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There is a great optimism that comes from this legacy of Andrew Marshall – a man who actively sought outlier perspectives and supported many who would never have found a champion in traditional lanes. He pushed them, if quietly, to dive deep, to explore, expand, and defend those ideas.

Melissa Flagg, Andrew W. Marshall Foundation Advisor

# Table of CONTENTS

### 04

LETTER FROM THE CO-FOUNDER AND CHAIRMAN

### **16**

18

EXAMINING HISTORY TO EXPLORE THE FUTURE

SCHOLAR AND FELLOW

### 06

9

FOUNDATION OVERVIEW

**20** PUBLICATIONS

#### OUR WORK

### 12

PRIZES

### 24

SPECIAL THANKS

### 26

PEOPLE

# How We Honor ANDY'S LEGACY



We will always take this space to reflect on Andy's legacy, how we are upholding and honoring it, and the problem we're trying to solve by being in business. This is based on our love of the United States, what the United States can be, and knowing that all of us can have a role in shaping its future.

In 2022, we continued the great work we began in 2021, our first operating year, through our emphasis on experimenting with the best ways to find and foster intellectually curious people who are passionate about the future of the United States.

# Our accomplishments in 2022 reinforce our belief that it is crucial to find the best people to address the long-term problems that could impact our national interests.

Our activities are experiments through which we seek insights into what best fulfills our mission, what can be improved, and what might change if we modify a particular factor. We constantly seek new ideas, new types of experiments, and new areas of analytical interest that will help us find and foster new voices. There is no hierarchy among our new voices. They bring interdisciplinary rigor to understanding hard problems and offer different views on how decisionmakers might better understand the implications of changes that might occur in the future. Through them, we continue Andy's legacy.

In 2022, with the Institute for Defense Analyses and its remarkable staff, we published *Reflections on Net Assessment* by Andrew W. Marshall, a lightly edited transcript of a series of interviews with Andy in the early 1990s. *Reflections* is daunting. The book is dense and reading it requires close attention. Its value goes beyond thinking about national security: It is a treatise on how one might think about understanding the future. Our experiments continued to focus on organizations, cultures, technologies, and decision making. The winners of our paper prizes remind us that the classics are important to understanding that organizational behavior and decision making are dependent on cultural perspectives rather than homogenous; that deterrence viewed through several lenses could shed new light on long-term competitions; that the forces of change could result in nonstate actors becoming the basis of the next global order; and that the future will be driven not only by technology, but even more by how systems and operations evolve and organizations adapt and adopt.

Thanks to a generous grant from the Richard Lounsbery Foundation, *Examining History to Explore the Future* asked U.S. and French participants to question how their respective countries' histories with China might shape their future relations with China. Each team revealed enduring patterns and insights into risks and opportunities for France and the United States.

Our Andrew W. Marshall Scholars and Fellows continue their focus on deep research into areas such as human cognition, organizational decision making, and other broad questions related to U.S. technology strategy and national interests.

Finally, my special thanks to our staff, advisors, reviewers, and all of those who were so generous with their time, advice, and funding – we are able to continue our journey because of you.

#### Jaymie Durnan

Co-founder and Chairman

Over his career, Jaymie Durnan has served in senior roles in the private sector, the government sector, and the non-profit sector. He was blessed to be a friend, confidant, and mentee of Andy Marshall for more than four decades. Andy and Jaymie co-founded the Andrew W. Marshall Foundation in 2017.

# Foundation OVERVIEW

#### **OUR PURPOSE AND MISSION**

#### Supporting new voices to develop generations of strategic thinkers.

We honor the legacy of Andrew W. Marshall by developing generations of strategic thinkers who will build on his contributions to U.S. national security. We fulfill this purpose by finding and fostering new voices who take interdisciplinary approaches to explore the strategic questions facing the United States. We prioritize independence over popularity, thinking over volume, and courage over caution.

#### **OUR VALUES**

#### Curiosity

The desire to learn, discover, take risks, and experiment.

#### Courage

The fearlessness to challenge long-held views with logical and credible analysis.

#### Openness

The embrace of uncertainty with an eagerness to have one's work challenged.

#### Contribution

The drive to mentor others and actively shape the future rather than react to it.

