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IRAN with Nuclear Weapons

Anticipating the Consequences for U.S. Policy

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Executive Summary

A growing body of evidence leaves less and less doubt that Iran’s drive to develop an indigenous, closed nuclear-fuel cycle is tied to the ambitions of its leadership to possess a nuclear weapons capability. Notwithstanding the protestations of Ayatollah Ali Khamenei, Iran’s Supreme Leader, Iran appears to be embarked on a clear path to cross the nuclear threshold and become a nuclear weapons power. By one estimate, Iran is 80 percent on the way to developing a functioning nuclear weapon. Up until now, and as reflected in the 2007 National Intelligence Estimate (NIE) on Iran’s nuclear programs, Western analysts, with the exception of the Israelis, had been saying that Iran was not likely to have in hand the knowledge base and capabilities to cross the nuclear threshold until sometime in the mid-to-later years of the next decade. Since the release of the NIE, however, new information has come to light, prompting nuclear experts in the United States, Britain, and France to revise their earlier estimates. Most now conclude that Iran is not only embarked on a weapons path, but is likely to attain enough fissile material for an indigenously produced bomb far sooner than had been anticipated, sometime in the next year and a half to two years. This is more or less consistent with Israeli estimates that suggest late 2009 as the earliest possible date that Iran will be technically capable of producing enough highly enriched uranium for a weapon. The Israelis further contend that once the Iranians produce enough enriched uranium, they could build a nuclear weapon in six to eighteen months.

In and of itself, an operational Iranian nuclear weapons capability is cause for concern in Western security circles because of its implications for cascading, or what used to be called horizontal or onward proliferation. Beyond that, however, an Iranian nuclear weapons capability would have important effects on U.S. strategic and operational planning. Very specifically, an operational nuclear weapons capability at the disposal of Iran could have profound ramifications for Washington’s ability to reassure regional friends and coalition partners, to operate militarily in the Persian Gulf region, and to defend vital strategic interests, especially—but not limited to—ensuring America’s right of innocent passage in Gulf waters and the safety and security of vital sea-lanes over which much of the world’s energy supplies flow. We need only to ponder the problems posed by an Iran without nuclear weapons to begin to assess the challenges of an Iran in possession of an operational nuclear weapons capability. Such an Iran could be an even more dangerous adversary, depending on the nature of the regime in Tehran, the precise motivations behind Iran’s nuclear weaponization, and the external threat that the Iranians perceive. Moreover, Iranian assumptions about the role of nuclear weapons, their targeting, and the perceived escalatory options such weapons are perceived to confer on Iran may bear little in common with those of the United States, which are still largely an outgrowth of the strategic dynamic (and presumptions about cost/benefit calculations) that prevailed during the Cold War. The focus of this report, therefore, is on how a nuclear Iran might choose
to exploit a nuclear weapons capability to achieve its strategic goals, and on what this, in turn, would mean for U.S. and allied/partner defense and deterrence planning.

In order to understand more precisely just how a nuclear Iran might manifest its power, we have developed three heuristic models to examine the implications of Iran’s proliferation: (1) a defensive Iran, (2) an aggressive Iran, and (3) an unstable Iran. In assessing expected characteristics of Iranian behavior in each of these models, we have identified four issue areas, or clusters, upon which our analysis is based: (1) the type of nuclear capability that Iran would likely field; (2) the conditions under which Iran might resort to nuclear weapons use or threatened use; (3) the extent to which Iran’s military strategy and declaratory policy relating to nuclear weapons possession might embolden Iran and/or its proxies to pursue more aggressive policies in the region and vis-à-vis the United States; and, (4) Iran’s potential to transfer nuclear materials to others in the region and/or the implications of an Iranian weapon for nuclear cascading. With these three models providing the framework for analysis, we then provide a more in-depth assessment of the strategic, political, and operational planning implications of Iran’s emergence as a nuclear weapons state.

