response that emphasizes mutual area denial, places a greater reliance on lower visibility and rear-deployed forces, and aims to establish a more genuinely balanced and cooperative power relationship with China in the Western Pacific

Military-Political Approaches

	Possible Doctrines/ Operational Concepts	Political/Diplomatic Strategy	Force Posture	Emphasized Weapons Systems
Robust Forward Presence	<p>Variant A: Air-Sea Battle (deep strikes)</p> <p>Variant B: Offshore Control (naval blockade)</p>	Engage and hedge, strong emphasis on hedge; integration with Japan and other regional allies	<p>Variant A: Short-range tactical aircraft (TACAIR) and naval assets forward-deployed OR naval assets rear-deployed with emphasis on long-range deep strike</p> <p>Variant B: Naval assets deployed at first island chain</p>	<p>Variant A: Long-range, deep-strike aircraft and missiles, integrated C4ISR, cyber- and space-based offense and defense</p> <p>Variant B: Submarine and surface naval platforms, integrated C4ISR</p>
Conditional Offense/Defense	Primacy without deep strikes or blockade	Engage and hedge	TACAIR forward-deployed; dispersed basing; large naval assets rear-deployed in early stages of conflict	Ballistic missile defense and base hardening, TACAIR, integrated ISR, cyber-based offense and defense
Defensive Balancing	Mutual Denial Strategy	Engage and hedge, emphasis on engage, with limited accommodation of China	Submarines forward-deployed; large naval surface assets rear-deployed; TACAIR rear-deployed	Submarines, long-range drones, long-range missiles, enhanced cyber and integrated ISR, antisubmarine warfare, and mine countermeasures

Military-Political Approaches

	Affordability	Political/Bureaucratic Feasibility	Deterrence Capacity	Alliance Integration	Sino-Alliance Tension
Robust Forward Presence	Low	Variant A: Mid Variant B: Low	Mid-High	Mid-High	Variant A: Mid-High Variant B: High
Conditional Offense/Defense	Low-Mid	High	Mid-High	Mid	Mid
Defensive Balancing	Mid	Low	Variant A: Mid-High Variant B: High	Low-Mid	Low



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Conflict and Cooperation in the Asia-Pacific Region

A Systems Dynamics Perspective
Naval Postgraduate School
Monterey, CA

Cliff Whitcomb | Gary Parker | Paul Beery | Chris Wolfgeher | CDR Michael Szczerbinski, USN | MAJ Chike Robertson, USA



