A 10-Year Projection of Possible Events of Nuclear Proliferation Concern

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Nuclear proliferation involves capability and intent; that is, the ability to construct a nuclear explosive and the motivation to do so. Capability largely comprises physical facilities and know-how. Intent is mainly a political question and involves a country's own balancing of factors affecting its security, prestige, and other interests.

The proliferation equation is affected by a variety of events, both political and technical. Relevant political events include leadership changes or emergence of new governments, establishment of cooperation among governments, and negotiation of contractual arrangements or agreements between governments. Relevant technical events include such occurrences as startup or acquisition of new facilities.

This paper is intended to give a concise overview of possible future events that could bear on nuclear proliferation. It is intended as a reference aid for nonproliferation policymakers to help prepare them to deal with such events, should they occur.

The main thrust of this paper is to project an integrated chronology of possible political and technical events over the next 10 years. The paper is organized by geographic regions and, within regions, by major countries of proliferation concern. Both supplier nations and countries viewed as potential proliferators are considered. A chronology of possible events is projected for each country and for key international nuclear organizations. This chronology is preceded by a pictogram that summarizes the near-term nuclear capabilities of countries of major proliferation concern.

The technical events are heavily concentrated on the startup of two types of sensitive fuel-cycle facilities: reprocessing and enrichment plants. Fast breeder reactors also are included, to the extent plans for such reactors can be anticipated. Other reactors are included only where they would have particular proliferation significance. Likewise, other fuel-cycle facilities are mentioned (for example, fuel fabrication plants) if they will materially aid a country in reaching nuclear independence.

For ease of reference, events concerning sensitive facilities—enrichment and reprocessing plants—are also presented chronologically in a separate appendix, grouped by type of facility and by geographic area.

This paper is an update of an earlier research paper published in July 1979.
Pages: V - 4

Exemptions: (6)(1)(6)(3)
North Korea has sought assistance to build a nuclear power plant. Although these efforts have failed for financial and political reasons, we expect North Korea to continue to pursue its aim of acquiring a nuclear power reactor during the 1980s. We have no basis for believing that the North Koreans have either the facilities or materials necessary to develop and test nuclear weapons.

North Korea has a small nuclear research program that includes the use of a 4-MW modified IRT-type research reactor supplied by the Soviets. This reactor was constructed during the 1960s at the Yongbyon nuclear research center.
Pages: 10 - 23

Exemptions: (b)(1), (b)(3)
KEY JUDGMENTS: NORTH KOREA: POTENTIAL FOR NUCLEAR WEAPON DEVELOPMENT

The following Key Judgments are reprinted from a recently published Intelligence Assessment produced by the Office of Scientific and Weapons Research.

A copy of the complete report—Top Secret—is available from CPAS.
In December 1985, at the urging of the USSR, North Korea acceded to the Nuclear Non-Proliferation Treaty (NPT), renouncing acquisition of nuclear explosive and accepting safeguards on its nuclear activities.

North Korea's penchant for military secrecy makes it unlikely that it would locate a primarily military reactor at a known research center or agree, as it has with NPT adherence, to open it to international inspection.

The Soviet role in extracting the NPT pledge and subsequently selling North Korea a nuclear power reactor puts Moscow's prestige on the line in guaranteeing a peaceful program, with renewed economic and military aid as the lever to enforce it.
We have little information on North Korea's ability to conduct the non-nuclear research, particularly that involving high explosives, required for a nuclear weapons research program. The North Koreans already have a suitable nuclear delivery system in the MiG-23 fighter.
In considering whether to embark on a venture as costly, hazardous, and politically sensitive as a nuclear weapons program, P'yongyang would face a complex calculation of benefits versus costs as well as considerable uncertainty regarding the effect of such a program on its ultimate goal of reunifying the peninsula on its own terms. It might see nuclear weapons as a means of forcing political concessions from Seoul, as a hedge against possible South Korean development of a nuclear weapons capability, as leverage to gain a freer hand in paramilitary operations without provoking a military response, as deterring a US nuclear response to an attack on the South, or as a means of carrying out offensive operations in an all-out attack.

P'yongyang would also see disadvantages, particularly if it recognized the difficulty of concealing such a program. Exposure could lead South Korea—as with its superior nuclear technology—to develop nuclear weapons as a response. P'yongyang also would have to weigh the effect on the US commitment to Seoul under such an increased threat. Moreover, the North would have to calculate the less tangible, but still significant, impact on the diplomacy it has pursued for over two years aimed in large part at encouraging the eventual withdrawal of US forces. P'yongyang would also consider the likelihood that a weapons program would complicate its improved relations with Moscow.