

# The Birth of a Bomb: A History of Iran's Nuclear Ambitions

SPIEGEL ONLINE, Hamburg, Germany

## The Birth of a Bomb A History of Iran's Nuclear Ambitions

**In the dispute over Tehran's nuclear program, the UN Security Council has imposed new sanctions. Is Iran truly building a nuclear bomb as Western countries claim? Or are countries playing up the dangers to bring Iran to its knees? SPIEGEL traces the history of Tehran's nuclear program -- with stops in Washington, Vienna and Isfahan.**

June 17, 2010 06:44 PM

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*Editor's note: The following article from this week's issue of SPIEGEL has been published online in two parts. You can read the complete story here. If you read the first part on Thursday, click here to proceed directly to [Part II](#).*

It is yet another of those secret meetings at the International Atomic Energy Agency (IAEA). The deputy director general of the agency, who works on behalf of the United Nations to prevent nuclear bombs from getting into the wrong hands, has invited 35 diplomats to a meeting on the fifth floor of the UN building in Vienna. Some take pictures with their mobile phones of the ice floes on the Danube River drifting by below. Everyone is prepared for a routine meeting. But everything will be different this time. With the help of high-tech espionage, history is written on this February day in 2008. And perhaps it will later be said that it was the day Iran finally lost its innocence, and the day the Israelis were provided with arguments for a war.

Olli Heinonen confronts the diplomats with new information about Tehran's nuclear program. The Finnish nuclear scientist, the IAEA's deputy director general and head of the Department of Safeguards, has been to Natanz and Isfahan several times himself, and his inspectors, or "watchdogs," report back to him regularly. In addition, cameras monitor

nuclear activities in many of the Iranian facilities. As useful as all of this is, it doesn't replace supplementary, secret information.

Heinonen knows that there are many things happening in Iran that he doesn't know about. Nevertheless, he has received critical information through indirect sources, including recordings made by a leading Iranian nuclear scientist.

### **A Treasure Trove of Facts**

Always wary of attempts to manipulate him, Heinonen has spent a lot of time comparing the exclusive information with his own records and checking it against other reports. His research has led him to conclude that he has been given a treasure trove of facts, images and names -- all of it "with a 90-percent likelihood of being authentic."

The room is dark as the projector hums in the background. For the next two hours, Heinonen projects images, diagrams and copies of manuscripts onto the wall. The story they tell is diametrically opposed to the official Tehran version, which holds that Iran is using fissile material for peaceful purposes only and that there is no military nuclear program. "Project 5" describes Iran's uranium mining program and how it processes the material into uranium hexafluoride, an intermediate product in the process of producing nuclear fuel. "Project 110" depicts the testing of highly explosive nuclear materials. "Project 111" illustrates attempts to build a warhead for Iran's Shahab-3 missile. The IAEA experts have translated a literary motif on the first page of the document that reads: "Fate does not change people as long as people do not change fate."

Heinonen says that all of this information raises urgent questions, particularly about a man named Mohsen Fakhrizadeh, the secret head of the program, whose name is mentioned repeatedly in the documents. Although Heinonen doesn't say that his information constitutes evidence of a nuclear bomb program, no one has ever come this close to offering a "smoking gun" for an Iranian military nuclear program. The presentation, by a Scandinavian known for his levelheadedness, offers a convincing body of evidence -- and makes a very strong impression on the assembled experts.

The Iranian ambassador to the IAEA, Ali Asghar Soltanieh, jumps up excitedly and promptly claims the information Heinonen has just presented is nothing but "fabrications," a claim he will later be forced to partially retract. The Americans, the French and others are busy taking notes and trying to take pictures of the slides with their mobile phones, as one of the attendees recalls.

### **'Chariots of Fire'**

Heinonen has kept the best for the end: a three-minute film from Tehran that was probably intended for the country's senior political leaders and is as professionally produced as a trailer for a Hollywood movie. It shows the

computer-supported simulation of an explosion of a missile warhead. As the IAEA deputy director general soberly points out, the simulated explosion, at an altitude of 600 meters (1,970 feet), would make no sense for the use of conventional, chemical or biological weapons.

The clip uses the powerful theme music from the film "Chariots of Fire," by Vangelis, which won an Oscar in 1982, together with the film of the same name. But there is also another context to the phrase "chariots of fire," and it can be assumed that the highly educated Iranian scientists knew what it was. The 19th-century British writer William Blake popularized the unusual phrase, with its biblical origins, in a short poem from the preface to his epic "Milton: A Poem," best known today as the hymn "Jerusalem." The lyrics read: "Bring me my bow of burning gold / Bring me my arrows of desire / Bring me my spear: O clouds unfold! / Bring me my chariot of fire!" Were the Iranians using the phrase "chariots of fire" as a poetic euphemism for the atom bomb?

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**Norberto\_Tyr** 06/18/2010

1. Nuclear ambitions or Israel is duping US, this is the question

Nuclear ambitions or Israel is duping US, this is the question; and it is an important one since worlds nuclear peace is at risk. From the perspective of a person that cannot possibly be reached by hypothetical Iranian [...] Nuclear ambitions or Israel is duping US, this is the question; and it is an important one since worlds nuclear peace is at risk. From the perspective of a person that cannot possibly be reached by hypothetical Iranian nuclear weapons the most obvious fact is the extravagant and exaggerated position the so-called west assigns to Iran in terms of threats. After all, the last war Iran had was against the very same axis of evil member, namely Iraq, which the west razed to the ground and neither pacified nor rebuilt so far. The second blazing fact is that Iran signed the NPT, unlike Israel, India and others. The third is the fact that Israels ex PM Olmert boasted publicly and with total impunity having nuclear weapons even suggesting that can be used, then, if logic prevails, we must ask why is much more urgent a possible future problem than a current one; as Lewis Carrol would say (from memory): Lets start at the start, then go step by step, and when we reach the end, we will stop. The third is the problem that bothers me most due its illogicality and incongruity (I am not very naïve so I smell a rat) since it appears that there are no public attempts from any sovereign government to explain this lagunae, not even at a mere rhetorical level. The dead rats stench permeates even more due to a confuse pseudo explanation coming from the country that is involved in most remote current wars both, with and without UN blessing, and the only country that has the privilege of having issued two nuclear booms on open cities, Hiroshima

and Nagasaki. Apparently, now we learn, that there is a treaty signed behind our (the rest of the world) backs between USA and Israel forbidding mentioning the itchy issue of Israeli's nuclear weapons. This surrealistic pseudo explanation not only explains nothing but also adds more questions to the problem, namely what authority or jurisdiction USA has claimed in order to sign such a treaty or agreement binding all of US, and why sovereign governments accept this ridiculous explanation without saying 'mum'. Finally I would like recalling a sensible German proverb: Die Richter sollten über zwei Ohren, die beide gleichermaßen (Judges should have two ears, both alike). In Spanish we say: A buen entendedor, pocas palabras (to good listeners, few words suffice), Baltasar Gracian. Norberto

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