#### **RECIPIENTS OF OUR SUPPORT**

#### Focused on shaping the future.

The "new voices" we support are not necessarily those in the early stages of their careers. They also include those who are reconsidering their positions on strategic questions and bringing new approaches or disciplines to the broad field of national security.

#### **OUR HISTORY**

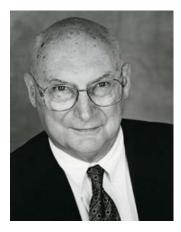
#### Honoring a legacy by finding and fostering new voices.

Although the idea had been percolating for many years, cofounders Andy Marshall and Jaymie Durnan began discussing the reality of a foundation in 2016. Andy had retired from government service the year before, but friends, mentees, and former colleagues still visited him regularly to discuss their work and solicit his ideas. Andy loved this type of interaction. Humble by nature, Andy was not initially inclined to lend his name to a formal organization, but he was continually encouraged by close friends and mentees. By 2017, the idea was fully brewed.

Throughout 2018, Andy and Jaymie engaged with the community Andy had built throughout his life. Supporting publications and discussions on U.S. long-term competitions prompted thinking on the wide scope of activities the Foundation could engage in to support new voices. Staying true to Andy's beliefs that we should embrace uncertainty, the idea of "experimentation" took hold. The Foundation would experiment with different ways to bring people with new approaches or unconventional ideas into the conversation on U.S. national security.

Andy passed away in 2019, and activities quieted down as friends mourned and remembered. A great effort by advisors and friends reinvigorated action in 2020, and the start-up began structuring and generating ideas. The Andrew W. Marshall Foundation launched its first full year of experiments in 2021, which included its inaugural Andrew W. Marshall Paper Prizes, Fellow, Scholar, and History and the Future experiments, as well as publications, events, outreach, and other projects. The outcomes of these activities are its people—over a dozen new voices who will contribute to U.S. national security over their lifetimes.

The Andrew W. Marshall Foundation honors and shares Andy Marshall's mandate: Find people who are curious and passionate about shaping the future.



#### ANDREW W. MARSHALL (1921-2019)

Andrew W. Marshall dedicated his life to the support of new voices, rigorous analysis, and the defense of the United States. His career spanned seven decades, including 25 years at the RAND Corporation and then serving for over 40 years as the Director of Net Assessment in the Office of the Secretary of Defense. Throughout his long career, Andy played a pivotal role in creating new ways to think about U.S. national security through collaboration with and mentorship of other strategists.

"Our mission is to find and mentor new voices. These people are the kinds that our co-founder Andy Marshall looked for, found, and mentored because they had different ideas about the right questions one should ask about the nature of long-term competitions facing the United States. For Andy and the Foundation, an unexceptional answer to the right question is better than a great answer to the wrong question."

-Jaymie Durnan, Co-founder and Chairman, The Andrew W. Marshall Foundation

# our WORK

"The Andrew W. Marshall Foundation's mission to elevate new voices and perspectives is much needed in these times of uncertainty." —Robyn Ferguson, Andrew W. Marshall Paper Prize reviewer

#### **EXPERIMENTATION**

Our activities are experiments from which we seek insights into what best fulfills our mission, what can be improved, and what might change if we modify a particular factor. We constantly seek new ideas, new types of experiments, and new areas of analytical interest that help us find and foster new voices.

Throughout our experiments, we are exploring. Who participates in our experiments? What medium do they need to convey their ideas? What support is required to develop their ideas? How do we encourage people to courageously challenge current orthodoxies?

In many of our experiments, we are testing a hypothesis. We discovered new things, big and small, throughout 2021 and 2022. Whether changes to our activities over the years are tweaks or big changes, our mission stays the same. What can we do to best find and support new voices who will contribute to U.S. national security over the long term? What questions and topics enable us to do this? What formats and structures enable us to do this? There are many answers—so join us on our journey and let us know what you think.

