Statement of John A. Lauder United States House of Representatives Committee on Foreign Affairs June 10, 2014 Hearing on "Verifying Iran's Nuclear Compliance"

Chairman Royce, Ranking Member Engel, and Members of the Committee, thank you for the opportunity to be here to help address a vital topic for international security – monitoring Iranian compliance with a potential nuclear agreement. I appear before you today in my private capacity as someone who has labored on monitoring and verification issues over several decades. The views that I will be presenting are my own and are not intended to represent the views of the Intelligence Community, the Department of Defense, or the Defense Science Board Task Force on the Assessment of Nuclear Treaty Monitoring and Verification, of which I was a member. My statement draws heavily on that Defense Science Board Task Force Report as well as on the work of a non-governmental Task Force on Verification Requirements for a Nuclear Agreement with Iran. That latter Task Force is a joint effort among the Federation of American Scientists, The American Bar Association's Standing Committee on Law and National Security, and the Sandra Day O'Connor College of Law at Arizona State University and sponsored by the John D. and Catherine T. MacArthur Foundation.

Neither of the two Task Forces makes a judgment as to whether any particular nuclear agreement is verifiable. Indeed, we do not yet know the details of the monitoring provisions of the Iranian agreement now under negotiation or when or if such an agreement will be concluded. The job of experts on agreement monitoring, in and outside the government, is to gather the best possible information to inform those judgments, to nurture and deploy effectively the necessary expertise, and to improve the tools and methods available over time to enhance monitoring. The Defense Science Board Task Force Report underscores, for example, that monitoring nuclear programs is very challenging and that the technical capabilities to do so are limited. But the Report suggests a

number of steps that can be taken to make monitoring more effective and to mitigate, but not eliminate, the risks. There will always be risks and opportunities in any agreement. The risk-benefit assessment is ultimately a political judgment for the Executive and Congress that those of us engaged in monitoring strive to do our best to inform.

The Challenge. Knowledgeable observers disagree on the wisdom, scope, and content of various forms of an 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. This statement seeks to address the following questions about a monitoring regime for Iran:

- -What should be those verification and monitoring measures?
- -What does the history of previous international agreements teach us about how to achieve effective verification?
- -What are the standards by which to judge the adequacy of the verification measures that will be negotiated with Iran?
- -What types of compliance issues are likely to emerge? What will be effective approaches and processes for detecting and resolving compliance issues and strengthening the agreement?

Building an effective monitoring regime with Iran will be a prolonged process. Not all of the measures discussed in this testimony will be easily negotiable or ready for rapid implementation. The intent of the measures, and the extended dialogue between Iranians and western experts necessary for implementation, is to bring about a more open and moderate Iran. Our goal should be to bring Iran from its prior pursuit of nuclear weapons capabilities into a culture of compliance with international agreements and norms. We should seek to do this in negotiations with Iran by securing agreement to effective monitoring measures. We can also reinforce a culture of compliance by vigorously implementing the monitoring provisions that should be part of any new agreement with Iran. Some of that implementation will fall to the International Atomic Energy Agency (IAEA). Others will need to be carried out by US Government agencies. The Congress itself can play a positive and strong role

in insisting on effective verification, providing the resources necessary for monitoring tasks, and being attentive to compliance issues that may emerge.

So what will the monitoring regime be tasked to do? That is still largely a work in progress. On 24 November 2013 Iran and the P-5 +1 reached agreement on a Joint Plan of Action as a "first step towards a comprehensive and verifiable diplomatic solution to concerns about the Iranian nuclear" program. According to the text of the agreement, "the first step would be time-bound, with a duration of 6 months, and renewable by mutual consent, during which all parties will work to maintain a constructive atmosphere for negotiations in good faith." The Joint Plan of Action specifies that "the goal for these negotiations is to reach a mutually-agreed long-term comprehensive solution that would ensure Iran's nuclear programme will be exclusively peaceful." The parties agreed to undertake a number of voluntary measures. The Plan of Action also identifies elements of "the final step of a comprehensive solution" with the standard understanding that "nothing is agreed until everything is agreed."

Key Definitions: This statement will use both the terms monitoring and verification. There are varying definitions of the terms in arms control literature, but the following are definitions often used.