Among the salient conclusions of our assessment are the following:

- Nuclear weapons remain an enduring feature of the global security landscape, with more nations, and even al-Qaeda, expressing interest in developing or acquiring precursor technologies and delivery systems. Apart from power and influence, nuclear weapons have variously been identified as the ultimate defense capability (India), an existential deterrent (Israel), an asymmetric weapon (al-Qaeda), and a defense against regime change (North Korea). The danger of nuclear weapons use in regional conflicts may in fact be increasing with the incipient breakdown of the Non-Proliferation Treaty (NPT) regime and the relatively greater availability of nuclear components, materials, and delivery systems that can be bought or sold on the “black” market. Iran’s nuclear breakout threatens to affect regional non-nuclear states, including the Gulf Cooperation Council (GCC) states, Egypt, and Turkey, and their deliberations concerning their security alternatives, including in the cases of Egypt, Turkey, and Saudi Arabia, consideration of the nuclear option. The cascading effect of Iran’s nuclear proliferation will bring about new deterrence planning challenges, and the safety, security, and custody of nuclear stockpiles will become even more pressing issues than they are today.

- An Iran with nuclear weapons would challenge U.S. military-operational planning assumptions regarding permissive and non-permissive environments, and raise serious questions about “extended deterrence” guarantees to formal allies (including those in NATO), coalition partners (such as the GCC states), and other counties of direct interest to U.S.
security, notably Israel. It would also raise questions about crisis management and escalation dominance, particularly with respect to firmly established taboos regarding the actual use of nuclear weapons for anything less than national survival. In the best case, a nuclear Iran might act within the confines of established Western deterrence thought, or, in a worse case, it might operate under a completely different set of assumptions governing nuclear weapons use. If this is so, the United States could no longer assume that it would control the escalation dynamic in a crisis or war with Iran. A nuclear Iran has the potential to implement “compound escalation,” or the manipulation of seemingly unrelated issues to raise the stakes for an adversary. Iran could, in this context and under any of the three models postulated here, choose to widen a regional war using proxy non-nuclear forces, or it could deliberately escalate a crisis by threatening to use nuclear weapons if its conventional forces risked defeat or if asymmetric attacks failed to achieve their strategic objectives. It is entirely possible that Iran, certainly in the case of an aggressive Iran, would strive to employ Hezbollah forces deployed outside the Middle East, or seek to widen the geographic scope of the conflict by targeting U.S. allies in Europe, or the United States directly.

- With nuclear weapons, Iran might be emboldened to be more aggressive in a crisis, either by deploying nuclear weapons first, or by providing a security umbrella over proxy forces engaged in terrorist or other irregular warfare (IW) attacks either to control the escalation chain or to deter the United States from entering what the Iranians might consider to be a regional conflict. Here, the nature of the regime in Tehran appears to matter, and in our defensive-Iran model, if nuclear weapons were deployed to deter the United States from attempting regime change, they would be considered more or less as “existential” capabilities, or weapons of last resort, never to be used as war-fighting instruments on the battlefield. They might, however, be employed to test enemy intentions or to warn an adversary from pursuing an attack against Iran, but never as part of an integrated strategic-operational military campaign. In fact, under the defensive-Iran model, an Iranian regime might conclude that its best option lies in concealing its nuclear programs for as long as possible, preferring to operate in the twilight as Israel currently does, to create sufficient ambiguity about the existence of Iranian nuclear weapons, to inject an element of uncertainty into the regional power equation. Never being quite certain if Iran had an operational capability, potential adversaries would still have to engage in worse-case planning for contingencies involving Iran.

- The defensive-Iran model assumes a commitment to a minimum deterrence posture. As traditionally understood, a minimum deterrence posture is based on a force that is small but reliable and whose sole objective is the deterrence of a direct attack. Iran’s strategy under this model therefore is likely to be accompanied by a declaratory policy that specifies the conditions under which Iran would use or threaten to use nuclear weapons. Under this model, the Iranian leadership might declare that Iranian nuclear weapons would only
be employed in retaliation against an attack on Iran, be it a conventional or a nuclear attack. Iran could thus be the first to use nuclear weapons in a contingency, but only after Iranian territory had been attacked. Because Iran's nuclear weapons would be used only in extremis, according to the prevailing assumptions of this model, and in response to an enemy attack, the priority of a defensive Iran would be to convey very publicly the defensive nature of its deterrence posture. Declaratory policy would be very important in this regard, especially with respect to making “red-lines” very clear and regarding the intention to use nuclear weapons in the face of any attack on Iran’s territory.