#### **CHARITABLE ACTIVITIES**

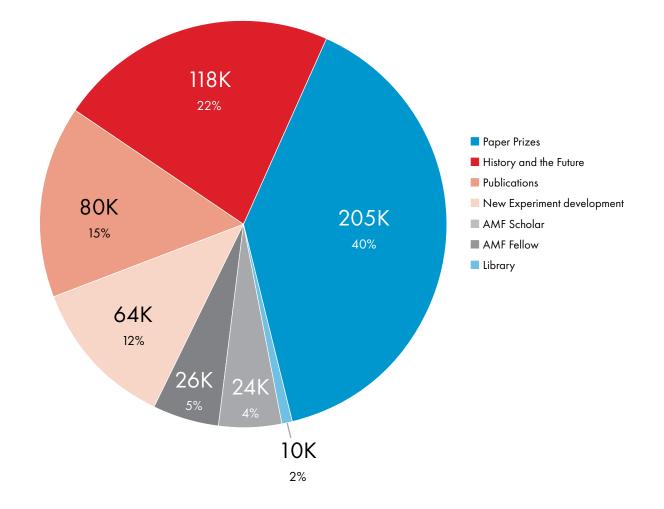
In 2022, the Foundation's charitable activities comprised work on and direct funding for four experiments and three other projects:

#### Experiments:

- Andrew W. Marshall Paper Prizes
- Andrew W. Marshall Fellow
- Andrew W. Marshall Scholar
- Examining History to Explore the Future

#### Projects

- Andrew W. Marshall Library
- Publications
- New Experiment Development



"It has been a pleasure working with the Andrew W. Marshall Foundation over the past year. The folks at the Foundation trusted Dr. Jacqueline Deal and I to explore the history of U.S.–China relations from whatever perspective we deemed most revealing of Beijing's fundamental strategic character.... I tried to be true to what I was seeing repeated in the primary sources, even if—perhaps, especially if—what I was seeing did not fit within the standard American conception of how the CCP fights, what effective strategy looks like or, more generally, a paradigm that justifies the U.S. defense establishment's current force posture. These are the Andrew Marshall-isms that have made their way down to me through my mentors who were lucky enough to work directly with him at the Pentagon. I hope that Mr. Marshall would have found our report interesting, useful and deserving of carrying his name forward."

-Eleanor Harvey, Examining History to Explore the Future team member

"Participating in the AWMF Paper Prize and working with the AWMF team has been an absolute pleasure. AWMF has supported me as a young professional with mentorship, encouragement, and connections to experts in my field, and I am honored to be a part of the community."

-Linda Zhang, finalist, Paper Prize on New Revolutions in Military Affairs

# PRIZES

The Andrew W. Marshall Paper Prize experiments are competitions that offer multiround awards for intellectually bold work on strategic questions. In 2022, we awarded the finalists and winners of our inaugural competitions that we launched in 2021 and ran our second iteration of the Paper Prize experiments. Take a look at some of our new voices and their winning topics.

#### WINNERS

Owen Daniels, "'The AI RMA': The Revolution Has Not Arrived (Yet)" Winner, New Revolutions in Military Affairs

Emily A. Davis, "'The Incalculable Element': Ancient Innovations for Modern Security Problems"

Winner, Creative Bursts and Intellectual Outliers

**Elliot Seckler, "Rethinking Strategic Competition with China: How Organizational** Culture Is Shaping a Reactive Foreign Policy and Subject to a Reverse Competitive Strategy"

Winner, The Role of Organizational Behavior in Competition

Treston Wheat, "'A State in Disguise of a **Merchant': Multinational Tech Corporations** and the Reconfiguration of the Balance of Power in Asia"

Winner, Future Reconfigurations in Asia 2045

Travis Zahnow, "Rethinking Strategic **Competition with China: How Organizational** Culture Is Shaping a Reactive Foreign Policy and Subject to a Reverse Competitive Strategy"

Winner, The Role of Organizational Behavior in Competition

"Working with AWMF this past year has been a wonderful experience. At each stage of the 2022 Paper Prize competition, I was treated with outstanding thoughtfulness, responsiveness, and open-mindedness by every member of their team. Getting to meet such creative and perceptive people has been an honor, and I look forward to many future conversations." -Emily A. Davis

"Participating in all three rounds of the competition has been a tremendously fruitful experience, one that is undoubtedly attributed to the devotion of the Foundation and its staff in upholding their mission of supporting new voices to develop generations of strategic thinkers. The United States needs the AWMF now more than ever before!"

