

Preface to “Operation Measured Imperative”

TLDR: This is my layperson’s imagination of what a 2012 US air campaign to stop an Iranian dash for the bomb might have looked like, squeezed into what we have in DCS. There are various compromises I know I’m making, and surely plenty of inaccuracies I don’t know about.

This campaign was an attempt to imagine how tensions in 2012 over Iran’s nuclear program might have broken out into conflict, before the JCPOA but under the shadow of the mistakes of the Iraq War.¹ I particularly try to explore the unintended consequences of such a conflict, as I’ve come to believe such military action is significantly more risky than many Americans imagine.

I tried to work within the confines of DCS, publicly available information, what seems realistic politically and intelligence-wise, and my own ignorance. I’m no expert on these topics and trying my best from what I’ve read, and appreciate any feedback.

My starting point was to pick a real nuclear facility and come up with the most realistic context I could for why it would be involved in such a conflict. The most likely (publicly known) Iranian nuclear facilities to be targeted in such a campaign are beyond the northern edge of the DCS Persian Gulf map, so I focused on the Bushehr nuclear power plant for the beginning of the campaign. The site itself is blank in DCS and sits just 20 miles beyond the edge of the map’s nearest detailed area, so I attempted to visually model the site and the immediately neighboring towns using default DCS static objects. Later the campaign moves towards fictional sites within the detailed area.

There are multiple reasons for why Bushehr is an unlikely real world target: the monitoring safeguards in place, its light water reactor not being well suited for weapons production, and the likely terrible civilian toll of its destruction (while operational). Diversion of plutonium from Bushehr would require either noticeably unusual early fuel unloading or using lower quality plutonium. It would also be a violation of Iran’s agreement with Russia to return all spent fuel to Russia, and would be detected, if not immediately by satellite surveillance, by eventually either regular IAEA inspections or Russia. With the availability of a less detectable uranium path to the bomb, diversion from Bushehr looks unlikely (which is why the Bush administration ended US opposition to the reactor).²

That said, the risk cannot be fully ruled out, and a decision to divert at Bushehr would depend on the expected response, a worry from at least some experts.³ You might further argue that Iran cannot reasonably expect to dash for the bomb especially at known sites under surveillance, and that’s why a fairly overt “break out” like this is very unlikely to happen.⁴ It’s a good argument, but that’s the hypothetical explored here, and I try to place it in a political environment most likely to produce it: a fearful Iranian government decides to try all available options to get nuclear weapons quickly, and miscalculates.

¹ In March 2012, betting markets predicted a roughly 40% chance of overt air strikes by the US or Israel against Iran by the end of 2012:

<https://www.theatlantic.com/international/archive/2012/03/chances-of-war-with-iran-have-dropped-for-2012-risen-for-2013/254183/>

² <https://www.armscontrol.org/act/2005-04/iran-nuclear-briefs/iran-russia-reach-nuclear-agreement>
<https://iranprimer.usip.org/resource/george-w-bush-administration>

³ <https://www.csmonitor.com/USA/2010/0819/Why-Iran-s-nuclear-reactor-may-not-be-an-immediate-threat>

⁴ <https://foreignpolicy.com/2018/05/01/netanyahus-informercial-for-the-iran-deal/>

One reason Iran might doubt the US threat of force is that the US does not have an easy “pinpoint strike” military option, due to the risk of a wider conflict along with the nuclear program’s dispersion, hardened facilities, and significant risks to nearby civilians. This civilian risk from Bushehr is especially horrific, both in Iran and other countries, from the release of radioactive fallout were the US to simply bomb the facility.⁵ In this campaign, to avoid bombing the reactor or the spent fuel, the US instead undertakes an operation to capture the spent fuel, at the expense of considerable complication -- special forces taking and holding the complex for several days -- and the correspondingly significantly larger risks to US personnel.

