

**SIX ACHIEVABLE STEPS FOR IMPLEMENTING
AN EFFECTIVE VERIFICATION REGIME
FOR A NUCLEAR AGREEMENT WITH IRAN**



**Nuclear Verification Capabilities
Independent Task Force of the
Federation of American Scientists**

Second Report

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Six Achievable Steps for Implementing an Effective Verification Regime for a Nuclear Agreement with Iran

Nuclear Verification Capabilities Independent Task Force of the Federation of American Scientists

ABOUT THE TASK FORCE

This non-partisan Nuclear Verification Capabilities Independent Task Force was convened by the Federation of American Scientists to examine the technical and policy requirements to verify adequately a comprehensive or other sustained nuclear agreement with Iran. The Task Force published its first report in September 2014 outlining suggested requirements for monitoring and verifying a nuclear agreement with Iran.¹ In this report, the Task Force has outlined six achievable steps for implementation of an effective verification regime for a nuclear agreement with Iran.

Christopher A. Bidwell served as chairman and rapporteur of this Task Force. Substantial contributions were made by Amb. Joseph DeThomas (Ret.), Dr. Charles D. Ferguson, John A. Lauder, Harvey Rishikof, Dr. Amy Sands, and Dr. Richard Weitz. During the course of this project, the Task Force organized an all-day workshop discussion at the Washington Center for Nonproliferation Studies of the Middlebury Institute of International Studies at Monterey. We also held several roundtable discussions: one at the Middlebury Institute of International Studies at Monterey, two at Stanford University's Hoover Institution on War, Revolution, and Peace, one at Harvard University's Belfer Center for Science and International Affairs at the John F. Kennedy School of Government, and one at the National Defense University's Center for the Study of Weapons of Mass Destruction. Task Force members also met individually with experts both in and out of government. All in all the Task Force members conferred with over 75 experts in the arms control, nonproliferation, verification, international law, and security fields and considered their inputs in making these recommendations. We thank each of them for their contributions. The members of the Task Force would also like to thank the John D. and Catherine T. MacArthur Foundation for its generous funding of this project.

Disclaimer: This report is a product of the Task Force as a whole and not of the Federation of American Scientists, which simply convened the Task Force. The report synthesizes the personal views of the participants and should not be seen as reflecting the views of the private and government organizations with whom the Task Force members are now or have been affiliated, or the views of the individuals and organizations with whom it consulted.

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Introduction

Over the last 20 months, Iran has been in negotiations with the P5+1² regarding its nuclear program. These negotiations culminated in an agreement on July 14, 2015 that was memorialized in a 159 page text.³ The essence of the agreement is that Iran has offered the P5+1 constraints on its nuclear program in exchange for sanctions relief. As part of these negotiations, in paragraph iii of the Preamble and General Conditions: “Iran reaffirms that under no circumstances will Iran ever seek, develop or acquire any nuclear weapons.”

These negotiations, and the subsequent agreement, created a question for the U.S. policy community: What monitoring and verification measures and tools will the United States, its allies, and the International Atomic Energy Agency (IAEA) require in relation to a comprehensive nuclear agreement with Iran? To examine the issue, the Federation of American Scientists (FAS) formed the Verification Capabilities Independent Task Force that released a report in September 2014 titled, Verification Requirements for a Nuclear Agreement with Iran. The Task Force continues to examine these issues. Now that an agreement has been reached between the P5+1 and Iran, the Task Force has focused on the anticipation of implementation challenges and offers findings and recommendations for strengthening the implementation process both internationally and within the United States.

As is often the case with international agreements, there are ambiguities and uncertainties in whatever language is included in an agreement. The July 14, 2015 agreement is no exception. Such ambiguities have been historically clarified in the implementation process or have been ongoing sources of tension about compliance with agreements. Here, there will be both opportunities to strengthen the agreement with Iran and risks that aspects of the agreement will be ignored or walked back. Ineffective implementation would inhibit the further development of trust, erode confidence in the agreement within international and domestic communities, and put at risk the longevity of the agreement and the prospects for follow-on negotiations. Precedents will also be established that have the potential either to strengthen or to undermine the overall nonproliferation regime. Furthermore, the implementation of the agreement will likely be a source of discord between the Executive and Legislative branches within the United States Government (USG) and the subject of considerable debate on the part of nongovernmental groups attentive to nonproliferation and relations with Iran.

Hence, our Task Force has reached the judgment that effective implementation will be as important as the agreement language itself. This phase of our study focuses on the anticipation of implementation challenges and offers findings and recommendations for strengthening the implementation process both internationally and within the United States.

The particular emphasis of this study, as it was in the first phase of the Task Force’s work, is on monitoring measures and the process of reaching compliance and verification judgments within the USG and with its international partners. Knowledgeable observers disagree on the wisdom, scope, and content of a possible agreement with Iran on its nuclear program. But nearly all judge that an agreement with Iran without effective verification and monitoring measures would be counterproductive and dangerous.⁴

We believe it is important now to consider the modalities and institutions for implementation. Such considerations are vital if the announced agreement with Iran is to be maintained over time. Even if the current agreement with Iran were to unwind, planning for implementation of monitoring measures would help inform future negotiations and be of great value in the continued monitoring of Iran’s nuclear program.

