AHEAD

We believe everyone has the right to a safe and secure future.

Ground Zero, Hiroshima, Japan. Photo credit: Freedom II Andres
In a year defined by uncertainty for us all as a nation, Ploughshares Fund and its vast network of grantees never wavered from our core purpose. Despite one of the most volatile political landscapes in memory, we remained laser focused on our mission: making the world safe from nuclear weapons threats. We will redouble our efforts and strengthen our resolve to defend our collective right to a safe and secure future as the Trump administration comes into power.

Challenge is nothing new to Ploughshares Fund. Along with our grantees, we began 2016 poised to defend the Iran nuclear deal from politicized attacks by its critics when North Korea sent shockwaves around the world with its fourth nuclear test. We remained nimble, working swiftly to educate the public and policymakers on the growing threat posed by North Korea’s nuclear program, and enhancing investments in expertise on this issue. And importantly, we seized upon new opportunities to put pressure on the Obama Administration to make critical nuclear policy changes before he leaves office.

If I had to choose one word to describe where Ploughshares Fund stands at this critical juncture in time, it would be ready. Just as our network was ready to provide the Iran deal with the important civil society support it needed to succeed, this election season we came prepared to help set the course for a saner nuclear policy that will reverberate through future generations for decades to come. When President-elect Donald Trump enters office, he’ll be met with Ploughshares Fund’s new report, 10 Big Nuclear Ideas for the Next President, published one week after the election. It features a range of leading national security experts, such as former Secretary of Defense William J. Perry and former CIA nuclear weapons expert Valerie Plame, whose wisdom on nuclear threats – and how to best reduce them – can equip the incoming administration with the knowledge it needs to shape the best policies.

Ploughshares Fund knows that the investments we make today will help determine whether we remain stuck in Cold War era thinking or advance towards a safer tomorrow. Thanks to the steady commitment of our supporters, we will continue to do everything in our power to make sure the incoming administration, Congress and our country move forward on the right path. We are ready to make a difference – no matter who is in the Oval Office.
Ploughshares Fund is in exceptionally good shape after coming off an historic, successful grant year. Our investments to shape and secure an international agreement to block Iran from developing nuclear weapons succeeded beyond our expectations. Five years ago, everyone was talking about when we would attack Iran. Now, we have stopped a bomb, stopped a new war and we are talking about applying the lessons of the Iran agreement to North Korea.

We have a lot of hard work ahead. This was clear even before we learned the outcome of the presidential election. But we are stronger now than at any point in Ploughshares Fund’s proud 35-year history. The campaign for the Iran agreement helped us build new partnerships, expand our reach and prove in practice a model for effective policy impact.

"We have a lot of hard work ahead, but we are stronger now than at any point in Ploughshares Fund’s proud 35-year history."

Now, we are at a major turning point for nuclear policy. Several trends are converging. Donald Trump – whose position on nuclear weapons policy is unclear at best – takes office next month. Although challenging, this opens up a window of opportunity to help the new administration shape smart, strong – and sane – nuclear security policies. This includes doing everything possible to protect the historic Iran nuclear deal from destruction and preventing a 21st century nuclear arms race from gaining speed. As budget pressures intensify, the government will make critical decisions on whether to go ahead with plans to spend $1 trillion over the next 30 years on nuclear weapons we don’t need and cannot afford. “There’s a reckoning coming here,” Rep. Adam Smith (D-WA) warns his
colleagues, “Do we really need the nuclear power to destroy the world six, seven times?”

This also may be our last chance to contain North Korea’s nuclear program before it becomes too big to stop, and to defuse rising tensions between nuclear-armed neighbors India and Pakistan. Globally, a surprisingly strong new movement has emerged around the humanitarian consequences of nuclear weapons that’s energized governments and citizens in a push for a treaty to ban them. A historic UN resolution in late October kick-started the official process, but a long, uphill road lies ahead. With your help, we are supporting the best groups, building strong networks and providing leadership to both national and global efforts. With you by our side, I have no doubt that we can restore some sanity and morality to our nuclear policies, end the most dangerous of the new weapon programs, and get back on track to reduce and eventually eliminate nuclear weapons once and for all.

Thank you for all you have done to keep this great and noble cause alive.

**INCREASED NUCLEAR RISK**

1. Do nothing to stop the $1 trillion plan to rebuild the US nuclear arsenal
2. Maintain dangerous, immoral and unnecessary Cold War-era nuclear policies
3. Continue with a business-as-usual approach toward North Korea
4. Fail to protect the Iran nuclear deal from opponents who have politicized it
5. Turn a blind eye to the growing tensions between nuclear-armed neighbors India and Pakistan

**A SAFER FUTURE**

1. Cancel the new nuclear-armed cruise missile and phase out ICBMs
2. Invest taxpayer dollars into tackling real 21st century security threats
3. Take nuclear weapons off hair-trigger alert and declare a ‘no-first-use’ policy
4. Develop a more sophisticated plan to freeze North Korea’s nuclear program
5. Sustain the historic Iran nuclear deal which has made the world safer
6. Work to avert a worldwide humanitarian catastrophe that a nuclear exchange in South Asia would cause
The policies we make today on nuclear weapons will have a profound impact on future generations. That’s why in 2016 we prioritized – and continue to prioritize – investing in some of the most effective groups and individuals working toward saner nuclear policies. Our grantees are promoting strategies to stop a toxic 21st century nuclear arms race. They are showing that we can scrap unnecessary and unaffordable weapons because doing so makes us safer. And they are advocating global policies that unite and protect us all from the existential threat that nuclear weapons pose to humanity.
When Beatrice Fihn joined the International Campaign to Abolish Nuclear Weapons (ICAN) – a global campaign coalition working to mobilize people in all countries to inspire, persuade and pressure their governments to initiate and support negotiations for a treaty banning nuclear weapons – she knew she was taking the reins at an exciting time. Her instincts were right.

Shortly after she took on the leadership role two years ago, ICAN helped mobilize civil society and governments around the Vienna Conference, where more than 120 world governments pledged their support to stigmatizing nuclear weapons “in light of their unacceptable humanitarian consequences.” On October 27, this pledge became official when 123 countries voted for a UN resolution that will “convene in 2017 a United Nations conference to negotiate a legally binding instrument to prohibit nuclear weapons, leading towards their total elimination.”

“For seven decades, the UN has warned of the dangers of nuclear weapons, and people globally have campaigned for their abolition. Today the majority of states finally resolved to outlaw these weapons.”

— BEATRICE FIHN, OCTOBER 27, 2016

Ploughshares Fund is exploring and investing in all strategies to reduce nuclear threats, from cutting dangerous weapons systems to securing the ratification of the nuclear ban treaty. A first-time grantee, ICAN has clearly played a leading role in the latter, bringing valuable international perspective to Ploughshares Fund’s work. It is a new investment that has clearly yielded high returns. Keep an eye out for ICAN in the news as treaty discussions kick-off in 2017.
Daryl Kimball and the Arms Control Association (ACA) continue to be a cornerstone of Ploughshares Fund’s work to reduce nuclear weapons around the world. This year saw a major victory in this effort with the introduction of a UN Security Council resolution that reaffirms the importance of a global moratorium on nuclear weapons testing. The resolution, which passed on September 23, calls for the ratification of the Comprehensive Nuclear Test Ban Treaty (CTBT) – which was signed 20 years ago – by the remaining eight hold-out states including the United States.

While a UN resolution to reinforce the CTBT has been discussed for years, Daryl and ACA led a systematic effort to build support for it within the US government and by other UN Security Council member states. Daryl personally traveled to Vienna twice this year to address the significance of a comprehensive nuclear test ban and to discuss options for moving the issue forward at the invitation of the Executive Secretary of the Comprehensive Test Ban Treaty Organization.

The Security Council resolution was achieved in no small part thanks to Daryl and ACA’s tenacity and perseverance. Ploughshares Fund is proud to have helped make this effort possible through its 2016 grant to ACA and looks forward to continuing our partnership into 2017 and beyond.

“We cannot afford to wait another 20 years for the CTBT to enter into force. Until it does, it is in every country’s interest to strengthen the taboo against nuclear testing.”

— DARYL KIMBALL, SEPTEMBER 23, 2016
"Instead of overinvesting in nuclear weapons and encouraging a new arms race, the United States should build only the levels needed for deterrence."

— SECRETARY WILLIAM PERRY, NEW YORK TIMES, SEPTEMBER 30, 2016

THE WILLIAM J. PERRY PROJECT

At 89 years old, former Secretary of Defense William Perry is leading a new national crusade to reduce nuclear weapons threats. On the heels of Sec. Perry’s new book, My Journey at the Nuclear Brink, about his concerns that the United States and Russia are starting a new nuclear arms race, Ploughshares Fund is helping to get the message out.