- Operationally, a defensive Iran would be likely to develop a nuclear force that was dispersed and concealed so as to enhance its chances of surviving a preemptive (or preventive) attack. It is important to note that the defensive-Iran model, however, would raise for Iran's leadership the need to consider options for launch-on-warning (LOW) or launch-under-attack (LUA), both of which would require a far more sophisticated command and control and intelligence network than Iran presently has in place. To attain a credible LOW and/or LUA capability, Iran would have to enhance its intelligence, surveillance, and reconnaissance (ISR) capabilities to detect an adversary attack and, at the same time, develop and/or acquire more sophisticated defensive technologies to protect high-value aim-points, including nuclear weapons delivery vehicles and storage sites.

- Of the three models posited in this study, an Iran that strives to develop a defensive deterrent force would be the least challenging for the United States technically, but very challenging politically because it assumes that the Iranian leadership would not resort to nuclear weapons use or threats lightly, most probably not unless Iran were the object of an enemy first-strike nuclear or non-nuclear attack. A nuclear posture along these lines would cast a long shadow over Iran's interactions with states in the region and with trading partners in Europe and (possibly) Japan, confronting the United States with the need to reassure jittery allies and to protect them from intimidation and Iranian efforts to shape the political agendas of its Persian Gulf neighbors at a time when allies or coalition partners might not agree about the nature and extent of the threat from a defensive Iran. Unlike the case of an aggressive Iran where political consensus may exist on the nature of the threat that a nuclear Iran poses, a defensive Iran would probably place the onus on the United States for developing a common threat picture, and it would require a vast and tailored diplomatic effort to bring U.S. allies and coalition partners onside with respect to resisting Iranian persuasion.

- Our aggressive-Iran model provides the United States with a worse-case scenario. An aggressive Iran aspiring to leadership in the wider Middle East would have to neutralize the deterrent effect of Israel’s conventional and nuclear power, and ensure that it has the
capacity to influence the escalation dynamics in a confrontation with the United States. It might also have to have in hand a deterrent force that would be widely perceived to be at least as effective as that of India and symbolically important to all Muslims, despite it being a Shia bomb. Presumably, the leadership of an aggressive Iran would strive to develop new capabilities to threaten the United States directly, such as an intercontinental ballistic missile (ICBM), the creation of anti-satellite (or ASAT) and/or electro-magnetic pulse (EMP) assets, or through the deployment of nuclear-tipped missiles that can be launched from ships operating off the American coasts. With this model, Iran would also likely reject the “no-first-use” principle, and adopt a declaratory policy that makes clear its intention to use nuclear weapons if vital Iranian interests were at risk. This is a model that also envisages the possible use of small bombs and asymmetric tactics (a “dirty” bomb), including the employment of a nuclear device to disrupt the functioning of U.S. Fifth Fleet Headquarters or other assets, or to inflict damage on allied/coalition partner territories (such as Israel or Saudi Arabia), or economic infrastructure (although a nuclear weapon would not be necessary to destroy offshore oil platforms or natural gas pipelines). Iran, under this model, would likely pursue as well more advanced collateral technologies (satellite guidance or warhead miniaturization, for example) to enhance the trappings of its nuclear power.

- Motivated by pretensions to regional power leadership, an aggressive Iran is unlikely to relinquish control over its nuclear weapons by transferring weapons, components, or know-how to an ally (i.e., Syria) or proxy forces (e.g., Hezbollah). In this regard, an unstable Iran (our third model) poses the greater proliferation threat/challenge to U.S. planners. However, with our second model, an aggressive Iran, it is reasonable to contend that Iran might consider extending a deterrence umbrella over selected partners, Syria, for example, or perhaps even Hezbollah, as a means of empowering their actions in situations where Iranian interests might be served. In either instance, however, operational control of Iranian weapons would reside with Iran’s leadership in this state-centric model. The only possible exception might be the provision to proxy forces of radioactive materials for use in the manufacture of a dirty bomb, but this would only likely occur if an Iranian leadership were confident that its role would be undiscovered or, at best, not readily subject to forensic attribution. The same may not necessarily be true for our unstable-Iran model, where under a fractured regime ultra-nationalist or Islamist elements and/or rogue military commanders assert control over Iran’s nuclear weapons and decide to transfer them or their components to proxy forces outside of Iran.