Near the beginning of major efforts to bring about significant arms control agreements between the United States and the Soviet Union in January 1961, Fred Iklé posed a provocative question in what has become a classic article from *Foreign Affairs*, “After Detection -- What?”⁵ He argued that detecting violations of an agreement is not enough and that “even if we can develop an inspection regime that makes the probability of detection very high, a nation contemplating a violation will not be deterred if it thinks it can discourage, circumvent, or absorb our reaction.” The need for the United States and its allies to consider and prepare options in advance for responding to evidence of noncompliance is equally vital with Iran. Ignoring noncompliance risks the credibility of the agreements with Iran as well as the credibility of U.S. commitments in the region and the foundations of the nonproliferation regime.

Our current findings and recommendations build upon our earlier study and focus on six achievable steps for implementing a strong verification regime for a nuclear agreement with Iran:

- 1) Ensure that the Joint Commission Works Effectively Among the P5+1 and Iran to Facilitate Compliance and Communication
- 2) Organize Executive Branch Mechanisms to Create Synergy and Sustain Focus on Implementation Over the Long-Term
- 3) Support and Augment the IAEA in the Pursuit of its Key Monitoring Role
- 4) Create a Joint Executive-Congressional Working Group (JECWG) to Facilitate Coordination Across the Legislative and Executive Branches of the USG
- 5) Prepare a Strategy and Guidebook for Assessing and Addressing Ambiguities and Potential Noncompliance
- 6) Exploit New Technologies and Open Source Tools for Monitoring a Nuclear Agreement with Iran

The sixth recommendation of the Task Force deals with emerging new technologies and open source analysis tools that could be brought to bear to strengthen monitoring of a nuclear agreement with Iran. This report offers some preliminary thoughts about such technologies and tools, but our research and findings in these areas are still ongoing.

I. Ensure that the Joint Commission Works Effectively Among the P5+1 and Iran to Facilitate Compliance and Communication

Key Finding: An effective Joint Commission would be an enduring step toward facilitating effective implementation and creating channels of communication and transparency among the parties to a nuclear agreement.

Discussion: Information declarations, inspections, and the modalities of sanctions relief will produce many questions, which will require a forum for discussion of compliance, the resolution of anomalies, and the strengthening of the dialogue among the parties. Such implementation committees have been a mainstay of many prior international agreements.

Consultative bodies normally include technical experts from multiple organizations and agencies quietly working the geeky details of agreements largely outside the political glare and bureaucracies of capitals. The first order of business has often been the discussion of gaps or inaccuracies in data declarations.

The Joint Comprehensive Plan of Action (JCPOA) establishes an eight-member Joint Commission, composed of the P5+1 countries, Iran, and the European Union. The High Representative of the Union for Foreign Affairs and Security Policy will serve as the Coordinator for the Joint Commission. The commission can establish working groups, and two such groups are specified in the JCPOA. The JCPOA also lists a series of tasks for the Joint Commission, which in essence gives the body the responsibility for overseeing the technical details of the agreement's implementation and for resolving disputes concerning implementation. Commission decisions will generally be made by consensus among the eight members, with the notable exception of decisions on challenge inspections, which can be made by only a simple majority. The commission will meet at least quarterly in New York, Geneva, or Vienna, though the scope of its duties may require it to remain in near continuous session, at least during the first phases of the agreement.

Given the breadth of the Joint Commission's mandate, its effective functioning will be vital to the success of the agreement. The nuclear agreement with Iran will be asymmetrical in key respects (the promise of sanctions relief in exchange for rollback and more transparency). Although there will be mutual interest in the successful operation of an agreement, the lack of symmetry will complicate the work of the commission. This agreement is different from most prior arms control and confidence-building measures where there is a symmetry of interests in monitoring. Prior agreements have operated under the premise that, "I am open to you because you are open to me: if you shut me out, I can respond with perfect reciprocity by shutting you out." Neither party would wish to be shut out. With an Iranian agreement, there is no neat symmetry. The parties all want something, but they want different things. There is no simple way to establish tit for tat. For example, if Iran fails to provide requested access, what specific sanctions would get re-imposed? This need to calibrate actions and reactions in regard to monitoring and compliance is a strong argument for an empowered and active Joint Commission.

Recommendation: We recommend that the United States work tirelessly to ensure that the Joint Commission be energetic in its fulfillment of its responsibilities. An effective and active commission would:

- **Signal that the Parties are serious about compliance and provide a non-public vehicle to encourage parties to comply.** The Joint Commission could keep Iran close to the source of pressure that would result from noncompliance. The group that will initially examine the completeness and accuracy of data declarations also can summon the renewal of sanctions.

Conversely, Iran has in the same body a channel to register its concerns that sanctions are appropriately eased according to the agreement.