—Elliot Seckler

"Working with AWMF was an extraordinary experience that was intellectually and personally rewarding. I've never been part of a project where independent thinking was so encouraged nor one where thinking out loud was considered a valued process to discover ideas.... AWMF gave me the chance to hone concepts that had been inspired by my work but that couldn't be resolved there. I'm grateful and blessed with the opportunity."

—Treston Wheat

"Few places are filled with as many forward thinkers as AWMF, a true testament to their mission of developing generations of strategic thinkers who will build on Marshall's contributions to U.S. national security. Their Paper Prize allowed my coauthor and me to ask strategic questions and bring forward an idea founded upon asking tough questions. The different rounds of the contest allowed us to hone our argument and, in the end, produce a far better paper than what we started with. I couldn't think of a better organization or group of people to work with than AWMF, and I look forward to continuing that relationship."

—Travis Zahnow

#### FINALISTS

#### Yelena Biberman, "The Biotechnology Revolution in Military Affairs"

Finalist, New Revolutions in Military Affairs

#### Don Casler, "Credible to Whom? Credibility, Organizational Politics, and Crisis Decision-Making"

Finalist, The Role of Organizational Behavior in Competition

#### Julia Coff, "Virtualization, Organizational Attention, and the Perceiving of Weak Cues"

Finalist, The Role of Organizational Behavior in Competition

#### Evan Dudik, "Stress Testing Strategy and Policy Using Ideas from the Philosophy of Science"

Finalist, Creative Bursts and Intellectual Outliers

#### Ido Levy, "Learning from the Enemy: Creative Bursts and Our Learning Competition Against Islamic State Suicide Bombs"

Finalist, Creative Bursts and Intellectual Outliers

#### Tom Welch, "Chinese Science & Technology: Organizational Behavior, Competition, & The Middle-Innovation Trap"

Finalist, The Role of Organizational Behavior in Competition

#### Linda Zhang, "The U.S.-China Competition for Talent"

Finalist, Future Reconfigurations in Asia 2045

#### Anonymous, "Control Superiority: A Framework for Future Warfare"

Finalist, New Revolutions in Military Affairs

#### SEMIFINALISTS

#### Creative Bursts and Intellectual Outliers

#### Jonathon Glidden and Alden Daniel,

"Policy Will Never Die: How English and German Rock Renaissances Can Inform American Policymaking Creativity"

#### Alex Hu and Mordechai Levy-Eichel,

"Progress and Dis-order in the Public Sphere"

**Keith Pennington,** "Locating Innovative Bursts: Measuring Competitive 'Surprise' in Innovation"

**Philip Reiner** and **Leah Walker**, "Creative Partnerships for an Era of Competition"

### The Role of Organizational Behavior in Competition

**George Bogden,** "Recreating 'Policy Hill': A Case Study Supporting the Installation of a Contingency Planning Group at the National Security Council"

**Anand Datla**, "A Case Study – The Organizational Behavior of the U.S. and Imperial Japanese Navy's Torpedo Development Efforts Up to and During the 1940s"

**Eliza Gheorghe** and **Muhammet Muhammetgulyyev**, "Ex Uno Plures: Organizational Behavior, Deterrence Strategy, and Alliance Management" **Sara Moller,** "Explaining Organizational Adaptations in Modern Wars: Evidence from Afghanistan"

**Zoe Robbin,** "The Privatization of State-Building and National Security: How the Department of State's Procurement Processes Impact the Implementation of American Strategy"

### Future Reconfigurations in Asia 2045

#### Seraya Amirthalingam and Melissa

**Deehring,** "The Growing Security Importance of Patrilineal Kinship Groups and the Subordination of Women in Central Asia's "New Great Game:" Implications for the United States"

Yelena Biberman and Jared Schwartz, "One Asia, Two Systems"

**Sodbileg Chuluunbaatar** and **Tuvshinzaya Gantulga**, "Lessons from Mongolia's Policy Toward China: 3,000 Years of Successful Deterrence"