- Monitoring is gathering information relevant to compliance assessments and for general understanding of weapons programs through intelligence methods, diplomatic means, and negotiated measures such as information exchanges and on-site inspections.
- Verification is the process of reaching political judgments about the extent and significance of compliance with international agreements and the determination of how to resolve ambiguities or evidence of noncompliance.

<u>A Gold-Standard Monitoring Regime</u>: An effective monitoring regime for Iran, should have the following attributes:

¹ The P5+1 include the five permanent members of the UN Security Council (The United States, the United Kingdom, France, Russia, and China plus Germany). The group is also referred to as the E-3/EU+3. The text of the Joint Action Plan cited in this statement can be found at

http://eeas.europa.eu/statements/docs/2013/131124 03 en.pdf .

--It should be capable of detecting at least militarily significant noncompliance².

--It should create synergy in discovery of relevant Iranian activities among negotiated measures, international inspections, national intelligence means, and publically available information.

--It should establish mechanisms for anomaly and dispute resolution.

-- It should build greater transparency and enhance channels of communication by making contacts between monitoring experts and Iranians a matter of routine.

Successful monitoring regimes in the past have achieved the above attributes through a combination of measures, which may be held up as a standard by which to judge the adequacy of the monitoring regime to be applied in Iran. Based on past experience, we judge that an Iranian monitoring regime should include a combination of negotiated measures and national and international monitoring to break tough challenges into manageable pieces. For example, it would be impossible for either international inspectors or national reconnaissance means to count simultaneously and accurately all of the centrifuges in Iran, but there are proven techniques for making such a task more manageable. (We will use the monitoring of centrifuges in the following discussion because of the importance of enrichment limits in the Plan of Action and the likely prominence of limits on centrifuges in the agreement that will be negotiated next, but these monitoring approaches are applicable to any material, equipment, and activity that might be limited in the agreements with Iran.) These interlocking approaches include:

² The standard of detecting "militarily significant" noncompliance was regularly used for the classic arms control agreements of the 1980s and 1990s. There is a great degree of creative ambiguity in "militarily significant", permitting the actual gears of monitoring, verification, and day-to-day agreement operation to run more smoothly without a great deal of unnecessary friction over technical violations without strategic significance. The interim agreement with Iran appears to set a standard of militarily significant through such provisions as defining a level of permissible enrichment and, perhaps eventually, the number of allowable centrifuges. Further elaboration of the standards for effective verification -- what is militarily or politically significant -- will likely be hammered out in the negotiations and in dialogue among international partners and between the Executive Branch and Congress.

- Data declarations and notifications to provide a baseline for normalcy and the functional equivalent of a tax return or internal audit. Iran should be asked, for example, to identify where all of its centrifuges, by type, are located, and to notify when centrifuges are being moved from one location to another. There needs to be a certain logic and consistency to such declarations both internal to the declarations and to the information available to the international community. The declarations are compliance tools in themselves that help test the willingness of Iran to be transparent. The declarations also help establish those areas where equipment subject to the agreements with Iran are located and thus those areas that should be among those subject to inspection and persistent monitoring.
- Routine inspections and cooperative monitoring measures to provide scrutiny of geographic locations where cheating would be easiest.
 These routine inspections or persistent monitoring of declared sites are the functional equivalent of an audit of the data declarations.
 They also would help deter and discover Iranian noncompliance in the areas where such noncompliance would be easiest using, for example, the existing infrastructure to support the operation of two thousand centrifuges at a location where only a thousand centrifuges had been declared. Routine inspections would also serve as early tripwires of any Iranian decision to break out of an agreement. Iran would need to suspend the inspections or limit the access of inspectors in ways that would provide warning of impending actions inconsistent with the agreements. Conversely, strict Iranian adherence to the inspection and other aspects of the monitoring regime would contribute to regional stability and confidence.
- Challenge inspections available to gather data on compliance concerns. Iran may not declare all of the sites in its declarations where centrifuges or other material or activity subject to the agreements may be present or occurring. So there should be provision to allow inspections in new areas. These inspections too should have a routine tone to them. The conduct of such inspections should not be an accusation of agreement violation in themselves but rather another form of audit to build confidence that

the Iranians are in compliance. Neither the routine nor challenge inspections can be just guided tours. The inspectors will need to visit on short notice, spend extended periods at the designated sites, be provided with appropriate site diagrams, and be allowed to bring and use appropriate equipment. These forms of managed access will need to be subject to negotiation. It will be important too to carry out challenge inspections early in the life of any agreement to establish the precedent for their use and to reinforce that such inspections are routine monitoring and not accusations of noncompliance.