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I. Overview

II. Systems Planning Perspective

III. Systems Dynamics Model and Tool

IV. Summary



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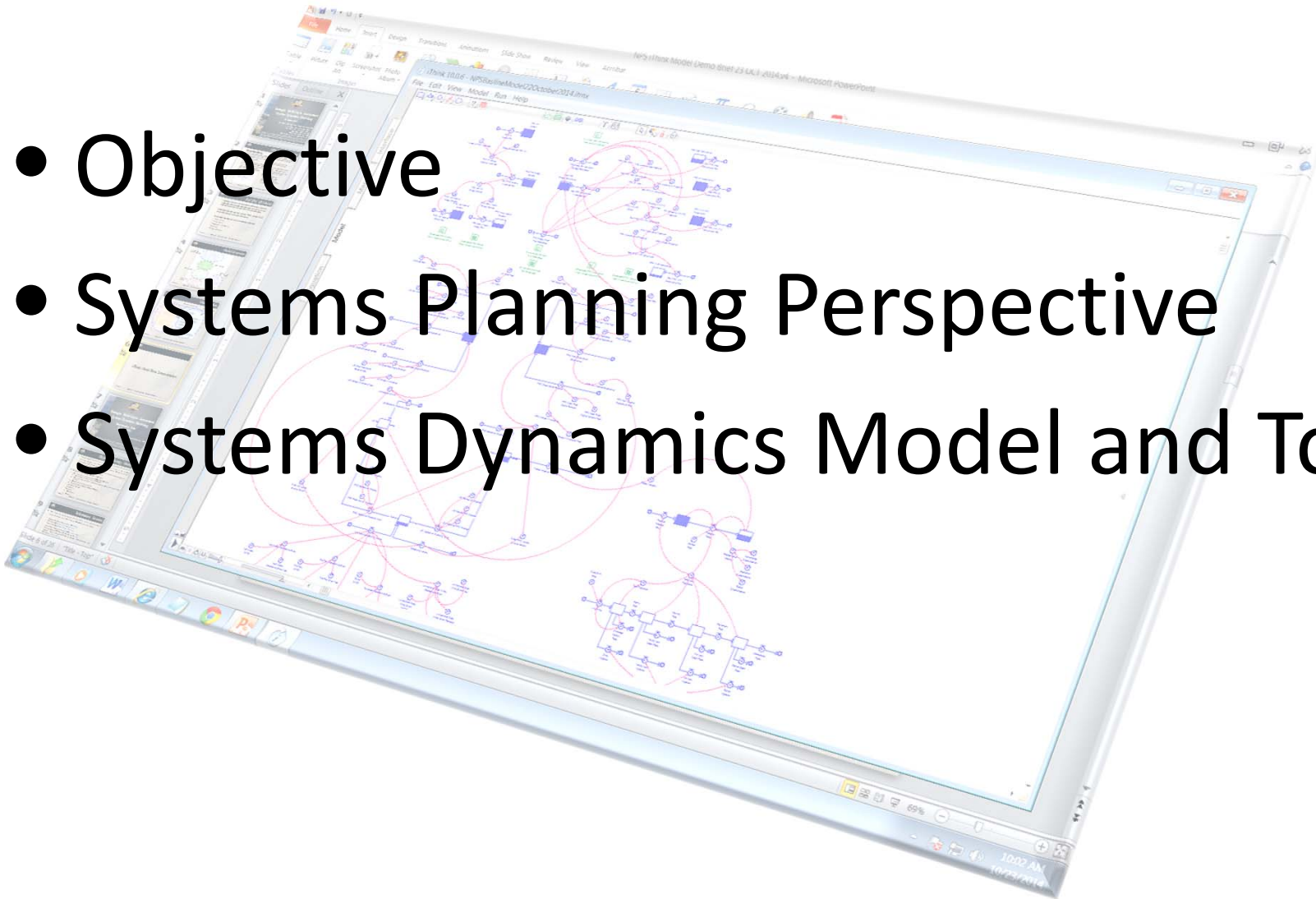
I. Overview





Overview

- Objective
- Systems Planning Perspective
- Systems Dynamics Model and Tool





Objective

- Provide planners, in support of decision makers, a tool to make better sense of the non-linear dynamics and feedback mechanisms at play in the complex environment in which they, and their competitors, operate to study ‘futures’
- Broaden the horizon of strategic thinking and inform planning
- Use a systems approach



Context

- Focus Model on Key Influencing Variables
 - Identified by project stakeholders
- Create Flexible, Sustainable Computer Tool
 - Commercial modeling tool
 - Interface and model details available for manipulation to planners and analysts
 - Design interface in basic form to allow users to adapt to their desired form in final end use
 - Avoid implementing detailed usability “design” in the flight simulator user interface



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II. Systems Planning Perspective



Systems Approach

- Based on Systems Thinking
 - Considers ‘world’ view
 - Thinking determines what you do about what you see
- Systems Thinking is a Mindset
 - General Systems Theory (von Bertalanffy, 1937)
- Replaces Reductionism (Analysis Basis)
 - Belief that everything can be reduced to individual parts – understand how a system works – study parts
- Embraces Expansionism (Synthesis Basis)
 - Belief that system can be a sub-system of larger system – understand why system works as it does – study system



Systems Planning Perspective

- Reactivist – embraces the past environment
- Inactivist – satisfied with the way things are
 - Seek to avoid errors within the current system – want to avoid errors of *commission*
- Preactivist – unsatisfied with past, as well as current
 - Seek to understand all aspects of future that may impact success – want to avoid errors of *omission*
- Interactivist – believe future is subject to creation
 - Seek having stakeholders solve problems themselves



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III. Systems Dynamics Model and Tool