As an attempt at plausible alternative history, I list some further counterfactuals assumed (*in italics*) on top of those described above, leading to the subsequent fictional reactions depicted:

- A. *Iran at least appears to have built a secret plutonium reprocessing facility to quickly and reprocess Bushehr’s plutonium.* I found one expert saying one could be built in “as little as six months” and “hidden within a moderate sized warehouse. But I was unable to find any indications Iran has any serious reprocessing capability, only a small facility near the Tehran Research Reactor.”⁶
- B. *Fuel rods at Bushehr are unloaded by Iran strategically early to obtain higher quality plutonium for diversion and reprocessing, but use contamination as a temporarily plausible cover story. The Russians also transfer operational control to the Iranians in late 2011.* In reality, fuel rods were unloaded at Bushehr in 2011 with IAEA oversight, apparently due to real contamination, and operational control was transferred in 2013.⁷
- C. *John Bolton ran and became the frontrunner for president in the 2012 Republican primary.* Bolton merely considered running.⁸
- D. *The F-14 is still in active service in 2012.* It was actually retired in 2006.
- E. *All depictions of US perceptions of Iranian intentions and vice versa are speculative (but hopefully plausible) fiction starting from the above premises.*

Beyond those listed in footnotes, some of the additional references I found helpful are:

- Layout of the Bushehr reactor area, though the description of buildings further away from the reactor not shown here (e.g. the “research complex”) are my speculation of what they might be from Google Earth, not from any knowledge of what they actually are: <https://www.youtube.com/watch?v=N1yjp4BbGuc>
- Overview of proliferation risks of light water reactors (seems to be a more concerned take on this than from other experts): <http://npolicy.org/article.php?aid=172>
- Overview of the detectability of undeclared plutonium reprocessing: <http://fissilematerials.org/library/rr18.pdf>
- Locations of IRIAF aircraft were inspired by: <https://www.scramble.nl/orbats/iran/airforce>

⁵ <https://nucleargamble.org/wordpress/wp-content/uploads/2012/09/Ayatollahs-Nuclear-Gamble-Full.pdf>

⁶ <https://foreignpolicy.com/2018/05/21/in-the-middle-east-soon-everyone-will-want-the-bomb/>
<https://www.iranwatch.org/library/private-viewpoints/assessing-irans-plutonium-reprocessing-capabilities-way-obtaining-nuclear-weapons-material>
https://www.brookings.edu/wp-content/uploads/2019/03/FP_20190321_nuclear_capabilities_WEB.pdf

⁷ <https://www.nti.org/learn/facilities/184/>

⁸ <https://www.theatlantic.com/politics/archive/2013/06/john-bolton-almost-considering-presidential-run-again/313940/>

- EWR and SAM site placement was based on (not matching exactly) these sources:
 - <https://www.ousairpower.net/APA-Iran-SAM-Deployment.html#mozTocId628755>
 - <https://irangeomil.blogspot.com/2018/09/irans-sam-coverage-updates-and-future.html>
- The arguments made by Colin Kahl and Matthew Kroenig, in competing articles and the recorded oral debate, helped me better understand the US foreign policy community's thinking on these questions at the time:
 - <https://www.foreignaffairs.com/articles/middle-east/2012-01-01/time-attack-iran>
 - <https://www.foreignaffairs.com/articles/not-time-attack-iran>
 - <https://www.youtube.com/watch?v=aDDP7r7FolA>
- For the format of the ATO, I've imitated that of (virtual) [CSG-8](#).
- Thanks to many folks on the CSG-8, Baltic Dragon, and Spud's Buds Discord servers for helpful advice and tips on mission design along the way.

The campaign is MIT-licensed, so you are welcome to modify/improve the campaign. This single player campaign was also adapted to a multiplayer campaign which we used in CSG-8. If other groups are interested in running it or adapting it to their group, please reach out: I'm happy to share the source files, etc.

If you have any feedback or improvements to the campaign, I'd love to hear from you:
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– Lewis