- **Resolve ambiguities and nip creeping noncompliance in the bud.** The Joint Commission could identify and resolve issues before they rise to major compliance concerns at a political level. The discussions within the consultative body, as well as the regular interactions of international inspectors with their Iranian counterparts, provide a channel to signal displeasure with any sign that the Iranians are being less than forthcoming and to warn bluntly, but quietly, of the consequences.
- **Provide a forum for broad institutional and interagency representation and advance communication among similar organizations of the parties to the agreement.** Although each state party will determine which individuals and organizations will be represented on its delegation to the Joint Commission, the prior history of such organizations has seen broad representation from various entities of a participating government. Thus, there may be opportunities for scientist to scientist, military to military, and intelligence to intelligence dialogue with Iran.
- **Establish long-term relationships and confidence-building.** The Joint Commission can continue to build expanded dialogue with Iran by demonstrating ways in which openness has its own rewards. Although it might seem that a consultative group would be largely adversarial in zero-sum, lawyerly advocacy, the experience of prior such bodies has shown that cooperation and tested trust can develop in a forum that is neither political theater nor minutely managed formal negotiations.
- **Create a venue for floating ideas for improving the agreement and advancing additional cooperative measures among the parties.** The consultative body for the Treaty on Conventional Forces in Europe, for example, demonstrated that such a body can not only discover, discuss, and thoroughly vet improvements at a multi-lateral level, but would be capable of negotiating side agreements to facilitate implementation or even amendments to the main document (subject, of course, to approval in capitals).

II. Organize Executive Branch Mechanisms to Create Synergy and Sustain Focus on Implementation Over the Long-Term

Key Finding: Implementation of an agreement with Iran will require continuity of focus, high-level of attention, and sustained engagement over decades. There are multiple potential paths for achieving these objectives organizationally within the USG. Existing lines of authority should be used, but with clear identification of lines of responsibility and the designation of two point persons – an Ambassador-level Special Coordinator at the State Department and an Iran Agreement Monitoring Manager within the Intelligence Community.

Discussion: In examining the many challenges facing the implementation of an Iranian nuclear agreement, the FAS Verification Task Force recognized that multiple USG organizations, and the interagency process as a whole, will be critical to the success of the agreement given the breadth of responsibilities for daily oversight of the agreement’s implementation, as well as the need to shape operational options and policy outcomes. In addition, how the interagency is organized (i.e., who is the policy “point person,” where is the leadership situated, and what staff and budget resources are allocated) will communicate the priority of this agreement within the USG bureaucracy and will be visible to other stakeholders inside and outside the United States. So, the issue now is: how to ensure effective implementation for an agreement that will span over decades, and involve multiple actors with diverse agendas and varying levels of resources, importance, and capabilities?

As has been shown in numerous other situations, effective implementation of this type of multiparty international agreement presents an enormous challenge that will require interagency planning, coordination, and synchronization of activities in a sustained way over several administrations. As in implementing any agreement, the interagency process will face several challenges in preventing operational drift, loss of high level attention, insufficient resourcing allocations, and bureaucratic game playing and positioning. It also has to address the reality of work overload, 24/7 media coverage, and strong personalities of key leaders.

In the case of the Iran Nuclear Agreement, there will be these additional challenges:

- Extended timeline of the agreement with parts ongoing forever and others lasting two to three decades
- The wide range of both technical and political tasks to be undertaken by the Joint Commission
- Likelihood of changes to political leadership in the United States and elsewhere
- Demand for a visible and meaningful congressional role
- Dynamic nature of the agreement given its critical junctures and compliance determinations
- Dealing with external country actors (Israel, Iran, P5+1)
- Dealing with external international organizations (IAEA, UN Security Council)

In addition to where the policy “point person” for the agreement might be located, equally important will be how the Intelligence Community organizes its support for this agreement given its primary role in providing monitoring data and assessments in support of the policy community’s verification judgments. The key to intelligence and negotiated monitoring measures working effectively is

the synergy created among them. Data declarations tell us where to look, routine inspections audit the declarations, national and international cooperative and unilateral monitoring and intelligence means detecting anomalies, and challenge inspections seek to gather more information relevant to the resolution of those anomalies. The inspections themselves serve as forcing events that may trigger activities on the part of the Iranians that might be indicative of the extent of their compliance with the agreement. The inspectors are also in a unique position to provide ground-truth situational awareness of Iranian nuclear capabilities and intent that remote access means cannot duplicate. The complex 24 day process for dealing with disputed challenge inspections under the agreement will make it incumbent on the USG to be able to synthesize intelligence and policy aspects of agreement implementation quickly.

The Task Force considered this issue with some caution. We heard during the course of our inquiry that the agreement monitoring function has atrophied from the height of arms control monitoring in the late 1980s and 1990s. This was also a finding of a 2014 Defense Science Board Task Force report.⁶ In 2001, the agreement monitoring function moved from an Intelligence Community organization—the former Arms Control Intelligence Staff—into a new organization—the Weapons Intelligence, Nonproliferation, and Arms Control Center—within the Directorate of Intelligence (DI) at CIA.

Some have noted that the operationally focused monitoring function is now within a predominately analytical unit. Because the move of the monitoring mission into the DI has made the production of analytical products the primary function of members of the unit, there has been a perceived loss of attention to the arcane details of agreement compliance. We were told that some younger analysts, pushed to produce analytic reports for their career advancement, often do not have the time to absorb fully the best practices of prior monitoring efforts and the pertinent details of the agreements to be monitored.

We judge that the National Counterproliferation Center (NCPC) has the capacity to elevate the priority and focus of the monitoring of an Iranian nuclear agreement. Still, the NCPC role is primarily one of oversight and coordination. The necessary collection and analytical resources will reside elsewhere. It will perhaps take considerable bureaucratic acumen to insure that the monitoring system functions synergistically and that those performing vital tasks are appropriately trained, equipped, and incentivized over the long haul.