We have organized events in Washington, DC for Sec. Perry to talk with the media, members of Congress, and issue experts, including an event at the Atlantic Council with California Governor Jerry Brown. We helped to place an op-ed by Sec. Perry in The New York Times on reducing US plans to spend $1 trillion on nuclear weapons over 30 years. And we are working with him to build a national campaign to phase out expensive and particularly dangerous types of US nuclear weapons: land-based ballistic missiles and air-launched cruise missiles.

Now, Sec. Perry is turning his attention to educating a different audience. He has recently launched a free, online course to teach younger generations about the last nuclear arms race and how to avoid a new one. The course includes a 10-week series of expert lectures, including one by our own Joe Cirincione. We encourage all in the Ploughshares Fund family to sign up at www.lagunita.standford.edu to learn from the best.
Over the years, Ploughshares Fund has funded dozens of noteworthy reports and studies by our grantees that have influenced the national security debate. In early 2016, we tapped in-house expertise to publish our first-ever Ploughshares Fund report aiming to influence nuclear weapons policy. The report, *Ghosts of the Cold War*, helped strengthen opposition to US plans to build a dangerous, destabilizing and redundant new nuclear cruise missile, gaining the attention of key policymakers, including members of the House Armed Services Committee.

We closed the year with a second report, *10 Big Nuclear Ideas for the Next President*, which has the power to help the Trump administration get on the right track in shaping its nuclear weapons policies. The ‘10 ideas’ are written by 10 influential voices on nuclear weapons security: from Senator Dianne Feinstein (D-CA) and Rep. Adam Smith (D-WA) who are critical of plans for a new $30 billion nuclear cruise missile, to Kennette Benedict, former publisher of the Bulletin of Atomic Sciences, who argues that no President should have absolute power to launch a nuclear weapon, and retired General James Cartwright – once in charge of the US nuclear arsenal – who explains why our country would be safer with fewer weapons, even if Russia doesn’t reduce its own stockpile.

Senator Ed Markey (D-MA), a staunch critic of US plans to rebuild our nuclear arsenal at an exorbitant cost to the American taxpayer, sums up the report best in the foreword: “The diverse perspectives...are united around a common vision, one that Ploughshares Fund has embodied and promoted with exceptional clarity—if we want future generations to inherit a safer world, we must end our misguided approach to nuclear armament.”

To learn more about the report, or to read it in full, visit www.ploughshares.org.
“Far from continuing the nuclear disarmament that has been underway for the last two decades, we are starting a new nuclear arms race.”

– SECRETARY WILLIAM PERRY, FORMER US SECRETARY OF DEFENSE

PROJECTED COSTS FOR NUCLEAR WEAPONS 2015 – 2022

Nuclear weapons do nothing to protect us from 21st century threats. Yet the US government is planning to spend $1 trillion over the next 30 years to rebuild our arsenal—plans that could push Russia, China and other countries to build even more nuclear weapons.

Chart source: Based on Congressional Budget Office projections, 2013
TURNING POINT:

SUSTAINING THE IRAN DEAL

More than a year after the historic Iran nuclear deal was struck by world powers on July 14, 2015, it is working despite a fierce opposition campaign that claimed it never would. Nonetheless, we are not taking this victory lightly; on the contrary, we know that immense challenges lie ahead. Hardliners in Tehran and Washington are looking for opportunities to undermine the success of the deal, putting politics ahead of global security. President-elect Donald Trump and his cohort have threatened to rip up the deal. Ploughshares Fund and our partners are working tirelessly to defend the deal, which has made America and the world safer without firing a single shot.
Ploughshares Fund ran a five-year, $12 million campaign to forge a diplomatic solution to the Iran nuclear crisis.

Today, the historic agreement is working. It rolled back Iran’s nuclear program, making America and the world safer. Now, our network of grantees is working as hard as ever to sustain this global security triumph.

Letter from President Obama to Ploughshares Fund President Joe Cirincione
THE IRAN PROJECT

Peek behind the curtain of Ploughshares Fund grantee the Iran Project, and you’ll glimpse Iris Bieri moving many of the levers. Headed by Ambassador William H. Luers, the Iran Project has for the past decade supported a balanced, objective and bipartisan approach to preventing Iran from acquiring a nuclear weapon – one that enhances US national security and that of US allies in the region.

For the past 14 years, the Iran Project has been striving to reduce misunderstandings between Iran and the United States by establishing ongoing informal dialogues with Iranian counterparts and conveying the results of those talks to senior US government officials and members of Congress. In recent months, the Project has held events with World Affairs Council chapters nationwide to discuss the implications of the nuclear agreement with Iran and to spread the policy conversation from Washington to cities across America.

As Deputy Director, Iris leads the research, development and publication of reports and statements by the organization and coordinates the Iran Project’s vast network of high-level national security leaders. She represents a growing number of millennial women making a marked difference in shaping global and nuclear security policy. You can bet you’ll be hearing more about Iris in the future.

IRAN PROJECT LETTER TO PRESIDENT OBAMA SIGNED BY 75 NATIONAL SECURITY LEADERS, JULY 11, 2016:

“You have shown that well-conceived and tough-minded diplomacy can protect US national security interests. Given the stakes, the US will need more, not less, engagement with Iran.”
The International Institute for Strategic Studies (IISS), an independent center for research on global security, political risk and military conflict, has a track record of shaping real-world policy debates and decisions. And when it comes to hot nuclear spots like Iran, IISS’s Michael Elleman is making his mark.

A renowned expert on non-proliferation and missile defense, Michael’s knowledge of his subject matter runs deep. His career spans both the private and public sectors, having worked for two decades as a missile scientist at Lockheed Martin’s R&D laboratory, and as a UN weapons inspector in Iraq. He also ran a program in Russia aimed at dismantling obsolete long-range missiles.

At IISS, Michael is applying his expertise to assessing Iran’s regional military capabilities and is exploring mechanisms for promoting security cooperation in the Persian Gulf, while continuing research on the missile and space programs of both North Korea and Iran.

Ploughshares Fund is supporting Michael’s research on Iran, which is especially important in light of missile tests that made headlines in the spring of 2016. His rigorous analysis is bringing much-needed hard facts to the ongoing debate over the true threats and risks posed by Iran’s missile programs.

“Iran will likely refuse to negotiate constraints on its missiles…. They represent one of Iran’s few capabilities to deter attack, intimidate regional rivals, and boost military morale and national pride.”

— MICHAEL ELLEMAN PROVIDING CRITICAL ANALYSIS DURING IRAN NUCLEAR NEGOTIATIONS, REUTERS, APRIL 8, 2014
North Korea is fast becoming one of Ploughshares Fund’s top priorities. As with Iran, business-as-usual won’t keep us safe. Simply continuing past policies – applying more sanctions and beefing up military capabilities in the region – will almost certainly fail. So in early 2016, we quickly shifted much of our focus to the growing North Korean nuclear threat. We will continue to build on that momentum, supporting the best and brightest minds on North Korea to ensure their voices are heard loud and clear by the incoming Trump administration and Congress in 2017.
While 2015 ended on a high note for nonproliferation with the Iran nuclear deal, the arrival of 2016 immediately reminded us that immense dangers remain in the world. On January 6, just days before the historic Iran nuclear deal officially went into effect, North Korea carried out its fourth nuclear test in a decade. It would be followed by a battery of ballistic missile tests, and in September, by a fifth nuclear test even more powerful than the fourth.

Sadly, we are far past asking what North Korea’s capabilities are. But it is crucial that we take steps now to stop Pyongyang from advancing its program further.

Just five years ago many global security, nuclear policy and Middle East experts thought that stopping Iran from building a nuclear bomb without firing a single shot would be impossible. Today, the Iran nuclear agreement is not only a reality – it is working. Although the circumstances, the challenges and the details are vastly different, we believe that our Iran Campaign experience might hold some promise for what we face with North Korea.

Ploughshares Fund’s work on Iran illustrates how seemingly intractable challenges can be overcome. While most of the credit clearly goes to the Obama Administration and congressional champions, we believe that our diverse network’s advocacy for the agreement helped make the difference between triumph and defeat when the deal was at risk of being blocked by Congress. Our experience also shows that highly strategic, targeted and flexible grant-making can be effective in helping transform policy.

Rest assured that we will be working hard over the coming year to deepen our investments, analysis and advocacy on North Korea – to find viable alternatives to the use of force or acquiescence.

