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Editor: **Mark A. Heller**

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LIBYAN WEAPONS OF MASS DESTRUCTION: QADDAFI REDUX?

Yiftah Shapir
Jaffee Center for Strategic Studies

"Libya is going to be the first Arab state with nuclear weapons." That was Prime Minister Ariel Sharon's prediction in a special interview for the Jewish New Year. According to Sharon, Iraqi scientists are working there on a nuclear project, with aid from Pakistan, North Korea, and perhaps Saudi Arabia, as well. American officials appear to share his assessment. Zeev Schiff reports in *Ha'aretz* that the issue was discussed by Israeli and American officials some six months ago. And Undersecretary of State for Arms Control and International Security John Bolton said in May that the US has no doubt that Libya is continuing its efforts to acquire nuclear weapons. The Administration believes that Libya stepped up its nuclear-related activities after sanctions were lifted in 1998. But Bolton did not elaborate on the issue, and his speech dealt more with chemical and biological weapons than with nuclear weapons.

A nuclear Libya would pose a grave threat both to the Middle East and to Europe. It would be particularly menacing to three countries: Israel, for obvious reasons; Egypt, which regards Libya as its own back yard; and Iran, because of the suspicion that Libyan nuclear-related activities will produce a bomb, not only for Libya, but also for Iraq.

Libyan Efforts in Other Areas

Libya has been seeking different types of weapons of mass destruction for a long time. Its purchase of the R-17 (Scud-B) missile from the Soviet Union in the early 1970's appears to have been driven mainly by considerations of prestige, since there were no strategic targets within range in any of the surrounding countries. The same consideration may explain why Libya acquired some 80 launchers – more than Iraq, Syria and Egypt combined. Libya used its missiles only once: in 1986, it fired a single missile at the NATO base in the island of Pantelleria.

In addition to foreign procurement, Libya has been trying to develop a domestic production capability. With assistance from German engineers, it launched a project to build a medium range missile named "al-Fatah." However, the Fatah project apparently stalled, and the missile was never tested. Nevertheless, Libya persisted in its efforts to assemble or even manufacture missiles, with assistance from Iran, China, and North Korea. It also continued with its foreign purchases: in 2000, some 50 No-Dong missiles were acquired from North Korea (the number of launchers is not known).

Libya used chemical weapons, probably supplied by Iran, during its war in Chad in 1987. It subsequently built a large plant to produce

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mustard and nerve agents near the town of Rabta, but production was later transferred to an underground facility near Tarhunah (50 miles south of Tripoli). It is believed that the same plants are also used to develop biological weapons, though there is no hard evidence for that.

Nuclear Capabilities

Libya operates a Soviet-made, 10 Mw research nuclear reactor in Tajurah. A Soviet pledge to construct two 440 Mw nuclear power stations never materialized. However, Russia renews its nuclear cooperation with Libya after the sanctions on Libya were lifted and assisted in a program to renovate the aging research reactor. Libya is a member of the Nuclear Non Proliferation Treaty (NPT) and of the African nuclear weapons free zone (the Pelindaba Treaty), and all its declared nuclear facilities are subject to IAEA inspections. Despite repeated allegations that Libya has sought a nuclear weapons capability, most recently by Israeli and US officials, the country apparently lacks the technical infrastructure to pursue such a program on its own. Thus, the US national intelligence estimate (NIE) presented to Congress in January 2002 notes the acceleration of the nuclear weapon program since 1999 but stresses that Libya still requires substantial foreign assistance.

Analysis and Conclusions

Unlike Pakistan, Iran, or Iraq, Libya does not face any external strategic threat but nevertheless appears bent on acquiring a nuclear weapon capability. The most plausible explanation is that Libyan leader Muammar Qaddafi still aspires to leadership in the Arab and the Moslem world. The prestige conferred by nuclear status would contribute to this goal. However, ambitions are not enough. Developing nuclear weapons requires a prolonged effort and a high level of technical know-how. Iraq, which possessed a very sophisticated military industry, invested almost twenty years of effort to achieve nuclear capability and was still several years away from success when its program was derailed by the 1991 Gulf War. Iran, which also has a large defense industry, is believed to be 3-5 years from realizing its nuclear ambitions. Libya, on the other hand, lacks any comparable industrial base. Although it has produced chemical weapons, it appears to have failed miserably in its al-Fatah ballistic missile project, which is a much less complicated undertaking than building a nuclear weapon.

The experience of the Iraqi and Iranian projects indicates that a nuclear weapon program needs 10-20,000 skilled workers, with technical expertise in domains like metallurgy, high voltage electrical engineering, explosives, electronics, computerized machining, etc. These need to be drawn from a much larger industrial base, which Libya does not have.

Given the improbable character of a Libyan nuclear project, it is possible that what lies behind observed nuclear-related activities is actually collaboration with Iraq, that is, that Libya has allowed Iraq to continue its own nuclear project in Libya in return for some of the product. This would shortcut the development process but would entail the relocation of thousands of Iraqi engineers and scientists to Libya. Even so, it would be necessary to construct the whole industrial base from scratch, something that would take less time than a pure Libyan project, but probably not less than a decade. If this is indeed the case, a joint project will make Libya the second Arab nuclear state – after Iraq.

There is little doubt that Libya is pursuing a nuclear weapon program. But Libya clearly lacks the capability to proceed on its own and is totally dependent on foreign assistance. If this assistance is discontinued for any reason, the project cannot proceed.

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