In addition to support for monitoring and verification, the USG needs to consider quickly what it will need to contribute effectively to the new tasks that the Joint Commission has been given, notably the oversight of the clear procurement channel for Iran's nuclear program and for approving requests by that program to undertake key nuclear activities. Past experience with other such international activities (e.g., Iraq under UNSCR 687 and interagency export control deliberations) show that: a) the USG infrastructure to deal with such issues will dwarf that available to other parties, and b) USG decision making will be far more divided and slower than that of other parties. How the USG: a) harnesses its impressive capabilities to support the activities of the Joint Commission, and b) ensures that an effective and efficient decision making process can support them will be key in determining whether the Joint Commission contributes to an effective agreement or simply generates additional frictions.

Recommendation: For the USG interagency process to be effective in overseeing this agreement, the following will have to occur:

- **The structure of the interagency process must ensure sustained high level and high quality attention and engagement.** Achieving this objective will require using existing structures as much as possible while also empowering one senior policy position as “point person.” Although it might be possible to use the legislatively created White House Coordinator for Weapons of Mass Destruction, Security and Arms Control (sometimes called the WMD Czar) position at the National Security Council for this purpose (perhaps renaming it to Iran Nuclear Agreement

Coordinator for example). It would seem to make more sense to place this key leadership position in the State Department within an existing and already involved organization, such as the Undersecretary of State for Arms Control and International Security. A new position could be created within that organization—an Ambassador-level Special Coordinator—requiring Senate confirmation and to be filled with someone with gravitas and excellent relations with the President, Secretary of State, and the Congress. By placing the new position within an existing organization, it also allows the office to have the infrastructure and sufficient staff resources needed to sustain a rigorous operational and compliance oversight capability over the 20+ years of the agreement. It would also clearly designate one person who would lead any discussions with parties to the agreement as well as be a focal point for Congressional testimony and briefings.

- **An Iranian Agreement Monitoring Manager should be established within the intelligence community.** To achieve synergy, all of the disparate activities flowing out of the establishment of the agreement need to be orchestrated by experts familiar with the full range of monitoring resources. During the height of arms control monitoring in the late '80s and '90s, the Treaty Monitoring Manager within the U.S. Intelligence Community proved an effective vehicle for coordinating the work of organizations that were implementing both negotiated monitoring measures and intelligence collection activities.⁷ A similar position should be established for the monitoring of the Iranian agreement. Given the need to coordinate with many groups within the IC and given the importance of this agreement and its effective verification, the Office of the Director of National Intelligence (ODNI) would be the best home for such an Iran Agreement Monitoring Manager position, perhaps located within the NCPC, thereby linking it to an existing IC effort while also benefiting from the status and oversight power of being in the ODNI. Such a monitoring manager would need to work closely, and behind the scenes, with allies and international organizations.
- **Use the existing interagency meeting system as much as possible to support the implementation of the Iran Nuclear Agreement.** When considering how to operationalize the above positions on a daily, weekly basis over many years, the need to use the existing meeting system as much as possible becomes evident. Adding another set of meetings will not encourage individuals, especially ones already stressed by overloaded schedules, to engage in meaningful ongoing ways. The Special Coordinator at State and the Iranian Agreement Monitoring Manager will need to have regular meetings with their supporting staffs and interagency working groups. It will be very important to build into all of these meetings U.S. representatives from the UN and IAEA to ensure smooth collaboration and coordination of data and verification activities. It will also be critical that the Special Coordinator have an open door to the president.
- **Retain the expertise developed from negotiations in policy and technical arenas.** Those that were involved in the negotiations have the best sense of what was agreed to and are in the best position to shape implementation policy in the earliest stages. Furthermore those individuals should also be asked to develop a detailed guide of the agreement.
- **The USG should anticipate and develop internal strategies, tactics, and a guidebook for discovering and dealing with possible noncompliance.** See the discussion later in this paper of how such a guidebook could also be discussed among the P5+1 and Iran within the Joint Commission to emphasize the importance of compliance and to encourage dialogue about compliance issues.

- **The interagency should red-team the monitoring process and the potential reactions of state parties to the agreement and other regional and threshold nuclear states to hone awareness and possible responses.**
- **Resources needed to support USG efforts as well as IAEA and possibly UN additional activities must be embedded in budgets and the interagency structure.** Some observers have recently noted that one of the reasons that the 1994 Accord with North Korea failed was because the U.S. obligations required funding which failed to materialize when control of Congress changed hands shortly after the agreement was signed. Given the new burdens on the IAEA and the Joint Commission mandated under this agreement, additional funding will be necessary, otherwise the July 14, 2015 agreement will likely atrophy.

III. Support and Augment the IAEA in the Pursuit of its Key Monitoring Role

Key Finding: The IAEA will need additional authorities and resources to execute its projected responsibilities under an Iran/P5+1 agreement.