**Hugh Harsono** and **James Kratovil**, "How the Digital Yuan Will Change Financial Interactions in Asia"

**Yuji Maeda,** Luke Schumacher, and Joshua Shapiro, "How the "Unbreakable" U.S.-Japan Alliance Broke: A Postmortem"

Jared McKinney and James Platte, "Steady Magnetic Pull Then Punctuated Change: The Geopolitical Configuration of Asia in 2045" **Kailas Menon,** "South Asian Competition Under Climate Change"

**Haruka Noishiki,** "The Making of Maps: The Psychology of Cartography in the Strategic Representation of Territorial Disputes in East Asia"

**Ari Tolany,** "Beyond Bloc Politics: Anti-Colonialism and Changing Alliance Structures around the Indian Ocean Region"

#### New Revolutions in Military Affairs

**Stuart Anderson,** "Military Research with Chinese Characteristics"

**George Capen, Anand Datla, Paul Giarra,** and **Gerard Roncolato**, "'Petro to Electro:' A Rapidly Developing Revolution in Military Affairs, the Spiraling Drivers and Implications of Battlefield Electrification"

**Ron Christman,** "Refocusing the Lens: The RMA Concept and the Evolution of U.S. NC3"

**Hannah Dennis,** "Cultural Clues to the Future of Military Space"

**Ryan Fedasiuk,** "First Mover, Fast Follower: U.S. and Chinese Blueprints for 21st Century Warfare"

**Nina Kollars** and **Benjamin Schechter**, "The ICT Firm and the State: The Role of Private Sector Control of Infrastructure in RMA"

**Jason Lyall,** "How Social Structures within Militaries Condition the Battlefield Effects of Revolutions in Military Affairs"

**John Maurer,** "The Future of Precision Strike Warfare: Strategic Dynamics of Mature Military Revolutions"

# Examining History TO EXPLORE THE FUTURE

## Supporting people interested in how a nation's history may shape its future.

Understanding a nation's history allows us to identify factors and trends that may shape future relations. As Asia becomes the world's economic center of gravity and China becomes a more powerful global actor, it is important to understand the roles nations will play or wish to play over the next twenty to thirty years so we can shape the future now rather than react later.

In our experiment, *Examining History to Explore the Future*, the Andrew W. Marshall Foundation supported work on France, the United States, and China. Neither France nor the United States can afford to be shortsighted in its thinking about strategic competition with China and the role of the transatlantic alliance. In this experiment, made possible by a generous grant from the Richard Lounsbery Foundation, a French team and a U.S. team wrote papers that explored how their respective country's history with China may shape their future relations.

"This assignment was one that Andy Marshall might have given. He used similar tasking to discourage mirror imaging and wishful thinking. Instead, he tried to elicit empirically based analysis and projections, a standard that I hope our study meets."

-Jacqueline Deal, Examining History to Explore the Future team lead

The French team explored the history of Franco-Chinese relations and the U.S. team took a deep dive into the Chinese Communist Party (CCP)'s political warfare against the United States. Unconventional but critical components of the French and U.S. teams' work were the authors' speculations about a China Dream and a China Nightmare. What might Beijing's success in executing its strategy over the coming decades look like? How might the CCP fail to achieve the China Dream? At the conclusion of the project, the two teams met for a series of capstone discussions. The resulting paper captured insights into and a comparison between the two perspectives.

This project's forays into a careful study of history and a brave assessment of what is possible not guaranteed—are intended to spark debate, new thinking, and, above all, more questions.

#### The Andrew W. Marshall Foundation thanks the Richard Lounsbery Foundation and the following participants in the project:

Jacques Battistella, French co-chair Antoine Bondaz, French team member Paul Charon, French team lead Jack Clark, capstone discussant Jacqueline Deal, U.S. team lead Jeremy Furchtgott, capstone discussant Pierre Grosser, French team member Eleanor Harvey, U.S. team member Lewis Libby, capstone discussant Stéphane Malsagne, French team member Andrew May, capstone reviewer David Pappalardo, capstone discussant Fiona Quimbre, capstone discussant Iskander Rehman, capstone discussant Nadège Rolland, capstone author Eleanor Runde, capstone discussant Gabriel Scheinmann, capstone facilitator



"If the United States starts a China strategy from scratch, without reference to the record of the last century, it is likely to repeat these mistakes. Instead, it should learn from them."