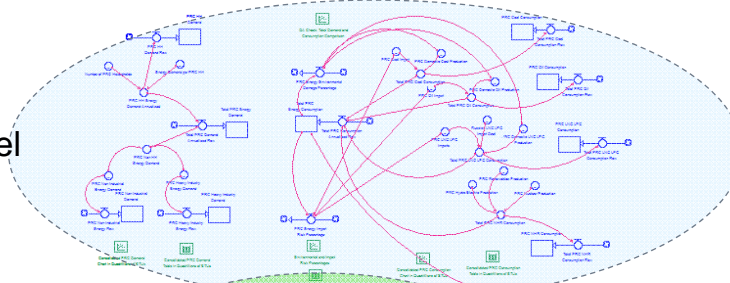
Systems Dynamics Model

- NPS Team Created Systems Dynamics (SD) Model
 - Allow planners to study futures based on interactions among factors
 - Context: Either raise or lower level of “tensions” between U.S. and China in Pacific region
- Used commercial SD software (iThink® version 10.0.6)
- Base model decomposed into five sub-models or domains
 - Tension
 - Military Actions
 - Demographics and Stability
 - Economics
 - Energy and Resources

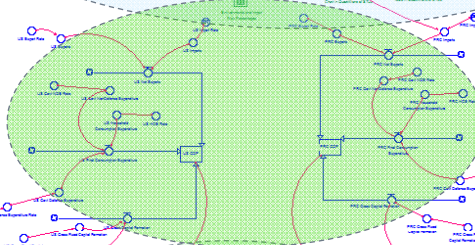


SD Model Overview

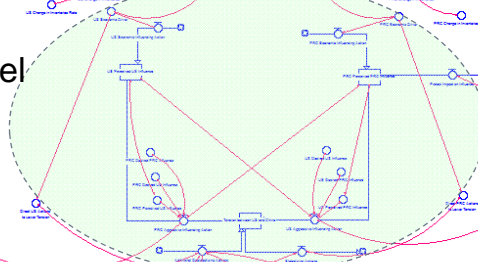
Energy and Resources Sub-Model



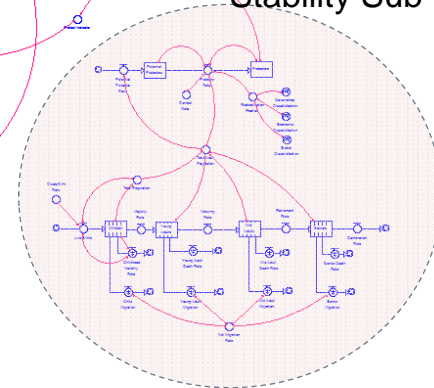
Economic Sub-Model



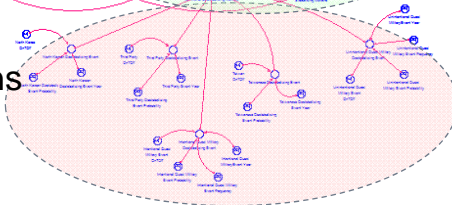
Tension Sub-Model



Demographics and Stability Sub-Model



Military Actions Sub-Model





iThink Tool Home Page

Interface Layer Navigation Buttons

iThink[®] Layer Tabs

Opening the model takes user first to the Home page. Navigation from there is up to the user.