Discussion: Internal Burdens on the IAEA

The July 14, 2015 text memorializing the agreement asserts that the IAEA will have to be satisfied about a number of activities before the United States and other members of the P5+1 will lift nuclear and economic sanctions on Iran. *Thus, the IAEA has at least a de facto role in determining if and when sanctions relief takes place.* Pursuant to the statement, there are a number of specific areas that the IAEA must be satisfied with before the United States suspends nuclear and economic sanctions—some of which are new requirements for the IAEA. An additional source of concern is the fact that 12 percent of the IAEA’s historic yearly Safeguards budget had already been dedicated to monitoring and verifying Iran’s compliance with the NPT. On top of that, the IAEA has been spending approximately \$1 million dollars per month to monitor Iran’s compliance with the Joint Plan of Action.⁸ The added tasks outlined in the Iran Nuclear Agreement mean that the IAEA Safeguards personnel’s ability to keep an eye on the other 163 IAEA members could be constrained, or it might face gaps in the quality or quantity of efforts in verifying the agreement. Furthermore, the additional activities that the IAEA will now be asked to perform under the agreement are not insubstantial in terms of financial and personnel resources, as well as lead time for their initiation. They include:

- Monitoring Iran’s program under the increased access rights provided under the Additional Protocol to the NPT safeguards agreement.
- Performing monitoring tasks over and above the requirements of the Additional Protocol to ensure Iran cannot break out of the P5+1 agreement without early detection.
- Investigating and reaching conclusions about past Iranian activities directly related to the design and manufacture of nuclear weapons—known as activities with a “Possible Military Dimension” (PMD).
- Monitoring of centrifuge production and storage of advanced centrifuges.
- Monitoring of uranium mining and milling activities.

In addition to the above list, the IAEA will also be responsible for verifying that Iran is not engaged in reprocessing (which could be used to produce plutonium usable for weapons) and does not have any undeclared nuclear facilities. Both of these activities require the IAEA to conduct monitoring activities to prove a negative.

Discussion: External Burdens on the IAEA

Additional burdens on the IAEA will likely come from outside sources. This will place additional financial strains on the agency as well as time pressures on its decision making apparatus. These include:

- The interventions of many non-parties to the agreement (e.g., the Israelis, Iranian dissidents, NGOs, leakers in the USG, etc.) that believe they have information relevant to the sanctions decisions will be significant. Allegations of this nature have been an issue in the past with regard to Iran. Given the stakes involved, as well as Iran’s past non-disclosures (Fordow and Natanz) it

is reasonable to assume that such allegations will be made post-agreement. Whether or not the allegations are valid is likely to be immaterial. The assertions will have to be investigated and that will consume IAEA resources. Additionally, there could be pressure on the IAEA to resolve these issues quickly, beyond the typical IAEA Board of Governor's quarterly reporting timelines.

- The interventions of parties to the agreement may also be significant. There may be instances where intelligence from one of the P5+1 members contradicts or challenges conclusions reached by the IAEA with regard to Iran's compliance. On the other hand the Iranians could produce evidence that counters an IAEA or other state's claim of non-compliance. In either case the IAEA would have to spend additional resources and leadership time on further investigation.

Recommendations: Given the new challenges the IAEA will potentially face as a result of the agreement reached between the P5+1 and Iran, the Task Force makes the following recommendations:

- **The P5+1 should increase their contributions to the IAEA's budget.** It is clear that the IAEA has the switch to turn sanctions on or off. Thus all P5+1 members have an interest in ensuring the IAEA can do its job. The United States in particular is the party to this agreement that is giving up the most significant leverage (i.e., indirect financial sanctions). It also has the most resources to contribute and has a strong interest in seeing allegations and counter allegations addressed. It is therefore reasonable to expect the United States and the other members of the P5+1 to contribute more in terms of money and support.
- **The P5+1 should have a well-developed pre-planned protocol with timelines for addressing disputes and processing information from various governments.** Failure to plan for these foreseeable events now means that a dispute resolution process could drag on for a significant period of time. This is likely to lead to dissatisfaction by the parties and could lead to a full collapse of the agreement. A rapid resolution process should be developed by the IAEA to address allegations of non-compliance. This should include direct reporting of investigations to the P5+1 and Iran.
- **The USG should consider how to support the IAEA on inspector designations and visas.** The Task Force noted Iran's statement in the agreement that visas would be granted to inspectors from countries with diplomatic relations with the Islamic Republic of Iran. On the one hand, this may be intended as a relaxation of its current restrictions on IAEA inspectors. On the other, it could be interpreted to exclude inspectors from the United States, UK, Egypt and Canada (the four countries without diplomatic relations with Iran). The United States should support IAEA efforts to continue to expand the number and nationality of IAEA inspectors for Iran and may wish to explore ways that Iran might be persuaded that including inspectors from the United States and other excluded countries could build confidence in the agreement and assuage concerns over Iran's intentions.⁹

IV. Create a Joint Executive-Congressional Working Group (JECWG) to Facilitate Coordination Across the Legislative and Executive Branches of the USG

Key Finding: An effective JECWG is critical for creating sustained channels of communication and transparency between the Executive and Legislative branches of government on the issue of Iran-U.S. relations, with a particular focus on nuclear issues.