- Modalities and scope of inspections need to be broad. Both routine and challenge inspections should be focused on understanding the full status and scope of Iranian nuclear weapons programs. The inspectors will need to have a nonconfrontational but investigative mindset, inclined to ask the type of low-key but probing questions characteristic of Inspector Columbo in the old TV series. The inspections should go beyond the scope of just IAEA Safeguards inspections – as important as they may be in understanding Iranian activities. It may be useful to augment the IAEA inspections with special inspections carried out by the P-5 + 1 or similar ad hoc body. Such inspections would have the advantage of involving the other participating states directly in the compliance regime and taking advantage of some of their more robust access to Iran. The involvement of the Russians and the Chinese in the inspections would raise complications, but it would begin to establish relationships that might be helpful in the event of noncompliance or in a subsequent move to broader arms control and nonproliferation agreements beyond Iran.
- National Technical Means look for anomalies across broad areas and cover the backdoor during inspections. The amount of area in Iran likely to be subject to routine inspections is relatively small in a large country. Thus, a monitoring regime to be effective will require the commitment of substantial US and international satellite coverage, other technical collection, and covert intelligence means to search for any sign of noncompliant behavior. The data declarations also make detections from this form of monitoring less ambiguous. For

example, if the locations of all centrifuges are to have been accounted for in the data declarations, but a centrifuge is detected elsewhere in Iran, it is potential evidence of noncompliance that needs to be addressed. (The mechanisms for such resolution of anomalies and noncompliance are addressed later in this paper.) Intelligence means should also be used to observe locations about to undergo routine or challenge inspections. Is material moving out the back gate in advance of such inspections or is there other evidence of efforts to cover up activities that may be contrary to the agreements?

Internal and External Audits. Ambassador Gregory Govan has used the terms internal and external audits in describing the interrelationship among data declarations and inspection measures.³

- The data declarations are the internal audits. The data set itself is where compliance problems are often revealed. With complex data sets it becomes very difficult over time to cheat consistently without revealing in the data that something is amiss. A careful review of the data declarations, which should be periodic to register changes to the monitored status or numbers over time, is essential; this is the "internal audit" that is the equivalent of a company looking carefully at its books. To the reasons listed for encouraging detailed declarations should be added the idea that they encourage buy-in by the declarer. From his point of view, solid declarations become the way to demonstrate that he is in full compliance. Conversely, if the declarer cannot tell a consistent story with his data, he knows he is going to be subjected to harsher scrutiny in the inspection regime.
- Inspections and independent monitoring are the "external audit", the spot check to determine that the appropriate numbers of things are where they are supposed to be and nothing is where it should not be. Harvey Rishikof, the Chairman of The American Bar Association's Standing Committee on Law and National Security, has noted that inspections are like an outside

³ Ambassador Govan is a retired US Army Brigadier General who led the US Onsite Inspection Agency (OSIA) in the early 1990s and subsequently served as the senior US government representative to the governing bodies of the Conventional Forces in Europe Treaty and the Open Skies Treaty.

auditor's review or a regulator-imposed scrutiny to be sure that the entity is complying with regulations and laws. The agreement with Iran is going to be like a building contract, and the developer has every right and every incentive to be sure that work conforms to applicable building codes and contract terms. It goes without saying that the certain knowledge that the building inspector will check your wiring is a strong incentive to get the wiring right, and the suspicion that someone is checking on other aspects of the construction will make you think twice about cutting corners.

The importance of building synergy. The key to all of these measures working effectively is the synergy created among them. Data declarations tell us where to look, routine inspections audit the declarations, national and international unilateral monitoring and intelligence means detect 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 concealment activities on the part of the Iranians that might be indicative of noncompliance. 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.

To achieve synergy, all of the above needs to be orchestrated in some way 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 US Intelligence Community proved an effective vehicle for coordinating the work of organizations that were implementing both negotiated monitoring measures and intelligence collection activities.⁴ A similar position should be established for the monitoring of the Iranian agreement. Such a monitoring manager would need to work closely, and behind the scenes, with allies and international organizations.