- In an unstable Iran, command and control of Iran’s nuclear weapons and related delivery systems would emerge as a central concern. For example, rogue elements of Iran’s Revolutionary Guards Corps (IRGC) and its Qods Force element could, in a state collapse
scenario, seek to empower one faction over another by wresting control over Iran’s nuclear weapons. They might also seek to use Iran’s nuclear weapons to support the radical Islamist agenda and transfer nuclear materials and/or know-how outright to Hezbollah, or even to al-Qaeda, using the Qods Force network (for terrorist training and support) that is already in place. Or, leadership elements might, with IRGC support, use Iran’s nuclear weapons to divert popular attention away from Iran’s domestic ills, by brandishing them over longstanding adversaries—Saudi Arabia comes to mind—to create the fiction of Shia dominance in the region and to undermine Saudi security, especially in the Kingdom’s eastern provinces with Shia majorities.

- If developments inside Iran do destabilize the regime in coming years, the need for cutting-edge U.S. “hedging” policies and strategies will grow. Deterring regime elements or non-state actors requires a different set of capabilities than those necessary to deter a state-centric actor. It also necessitates an Interagency, “whole-of-government” approach, using non-military, as well as military tools. In this context, a dedicated intelligence effort, aimed at identifying Iranian elites and future leaders is key, as are enhanced and focused activities to trace and plan to disrupt Iranian networks that support Qods Force operations. Leveraging human-terrain mapping techniques and empowering the Joint Special Operations Command’s efforts to create intelligence fusion cells and to tie into NATO’s new Special Operations Coordination Center (NSCC) will be crucial in this regard. Likewise, because proliferation is a grave concern in the unstable-Iran model, activities under the Proliferation Security Initiative (PSI) and the Global Initiative to Combat Nuclear Terrorism (GI) should be increased and perhaps even formalized in the G-8, assuming that in the aftermath of Russia’s invasion of Georgia, U.S.-Russian collaboration on nuclear trafficking and with respect to Nunn-Lugar activities can be continued, despite apparent differences on NATO enlargement and Russia’s support for the independence of Abkhazia and South Ossetia. Within the United States, greater attention and resources should be devoted to nuclear forensics to ensure that nuclear weapons use can be traced and source attribution made (to facilitate retaliatory action). Regional security initiatives should likewise be expanded and broader investment placed on intensifying the U.S. Gulf Security Dialogue.

- A nuclear-armed Iran would pose three distinct types of operational planning challenges: terrorism and subversion, limited conventional options (under the protection of Iran’s nuclear umbrella), and the actual use of nuclear weapons against U.S. forces operating in the Persian Gulf region, against the territories of U.S. allies in Europe, Israel, and coalition partners in the GCC countries, and eventually perhaps against the continental United States. To deal with these operational challenges, the United States must now factor in the nuclear dimension much more systematically than has been done to date in its efforts to
counter nuclear terrorism, defend forward-deployed forces and assets (such as sea-bases), enhance coalition partner defenses and consequence-management (CM) capabilities (through an expanded and augmented U.S. Gulf Security Dialogue), and protect energy flows, infrastructure, and shipping in the Strait of Hormuz and the Persian Gulf region. Contingency planning for Persian Gulf-related operations must also consider unconventional methods of using radiation monitors and detection sensors to address, among other possibilities, the suitcase-bomb scenario. Obviously, all of the planning challenges discussed above will require even tighter coordination between the United States and its principal alliance and coalition partners.

- Iran’s crossing of the nuclear threshold is destined to create a new set of deterrence dynamics with its nuclear neighbors, including India, Pakistan, Russia, China, and Israel (which might, under these circumstances formally, declare that it is a nuclear power). A nuclear Iran or an Iran on the brink of nuclear status also presents the potential for “catalytic warfare.” This imposes the need to recognize that U.S. deterrence planning has moved beyond bilateral constructs to embrace a more complex dynamic, comprising several nuclear actors in place of Cold War bipolarity. Thinking about a deterrence relationship based on several nuclear weapons possessors is quite different from the bipolar deterrence-planning paradigm that preoccupied U.S. strategic thinking during the Cold War.