Discussion: One of the recommendations in this Task Force's initial report was the establishment of a Joint Executive-Congressional Commission (now referred to as the JECWG) to address the U.S.-Iran relationship, with a particular focus on Iran's nuclear program. Use of such a communication channel is based upon a conceptual framework that has been used in the past and was perhaps best exemplified by the establishment of the Arms Control Observer Group—created in the 1980s to build bipartisan arms control expertise in the Senate. The group was an instrumental tool for creating bipartisan consensus, within the Executive and Legislative branches of the USG, on issues involving nuclear arms control treaties and agreements with the former Soviet Union. Similar issues are once again on the political agenda, albeit with a new country—Iran. The Task Force has reviewed several models of similarly situated commissions and groups (reviewing such things as their histories, charters, size, membership, and ultimate influence) and has concluded that the JECWG concept is a viable vehicle for addressing the following concerns:

- Providing Congress an avenue, appropriate to its constitutional role, to actively participate in verification and policy issues surrounding an agreement with Iran.
- Establishing an additional channel for Congress to ensure it has regular and sustained access to relevant information, monitoring activity, and intelligence gathered by the Executive Branch with regard to an agreement and its implementation.
- Sharpening the focus of both the Executive and Legislative branches on implementation, and verifying compliance with any agreement that is reached between Iran and the P5+1 for the full length of that agreement.

Recommendation: The structure and membership of the JECWG is an important factor in its ability to evaluate policy and create consensus. The JECWG should therefore have the following characteristics:

- **The JECWG should be comprised of serving members of Congress (both houses) and senior officials from the Executive Branch.** Regarding the legislative component, the benefit of having serving members, as opposed to non-congressional appointees, is that serving members can better relate to their fellow legislators and can become issue leaders among their peers on Iran and nonproliferation issues. Allowing these legislators to actively participate in appropriate aspects of the implementation of an agreement increases the prospect of shared priorities and understandings related to implementation of an agreement. The JECWG can be an effective trust builder for members of Congress as they would then have representatives close to the decision making process who understand their priorities and concerns. On the executive side, confirmed Presidential Appointees (sub-cabinet level, one each) from the Departments of State, Commerce, and Defense, as well as from the Intelligence Community (IC), should serve on the JECWG as permanent members in order to keep the JECWG's activities closely aligned with current policy and operations.
- **Congressional members of the JECWG should be serving chairs of key committees (such as Foreign Affairs and Foreign Relations).** Appointing serving chairs to the JECWG will seek to

temper any concerns senior legislators may have about losing jurisdiction and prerogatives. A few additional members can be appointed by Majority and Minority Leaders.

- **The JECWG should be supported by a robust permanent staff of independent professionals (perhaps 10) with experience in regional affairs, nonproliferation, and economic sanctions policy.** Permanent staff should have periods of service lasting no more than two years (subject to renewal) and appointments should be staggered. This approach should balance the need for institutional memory with the need to bring in fresh perspectives.
- **The JECWG should have a broad charter that lasts at least 20 years.** It should have an adaptive mechanism for widening its charter as new issues emerge concerning Iran and the United States. It should, at a minimum, focus on Iran's nuclear program and the impact of sanctions. However, locking the JECWG into a fixed set of issues over a several year period could eventually lead to a diminishment of its significance and ultimately irrelevance as political winds shift over time and new issues emerge. A flexible charter allows members to address new situations that flow from an evolving dynamic relationship with Iran.
- **The JECWG should conduct regular hearings, receive briefings, and issue a yearly report.** A successful and active JECWG can be a tool for coalescing USG attention on Iranian issues, and by extension, help contribute to problem solving on what is likely to be a continuing and dynamic national security concern. The hearing and report writing process should ensure that the USG remains seized of the issues and has a clearinghouse for information ready to address issues as they emerge. Members should be encouraged to have interactions with Iranian counterparts and participate in future negotiations.

V. Prepare a Strategy and Guidebook for Assessing and Addressing Ambiguities and Potential Noncompliance

Key Finding: To remove surprise and miscalculations, the parties should begin discussions to fashion a guidebook outlining what activities would constitute a clear material breach of the JCPOA agreement and the associated range of remedies that may be imposed for those violations.

Discussion: To remove miscalculations on all sides it would be helpful if the parties began discussions on what behavior or activity would constitute a material breach of the agreement. As we have noted, the proposed information declarations to the IAEA, the conduct of inspections, and the modalities of sanctions relief will produce many questions. Addressing these questions will require a forum for discussions regarding compliance, the resolution of anomalies, and the strengthening of the dialogue among the parties. However, beyond having discussions, there should be a mutual understanding of what would be considered a *de minimis* breach and what would be considered a material breach.

We acknowledge that there is a natural tension between technical experts who prefer clarity vs. policy makers who understand the advantages of ambiguity. We also recognize there is a risk that identifying the borderline between a material breach and a technical problem may give Iran a guideline for risk free cheating. However, in this case, given the stakes involved, a mutual understanding of where the hard redlines lie would be beneficial to ensuring that an agreement holds up over time. The key triggers for a material breach, which cannot be glossed or papered over, are likely to fit into four categories:

Nuclear Material Issues (significant violations of the Agreement’s provisions for reducing enrichment levels; reducing uranium stockpiles; limiting heavy water production; monitoring of uranium mines and yellowcake production; monitoring for any separation of plutonium with reprocessing techniques from irradiated nuclear material)

Facility Issues (significant violations of provisions for halting enrichment and reconfiguring of the Fordow facility; restructuring Natanz and removing centrifuges; redesigning Arak; providing access to centrifuge storage and production sites; and covert or undeclared facilities of concern)

Core Issues (significant violations of provisions for resolving the IAEA’s Possible Military Dimension concerns; monitoring of centrifuge storage; significant interference with established monitoring procedures; establishing supply chain and procurement transparency)

Sanction Relief Issues (significant delays in the implementation of sanctions relief after milestones have been met)

On top of these concerns, the P5+1 nations should insist on effective modalities for the conduct of inspections. This should include emphasis on full compliance with the timelines specified in the agreement. Any denial of access under the set time for resolution should have a clearly defined remedy. All parties must understand this so that nonperformance has clear consequences. Small repeated infractions or a culture of repeated noncompliance cannot become the norm for how the agreement is implemented. The concept of “managed access” must thus be defined and clarified by the actual practices of the inspection process and by the work of the Joint Commission. If these understandings are not set, the agreement may implode over time.