—Jacqueline Deal and Eleanor Harvey, "CCP Weapons of Mass Persuasion: The Past and Potential Future of the United Front Threat to America" "The Andrew W. Marshall Foundation provides our AWMF fellow with wonderful mentoring to develop his strategic thinking, as well as introductions to a rich network of experts and advisors. This support is invaluable (and not available anywhere else) in helping promising young analysts develop into our future strategic experts."

—Igor Mikolic-Torreira, Director of Analysis, Center for Security and Emerging Technology (CSET)

# SCHOLAR AND FELLOW

The Andrew W. Marshall Foundation's Scholar and Fellow experiments give new voices the time, resources, and guidance to take new approaches to explore the strategic questions facing the United States. Fellows spend two years at a host institution and Scholars are sponsored for one year at an organization.

In keeping with the spirit of Andy Marshall's legacy, Fellows and Scholars are valued for their original thinking and are expected to think broadly and creatively and to break new analytical ground. The partnering organizations and the Andrew W. Marshall Foundation provide the Fellows and Scholars with resources to review and refine their work, including but not limited to outline and draft review, feedback sessions with advisors, coordination with subject matter experts, and travel funds for research.

#### **Jake Bebber**

#### 2022-2023 Andrew W. Marshall Scholar

In Spring 2022, Jake began his term sponsored by the Hudson Institute's Center for Defense Concepts and Technology. Jake's study explores the threats of cognitive warfare campaigns against the United States by looking at trends in neuroscience, dual-use technology, and finance.

#### **Owen Daniels**

2022-2024 Andrew W. Marshall Fellow

In late 2022, Owen began his two-year term at the Center for Security and Emerging Technology (CSET) at Georgetown University. Owen is exploring broad questions related to U.S. technology strategy, particularly in the context of U.S. partners and allies and their relationships with U.S. competitors.

#### **Arthur Tellis**

Andrew W. Marshall Scholar, 2021–22

In 2022, our inaugural Scholar continued exploring the extent to which economics affects competition between the United States and China. The Hudson Institute published his culminating paper, "Immaterial Competition: Rethinking the Roles of Economics and Technology in the U.S.-China Rivalry," in May 2022. Read more about Arthur's paper in the Publications section of this report.

#### **Benjamin Chang**

Andrew W. Marshall Fellow, 2021–22

In 2022, our inaugural Fellow continued exploring broad questions of strategy informed by his expertise in artificial intelligence. Toward the end of his term, what rose to the fore was an interest in the sources of agency in technological adoption and change. Working with Foundation advisors, Ben journeyed through questions such as: When is agency available to us and when is it not? When, how, and why do individuals matter?

"The Andrew W. Marshall Foundation was crucial to my intellectual and professional growth...and I am delighted to continue to collaborate closely with the foundation as the Andrew W. Marshall Fellow at CSET. Over the last year and a half, I have benefited tremendously from the knowledge, experience, and kindness of the Foundation's network of advisors, and I have come to more fully appreciate the legacy Mr. Marshall left behind for strategic thinkers in the United States and beyond. I have been equally inspired to see the staggering number of lives he touched as a friend and mentor. I look forward to doing my part to carry on Mr. Marshall's legacy the commitment to asking the right questions—in my work."

-Owen J. Daniels, AWM Fellow and Paper Prize winner

"Part of my deliberate strategy, feeling, was to keep people away from proposing answers.... It's dangerous if we go into the assessment already having made up our minds about what the answers are."

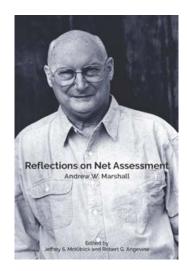
—Andrew W. Marshall, Reflections on Net Assessment

# 2022 PUBLICATIONS

#### **Reflections on Net Assessment**

Interviews with Andrew W. Marshall, edited by Jeffrey S. McKitrick and Robert G. Angevine

Published by the Andrew W. Marshall Foundation and the Institute for Defense Analyses, *Reflections on Net Assessment* features newly released interviews in which Andy Marshall recounts his experience as an analyst among exceptional thinkers at the flourishing RAND Corporation during the Cold War and his work in national security and defense under six U.S. presidents. Readers gain insight into his basic beliefs about human endeavors, his view on the nature of competition between nations, and his strategy for exerting influence in the U.S. government. It is an opportunity to learn about the intellectual history of net assessment in Andy Marshall's own words. It is a unique primary source for students, experts, and anyone interested in national security and strategy.