The screenshot displays the iThink 10.0.6 software interface. The title bar reads 'iThink 10.0.6 - NPS_Baseline_Model_2014-12-01_GWP.itmx'. The menu bar includes 'File', 'Edit', 'View', 'Interface', 'Run', and 'Help'. The toolbar contains various icons for navigation and editing. The vertical sidebar on the left has tabs for 'Interface', 'Map', and 'Equation'. The main content area is titled 'Drivers of Conflict and Convergence' and features a navigation bar with buttons for 'Home', 'Background', 'Explore the Model', 'Controls', and 'Simulation'. Below the navigation bar is a large NPS logo. To the right of the logo is a text box describing the project: 'This project is part of a Strategic Multi-Layer Assessment (SMA) for the U.S. Pacific Command (PACOM) entitled Drivers of Conflict and Convergence in the Asia-Pacific Region in the Next 5-25 Years. In general, SMA provides planning support to Commands for complex operational imperatives requiring multi-agency, multi-disciplinary solutions that are not currently within core Service/Agency competencies. Solutions and participants are sought across the U.S. Government (USG) and beyond in order to the breadth and depth of talent required to study these challenging problems. As part of this effort, NPS offers this software tool to PACOM planners to use directly for dynamic simulation. It provides two means of adding value to PACOM planning efforts - AS A LEARNING TOOL it assists policy makers in better understanding how the system's variables are related, how they influence one another, and how they are influenced by the system's external environment, and/or understand where the leverage points are. - AS A DECISION / POLICY MAKING SUPPORT TOOL it allows the creation planning scenarios to explore the effects of these variables on potential futures.' Below the text box is a 'System Requirements' section with two columns: 'For Windows' and 'For Macintosh'. The 'For Windows' column lists: 'Microsoft Windows™ XP/Vista/7/8', '255 MB RAM', '200 MB disk space', and 'QuickTime'. The 'For Macintosh' column lists: 'Intel-based Mac', 'Mac OS 10.6 or higher', '255 MB RAM', '200 MB disk space', and 'QuickTime'. At the bottom left, a red warning box states: 'Model is locked to test Navigation. To unlock model go to FILE -> LOCK MODEL -> FULL ACCESS -> OK. Password is NPS.' At the bottom right, there is a 'Next' button. The status bar at the bottom shows '- 1 -' and a 'Next' button.



iThink Tool Simulation Page

- Key page for average users
- Contain model controls

Simulation output area

User input controls

Simulation execution controls

The screenshot shows the iThink 10.0.6 interface for the model 'Drivers of Conflict and Convergence'. The window title is 'iThink 10.0.6 - NPS_Basline_Model_2014-12-01_GWP.itmx'. The interface has a menu bar (File, Edit, View, Interface, Run, Help) and a navigation bar with buttons for Home, Background, Explore the Model, Controls, and Simulation. The main area is divided into several sections: a 'Simulation output area' on the left with three line graphs; a central 'Instructions' box; and a 'User input controls' area on the right with sliders for Economic Variables (US Import Rate, PRC Import Rate), Military Variables (Intentional and Unintentional Quasi Military Event Year, Probability, and Frequency), and Social Variables (Governance Disatisfaction, Economic Disatisfaction, Crude Birth Rate, Contact Rate). At the bottom, there are 'Simulation execution controls' (play, pause, stop buttons) and a 'Back' button. The status bar at the bottom shows 'Graph 1 Graph 2 Graph 3' and '- 10 -'. A 'Home' button is in the bottom right corner.