- All of the above suggests that twenty-first century deterrence planning will be far more complex, time consuming, and situation specific than deterrence in the Cold War era. If Iran is on the brink of becoming the world’s tenth nuclear power, and we believe that it is, then that suggests the need to understand, to a much greater degree than we do today, Iran’s human terrain. Deterring a nuclear Iran will require extensive knowledge of key leaders and institutions and the relationships between them, as well as an intimate understanding of Iranian values, interests, and generational issues. It will also require the capacity to project convincing evidence of the will to act if deterrence fails and the acquisition of capabilities to inflict proportionate, but decisive (i.e., “unacceptable”), damage against Iran, its people, and its cultural and religious icons. In each of the three models posited in this study, missile defenses play a crucial role, and it is our contention that their development should be vigorously pursued within a U.S. deterrence construct that emphasizes a spectrum of capabilities from space-oriented to theater ground-based missile defense technologies, and especially the Navy’s Aegis system. Also of great importance in the context of a nuclear Iran will be new considerations affecting homeland defense, ranging from the need to protect the United States from enemy ballistic and cruise missiles to the new and urgent task of considering defenses against dirty bombs, improvised nuclear devices (INDs), and suitcase bombs smuggled into the country. Because of the potentially devastating consequences of such attacks against the homeland and in key theaters overseas, it will also be important
Improving U.S. offensive strike capabilities is central to twenty-first century deterrence planning, and this is true with respect to both nuclear and non-nuclear capabilities, as proposed in the development of the New Strategic Triad and in U.S. Strategic Command’s Global Strike construct. On the nuclear side, the Reliable Replacement Warhead (RRW) program is important in this regard, as is the streamlining and modernization of the U.S. nuclear weapons (development and production) infrastructure. To argue that the Reliable RRW will send a hypocritical message to other world powers is disingenuous, as the United States remains the only nuclear power that is not modernizing its nuclear arsenal, even as it is reducing its numbers unilaterally. For safety and security arguments alone, RRW makes sense, more so as we consider the requirements for “tailorable” deterrence in the post-NPT age (in which proliferators, breaking out of the NPT, open the door to broader cascading). Conventional Trident should also be pursued to shore up the U.S. prompt-response capacity. Both steps are needed to demonstrate U.S. resolve and to communicate Washington’s intention to retaliate convincingly in response to an Iranian nuclear attack on the continental United States, U.S. forces operating in regional theaters, or against allies and friends, especially Israel.

In this context, too, U.S. deterrence posture would be significantly enhanced were the United States to improve its capacity for nuclear forensics and attribution. While America already supports significant capabilities in this regard, more attention needs to be given to this mission area in funding debates on Capitol Hill, in the context of how such a capability reinforces and strengthens U.S. deterrence planning. This would be particularly important in the case of an unstable-Iran model, where attribution for nuclear weapons use, or a dirty bomb detonation would be necessary to shape the appropriate U.S. response. Indeed, consistent with the Iranian preference for strategic deniability (a policy that has been usefully adopted in the past, one notable example is the case of Iran’s collusion with al-Qaeda in the 1996 bombing of the Khobar towers in Riyadh, Saudi Arabia), Iranian sponsorship of a nuclear attack would need to be established before the United States crafted a meaningful retaliatory response. Attribution of origin, therefore, facilitated by the maturation of nuclear forensics technologies, would be extremely useful and an important tool to help dissuade nuclear technology transfers. At this point, however, the database that is necessary for comparative purposes may need to be augmented.

Finally, in the face of a nuclear Iran, the United States needs to re-consider its capacity to extend a deterrence umbrella over states of vital importance to U.S. security interests. This
is not to suggest the politically controversial notion of providing a NATO Article 5-like (collective defense) commitment to U.S. partners in the wider Gulf region. Rather, it suggests the need to consider updating both the Nixon and Carter Doctrines, as they pertain to Gulf security planning, while intensifying efforts to build partner capacities in the areas of intelligence-sharing, missile defenses, and consequence management. It also implies a need to increase U.S. efforts in the areas of proliferation security, for example, via the Proliferation Security Initiative and the Global Initiative to Combat Nuclear Terrorism. It also raises the need to develop a new approach for dealing with and engaging Russia on critical global issues, such as Iran's proliferation, in the wake of its incursion into Georgia. “Exquisite diplomacy” will be needed within the construct of a new strategic framework that considers a “whole-of-government” and an allied/coalition partner approach to confronting a nuclear Iran.