Iran Nuclear Negotiations:
Briefing and Discussion
by
Jeff Warner and Dick Platkin
LA Jews for Peace

ICUJP, May 29, 2013
Today’s Discussion

Is about nuclear proliferation

PLAY AUDIO CLIP

The back-story: Iran’s status in the community of states


http://www.nytimes.com/2015/05/15/opinion/roger-cohen-this-angry-arab-moment.html

The payoff: More American Arms.
P5+1

• P5: Permanent members of U.N. Security Council: China, Russia, France, United Kingdom, United States. All nuclear states.

• +1: Germany.

• European Union at table as “facilitator.”

• Goal: prevent Iran from building a nuclear arsenal.

Islamic Republic of Iran

• Goal: Eliminate sanction imposed by U.N., U.S., E.U.

Three steps to Nuclear deal


• Framework Agreement, Lausanne, April 2015

• Joint Comprehensive Plan of Action (JCPOA), July 14, 2015
Efforts to Limit Nuclear Weapons Started Soon After Hiroshima

- International Atomic Energy Agency (IAEA) formed 1957.
- Test ban treaties; negotiations started in 1955, first signed 1963.
- **NPT**: Treaty on Non-Proliferation of Nuclear Weapons, 1970.
- SALT: Strategic Arms Limitation Talks between U.S. and U.S.S.R:
  - SALT-II: Jimmy Carter, June 1979
- **START**: Strategic Arms Reduction Treaty between U.S. and U.S.S.R.; Organized U.S. and Russian ongoing nuclear bomb reductions:
  - START- II: George H. W. Bush, January 1993
  - START- III: Bill Clinton, 1997 (Framework, no treaty)
Chart only shows active strategic bombs; does not count 1,000s of strategic bombs in storage and awaiting demolition, nor 1,000s of non-strategic weapons.

_Bulletin of the Atomic Scientists_ 62, no. 4 (July/August 2006)

http://thebulletin.metapress.com/content/c4120650912x74k7/fulltext.pdf
# Nuclear Inventories are Complex

<table>
<thead>
<tr>
<th>Nuclear Warheads</th>
<th>Russia</th>
<th>United States</th>
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<tbody>
<tr>
<td>Active</td>
<td>8,000</td>
<td>7,100</td>
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<tr>
<td>Strategic (counter-value*)</td>
<td>4,600</td>
<td>4,760</td>
</tr>
<tr>
<td>~1,900 or 1,582</td>
<td>~1,900 or 1,597</td>
<td></td>
</tr>
<tr>
<td>ICBM</td>
<td>1,166</td>
<td>450</td>
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<tr>
<td>SLBM</td>
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<tr>
<td>Bomber</td>
<td>~200</td>
<td>300</td>
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<tr>
<td>Non-Strategic (counter-force*)</td>
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<td>180</td>
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<tr>
<td>Defense</td>
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<tr>
<td>Air</td>
<td>~730</td>
<td>180</td>
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<tr>
<td>Ground</td>
<td>~170</td>
<td>--</td>
</tr>
<tr>
<td>Sea</td>
<td>~700</td>
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<tr>
<td>Storage</td>
<td>~700</td>
<td>~2,680</td>
</tr>
<tr>
<td>Waiting Demolition</td>
<td>~3,500</td>
<td>~2,340</td>
</tr>
</tbody>
</table>

Global Zero Commission on Nuclear Risk Reduction, April 2015


* Herman Khan (1962) *Thinking About The Unthinkable*
Iran is Surrounded by Nuclear Forces

Other nuclear states:
- U.K.: ~225 bombs
- France: ~300 bombs
- China: ~250 bombs
- N. Korea: 6-8 bombs

Bombs given up by:
- South Africa
- Belarus
- Ukraine
- Kazakhstan

Stockholm International Peace Research Institute 2014 Yearbook
http://www.sipri.org/yearbook/2014/06
TREATY ON THE NON-PROLIFERATION OF NUCLEAR WEAPONS (NPT, 1970)

Three Pillars of NPT:
- Non-proliferation
- Disarmament
- Peaceful uses

Article VI: Disarmament:
"Each of the Parties to the Treaty undertakes to pursue *negotiations in good faith* on ... cessation of the nuclear arms race ... and to *nuclear disarmament*, and on a treaty on general and complete disarmament.“  A vague or specific obligation?