One challenge is that, unlike most arms control agreements, with Iran we have the main technical expertise embodied in an international organization that is independent of the agreement states parties, reports to an international authority with much broader membership than the agreement states parties, and has a vested interest in one particular kind of inspection regime (IAEA Safeguards)

⁴ 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, <u>Assessment of Nuclear Monitoring and</u> Verification Technologies, January 2014

that does not necessarily match the mindset required of inspectors working on the Iran nuclear agreement. Although sanctions imposed by the UN and others have been important in getting Iran to agree to limits to its nuclear program and will continue to be important as a means to insure compliance, the unilateral and independently coordinated actions of the agreement states parties are also at least as important. The inspection regime has to work for these vitally interested states parties, not just for – or through – the larger international body.

For these reasons, the P5 + 1 should not turn over the complete monitoring of the agreement to the IAEA. Rather, the P5 + 1 needs to establish its own operating body (agreement monitoring managers) with Iran, as well as its own agreement consultative body, as discussed later in this paper. In essence, the monitoring regime should be a layered approach with aspects carried out by the IAEA, others by the P5+1, and still others by US and other intelligence agencies.

Short of the formation of a P5+1 monitoring body, the P5+1 will need to encourage the IAEA to use the inspection tools that it has available. The IAEA has not historically made use of its authority to carry out "special inspections," which can be used to gain insight into the overall scope of a state's nuclear programs. The P5 + 1 should work with the IAEA to determine those circumstances relevant to the Iran agreement that should appropriately trigger special inspections. The IAEA itself has a long list of questions, supported by UN Security Council resolutions, re the Iranian program, that it should be encouraged to pursue. Any Iranian effort to claim that the Joint Plan of Action preempts such resolutions and IAEA activities should be resisted.

Dealing with Noncompliance: 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 Ikle' posed a provocative question in what has become a classic article from Foreign Affairs, "After Detection, What?" 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 US commitments in the region.

One can envisage several types of compliance issues that the United States and its allies should prepare for during implementation of an agreement with Iran in increasing order of severity:

Iran will likely press the envelope of the agreement: The history of implementation of past agreements and past Iranian behavior suggest that there will be a period of jostling about the scope and language of the framework. As is the case with most international agreements, the language of the Joint Plan of Action has a degree of ambiguity. One can expect that the Iranians will have an interpretation of the language of the agreement that will limit the scope of inspections to which they will be subject and the scope of the information that they will be required to provide. Some of this ambiguity can be reduced in the negotiations in which more specificity and clearer definitions will presumably be discussed. But it will be important for the P5+1 and IAEA monitors to push back on efforts of the Iranians to limit the scope of monitoring below the spirit of the agreement.

Hiding noncompliance in plain sight: As noted above, the easiest places for a state to exceed agreement limits are in those locations where limited equipment and activities are already declared and can be present under the terms of an agreement. In the case of Iran, some of the key facilities are already subject to IAEA safeguards. The Joint Plan of Action brings additional facilities within the scope of information exchange and inspections and allows greater frequency of inspections. The Plan specifies that Iran will provide IAEA inspectors with "managed access" to its "centrifuge rotor production workshops, centrifuge storage facilities, and uranium mines and mills." The Plan of Action also provides for daily IAEA inspector access to the "offline surveillance [video] records, at Fordow and Natanz."

The access of IAEA and other inspectors to these declared facilities is another area where the history of prior agreements and previous Iranian behavior suggests that the Iranians may try to limit the scope and modalities of inspections. The West will need to be prepared to carry out thorough but nonconfrontational inspections and be vigilant in discussing with the Iranians concerns about the inspection process as well as any apparent compliance issues.

<u>Continued use of illicit procurement networks</u>: A key component of the Iranian nuclear weapons program has been its procurement efforts and networks designed to circumvent international restrictions on its ability to acquire material

and expertise for the development of nuclear weapons. Iranian prior procurement efforts, their degree of success, and the current and future pursuit of such procurement are not directly addressed in the Plan of Action. Indeed the lifting of some sanctions and the easing of the economic isolation of Iran could potentially facilitate procurement efforts related to the nuclear weapons program.