Understanding that our longer-term goal must be a nuclear-free Korean Peninsula, with your continued support, we will do all we can in the meantime to find solutions to North Korea’s nuclear ambitions. We are at a critical turning point – time is quickly running out. We need to act now if we want a future without North Korean nuclear missiles pointed at American shores. Together, we must do all we can to help make sure that never happens.
Few nuclear security challenges are more vexing than North Korea. Solving the North Korean nuclear threat requires serious, thoughtful and experienced people. Joel Wit, who runs 38North.org at the US-North Korea Institute at the School for Advanced International Studies (SAIS), is among the best in this small group.

Wit was a US government official during the time when an international coalition of nations worked to freeze the North’s nuclear program. He has been to North Korea multiple times, and meets with North Korean officials about as regularly as can be done through “Track Two” meetings. And he provides consistent, timely and highly expert analysis of developments in North Korea based on satellite imagery and information from an international team of experts — many of whom travel to the North and report back on their observations.

The same cannot be said of the US government or the media. This is where Wit’s key value lies: bringing reasoned, well-informed policy analysis to the US and other governments, and providing accurate and timely assessments to the media. Without Wit’s eyes and ears on North Korea, the policy establishment and media would truly be grasping in the dark.

“The first hundred days in office will be critical for the next American president. If a window is open to curb North Korea’s nuclear ambitions, it may not stay open for long.”

— JOEL WIT, NEW YORK TIMES, SEPTEMBER 13, 2016
Most think of North Korea as an anachronism in today’s globalized world – it’s highly isolated, a true and complete dictatorship and a nuclear rogue nation. But there is a more complex and nuanced reality. It has an economy, infrastructure, education system and many other characteristics that define most societies. Keith Luse and Daniel Wertz of the National Committee on North Korea (NCNK) recognize this.

Under the leadership of Keith – a seasoned congressional staffer to former Senator Richard Lugar (R-IN) and a North Korea expert who has travelled to the country five times – NCNK seeks to bring a diverse set of experts together to broaden and amplify the way US policy approaches the North to resolve the nuclear challenge. He understands the value in pursuing more than one path, as multiple access points may be needed to achieve diplomatic progress, from agriculture to economics to education. Daniel Wertz, the other half of NCNK, recently visited North Korea with a Western delegation, and works to make sure that vital humanitarian assistance to the North remains protected despite US government sanctions.

An important aspect of NCNK’s work is bringing their expertise to decisionmakers. In September, they published a timely “North Korea Primer” for post-election policymakers that covers a range of issues relevant to understanding the North and the implications of US policies. The incoming administration and Congress will be wise to turn to NCNK’s expertise for guidance on North Korea in 2017.

“The US and North Korea are mired in a ‘tit for tat’ situation where there is a provocation by North Kora followed by a US or UN response, followed by a North Korean response... The situation resembles layers of an onion.”

— KEITH LUSE ON THE ESCALATING NORTH KOREA NUCLEAR CRISIS, WASHINGTON POST, FEBRUARY 9, 2016
South Asia is one of the most dangerous regions on earth. Longstanding tensions between nuclear-armed neighbors India and Pakistan flared in late 2016 as the two countries clashed over the long-disputed region of Kashmir, resulting in military casualties. Addressing the root causes of conflict and supporting peacebuilding efforts in this potential nuclear tinderbox remains a key focus of our work. Our grantees are engaged in innovative peacebuilding and conflict resolution activities centered on fostering cross-border communication, harnessing civil society’s voices to inform policy and bridging the divide of misunderstanding.
Harnessing the media to bridge physical and figurative divides can mean the difference between conflict and peace in unstable regions like South Asia. Aaron Lobel, who founded America Abroad Media (AAM) in 2002, understands this more than just about anyone.

“By reducing mistrust and miscommunication and by building collaboration across borders, we can help diminish the chances of conflict. This is a combustible region where communication is too often lacking and where conflict could turn into a nuclear conflict. That’s extremely scary and the world doesn’t pay enough attention to it,” he told us.

With Ploughshares Fund support, AAM developed its groundbreaking South Asia Town Halls series in 2014. In real time, the series connected leading television channels, their audiences and decisionmakers in Afghanistan, Pakistan and India, and centered on a range of themes, from regional security to women’s rights.

“The media in South Asia often whips up and stokes conflict,” Aaron added. “But it has also made positive contributions and that’s why it is imperative to work with media in the region so that it can realize its potential.”
Q&A WITH
SAMINA
AHMED
Samina Ahmed got the call a few months after 9/11. It was the International Crisis Group (ICG), which works on the ground to prevent and resolve deadly conflict, asking her to set up an office for Afghanistan and Pakistan. ‘When?’ she asked. Their response: ‘Yesterday.’ The rest is history. Samina, who previously worked on nuclear issues at Harvard, has for the past 14 years been spending much of her time gathering information in far-flung communities affected by conflict-related issues in South Asia. ICG is a core partner helping us achieve our goal of reducing ongoing tensions in the region, raising the profile of lesser-known drivers of conflict between Pakistan and India, and ultimately preventing a conventional armed conflict from turning into nuclear war.

We recently spoke with Samina about her work bringing ordinary people’s voices to global policymakers.

**What motivates you?**
When I talk to people and they turn around, and on issues that concern their survival, they say, ‘Well, thank God. If we can’t speak, there’s somebody out there who’s listening and will take our voice to the international community and highlight our concerns, and will make perhaps a bit of a difference to us.’

**Why is it so important to bring the voices of people affected by conflict to the international community?**
Nobody else is out there, nobody else is actually bothering to go beyond the capitals. You can work on the same subjects out of Washington or London but it’s not the same thing as working in the field…. I’ve been told by folks in DC, who have the resources that I certainly don’t have, ‘What you give us we don’t get.’ That is a dimension that is completely missing in terms of understanding what the challenges are, and understanding what needs to be done.

**Do you have a chance to talk to women?**
Absolutely. Women are the worst affected by conflict and they benefit the most from peace. If you don’t involve them, if their priorities aren’t reflected in policy, you’re not going to get your policy mix right. And we’re not saying that because we’re politically correct – it’s absolutely central to peacebuilding.

**Do you think nuclear weapons in South Asia will ever be used?**
I worked a lot on nuclear risks and I don’t think that anybody in their right mind would contemplate the use of nuclear weapons. But there’s a history of mistrust, a history of conflict and war, and then when you introduce nuclear weapons into that mix it’s incredibly destabilizing…. But I am really optimistic because of the people… the human capital is unbelievable.

It’s just such a pity that the policies don’t reflect what people in South Asia want, which is security, safety, a good life for their kids, the right to be heard, self rule and democracy.
To advance and expand the nuclear weapons conversation and spark innovative solutions to the threat they pose, Ploughshares Fund has been exploring entry points for broader public engagement.

We are doing this through projects like N Square. Launched in 2014, the project is a venture initiative housed at Ploughshares Fund and is currently supported in partnership with Carnegie Corporation of New York, the John D. and Catherine T. MacArthur Foundation, and the Skoll Global Threats Fund.

N Square believes we can stimulate bolder and more effective strategies to address nuclear threats by encouraging cross-sector collaboration and new thinking about how to make the topic of nuclear security more attractive and relevant to the American public. In its pursuit of “high-impact collisions” among innovators, its work has led to numerous new partnerships and activities, including TED talks, film premieres at the Tribeca Film Festival, hackathons, gaming challenges and salon dinners across the country.

N Square is now busy building networks of innovators from different sectors, like technology, nuclear security and the creative arts and “cross-pollinating” them to create a new generation of thought leaders to solve this 71-year-old problem. We look forward to watching them bloom.
A NETWORK OF NETWORKS: SPARKING NEW IDEAS TO SOLVE THE NUCLEAR PROBLEM

N SQUARE

NUCLEAR SPECIALISTS
- Nuclear expert

TECHNOLOGY
- Satellite software expert
- Nuclear expert
- Building a video game on nuclear security risk

MEDIA
- Late night talk show host
- Creating new ways to engage the public about nuclear risk in popular culture

BUSINESS & FINANCE
- Social media
- Game designer

ARTS & CULTURE

EDUCATION

Creating new ways to engage the public about nuclear risk in popular culture

Creating a tool to monitor nuclear weapons programs from outer space using ‘open source data’
MEET THE INNOVATORS

DANIEL PEDRAZA, N SQUARE TECHNOLOGY AMBASSADOR

Daniel Pedraza believes in the power of big data — and in its potential for good. He co-founded a San Francisco startup with big data software that helps mine health information across multiple national databases so that governments can improve public health services for ordinary men, women and children in the developing world. Today, he’s applying his skills at UN Global Pulse, an initiative promoting big data innovation for sustainable development and humanitarian action.