Article IV: Promote Peaceful Uses:
Allows NPT signatory countries the development of civilian nuclear energy programs, as long as they can demonstrate that they are not being used for the development of nuclear weapons.
Joint Plan of Action (November 2013)


• Short-term freeze of portions of Iran’s nuclear program.
  In exchange for
  • decreased economic sanctions on Iran.

Interim Agreement to last while the parties work towards a long-term agreement.

• First formal agreement between the United States and Iran since 1979 revolution and hostage crisis.
• Succeeded in pausing Iran’s enrichment program.

Details follow a brief on nuclear engineering.
How to Make a Nuclear Bomb

- **Atom (Fission) Bombs:** Isotopes uranium-235 and plutonium-239 undergo fission when a neutron strikes their nucleus, splitting the nucleus into fragments and releasing a tremendous amount of energy. The fission process becomes self-sustaining in a chain-reaction when neutrons produced by the splitting of one atom strike nearby nuclei causing them to fission. Uncontrolled, in a critical mass, this will causes an atomic explosion. **Yield: 10 tons-500 k-tons TNT.**

  Natural uranium (0.7% U-235) can be enriched in U-235 by a diffusion process (used in Manhattan Project at Oak Ridge during WW-II) or by a cascade of centrifuges. Pu-239 is produced in heavy-water nuclear reactors.

- **Hydrogen (Fusion) Bombs:** If the temperature is high enough, light isotopes of hydrogen, helium, and lithium will “burn” to form heavier isotopes and release a tremendous amount of energy. This is what happens in stars. **Yield: 400-20,000 k-tons TNT.**

http://www.atomicheritage.org/history
http://nuclearweaponarchive.org/Nwfaq/Nfaq2.html#nfaq2.2.1 /science-behind-atom-bomb
Libyan Uranium Enrichment Scheme

- **LEU**: Low Enriched Uranium – Civilian uses; up to 20% U-235
- **HEU**: Highly Enriched Uranium – Military uses; 90% U-235
- Each pass-through one centrifuge accomplishes a tiny amount of enrichment.
- Illustrated set-up has capability to produce about 36 kg of 90% HEU per year in batch mode, and 88 kg HEU in interconnected mode.

Iran: Before 2013 Interim Agreement: 19,000 Centrifuges in Two Cascades

- 19,000 Centrifuges in Two Cascades
- 10,000 kg of 4% LEU
- ~300 kg of 20% HEU

Libyan Enrichment Project
5832 Centrifuges
Iran: Under 2015 Framework Agreement:
- 5,060 Centrifuges in One Cascade
- 1,044 Centrifuges for Research
- 13,000 Centrifuges in Inspected Storage

Libyan Enrichment Project
- 5832 Centrifuges

Only 300 kg of 4% LEU

C1/C2 Cascades
3936 machines

External feed

Tails
One Year Breakout Calculation

• **Separative Work Unit (SWU):** effort to separate feedstock into enriched & waste product.
• **Significant Quantity (SQ):** 25 Kg HEU U-235 = enough to build 1 bomb.

• 0.7-1 SWU per IR-1 centrifuge per year.
• 5060 IR-1’s allowed Iran can generate about 1 SQ per year; meaning 1 year to breakout.
Start of Negotiations

Iran committed to:
• Mastered the nuclear fuel cycle.
• Constructed a covert uranium enrichment facility inside a mountain.
• Had close to 20,000 centrifuges for uranium enrichment.
• Was developing high efficiency advanced centrifuges.
• Was building a heavy-water reactor that could produce weapons-grade plutonium.

If Iran wanted to develop a nuclear weapon, it was already well down that road and the international community had little insight into its program.

President Obama vowed never to allow Iran to develop a nuclear bomb
Joint Plan of Action Agreement
Geneva, November 2013

Iran committed to:
• halt uranium enrichment above 5%.
• neutralize its stockpile of near-20% enriched uranium.
• halt progress on the growth of its 3.5% stockpile.
• halt progress on its enrichment capacity.
• no further advances of its activities at Arak heavy water reactor and to halt progress on its plutonium track.
• unprecedented transparency and intrusive IAEA monitoring of its nuclear program.