This, we acknowledge, will not be an easy task. But when there is such a mutual distrust at the outset of an agreement, some agreed upon understanding of what will not be tolerated for nonperformance will go a long way in reducing dangerous miscalculations and gaming by the parties. To affirm this

conviction as a matter of strategic deterrence for the region the United States must be clear that Iran's acquisition of a nuclear weapon will not be tolerated. Some have argued that in accepting the agreement, the Congress should simultaneously enact an authorization for the use of force in the event of the discovery of a material breach to be used at the discretion of the president. To be sure, any such threat of U.S. action would have to conform to the procedures the P5+1 develop for identifying a material breach so that the authorization of use force does not become a unilateral U.S. threat to break the agreement and use force on the basis of the first adverse intelligence report it receives. To be effective diplomatically, it must be coordinated with appropriate sanctions and snap-back procedures.

Recommendation: We recommend that immediately the parties use the Joint Commission to begin discussions and create a guidebook on what would constitute a material breach and the range of consequences that would follow.

- **The guidebook should list the top issues where there may be continued disagreement over the terms of the agreement or where noncompliance would be most significant.** It is to be expected that there will be issues concerning inspections (e.g., timing, locations, scope, equipment, etc.), enrichment levels, possible military dimensions, centrifuge monitoring, research & development projects, potential diversion of nuclear materials, etc. The parties should produce a playbook anticipating these issues and addressing ways to resolve them and both the penalties and potential remedies.
- **The guidebook should delineate between technical vs. policy issues and corresponding forms of resolution.** In the playbook purely technical issues should be separated from policy issues so clear and unambiguous technical standards can be established.
- **The guidebook should emphasize the critical importance of compliance and verification.** While spelling out a long list of absolute redlines with specific remedies may be counterproductive, spelling out one or two definitive remedies for unambiguous gross violations may be helpful as it would give all parties a clear indication that there is a possibility that any deal reached could be undone given a clear material breach of the JCPOA. Examples would be the discovery of an undeclared hidden centrifuge production site, the discovery of the purchase or procurement of significant quantities of nuclear materials outside of the procurement channel as delineated by Section 6.1 of Annex III (Civil Nuclear Cooperation), or a clandestine reprocessing facility. Such an approach would give the agreement gravitas and set the stage for meaningful discussions when the accumulation of lesser violations might bring one party closer to walking away from the agreement.

VI. Exploit New Technologies and Open Source Tools for Monitoring a Nuclear Agreement with Iran

Key Finding: More and more tools such as big data analytics and commercial remote sensing are available in the public domain and are typically for purchase at affordable prices or often freely available; consequently, a variety of actors including states, the IAEA, corporations, dissident groups, and non-governmental watchdogs will make increasing use of these tools to advance their agendas. The parties to the agreement need to be prepared for ways in which these tools could help or harm the effectiveness of the agreement.

Discussion: Open source tools include several technologies and analytic methods such as: commercial remote sensing (for example, with satellites, drones, and airplanes equipped with visual, infrared, other electromagnetic sensors, and acoustic sensors), data mining of social media and websites, and analysis of commercial global trade information, scientific and other academic literature, and news media outlets. Commercial satellite imagery, in particular, is getting better in terms of spatial and spectral resolution. Other platforms and their sensors are also making greater strides in effectiveness. In parallel, the ability to acquire the images and information from these sensors has tended to drop in cost. Moreover, software to search for statistical patterns in terabytes of data has become more effective and faster in just the past decade and will likely continue to improve. More corporations are entering these sectors to provide services to private businesses, government agencies, and non-governmental agencies.

But open source tools are not omniscient. For example, commercial satellites cannot look inside buildings with opaque roofs, although some collection technology and analytical techniques could help analysts make inferences about possible activities inside these structures. Big data analytics are not perfect, either. Human decision-making and behavioral patterns are complex, and even the best statistical analysis cannot reveal all the thinking and intentions of Iranian leaders and technical experts in the nuclear program.

There are important caveats with the use of any tools, whether open or classified. Most experts expect claims and counter-claims to be expressed with unprecedented velocity, especially early on in a post-agreement environment. The challenge will be separating the wheat from the chaff. False positives are to be expected in which there appears to be evidence of a breach of an agreement, but in actuality the monitored party is still in compliance. For instance, an analyst assessing a commercially acquired satellite image might believe that a structure in an image is a building housing clandestine centrifuges, but instead the building is a warehouse for non-nuclear commercial goods. In contrast, false negatives would give the impression that there is compliance when in fact a breach has occurred. Monitored parties have at times been able to hide activities from outside monitoring. For example, in the lead up to the May 1998 nuclear tests, Indian technical experts knew when to move equipment so as to escape detection by spy satellites.