“We’ll use big data in new, novel ways to inform policy development, to really understand the world in real time,” Daniel told us. “For example, using social media mining to understand perceptions around an immunization campaign and where help should be directed.”

He also sees potential in tapping big data to reduce nuclear threats. It is an issue close to his heart; his father is a former weapons inspector at the International Atomic Energy Agency in Vienna where Daniel, a native of Mexico, spent much of his childhood. He believes innovation, like big data and open source information, is the key to making headway on solving this problem.

“We’ve been on this path for 60 plus years,” Daniel added. “To make progress, yes, you need expertise. But you should also look for new ideas and bring in people that can help foster innovation and a new way to solve this wicked problem.”

MELISSA HANHAM, CENTER FOR NONPROLIFERATION STUDIES

Melissa Hanham was about to start a career in conflict resolution when, in a chance meeting, she received a piece of advice from a very unlikely source: Richard Perle, one of the key architects of the Iraq war. “He said, ‘conflict resolution has doubtful use in the real world’, “ Melissa told us. “I still wanted to work towards a peaceful agenda, but felt I needed to convince the Richard Perles of the world to make progress, so I changed my strategy and studied international security instead.”

The advice seems to have paid off. Melissa, a Senior Research Associate with the East Asia Nonproliferation Program at the Middlebury Institute of International Studies in Monterey, is investigating new techniques in open source geospatial analysis.
In translation: she’s working to make the world safer by seeking viable ways to monitor and verify nuclear weapons activities from space.

Doing what it does best, N Square sparked cross-sector innovation by connecting Melissa – with whom they collaborated on an earlier project – with San Francisco ‘techpreneur’ Brian Lim – who they met at the 2015 TEDActive conference. Although it’s still very early days, the two are developing hyperspectral sensors – basically cameras in space – to take images of Earth that nuclear experts like Melissa can easily download and analyze.

Open source imagery and data from space could be a game-changer for nuclear experts like Melissa, helping them better verify compliance of nuclear treaties and weapons activity that is otherwise nearly impossible to monitor. With North Korea’s recent nuclear weapons and missile testing, this is one innovation that can’t come soon enough.

LOVELY UMAYAM, BOMBSHELLTOE FOUNDER

Lovely Umayam is no ordinary millennial. The 29-year-old is a research analyst focusing on innovative ways to promote and incentivize WMD nonproliferation at the Stimson Center, a Washington, DC think tank. But it’s her work creating the website Bombshelltoe that really drew N Square’s attention. With Bombshelltoe, which was the first-prize winner of the State Department’s 2013 Innovation in Arms Control Challenge, Lovely is striving to bridge the gap between the wonky world of nuclear security and popular culture.

It features stories about nuclear history, art and culture and is designed to appeal to everyday Americans – and importantly – to other millennials who have little or no memory of the Cold War and the fears of nuclear annihilation that came with it.

N Square arranged for Lovely to attend the 2016 PopTech conference in Camden, Maine, which exposes innovators from different sectors – from technology and design to media and science – to new ideas they otherwise would not encounter. N Square has introduced the issue of nuclear weapons security into the PopTech mix by bringing Lovely and other nuclear weapons experts to speak at the conference.

“Speaking at PopTech was my very first opportunity to present Bombshelltoe as a concept outside the nuclear nonproliferation community,” Lovely told us. “Many participants said that they rarely think about nuclear issues and that it had not occurred to them that there are real policy movements on nuclear nonproliferation and arms control.”
OUR LEADERSHIP

MARY LLOYD ESTRIN
BOARD CHAIR
VICE PRESIDENT, GENERAL SERVICE FOUNDATION

TERRY GAMBLE BOYER
BOARD SECRETARY
WRITER AND PHILANTHROPIST

DOUG CARLSTON
BOARD TREASURER
FOUNDER AND CEO, TAWALA

EDIE ALLEN
PRESIDENT, COLOMBE FOUNDATION

PHIL AMES
VICE PRESIDENT, INVESTMENT MANAGEMENT DIVISION, GOLDMAN SACHS

KENNETTE BENEDICT
SENIOR ADVISOR, BULLETIN OF THE ATOMIC SCIENTISTS

JOSEPH CIRINCIONE
PRESIDENT, PLOUGHSHARES FUND

FARSHAD FARAHAT
ACTOR AND DIRECTOR
GAIL SENeca (1953 – 2016)
RETIRED CEO, SENECA CAPITAL AND LUMINENT CAPITAL

Gail Seneca, a devoted, dedicated and cherished member of our Board of Directors passed away suddenly and unexpectedly on August 21 of this year. She is – and will continue to be – dearly missed by the Ploughshares Fund family.
We recently spoke with longtime supporters Kathy and George Edwards of Seattle about their nuclear weapons concerns, and why they’ve supported Ploughshares Fund for more than two decades.

**When did you first become involved with Ploughshares Fund?**
We first learned about Ploughshares 25 years ago. Once we understood its mission, we knew immediately that it deserved our support because everything else in this world that we care about is rendered meaningless if nuclear war becomes a reality in the future.

**What does a world without nuclear weapons look like to you?**
As long as nuclear weapons continue to exist, and as long as rogue nations like North Korea persist in their pursuit of nuclear weapons, civilization as we know it faces an existential threat that imperils everyone on the planet. Once we began supporting Ploughshares Fund, we never seriously considered discontinuing that support. However, nothing would make us happier than to see Ploughshares Fund fully achieve its mission so there would no longer be any need for our support.
Many people are unaware that more than 1,300 nuclear weapons lie just outside of Seattle. How does this impact your thinking and commitment to the issue?
It only reaffirms the wisdom of our continuing support for Ploughshares Fund.

In your opinion, what are the most urgent nuclear threats today?
North Korea’s pursuit of nuclear capabilities and the use of nuclear weapons by terrorist groups.

Do you feel that your investments in Ploughshares Fund make a difference?
It is clear to us that Ploughshares Fund’s work has had a significant and positive impact on national and international decision-making regarding policies related to the stockpiling and use of nuclear weapons. Ploughshares Fund has also been instrumental in making the public more aware of the threat that nuclear weapons pose to global security.

You volunteered recently with some of our Seattle events. Why is it important to you to get others involved with Ploughshares Fund?
I don’t think Ploughshares Fund is very well known in this part of the country and I think many more people would support its work if they were aware of the organization’s mission and track record of success.
DONORS

FISCAL YEAR 2016 (JULY 1, 2015 – JUNE 30, 2016)

PLoughSHARES COUNCIL
Members of the Ploughshares Council provide leadership and sustained support for Ploughshares Fund through their annual gifts of $1,000 or more.

COUNCIL AMBASSADORS
Gifts of $100,000 or more
Edie Allen
I. Inka Benton*
Carnegie Corporation of New York
craigistlist Charitable Fund
Thomas Hall and the Onward Fund
Susan and Bill Oberndorf
Rockefeller Brothers Fund
The Schooner Foundation
Skoll Global Threats Fund
Jaromir Strizka Revocable Living Trust
Anonymous (1)

Gifts of $25,000-$99,000
Daniel Berger
The Cogan Family Foundation
Steve and Roberta Denning
Mary Lloyd Estrin and Bob Estrin
Firedoll Foundation
Terry Gamble and Peter Boyer Fund of the San Francisco Community Foundation
Carolyn A. Gray
Roger Hale and Nor Hall
John and Susan Hess
Henry D. Lord
Ruth du Pont Lord Charitable Trust
Charles Michener*
New-Land Foundation
Vivian and Paul Olum Foundation
Guy and Jeanine Saperstein
Katrina Vanden Heuvel
The Adam J. Weissman Foundation
Jill Troy Werner, Werner Family Foundation

COUNCIL ENVOYS
Gifts of $5,000-$9,999
David Bezanson
Susan Okie Bush
Connie Foote Family Fund of the Saint Paul Foundation
Angela and Jeremy Foster
Joe Gutstadt
HAND Foundation
The Marc Haas Foundation
Ruth and Alfred Heller Fund of the San Francisco Foundation
Ishiyama Foundation
Melodee Siegel Kornacker
Lee and Luis Lainer Family Foundation
Judith Maier
Barbara Manger and Bill Lynch
Purple Lady Fund, Barbara J. Meislin
Katherine and Bridger Mitchell
Mrs. Albert Moorman*
Vance K. Opperman
Ann and Michael Parker
Richard Pritzlaff
Annette J. Roberts and Joan R. Robertson Fund for World Peace, World Law and Peace Education of the Greater Milwaukee Foundation
Gail Seneca*
Sydney and Stanley S. Shuman
Daniel Smith and Lucinda Lee
Margaret Tough
Lucinda Watson
Searle Whitney*
Peggy and Lee Zeigler
Anonymous (2)