P5+1 committed to:
• reduce about $7 billion of sanctions temporarily and reversibly in limited areas.
• not to impose additional sanctions.
Lausanne Framework Agreement, April 2015

• Commitment to negotiate a complete deal by June 30, 2015. Likely that deadline will be extended by a few days to a week for final, high-level acceptance of terms.
• Detailed parameters for final agreement.
• Triggered opposition in Iran, the United States, and among U.S. allies.
• Obama Administration and Congress reached an agreement on a limited but substantial Congressional review.

Lausanne Framework Agreement - Iran

Parameters of prospective actions by Iran

• Reduce the number of installed centrifuges from 19,000 to 6,104; only 5,060 of these will enrich uranium for 10 years.
• No uranium enrichment above 3.67% purity (suitable for civil use and nuclear power generation only).
• Reduce stockpile of 3.67% LEU from current 10,000 kilograms to not more than 300 kilograms and maintain that stockpile for 15 years.
• **Fordow uranium enrichment facility** will operate <1,000 centrifuges for research. **Natanz enrichment facility** will operate 5,000 R-1 centrifuges for 3.67% enrichment. The remaining 13,000 centrifuges will be used as spares.
• **Arak facility** will be modified so as to produce a minimal amount of plutonium but will remain a heavy-water reactor.
• Allow inspection of all its nuclear facilities and its supply chains such as uranium mining sites (**military sites are not included**).

Lausanne Framework Agreement – P5+1

Parameters of prospective actions by P5+1

• Lift all sanctions within 4 to 12 months of a final accord.
• Develop a mechanism to restore old sanctions if Iran fails to comply as per IAEA reports and inspection.
• The E.U. will remove energy and banking sanctions.
• The U.S. will remove sanctions against domestic and foreign companies who do business with Iran.
• All U.N. resolutions sanctioning Iran will be annulled.
• All U.N.-related sanctions will be dismantled.

Joint Comprehensive Plan of Action (JCPOA)
The Final Agreement

• Announced in Vienna on July 14, 2015
• 159 pages specify in detail how April Framework Agreement will be implemented.
• Secretaries John Kerry and Ernest Muniz write the JCPOA is:
  o “The best way to prevent Iran from having a nuclear weapon, it is the only durable and viable option for achieving this goal.”
  o “Has the unified support of the world’s leading powers.”
  o “Extends the time Iran would need to develop a nuclear weapon, provides strong verification measures that give us ample time to respond if Iran chooses that path, and takes none of our options off the table.”
  o “A good deal for the United States and for global security.”

Opponents

• Republicans and neo-con Democrats

• American allies:
  o Israel and Jewish-American Establishment, but not J Street or APN
  o Gulf Cooperation Council (GCC) States (Bahrain, Kuwait, Oman, Qatar, **Saudi Arabia**, United Arab Emirates [UAE])

• Iranian “hard liners,” but not the Revolutionary Guard.
Congressional Review of Agreement

- Congress has at least 30 days to consider an agreement after it is signed, before any congressionally mandated sanctions against Iran could be waived or suspended.
- If Congress does not act, the agreement will take effect.
- Any Congressional resolution will require 60 votes to pass and be subject to a presidential veto that requires 67 votes ($2/3$ of the Senate) to override.

Effect of a Congressional review is to make reaching an agreement harder because it adds uncertainty to the U.S. bottom-line position, so other parties are leery of making concessions without knowing the quid pro quo.

Contrast with congressional review of fast-track.

Washington Post, April 14, 2015

Objections & Rebuttals

• **Agreement is a “bad” deal:**
  - “Paves way to an Iranian bomb” (Netanyahu).
  - Agreement leaves Iran just a few months from “breakout.”
  - Iran centrifuges will keep on spinning.

Ignore or misread interim and framework agreements that limit Iran’s ability to make and/or stockpile enriched uranium or plutonium (essential nuclear bomb material) for 10-15 years.

• **Iran will cheat:**

Inspections since interim agreement indicate Iran is not cheating. Israel cheated to get its bomb, and ascribes its own actions to others.