*Reflections on Net Assessment* is available for purchase through Amazon and Barnes & Noble.

"Readers will gain more than they realize from this work of very good editors. It is history at many levels, as told by Andy Marshall. Readers will gain understanding of the ways potential opponents thought, how Marshall thought about his potential opponents' abilities, and the too often inadequate understanding of what was going on between the major powers."

-Hon. James G. Roche, 20th Secretary of the Air Force

"Andrew Marshall endorsed asking good questions to complex issues over finding brilliant answers to simple questions. After exposure to the breadth and caliber of his thought through these fascinating interviews, readers will be left asking better questions – and drawing upon Marshall in their attempts to answer them."

-Hon. Henry Kissinger, 56th Secretary of State

"This is a must read for those trying to understand how one person could have such a profound impact on the most important national security decisions of our time. Andrew Marshall had a reputation for being one of the quiet influencers in the halls of the Pentagon. This manuscript gives us a look into his thinking in his own voice."

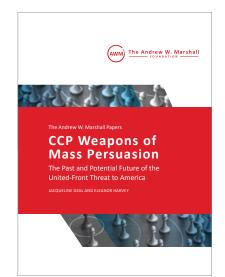
-Paul J. Selva, General, USAF (Ret.), 10th Vice Chairman of the Joint Chiefs of Staff

#### CCP Weapons of Mass Persuasion: The Past and Potential Future of the United Front Threat to America

by Jacqueline Deal and Eleanor Harvey

"CCP Weapons of Mass Persuasion" is a must-read by all who are serious about understanding where China has come from, where it might be going, and the long-term strategic competition the United States and China are engaged in. Jacqueline Deal and Eleanor Harvey have captured Andy Marshall's dictum that to understand what the future might be like, one must understand the past and how it has led to the present. The analysis is brilliant and the research is meticulous. It will be on General Secretary Xi's reading list.

Published as an advance copy within the Foundation's *Examining History to Explore the Future* project, "CCP Weapons of Mass Per-



suasion" discusses how the Chinese Communist Party's (CCP's) approach to the United States today reflects the party's formative competitive experiences a century ago. This paper traces the CCP's repertoire for strategic competition to the Chinese Civil War and analyzes the application of this toolkit to the United States across a series of interactions beginning in the late 1930s and continuing through the present. It concludes with two alternative visions of how the coming decades could unfold, hinging upon Washington's ability to counter Beijing's ongoing subversion campaign.

#### 'A State in Disguise of a Merchant': Multinational Tech Corporations and the Reconfiguration of the Balance of Power in Asia

by Treston Wheat

"A State in Disguise of a Merchant," the grand prize-winning paper of the inaugural Andrew W. Marshall Paper Prize on Future Reconfigurations in Asia, is a thought-provoking survey of the modern rise of tech corporations and their impact on how states interact with each other and achieve their strategic objectives. The reconfiguration explored in this paper is one of power. It raises new questions, not only about Asia but also about the rest of the world. This paper identifies topics of strategic significance and takes an original approach by applying the lens of a cyber expert to regional dynamics.



When corporations were created four centuries ago, they fundamentally altered the relationship between the market and the state while also shifting geopolitical power. Technology corporations are creating a similar revolution in the contemporary age. Technology corporations now play a central role in states' relative power, and over the next two decades they will impact the balance of power in Asia. A country's relative power may be intimately connected to native technology companies as they become essential to economic growth, defend infrastructure and businesses, participate in investigations and attributions of cyber events, and even engage in offensive cyber operations. "A State in Disguise of a Merchant" looks at those different areas, examines trends, and then posits a plausible future in which technology corporations may contribute to a reconfiguration of the balance of power in Asia by 2045.