COUNCIL DIPLOMATS
Gifts of $1,000-$4,999
Pat and Ronald D. Adler
Philip Ames and Sabrina Ames
Dr. and Mrs. Bruce Amundson
Connirae and Steve Andreas
Artifex Software
Baltimore Community Foundation
Francis Beidler III
William and Rita Bender
Douglas J. Bender
Jerry M. Bernhard
Nancy Bernstein and Robert Schoen
Larry Birenbaum
Julia Bloomfield*
The Boeing Company Gift Match
Amy and Joshua Boger
Ron Boring
Gerald Breslauer
Martin Bronk, MD
Allen Burry
Denise Chilow
Joseph Cirincione
Doris and Howard Conant Family Foundation
Kathleen Gwynn and Jonathan W. B. Cosby
John Cox
Philip Coyle and Martha Krebs
Patsy Cravens
John and Stephanie Dains
David Dayton
Nancy T. De Wit
Reid W. and Peggy Dennis
Reverend James K. Donnell
Laura Donnelley
Gloria Duffy
Farshad Farahat
John and Tawnie Farmer
Peter Felsenthal and Jennifer Litchfield

Anonymous (4)
Carol and John Field
First Republic Bank
Griff and Zoe Foxley
Naomi C. Franklin
Jean Fraser and Geoffrey R. Gordon-Creed
Jack and Deborah French
Eleanor Friedman and Jonathan Cohen
Janet Frohmayer and David Marquez
Sheryl P. Gardner, MD
GE Foundation
Dr. Linda Gochfeld Charitable Fund of the Princeton Area Community Foundation
Goldman Sachs
Laurel Gonsalves
Ellen Grobman
David and Margie Guggenheim
Julie Hall
Dr. Mary Hayden
HBE Foundation
Alan and Judy Hoffman
Mr. Sidney Hollander, Jr
David and Arlene Holloway
Victoria Holt
Helen R. Homans Fund of The Santa Fe Community Foundation
Daniel Walker Howe
The Richard R. Howe Foundation
John Hoyt
Grace A. Hughes Fund of The Marin Community Foundation
Cecelia Hurwich, PhD
Deborah Irmas
ISU Insurance Services
Bud and Fran Johns
Elaine Lynch Jones
Hamilton F. Kean*
Gina and Rich Kelley
Richard Kirchhoff
Sue Klem
Charles D. Kleymeyer
Donald Klose
Elizabeth and Scott Lassar
Thomas C. Layton and Gyongy Laky
Don Lebell
Doug Lee
James and Susan Lenfestey
Sukey Lilienthal and David Roe
Victoria Lilienthal
John Lorenz
Mr. and Mrs. Michael MacLaury
Lisille and Henry Matheson
Pete and Helen McCloskey
McKenzie River Gathering Foundation
Stephanie McKown and John D. Brennan
Richard and Marlene Millikan
Renate and John Mirsky
Moldaw Family Supporting Foundation of the Jewish Community Endowment Fund
Don Mordecai and Corinna Haberland
Penelope More
Katharine Mountcastle
Mr. and Mrs. Stephen Myers
Sara Nerken
Network For Good
Thomas B. Newman, MD, MPH
Jim Newman
Obermayer Foundation, Inc
Virginia and Herbert Oedel
Helen and Blair Pascoe
Elisabeth Peters
Elizabeth C. Peters
Helen and Joseph Pickering
Pisces Foundation
Valerie Plame
Nancy R. Posel
Elizabeth Puro
Brenda Richardson
Marian F. and Horace Y. Rogers Foundation
Dr. Mary Ann Rosenfeld and Sheldon Kadish
Robert A. Rubinstein and Sandra Lane
Paul Sack
Scott Sagan and Sujitpan Bao Lamsam
Sara Sandford
James C. Sanford
Lily Sarafan
Jack and Betty Schafer
Virginia and David Schneider
Margo Sensenbrenner
Sayre P. Sheldon
Roberta R. and Howard A. Siegel
Alan Sieroty
Robert E. Sims
Rodney Smith
Fred and Susan Stern
Frances W. Stevenson
Dr. and Mrs. C. Porter Storey
Lucy B. Stroock
Philip Taubman
Phyllis Thelen
William Bennett Turner
Joanne Von Blon
Waldron & Company
Kirby Walker and Paul Danielsen
Maggie Walker
Mr. and Mrs. Brooks Walker, Jr
Brooks Walker III
Stephen A. Warnke
Mason Willrich
Margaret Winslow
Penny Winton
Robert and Carol Wolfe
David and Joanne Woodyard
Ali Youssifi
Mitchell and Jane Zimmerman
Anonymous (8)

NUCLEAR-FREE LEGACY SOCIETY
Ploughshares Fund’s Nuclear-Free Legacy Society honors individuals who have made a commitment to building a world free of nuclear weapons by including Ploughshares Fund in their estate plans. We acknowledge and thank the following members for their vision and generosity:

Edie Allen
Miles and Erica Anderson
Barbara and Bob Bachner
David Bezanson
James B. Blume and Kathryn W. Frank
Dr. Richard Bradus
Mimi and Dick Brukenfeld
Lew and Sheana* Butler
Joseph Cirincione
Patsy Cravens
Reid W. and Peggy Dennis
Joan and Peter Elbott
Mary Lloyd Estrin and Bob Estrin
Lynn Fasnacht and Peter Ferenbach
Veronica Fields
Angela and Jeremy Foster
Jean Fraser and Geoffrey R. Gordon-Creed
Barbara S. Green
Roger Hale and Nor Hall
Julie Hall
Thomas Hall and the Onward Fund
Mary Elizabeth Handy
Frances K. Harris
David and Arlene Holloway
Jacques F. Jacobson
Wayne Jaquith
Bud and Fran Johns
Catharine and John Kalin
Peter Kohnke
Ann L. Krumboltz
Herbert and Edythe Kurz
Jane Langley
Thomas C. Layton and Gyongy Laky
Jeffrey R. Leifer
Mactaggart Third Fund
David and Sandra Matteson
Purple Lady Fund, Barbara J. Meislin
Carole L. Mendelson
Mr. and Mrs. William R. Miller
Lynda Palevsky
Janet Fitch Parker
Abraham and Camille Pollack
Robert and Marcia Popper
Jean S. Prokopow
Annette J. Roberts and Joan R. Robertson Fund for World Peace, World Law and Peace Education of the Greater Milwaukee Foundation
Barbara Hatch Rosenberg
Joan and William* Matson Roth
Robert A. Rubinstein and Sandra Lane
Sayre P. Sheldon
James G. Sherwood Trust
Rosalind Singer
Mary B. Strauss
Patricia Sullivan
Marilyn L. Thomas
Martha O. Vinick
Brooks Walker III
Philip Yun and Melissa Millsaps
Anonymous (4)