In the past two decades, the IAEA has made increasing use of these tools in its mission to strengthen the effectiveness of safeguards. In the words of Kaluba Chitumbo, former Director of Safeguards Information Technology, “Information analysis forms the core of strengthened safeguards. All of this new information has to be collected, processed, and evaluated, and used by the Agency to draw the conclusion that there is no evidence of undeclared nuclear material or activities in that state ... This was, and remains, a challenging enterprise.”¹⁰ The challenges involve lack of adequate resources for the IAEA to be able to hire a sufficient number of highly qualified analysts who are critical thinkers and puzzle solvers. This team needs to have members with facility in the languages of the states being assessed, with information technology savvy, and with the capacity to jump back and forth between the system’s level and the individual components of a system, such as the network of interconnections among the people, parts, processes, and procurements of a nuclear program.

The USG, government agencies of the other P5+1, corporations, as well as non-governmental watchdog organizations will most likely use data mining of open source information to understand the attitudes (such as views toward their government and other countries) and behaviors (such as purchasing decisions) of the Iranian public and how the implementation of the agreement is affecting them. Such data analysis could point to what could influence the Iranian public. Iranian groups both pro- and anti-government will also likely make use of these techniques to understand what can influence the course of the implementation of the agreement. Increasingly big data and information analytics is evolving and providing policy makers with new insights and approaches to analyze behavior. More research and development of tools and applications deserve more support and exploration.

Recommendations: We recommend that:

- **Because transparency through proper use of open source tools is a vital principle for increasing the likelihood of Iranian compliance with the agreement, state parties should encourage societal verification.** In particular, Iranians should be encouraged to use open source tools to monitor the implementation of the agreement and thus become collaborators to help ensure the success of the agreement.
- **Member states of the IAEA should provide the Agency with more human, financial, and technical resources to expand and strengthen its open source analytic capabilities.** This will be necessary given the new roles assigned to the IAEA under the July 14, 2015 agreement text.
- **The implementing parties should use big data analytics to help with assessing the efficacy of the “Procurement Working Group” (channel procurement process as spelled out in the July 14, 2015 text) to detect any unauthorized purchases or acquisitions outside this mechanism.**
- **The Joint Commission (Recommendation #1, above) should establish a working group that would focus on discussing concerns arising from open source findings that appear to identify an alleged breach of the agreement.** This working group should bring its assessment of recommended resolutions of the potential concerns or disputes to the leading representatives of the Joint Commission. Because of the joint nature of this working group, Iran will have a stake in resolving ambiguities.
- **A clearinghouse within the NGO community should be created in order to build a cadre of experts through reputation for careful impartial analysis of open source information.** Already, there are some leading academic centers that can form the nuclei to grow this clearinghouse.

¹ [Verification Requirements for a Nuclear Agreement with Iran](http://fas.org/publications/reports/verification-requirements-nuclear-agreement-iran/), Nuclear Verification Capabilities Independent Task Force of the Federation of American Scientists, September 2014. Retrieved from <http://fas.org/publications/reports/verification-requirements-nuclear-agreement-iran/>

² The P5+1 is comprised of China, France, Germany, Russia, the United Kingdom, and the United States.

³ Full text of the Iran Nuclear deal, July, 14, 2015. Retrieved from <http://apps.washingtonpost.com/g/documents/world/full-text-of-the-iran-nuclear-deal/1651/>

⁴ This concern runs the political spectrum. See, e.g., The Washington Institute, (2015, June 24). Public Statement on U.S. Policy Toward the Iran Nuclear Negotiations. Retrieved from <http://www.washingtoninstitute.org/policy-analysis/view/public-statement-on-u.s.-policy-toward-the-iran-nuclear-negotiations>

⁵ Iklé, F. C., (1961, January). After Detection -- What? *Foreign Affairs*. Retrieved from <https://www.foreignaffairs.com/articles/1961-01-01/after-detection-what>

⁵ Defense Science Board, Task Force Report: Assessment of Nuclear Monitoring and Verification Technologies, January 2014. Retrieved from <http://fas.org/irp/agency/dod/dsb/monitoring.pdf>

⁷ The Defense Science Board Report describes the position of Treaty Monitoring Manager and the position's potential role in future agreements on pages 62-63 of its report, Assessment of Nuclear Monitoring and Verification Technologies, January 2014. Retrieved from <http://fas.org/irp/agency/dod/dsb/monitoring.pdf>

⁸ See The Atlantic, The Cash-Strapped Agency at the Heart of the Iran Deal, July 18, 2015. Retrieved from www.theatlantic.com/international/archive/2015/07/iaea-iran-nuclear-deal/398900/

⁹ Given suspicions of the Revolutionary Guard and the Iranian security services about U.S. intentions, this is a matter that has to be handled by the USG and IAEA with considerable finesse. (Nothing would undermine the agreement quicker than to have a U.S.-citizen IAEA inspector detained by Iranian security forces.) One possible confidence building measure would be for Iran to invite P5+1 observers to accompany some inspections.

¹⁰ See, Jonathan Essner, Open-source Information and Evaluation in IAEA Safeguards. Retrieved from https://www.lanl.gov/orgs/ndo/n4/documents/open_source_infor_eval_iaea_safe.pdf