#### The AI RMA: The Revolution Has Not Arrived (Yet)

by Owen J. Daniels

"The AI RMA," the grand prize-winning paper of the Andrew W. Marshall Paper Prize on New Revolutions in Military Affairs, is an outstanding, nuanced assessment of artificial intelligence and the extent to which it constitutes a revolution in military affairs (RMA)—or does not. It elaborates on the concept of an RMA and demonstrates understanding that an RMA is not solely a set of technological changes but rather is something entirely more complex. This paper begs us to temper our expectations, analyze carefully, and think critically about the technological-military competition between the United States and China.



This paper examines the prospects for artificial intelligence (AI) applications to initiate a new revolution in military affairs. It analyzes this issue by applying the lens of four RMA elements—technological change, military systems evolution, operational innovation, and organizational adaptation—to U.S. and Chinese military AI development. It finds that, in the near term, AI applications may be more likely to help fully realize the reconnaissance-strike RMA than to produce a new AI RMA altogether. However, understanding why AI has not yet sparked a new RMA can shape analysis of the potential trajectory of technological–military competition between the United States and China. The paper uses historical lessons from U.S.–Japanese interwar competition, which produced the carrier aviation RMA, to draw relevant insights for present day U.S.–China AI competition. It concludes by discussing potential frameworks for understanding a future AI RMA and areas for further study.

### Immaterial Competition: Rethinking the Roles of Economics and Technology in the U.S.–China Rivalry

#### by Arthur Tellis

"Immaterial Competition," the culminating paper of inaugural Andrew W. Marshall Scholar Arthur Tellis's term, is a bold inspection of what really matters to, how we can best frame, and what is at stake in the U.S.–China competition. Counter to the orthodoxy of today, Arthur Tellis argues the United States should be wary of policies born from the demands of economic and technological competition with China and instead focus on the military competition for geopolitical primacy in the Indo-Pacific. Whether or not you agree with the argument, this paper will open your eyes, force you to question your assumptions, and challenge you to be precise when discussing these issues.

The U.S.–China rivalry emerges from antithetical geopolitical interests and imperatives that animate a struggle for hegemony in the Indo-Pacific. Explanations of the rivalry as an ideo-logical contest or a competition born from competing economic interests are less compelling than explanations of the rivalry as a geopolitical struggle in the Indo-Pacific. The logic of competition, trade, and globalization suggests that the U.S.–China commercial relationship is mutually beneficial, notwithstanding mutual concerns with each other's economic statecraft and market-leading firms.

# Special THANKS

The Andrew W. Marshall Foundation thanks all those who have supported us since our founding through their gifts, grants, and guidance.

#### 2017–22 GIFTS AND GRANTS

Amy Alving Andrew W. Marshall Jesse Ausubel Jason Aquino John A. Battilega Keith and Suzan Bickel Allen T. Carley Travis Cottom Gene Dattel John Deutch Jaymie Durnan General Atomics Aeronautical Systems, Inc. Steven Hall Matthew Hallex John Hanley

Karl Hasslinger Lewis Libby Fred Littlepage The Richard Lounsbery Foundation Edward N. Luttwak Andy Macak Joanne Mackey Jason Matheny James McAleese Jonathan Paris Lucian Pugliaresi Benjamin Riley, III Scott Rowell Michael Schrage Tom Smith

Jed Snyder Henry Sokolski Phyllis Speer Ronald St. Martin William Studeman Bruce Sugden E.B. Vandiver, III Laurence Zuriff

#### **GUIDANCE AND OTHER SUPPORT**

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The Advisory Group provides strategic guidance to the Andrew W. Marshall Foundation.

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Working at the Andrew W. **Marshall Foundation has** given me the opportunity to grow as a young professional. My time with AWMF has challenged my thinking and views of the world and has helped me further develop my administrative and research skills. I have met incredible people with amazing life experiences. The team at AWMF and the people they work with are an inspiration to the next generation of strategic thinkers.

—Abigail McDonough, Intern

#### The Andrew W. Marshall Foundation

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Founded by Andrew W. Marshall and Jaymie A. Durnan, with the continued support of generations of people who worked for, worked with, or were mentored by Andy Marshall, the Andrew W. Marshall Foundation is a 501(c)(3) tax-exempt organization. The people and work it supports are impartial and intellectually fearless.

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