The P-5 + 1 will need to press for a complete understanding of the Iranian procurement efforts as part of the negotiations and as a focus of future information exchange and inspections. The monitors will need to be vigilant that new covert procurement paths are not being developed. It is also vital that the monitoring efforts capture any Iranian effort to export or import nuclear weapons technology and material or to use other states as surrogates for aspects of the weapons development process or testing of components.

Dealing with the Stressing Case of Covert Facilities: Comprehensive data declarations by Iran, combined with routine and challenge inspections, go a long way toward deterring and detecting potential noncompliance. The most stressing case would be the possibility of covert facilities outside the data declarations and inspection regime. As noted above, the task of finding such facilities falls largely to national intelligence means. The full range of the means that could be employed are outside the scope and classification of this paper, as is an assessment of whether other priorities and budget constraints will reduce the amount of resources that can be made available for monitoring an Iranian agreement.

It would be helpful to have an explicit understanding in an Iranian agreement that there be no interference with National Technical Means being used to carry out monitoring of Iranian compliance. As is customary in international agreements, National Technical Means should be undefined in the agreement.

There will be significant gaps and challenges in discovering covert facilities and activities. Among these challenges are:

- -Limits to the stand-off detection of fissile materials.
- -Identification and characterization of underground facilities and mobile targets.

- -Dealing with a significant "Signal to Clutter" problem, which will be complicated further by any Iranian denial and deception.
- -The atrophy and redirection of US agreement monitoring resources and organizational structures focused on such monitoring.
- -Declining numbers of skilled and experienced practitioners of monitoring.

Yet, there are some recent developments that may provide enhanced monitoring capabilities. Among these are:

-Advances in wide-area, persistent surveillance. Although these advances were largely honed in the permissive aerial environments of Iraq and Afghanistan, some of the techniques will be applicable in Iran.

-Products from commercial imagery and radar are widely-available and can augment national intelligence resources and be exploited internationally.

-International verification institutions and resources are growing in number and sophistication.

-New techniques for data mining and analytics give some promise of detecting bits of information that might lead to the discovery of covert facilities.

-The widespread availability of data from social media and crowdsourcing is beginning to have greater applicability and the United States is exploring ways to bring such information directly to bear.

<u>Continued work on aspects of the nuclear program not covered by the agreement:</u> The Joint Plan of Action focuses largely on Iranian enrichment and nuclear materials. It does not focus on the other steps necessary to achieve nuclear weapons capability. Among these steps are the development of weapons designs, the manufacture, procurement, and testing of nonnuclear components for nuclear weapons, and the development of delivery vehicles. The Annex of the IAEA report issued in November 2011 outlines some of the elements of Iran's programs including "work involving neutron initiators, triggering systems, mathematical modeling, and implosion experiments."

Continued development by Iran of these capabilities would reduce the time required for Iran to field a nuclear weapons capability. The scope of monitoring activities being carried out should be sufficiently broad as to facilitate detection and characterization of the full scope of Iranian nuclear weapons programs – not just the nuclear fuel cycle. The P5+1 should also begin to prepare the groundwork for a follow-on negotiation to constrain Iranian ballistic missile development.

The bomb in the basement: We cannot know for sure how far Iran may have advanced in weapons design. How much help, for example, might it have received from other governments or from illicit trafficking networks like A.Q. Khan's? The monitoring program needs to be aggressive enough to discover and investigate evidence of such developments. It is vital that the information exchanges capture past Iranian activities in sufficient detail that we have a baseline for understanding how far Iran may have gone along the path to nuclear weapons. If we find evidence that Iran is close to assembling a nuclear device, the monitoring and consultative mechanisms outlined in this paper will take on even more urgency. We will need to characterize the extent of Iranian development, to constrain next steps, and develop mechanisms for rolling back the program.

A Joint Consultative Body for the Iranian Agreements. The first step in preparing to deal with noncompliance should be the establishment of a consultative body, as often established for prior arms control agreements. The Joint Plan of Action provides for a Joint Commission that could be the basis for such a consultative body. According to the Plan, a Joint Commission of the P-5 + 1 and Iran will be established to monitor the implementation of the near-term measures and address issues that may arise, with the IAEA responsible for verification of nuclear-related measures. The Joint Commission will work with the IAEA to facilitate resolution of past and present issues of concern.