* Deceased
### GRANTS

**FISCAL YEAR 2016**

<table>
<thead>
<tr>
<th>Organization</th>
<th>Location</th>
<th>Grant Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>AMERICA ABROAD MEDIA</strong>&lt;br&gt;WASHINGTON, DC</td>
<td>To support the production and amplification of the 2016-2017 series of televised South Asia town halls that connect officials, experts and audiences in Pakistan, India and Afghanistan to discuss shared regional challenges.</td>
<td>$75,000.00</td>
</tr>
<tr>
<td><strong>AMERICAN VALUES NETWORK EDUCATIONAL FOUNDATION INC</strong>&lt;br&gt;ARLINGTON, VA</td>
<td>For support of a broad effort to mobilize support among AVNEF members and network for the Iran nuclear deal.</td>
<td>$100,000.00</td>
</tr>
<tr>
<td><strong>AMERICANS UNITED FOR CHANGE</strong>&lt;br&gt;WASHINGTON, DC</td>
<td>For a project to mobilize public support for the negotiated agreement on Iran’s nuclear program and convey this support to policymakers.</td>
<td>$50,000.00</td>
</tr>
<tr>
<td><strong>AMERICANS UNITED FOR CHANGE</strong>&lt;br&gt;WASHINGTON, DC</td>
<td>For support of a broadcast ad during key moments of the Iran debate.</td>
<td>$500,000.00</td>
</tr>
<tr>
<td><strong>AMERICANS UNITED FOR CHANGE</strong>&lt;br&gt;WASHINGTON, DC</td>
<td>For polling in targeted states and districts on public views of the Iran nuclear deal.</td>
<td>$50,000.00</td>
</tr>
<tr>
<td><strong>ARMS CONTROL ASSOCIATION</strong>&lt;br&gt;WASHINGTON, DC</td>
<td>To support research and analysis, policymaker and media outreach, and leadership on reducing the risk from nuclear weapons.</td>
<td>$240,000.00</td>
</tr>
<tr>
<td><strong>ARMS CONTROL ASSOCIATION</strong>&lt;br&gt;WASHINGTON, DC</td>
<td>To support ACA’s Senior Congressional Fellow for outreach and education to Congress on significant nuclear security issues.</td>
<td>$50,000.00</td>
</tr>
<tr>
<td><strong>ATLANTIC COUNCIL OF THE UNITED STATES</strong>&lt;br&gt;WASHINGTON, DC</td>
<td>To support an event in conjunction with Search for Common Ground to educate policymakers and the media about the verification issues related to the Iran nuclear deal.</td>
<td>$1,000.00</td>
</tr>
<tr>
<td><strong>ATLANTIC COUNCIL OF THE UNITED STATES</strong>&lt;br&gt;WASHINGTON, DC</td>
<td>For support of a private dinner in Washington, DC with His Excellency Gholamali Khoshroo, Iranian Ambassador to the United Nations.</td>
<td>$10,000.00</td>
</tr>
<tr>
<td><strong>ATLANTIC COUNCIL OF THE UNITED STATES</strong>&lt;br&gt;WASHINGTON, DC</td>
<td>To support the Future of Iran Initiative, which aims to become a leading forum for discussion on US-Iran relations by building on the work of the high-level, bipartisan group involved with the Iran Task Force.</td>
<td>$75,000.00</td>
</tr>
<tr>
<td><strong>ATLANTIC COUNCIL OF THE UNITED STATES</strong>&lt;br&gt;WASHINGTON, DC</td>
<td>To host a public event to highlight the risks of a nuclear world and the increasing risk of nuclear conflict on the margins of the Nuclear Security Summit.</td>
<td>$3,740.00</td>
</tr>
<tr>
<td><strong>PETER BEINART</strong>&lt;br&gt;NEW YORK, NY</td>
<td>To participate in a discussion on the merits of the comprehensive nuclear agreement with Iran.</td>
<td>$14,210.00</td>
</tr>
<tr>
<td><strong>BROOKINGS INSTITUTION</strong>&lt;br&gt;WASHINGTON, DC</td>
<td>For support of the Arms Control and Nonproliferation Initiative and Ambassador Steve Pifer’s efforts to analyze and inform US nuclear weapons policy.</td>
<td>$100,000.00</td>
</tr>
<tr>
<td><strong>CENTER FOR AMERICAN PROGRESS</strong>&lt;br&gt;WASHINGTON, DC</td>
<td>To expand the emerging debate on the future of nuclear-armed cruise missiles to include the perspectives of key international actors as well as US defense and diplomatic officials in charge of regional affairs.</td>
<td>$20,000.00</td>
</tr>
<tr>
<td><strong>CENTER FOR AMERICAN PROGRESS</strong>&lt;br&gt;WASHINGTON, DC</td>
<td>To support analysis of US nuclear weapons programs and implications for security policy and for design and execution of a tabletop scenario planning session with high-level security experts; analytical work emphasized the costs of planned US nuclear weapons programs and the trade-offs among more imperative national security investments.</td>
<td>$75,000.00</td>
</tr>
<tr>
<td><strong>CENTER FOR INTERNATIONAL SECURITY AND COOPERATION</strong>&lt;br&gt;STANFORD, CA</td>
<td>To support efforts of experts on North Korea to provide analysis and facilitate dialogue between the United States and North Korea to resolve the nuclear impasse.</td>
<td>$100,000.00</td>
</tr>
<tr>
<td><strong>CENTER FOR NATIONAL POLICY</strong>&lt;br&gt;WASHINGTON, DC</td>
<td>For a broad effort to influence US nuclear weapons and nonproliferation policy.</td>
<td>$80,000.00</td>
</tr>
<tr>
<td><strong>CLP GLOBAL, LLC</strong>&lt;br&gt;ALEXANDRIA, VA</td>
<td>To support Christine Parthemore to build momentum for a global pledge against nuclear-armed cruise missiles.</td>
<td>$50,000.00</td>
</tr>
<tr>
<td><strong>COMMUNITY INITIATIVES</strong>&lt;br&gt;SAN FRANCISCO, CA</td>
<td>To support the New Media Mentors program and advise and train staff at Women’s Action for New Directions.</td>
<td>$25,000.00</td>
</tr>
<tr>
<td><strong>COUNCIL FOR A LIVABLE WORLD</strong>&lt;br&gt;WASHINGTON, DC</td>
<td>For support of targeted policymaker and media outreach and education about the Iran nuclear deal.</td>
<td>$20,000.00</td>
</tr>
<tr>
<td><strong>COUNCIL FOR A LIVABLE WORLD</strong>&lt;br&gt;WASHINGTON, DC</td>
<td>To support efforts to influence US nuclear weapons and nonproliferation policy.</td>
<td>$80,000.00</td>
</tr>
</tbody>
</table>
COUNCIL ON FOREIGN RELATIONS  
NEW YORK, NY  
To support Adam Mount’s research, articles and roundtables to clarify the ongoing debate on the role of nuclear weapons in US defense policy.  
$35,550.00

DAS BOMBE, LLC  
BROOKLYN, NY  
For support of a project by Smriti Keshari to design and produce a compelling multi-media experience for visitors about the origins and current status of nuclear weapons.  
$25,000.00

KEVIN DAVIS  
WASHINGTON, DC  
To support targeted outreach to members of Congress and their staff to gauge support for the Iran nuclear deal.  
$7,000.00

DEMAND PROGRESS ACTION INC  
SILVER SPRING, MD  
For support of an email campaign to mobilize Demand Progress members for the Iran nuclear deal.  
$35,000.00

ALAN DERSHOWITZ  
CAMBRIDGE, MA  
To participate in a discussion on the merits of the comprehensive nuclear agreement with Iran.  
$25,000.00

DOWNEY MCGRAITH GROUP  
WASHINGTON, DC  
To educate members of Congress on issues related to the P5+1 nuclear negotiations with Iran and a possible comprehensive agreement to prevent Iran from acquiring a nuclear weapon.  
$10,000.00

DOWNEY MCGRAITH GROUP  
WASHINGTON, DC  
To educate members of Congress on issues related to the ongoing P5+1 nuclear negotiations with Iran and a possible comprehensive agreement to prevent Iran from acquiring a nuclear weapon.  
$7,500.00

DRUCKER AND ASSOCIATES  
WASHINGTON, DC  
To work closely with Ploughshares Fund staff to ensure specific priorities or tasks are undertaken as related to the broader context of the Iran campaign.  
$25,000.00

DRUCKER AND ASSOCIATES  
WASHINGTON, DC  
To work closely with Ploughshares Fund staff to ensure specific priorities or tasks are undertaken as related to the broader context of the Iran campaign.  
$5,000.00

JANE EISNER  
NEW YORK, NY  
To moderate a discussion on the merits of the comprehensive nuclear agreement with Iran.  
$1,000.00

FAIRNESS & ACCURACY IN REPORTING INC  
NEW YORK, NY  
For support of the Middle East Media Action Project to inform the debate on the negotiated settlement with Iran.  
$25,000.00

FCNL EDUCATION FUND  
WASHINGTON, DC  
For continued additional staff time devoted to support of the Iran nuclear deal and participation in the Ploughshares Fund Iran campaign.  
$25,000.00

FCNL EDUCATION FUND  
WASHINGTON, DC  
To support policy education on current US modernization programs, reduced roles and numbers of nuclear weapons and reductions to US nuclear weapons spending.  
$56,000.00

FEDERATION OF AMERICAN SCIENTISTS  
WASHINGTON, DC  
To support research on modern cyber and cyber-warfare capabilities and their implications for nuclear strategic stability.  
$15,000.00

FRIENDS COMMITTEE ON NATIONAL LEGISLATION  
WASHINGTON, DC  
To support an integrated lobbying strategy to increase support for implementation of the comprehensive nuclear deal with Iran, and to educate Congress and the public about the benefits of the agreement.  
$50,000.00

FRIENDS COMMITTEE ON NATIONAL LEGISLATION  
WASHINGTON, DC  
To support research on modern cyber and cyber-warfare capabilities and their implications for nuclear strategic stability.  
$173,000.00

GLOBAL SECURITY INSTITUTE  
NEW YORK, NY  
To advance a United Nations Security Council (UNSC) resolution to declare nuclear weapons testing a threat to international peace and security.  
$10,000.00