• **A military attack on Iran will be easy – more like the assassination of Osama bin Laden than the Iraq war (Ehud Barak):**

Reference Iraq war. An attack on Iran will be harder when Russia installs S-300 anti-aircraft missile system in Iran.
Objections & Rebuttals 2

• Does not allow anytime & anywhere inspections:
  Disingenuous. No country would. Accusation designed to kill any agreement.

• Deal provides Iran with immediate sanctions relief.
  Sanction relief will be phased, and sanctions related to Iran’s human rights and support of terrorism will remain in place.

• Deal does not address Israel’s concerns.
  Wrong. Israel’s main concern for years has been an Iranian nuclear bomb. Deal stops that.
Back-story: Iran’s Status

• Objections are so thin there must be a back-story to explain the opposition to the Iran nuclear deal.
• Many analysts believe the back-story is around the status of Iran.
• Iran is a regional power, and potentially a world power.
• An Alaska-size country with almost 80 million people (17th largest)
  75% urban
  71 years life expectancy
  20% adults obese
  $17,114 GDP/person (IMF)
• Literate and technological population
  80% men; 70% women
• Abundant natural resources
  4th largest oil reserve; 2nd largest natural gas reserve
  Iron ore, coal, copper, zinc, lead, many others
• Iran is between Turkey and Egypt in many economic and social measures
Keep Iran in its Place!

- The Nuclear deal will almost surely bring Iran more into the community of states and the world of rules.
- Israel, Saudi Arabia, and American Republicans and neo-con Democrats want to prevent Iran from becoming more of a regional and world power because that will reduce their country’s room to maneuver.
- Battlefield in Sunni and Shi’ite confrontation led by Saudi Arabia and Iran, respectively.
Consequences of Failure

Iran: Free to enrich uranium and make plutonium under normal IAEA inspections.

U.S.: Commitment to prevent an Iranian nuclear bomb may lead to a military attack, and likely war.

Israel: Threatens military action (even if agreement succeeds) that likely will drag the U.S. into war. Defense minister alluded to Hiroshima and Nagasaki.

P5+1(–U.S.): Free to increase sanctions to discourage Iran from above, but will not if they see U.S. as cause of failure. Rather will likely drop sanctions (de jure if not de facto) and build trade with Iran.

A military attack on Iran would at most set Iran’s nuclear program back a few years, but likely will leave Iran more determined than ever to build a bomb.
American arms to the rescue

How will the Obama Administration disarm its opponents?

• American weapons promised to GCC at Camp David.

• More American weapons to Israel as “compensation”:
  
  Look for an increase in number of F-35s (with first-strike stealth technology) and increased money to buy them.

  $1.9 billion in bombs and missiles (including bunker-buster bombs, smart bombs, and smart bomb guidance kits).

• An Obama capitulation on increased war with Islamic State (which itself is a payoff to American arms industry)?

  Or more cuts to social programs?

A Middle East Nuclear-Free Zone

• What is needed is a Middle East nuclear-free zone to remove the ultimate driver for Iran’s “need” to go nuclear.
  
  o Israel will be required to give up its nuclear arsenal.
  
  o Nuclear states will be required to keep nuclear weapons out of the region, including the United States with nuclear bombs stockpiled in Turkey and Diego Garcia and Iran’s nuclear neighbors Russia and Pakistan.

• The U.S. killed progress toward a nuclear-free Middle East on May 22, 2015 by blocking the final document of a U.N. conference reviewing the NPT saying it was “incompatible” with “longstanding policies,” and blaming Egypt for “targeting” Israel. Another example of the Israel lobby at work.

http://www.globalresearch.ca/us-stonewalls-middle-east-nuclear-free-zone-project-over-israels-nuclear-arsenal/5451497
Conclusion

• We share the worry of the deal’s opponents that Iran will eventually attempt to develop a nuclear bomb.

• This agreement is good because it will help prevent Iran going nuclear for 10 years, and maybe 15 years.

• The agreement should be adopted.

• It is better to have Iran in the community of states where it is constrained by international rules, than Iran isolated but unconstrained by international norms.

• We oppose the United States arming the Middle East as “compensation” (a “bribe”) to ease acceptance of the Iran nuclear deal. Worst move is to give Israel more first-strike F-35 war planes and bunker-buster bombs.

• The world need a Middle East nuclear-free zone to remove Iran’s driver for going nuclear, and for the general good of all humanity. But killed by Israel lobby.