This body would be the initial forum for the discussion of anomalies and information suggesting noncompliance that had not already been resolved in the inspection process. The body should include technical experts that could delve into the details of an anomaly and ask appropriate questions. In essence, this is Iran and the P5+1 working the agreement day to day at an operator's level below national capitals and apart from the cumbersome bureaucracy of the UN. Prior arms control and confidence-building agreements offer ample testimony that there is merit in experts and specialists working below the highest level at which interested parties would normally associate politically.

There will no doubt be multiple instances of uncertainty and even noncompliance during the initial phases of the agreements with Iran. An active consultative body, working professionally and out of the glare of public view, can help resolve such issues early on and signal to the Iranians and others in the region that the P5+1 is serious about compliance.

What should such a group do?

- Resolve ambiguities before they rise to compliance issues at the political level.
- Keep Iran close to the source of pressure that will result from noncompliance. The hand that wields the blue pencil to data declarations also can summon the renewal of sanctions. Conversely, Iran has, in the consultative body, a channel to register its concerns that sanctions are appropriately eased, as the agreement specifies.
- Continue the education process for Iran by demonstrating ways in which
 openness has its own rewards. Although it might seem that such a group
 would be largely adversarial in the sense of zero-sum, lawyerly advocacy,
 experience has shown that cooperation and tested trust can develop in
 making an agreement work through a forum that is neither political theater
 at the level of capitals nor minutely managed formal negotiations.
- Provide a forum for each state party to have representatives of its various institutional interests observe and participate formally and informally.
- Provide a forum for all parties to float ideas for improving the agreement.
 The CFE process demonstrated that the consultative body not only can discover, discuss, and thoroughly vet such improvement, but is even fully capable of negotiating final implementing side agreements or amendments to the main document (subject, of course, to approval in capitals).

Over time, one can foresee adding additional monitoring and confidence building measures with Iran. Among these could be:

- -INF-Like restrictions and monitoring of Iranian missiles,
- -Inspection exercises and verification technology experiments with Iran,

-Measures, similar to those in the Cooperative Threat Reduction efforts in the former Soviet Union, to reduce the size of the Iranian nuclear complex and to redirect scientists to less threatening activities, and

-Technical exchanges on safety and environmental concerns related to nuclear materials.

The discussions within the consultative body, as well as the regular interactions of international inspectors with their Iranian counterparts, also provides a channel to signal displeasure with any sign that the Iranians are being less than forthcoming and to warn bluntly and quietly of further consequences. The United States and its allies will need to make clear that the tools of further action – for example, re-imposed or new sanctions and direct military action -- remain available in the event of militarily or strategically significant noncompliance.

One additional step that should be taken to signal United States seriousness about compliance would be the preparation of a semi-annual unclassified compliance report and classified annex for the Congress. Such reports have often been a feature of past agreements. They do require extra work in the Executive Branch and are often lead to political posturing and arguments. But such attention is another way to demonstrate to Iran and other countries that unresolved major concerns about compliance will find its way into policy debate and will not be overlooked.

Final Thoughts: One last comment on learning from the arms control monitoring experience. As the preceding discussion has sought to demonstrate, there is much in that prior experience that can help us shape effective measures for monitoring agreements with Iran and that can help us develop a play book for dealing with compliance issues. Still, the essence of a nuclear agreement with Iran will be different in key respects. There is a mutual interest in the successful operation of the agreement, to be sure. But in arms control, and confidence building measures more broadly, there is symmetry of these interests. 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, and neither of us wants to be shut out. The same goes for limits of weapons: I will meet my limits because I want you to meet yours, and vice versa. With Iran, there is no neat symmetry. We both want something, but we both want very different things, and there is no simple way to establish tit for tat. What specific sanction gets re-imposed for failure to provide

requested access? This asymmetry of mutual interest in the operation of the agreement is a strong argument for the joint consultative body.

Effective monitoring has implications beyond the Iran agreements themselves. Monitoring measures can help incentivize good international behavior and promote regional stability. They can and should involve US allies intimately in the process. Still, the challenges are substantial and the lead-times long for negotiating, implementing, and developing the monitoring approaches, modalities, organizations, and technologies that will be necessary. A comprehensive plan for implementation should be developed soon. Both the executive and legislative branches will need to demonstrate leadership to renew and expand monitoring capabilities and to implement effective measures. The stakes and challenges are great.