HITLERS NUCLEAR PLANS  
WASHINGTON, DC  
To support the continuing work of LobeLog in defending the Joint Comprehensive Plan of Action (JCPOA) against legislative and political attacks and promoting peace initiatives around the humanitarian impact of nuclear weapons and the need for nuclear disarmament.  
$40,000.00
<table>
<thead>
<tr>
<th>Organization</th>
<th>Location</th>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>International Crisis Group</td>
<td>Washington, DC</td>
<td>To support research, reporting and analysis and advocacy efforts to help resolve conflict in Pakistan and prevent conflict between Pakistan and India, as well as supporting a high-level meeting between key influencers to discuss the Pakistan-India relationship and peace process. $130,000.00</td>
<td></td>
</tr>
<tr>
<td>Massachusetts Institute of Technology</td>
<td>Cambridge, MA</td>
<td>For travel and incidental costs incurred by Dr. Jim Walsh to participate in policy maker and public forums on the Iran nuclear deal. $10,000.00</td>
<td></td>
</tr>
<tr>
<td>Mike Lux Media</td>
<td>Washington, DC</td>
<td>To support Aaron Black’s grassroots outreach for public education on the nuclear deal with Iran. $4,800.00</td>
<td></td>
</tr>
<tr>
<td>Negar Mortazavi</td>
<td>New York, NY</td>
<td>To support outreach to media, policymakers and the general public to communicate a regional perspective of the Iran nuclear deal. $10,000.00</td>
<td></td>
</tr>
<tr>
<td>MoveOn.org Civic Action</td>
<td>Berkeley, CA</td>
<td>For support of a broad effort to mobilize support among MoveOn members and network for the Iran nuclear deal. $175,000.00</td>
<td></td>
</tr>
<tr>
<td>MoveOn.org Civic Action</td>
<td>Berkeley, CA</td>
<td>To expand and intensify its ad campaign to increase pro-deal messaging among Hill staffers, journalists and other political influencers, and to provide educational materials for MoveOn members. $150,000.00</td>
<td></td>
</tr>
<tr>
<td>National Committee on North Korea</td>
<td>Washington, DC</td>
<td>To support the National Committee on North Korea’s outreach and education to policymakers and the media on issues related to North Korea and efforts to engage directly with North Korean interlocutors to explore opportunities for engagement. $55,000.00</td>
<td></td>
</tr>
<tr>
<td>National Iranian American Council</td>
<td>Washington, DC</td>
<td>To support education and media work to shape the debate among policymakers and the media on supporting implementation of the JCPOA. $13,000.00</td>
<td></td>
</tr>
<tr>
<td>National Public Radio, Inc.</td>
<td>Washington, DC</td>
<td>To support national security reporting on NPR with an emphasis on themes and stories related to nuclear security topics. $100,000.00</td>
<td></td>
</tr>
<tr>
<td>New Israel Fund</td>
<td>Washington, DC</td>
<td>To support the HaaretzQ with New Israel Fund Conference. $10,000.00</td>
<td></td>
</tr>
<tr>
<td>NiAC Action</td>
<td>Washington, DC</td>
<td>For advocacy to shape the debate among policymakers and the media on supporting implementation of the JCPOA. $87,000.00</td>
<td></td>
</tr>
<tr>
<td>Nuclear Watch of New Mexico</td>
<td>Santa Fe, NM</td>
<td>To support the Weapons Watch Project that scrutinizes nuclear weapons programs, provides analysis to media, policymakers and nongovernmental colleagues, and advocacy for nuclear weapons spending reductions. $25,000.00</td>
<td></td>
</tr>
<tr>
<td>Nuclear Watch of New Mexico</td>
<td>Santa Fe, NM</td>
<td>To support the Weapons Watch Project that scrutinizes nuclear weapons programs, provides analysis to media, policymakers and nongovernmental colleagues, and advocacy for nuclear weapons spending reductions. $35,000.00</td>
<td></td>
</tr>
<tr>
<td>Peace Action West</td>
<td>Oakland, CA</td>
<td>To support advocacy efforts to advance the nuclear security agenda, with a focus on protecting and sustaining the nuclear agreement with Iran and right-sizing the nuclear weapons budget. $30,000.00</td>
<td></td>
</tr>
<tr>
<td>TED Postol</td>
<td>Charlestown, MA</td>
<td>To support travel and incidental costs incurred to collaborate with the Federation of American Scientists and the Natural Resources Defense Council on research into the impact of future nuclear forces on strategic stability. $5,000.00</td>
<td></td>
</tr>
<tr>
<td>President &amp; Fellows of Middlebury College</td>
<td>Middlebury, VT</td>
<td>To support research, analysis and writing on nuclear weapons developments and policy issues to educate policymakers and media on the issues. $45,000.00</td>
<td></td>
</tr>
<tr>
<td>Project on Government Oversight</td>
<td>Washington, DC</td>
<td>To support analysis and policy recommendations regarding US nuclear weapons programs and policy, in particular those aspects that have cost overruns, mismanagement or lack utility for national security needs. $50,000.00</td>
<td></td>
</tr>
<tr>
<td>Public Affairs Alliance of Iranian Americans</td>
<td>Washington, DC</td>
<td>To support activities to educate policymakers and the public on the benefits of the nuclear agreement with Iran. $50,000.00</td>
<td></td>
</tr>
<tr>
<td>Public Radio International Inc.</td>
<td>Minneapolis, MN</td>
<td>For support of six months of programming on The World to broaden and increase coverage of Iran to promote greater understanding of Iran and its people. $100,000.00</td>
<td></td>
</tr>
<tr>
<td>Reinvest</td>
<td>San Francisco, CA</td>
<td>For the initial installment of a planned 10-part series on Reinventing American Foreign Policy. $25,000.00</td>
<td></td>
</tr>
<tr>
<td>Reinvest</td>
<td>San Francisco, CA</td>
<td>For the remaining nine installments of a planned 10-part series on Reinventing American Foreign Policy. $75,000.00</td>
<td></td>
</tr>
</tbody>
</table>
REINVENT  SAN FRANCISCO, CA
For two additional installments of the series “Reinventing American Foreign Policy.” $25,000.00

REINVENT  SAN FRANCISCO, CA
For three final installments of the series “Reinventing American Foreign Policy.” $25,000.00

RETHINK MEDIA, INC  BERKELEY, CA
To support a temporary staff position dedicated to assisting ReThink Media’s efforts in support of the Iran nuclear negotiations. $6,000.00

RETHINK MEDIA, INC  BERKELEY, CA
To support efforts to enhance the nuclear security NGO community’s media skills and capacity, and to effectively engage with the media and policymakers on the issues of US plans for modernization of its entire nuclear weapons systems. $95,000.00

TAXPAYERS FOR COMMON SENSE  WASHINGTON, DC
To support analysis, policymaker and media outreach to highlight advocacy for broad reductions in US nuclear weapons spending. $30,000.00

THE FOUNDATION FOR A CIVIL SOCIETY  NEW YORK, NY
To support a conference on the ongoing implementation of the Iran agreement. $2,500.00

THE FOUNDATION FOR A CIVIL SOCIETY  NEW YORK, NY
To educate policymakers and the media about the impact of the Iran nuclear agreement. $95,000.00

TRI-VALLEY CARES  LIVERMORE, CA
To support efforts to analyze and influence US nuclear weapons policy and in particular to highlight the costs of planned nuclear weapons spending plans. $50,000.00

UNION OF CONCERNED SCIENTISTS  CAMBRIDGE, MA
For continued support of the Global Security Program and the Washington, DC-based nuclear policy efforts aimed to reduce the size and scope of US nuclear weapons arsenals. $50,000.00

VOTEVETS.ORG ACTION FUND  WASHINGTON, DC
To fly veterans to Washington, DC, to meet with members of Congress and the administration, and to promote those meetings in the media. $65,000.00

WASHINGTON STRATEGY GROUP  WASHINGTON, DC
To provide outreach and education to media and policymakers on diplomatic solutions to the Iranian nuclear crisis. $30,000.00

WIN WITHOUT WAR  WASHINGTON, DC
To increase the organization’s public education and rapid response regarding diplomacy with Iran. $14,500.00

WIN WITHOUT WAR  WASHINGTON, DC
To mobilize a broad base of public support of the Iran agreement and other relevant nuclear weapons policy issues. $65,000.00

WOMEN’S ACTION FOR NEW DIRECTIONS  CAMBRIDGE, MA
For continued support of WAND’s nuclear weapons policy advocacy and the staff role in Washington, DC that leads advocacy efforts. $75,000.00

WOMEN’S ACTION FOR NEW DIRECTIONS  EDUCATION FUND  CAMBRIDGE, MA
To train and educate WiLL members and WAND community leaders about current nuclear weapons policies and effective messages and techniques to engage the media, public and policymaker debate to focus on efforts to reduce nuclear weapons dangers. $60,000.00