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IV. Summary

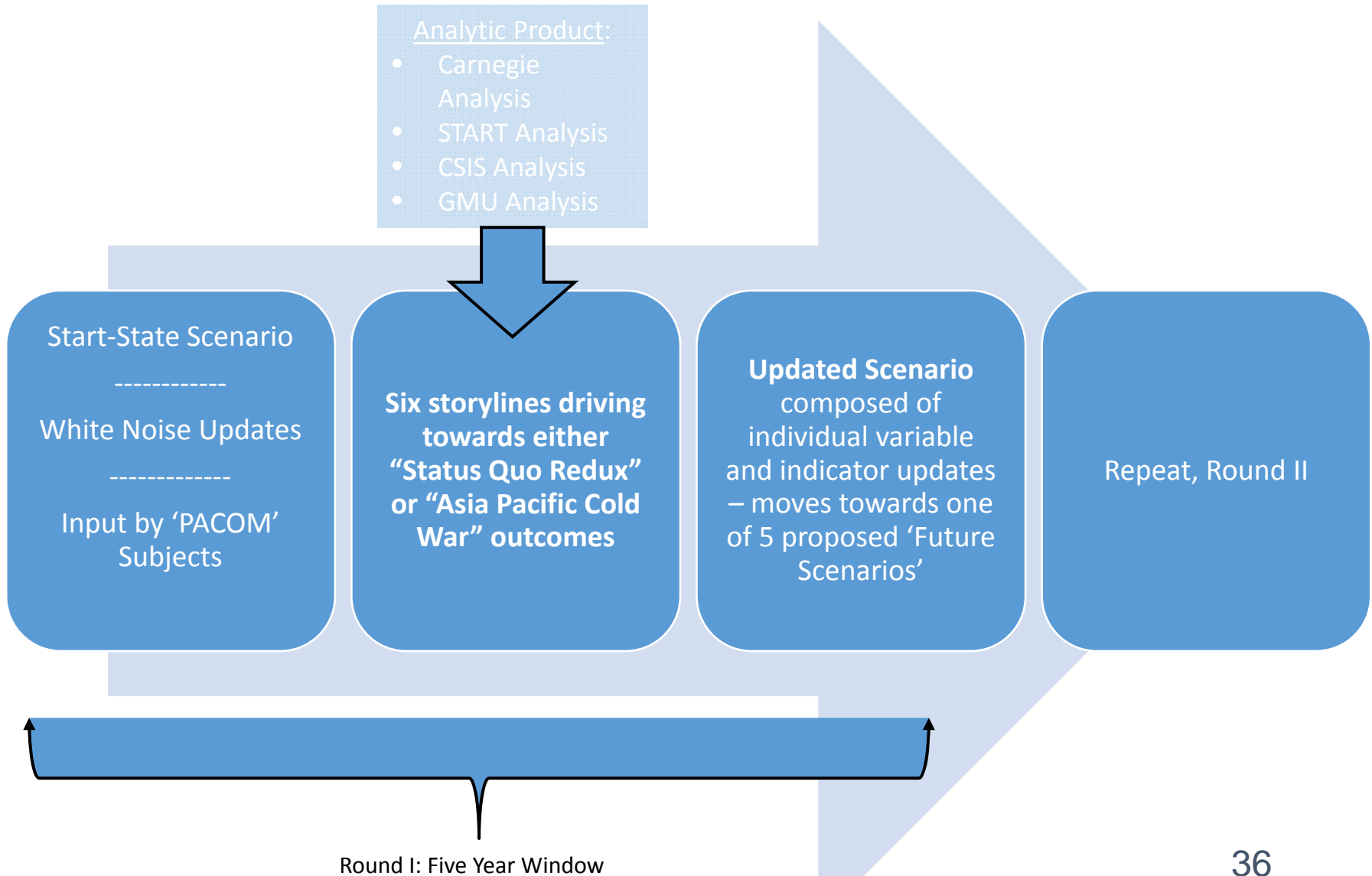




Summary

- Created systems dynamics tool to allow planners to study futures based on interactions among influencing factors
 - Used commercial SD software (iThink® version 10.0.6)
- Provides planners a tool to gain additional insight from a systems perspective
 - Includes non-linear dynamics and feedback mechanisms at play in complex environment in which they, and their competitors, operate

Simulation Structure



Participant Groups

Treatment Group:

- Received access to all Analytic Product of the SMA effort
- Civilian GS, uniformed military, non-GS civilian
- Distribution of planning experience from 4 years to over 20 years, average of over 10 years
- Distribution of Asia-Pacific experience of 3 years to over 20 years, average of ~5 years

Control Group:

- Did not receive access to Analytic Product
- Civilian GS, uniformed military
- Distribution of planning experience from ~10 years to over 25 years , average ~17 years
- Distribution of Asia-Pacific experience of ~2 years to over 25 years, average of ~13 years

Key Findings

Divergence in Priorities Between Groups

- In Round I, little difference in major themes of planning inputs between groups