N SQUARE: SELECT ACTIVITIES

POPTECH  CAMDEN, ME
For two grants, the first to incorporate nuclear weapons risk into the annual PopTech Conference, which each year convenes “a global community of innovators to expand the edge of change” in Camden, Maine, and the second to forge a longer term strategic partnership on nuclear weapons risk and to deliver workshops and salons alongside N Square’s “Pop-up Labs” across the country. $200,000

FIELD INNOVATION TEAM  HEBER CITY, UT
For execution of an interactive experience at the annual San Francisco Fleet Week that provided hundreds of visitors exposure to information and experts on nuclear risks. $35,000

GAMES FOR CHANGE  NEW YORK, NY
To run gaming hackathons in cities across the country alongside N Square’s “Pop-up Labs” and to mount game arcades that contrast how games currently treat the subject of nuclear weapons with emerging social good games. $120,000

FRAMEWORKS INSTITUTE  WASHINGTON, DC
To conduct in-depth research rooted in sociology that will help inform fresh framing of the nuclear weapons issue in order to better connect with the general public, and ultimately spur them to action. $75,000

TED  NEW YORK, NY
To partner with TED in 2016, including featuring N Square at the main TED conference and showcasing grantees, among many other activities. $150,000

FILAMENT GAMES  MADISON, WI
To develop a prototype mobile device-based game called Epic Orphan, the Games for Change winner that puts the player in the shoes of an agent trying to prevent various nuclear attack or accident scenarios. $70,000

NATURAL RESOURCES DEFENSE COUNCIL (NRDC)  CAMBRIDGE, MA
To support the development and promotion of the NRDC/Safecast citizen radiation monitoring network. This partnership between nuclear weapons and proliferation experts and environmental monitoring engineers seeks to design real-world tools for detection of nuclear materials. $30,000
Ploughshares Fund’s operations and grants are aimed at activities that have the potential to affect public policy by reaching policymakers, the media and the public with vital information about nuclear weapons and other international security issues.

To ensure maximum impact, all annual contributions go directly to program activities, with nothing subtracted for administration or fundraising.

In 2016, Ploughshares Fund raised $5,390,694 and gave grants totaling $4,770,000 and programmatic contracts totaling $370,300. We spent $3,159,159 on other programmatic activity, including $1,481,587 of N Square expenses. Operational expenses are paid for by the Fund’s Board of Directors and a draw from our capital reserves. This year, 82% of our budget was spent on grantmaking and program services, exceeding standards set by the National Charities Information Bureau/Better Business Bureau and Charity Navigator.

In 2016, Ploughshares Fund’s investments lost $1,931,974 compared to a gain of $337,150 in 2015. Through the first quarter of fiscal year 2017, investments are up $1,456,559. Ploughshares Fund’s investment portfolio is actively managed by the Fund’s investment committee with counsel of an investment manager.

At June 30, 2016, Ploughshares Fund’s net assets were $31,552,762 compared to net assets at June 30, 2015 of $38,190,664. Of the 2016 total net assets, $29,909,536 is held in our capital reserves, which were established to ensure that we will be able to continue our mission to eliminate the threat of nuclear weapons despite any potential external shocks that may arise.

1 N Square is the product of a joint funding initiative of the John D. and Catherine T. MacArthur Foundation, the Carnegie Corporation of New York, Ploughshares Fund, the William and Flora Hewlett Foundation and the Skoll Global Threats Fund.
# FINANCIAL REPORT

## FISCAL YEAR 2016

### SUPPORT AND REVENUE

<table>
<thead>
<tr>
<th></th>
<th>2016</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contributions</td>
<td>5,390,694</td>
<td>6,980,284</td>
</tr>
<tr>
<td>Interest and short term investment return</td>
<td>487</td>
<td>629</td>
</tr>
<tr>
<td>Investment return</td>
<td>-1,931,974</td>
<td>336,521</td>
</tr>
<tr>
<td>Changes in value of split-interest agreements</td>
<td>4,676</td>
<td>4,676</td>
</tr>
<tr>
<td><strong>TOTAL SUPPORT AND REVENUE</strong></td>
<td><strong>3,463,883</strong></td>
<td><strong>7,322,110</strong></td>
</tr>
</tbody>
</table>

### EXPENSES

**Program Services**
- Special Projects: 21,000 (2016), 87,000 (2015)

**Supporting Services**

**TOTAL EXPENSES** | **10,101,785** | **9,288,589**

### CHANGE IN NET ASSETS

<table>
<thead>
<tr>
<th></th>
<th>2016</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CHANGE IN NET ASSETS</strong></td>
<td><strong>-6,637,902</strong></td>
<td><strong>-1,966,479</strong></td>
</tr>
</tbody>
</table>

### NET ASSETS, BEGINNING OF YEAR

<table>
<thead>
<tr>
<th></th>
<th>2016</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>NET ASSETS, BEGINNING OF YEAR</strong></td>
<td><strong>38,190,664</strong></td>
<td><strong>40,157,143</strong></td>
</tr>
</tbody>
</table>

### NET ASSETS, END OF YEAR

<table>
<thead>
<tr>
<th></th>
<th>2016</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>NET ASSETS, END OF YEAR</strong></td>
<td><strong>31,552,762</strong></td>
<td><strong>38,190,664</strong></td>
</tr>
</tbody>
</table>

### ASSETS AND LIABILITIES

For fiscal year ended June 30, 2016

#### ASSETS

<table>
<thead>
<tr>
<th></th>
<th>2016</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash and cash equivalents</td>
<td>2,117,330</td>
<td>3,652,162</td>
</tr>
<tr>
<td>Promises to give</td>
<td>856,407</td>
<td>2,200,684</td>
</tr>
<tr>
<td>Interest receivable and other assets</td>
<td>125,384</td>
<td>114,550</td>
</tr>
<tr>
<td>Long term investments</td>
<td>29,909,536</td>
<td>34,392,686</td>
</tr>
<tr>
<td>Fixed assets (less accumulated depreciation and amortization)</td>
<td>71,109</td>
<td>93,884</td>
</tr>
<tr>
<td><strong>TOTAL ASSETS</strong></td>
<td><strong>33,079,766</strong></td>
<td><strong>40,453,966</strong></td>
</tr>
</tbody>
</table>

#### LIABILITIES

<table>
<thead>
<tr>
<th></th>
<th>2016</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounts payable and accrued expenses</td>
<td>225,264</td>
<td>156,968</td>
</tr>
<tr>
<td>Grants payable</td>
<td>1,278,786</td>
<td>2,078,705</td>
</tr>
<tr>
<td>Deferred revenue</td>
<td>22,954</td>
<td>27,629</td>
</tr>
<tr>
<td><strong>TOTAL LIABILITIES</strong></td>
<td><strong>1,527,004</strong></td>
<td><strong>2,263,302</strong></td>
</tr>
</tbody>
</table>

#### NET ASSETS

<table>
<thead>
<tr>
<th></th>
<th>2016</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unrestricted</td>
<td>6,491,477</td>
<td>10,538,833</td>
</tr>
<tr>
<td>Temporarily restricted</td>
<td>19,251,016</td>
<td>21,856,791</td>
</tr>
<tr>
<td>Permanently restricted</td>
<td>5,810,269</td>
<td>5,795,040</td>
</tr>
<tr>
<td><strong>TOTAL NET ASSETS</strong></td>
<td><strong>31,552,762</strong></td>
<td><strong>38,190,664</strong></td>
</tr>
</tbody>
</table>

#### TOTAL LIABILITIES AND NET ASSETS

<table>
<thead>
<tr>
<th></th>
<th>2016</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>TOTAL LIABILITIES AND NET ASSETS</strong></td>
<td><strong>33,079,766</strong></td>
<td><strong>40,453,966</strong></td>
</tr>
</tbody>
</table>

---

1 A completed audited financial report is available upon request.
2 All administrative and fundraising expenses are covered by contributions from Ploughshares Fund’s Board of Directors, an annual draw from the capital reserves and allocations from a few foundations.
3 The decline in net assets is attributable to the negative return on investments, the annual draw taken from capital reserves to fund operations, and the expenditure of $3.2 million received in prior years but reserved and/or restricted for use in fiscal year 2016.
4 These assets include investments in Ploughshares’ Pooled Income Fund.
5 Includes $1,012,000 restricted to funding N Square in fiscal year 2017.
Ploughshares Fund works to build a safe, secure world by developing and investing in initiatives to reduce and ultimately eliminate the world’s nuclear stockpiles, and to promote stability in regions of conflict where they exist. Ploughshares Fund is supported by individuals, families and foundations.