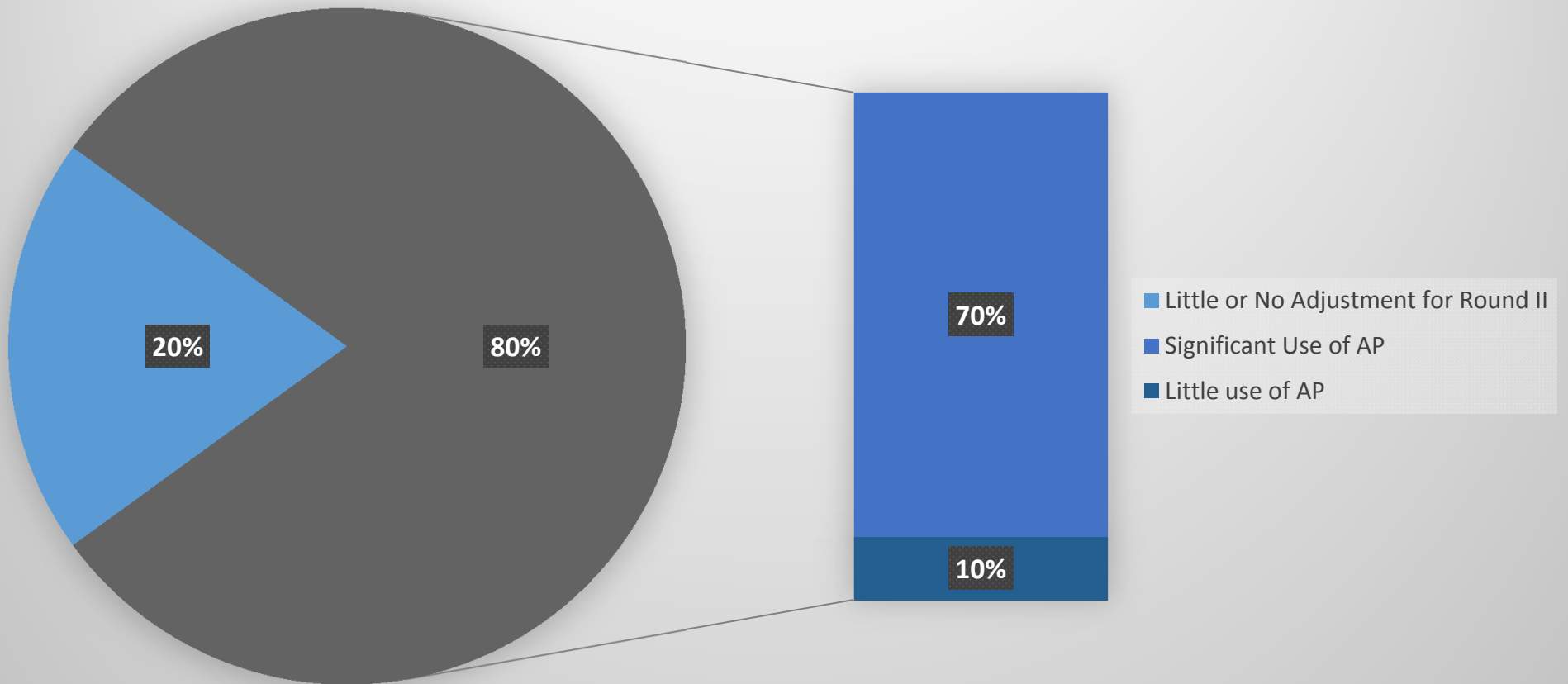
In Round II (2020-2025) dynamic began to shift noticeably:

- Treatment Group overall shifted increasing priority to bilateral and multilateral relationship management (both in existing alliances and beyond) – 80% of inputs recommended specific adjustments
- Control Group remained more focused on force posture modifications, with only 20% of inputs recommending specific adjustments to bilateral and multilateral engagement

Divergence in Planning Priorities Within Treatment Group

- 80% of TG members reported *significant use* of the analytic product, while 20% reported little use, or use of only one tool or product
- Of the 80% of inputs for Round II recommending significant adjustments to bilateral and multilateral relationships, almost 90% were submitted by participants who reported *significant use* of the analytic product

Focus on Bilateral and Multilateral Engagements (Treatment Group)



Salience of PRC

- 85% of all inputs across both groups, and through both rounds, contained either specific focus on the PRC or a reference to the PRC related impact of decisions
- In post sim questionnaire participants were asked to identify whether they thought the end-state of the simulation would see more competitive or cooperative relations between US and PRC – 70% said competitive, despite simulation structure and participant caveats.