

U.S. arm-twists Russia against technology transfer to India

by Susan B. Maitra and Ramtanu Maitra

Notwithstanding its decaying economy, the *Pax Americana* mob in the United States has struck again, this time against India, to keep the western bloc's superiority in rocket technology intact, at least for the near future. It has now been confirmed that Washington had indeed threatened Moscow with trade sanctions à la Saddam Hussein, if Russia continued to honor the agreement signed last year to provide India with cryogenic rocket engines and related technology. Subsequently, Russia called for a pause in fulfilling the contract. The cryogenic rocket engine, which India plans to use for its next generation launch vehicle, the geostationary launch vehicle (GSLV), would help to boost the INSAT-II series of satellites (2,500 kilogram class), the next generation satellites now being developed indigenously, into geostationary orbit.

In August 1990, the Indian Space Commission approved a plan developed by the Indian Space Research Organization (ISRO) to opt for the acquisition of cryogenic engines and related technology. As scientists had explained then, acquisition of the cryo engine, which is in an advanced stage of development at India's Vikran Sarabhai Space Center, would speed up the GSLV launch capability considerably and mitigate the possibilities of failure and delays inherently associated with any research and development program.

Negotiations were held with three foreign manufacturers—General Dynamics of the United States, Arianespace of France, and Glavkosmos of the former U.S.S.R.—to acquire the cryo engine and related technology. Since it was found that General Dynamics could not meet the requirements, the latter two manufacturers became the front-runners. Eventually, it was Glavkosmos that won the \$200 million contract in October 1996, and the Indian cabinet approved the deal within a month. The official signing of the agreement took place in January 1991, when the U.S.S.R. was still in one piece.

The story of the U.S. arm-twisting of Russia broke first in the Russian youth daily *Komsomolskaya Pravda* on April 18. The daily stated that the American objection to the deal was delivered by Secretary of State James Baker III during his visit to Moscow in February. He had told Russian Foreign Minister Andrei Kozyrev that the deal with India "created serious problems" in U.S.-Russian cooperation in space, and warned that the United States might impose trade sanctions against Russia if the contract were not scrapped. Baker re-

issued the threat on March 6 when he met Foreign Minister Kozyrev in Brussels, and, on March 26, called in Russian Ambassador to Washington Vladimir Lukin demanding that the contract be scrapped by April 3.

In New Delhi, although there was no formal comment by the External Affairs Ministry, the English-language daily *The Hindu* reported on its front page that Russian Ambassador to India Anatoly Drukov had met with Indian Foreign Secretary J.N. Dixit the same day the *Komsomolskaya Pravda* story came out, to inform him of the Russian government's decision on a "pause" in the contract with India on space cooperation.

The Indian government, not eager to acknowledge the episode, side-stepped the issue with a statement that the pause had been decided on because certain technical matters need to be clarified by Indian space scientists with Glavkosmos. However, the statement also mentioned, albeit obliquely, that Russia had suggested technical discussions between the space agencies of the two sides "to sort out problems which have become a matter of concern in the changed circumstances." The government, however, did not clarify what these "changed circumstances" were.

If Narasimha Rao's government had chosen to use diplomatic language to soften the impact of the U.S. action, U.S. State Department spokesman Margaret Tutwiler resorted to aggressive stonewalling. "We cannot provide details about contacts which take place in diplomatic channels," said Tutwiler. "The United States maintains contact with a large number of countries on the subject of missile technology transfers, including both members and non-members of the Missile Technology Control Regime [MTCR], including Russia and India."

Washington's objections

However, a U.S.-based correspondent for the India Abroad News Service found out that the Americans had turned the screws on Moscow's soft leadership and told them the transfer of cryo engine and related technology "would be a clear violation of the MTCR." IANS was also told that when Indian Defense Minister Sharad Pawar visited Washington recently, Undersecretary of State for International Security Affairs Reginald Bartholomew, Undersecretary of State for Political Affairs Arnold Kanter, and Arms Control and Disar-

mament Agency Director Ronald Lehman had urged India to join the MTCR and also sign the nuclear non-proliferation treaty. Vice President Dan Quayle also told Minister Pawar that South Asia remains a major concern of the Bush administration because of nuclear and missile proliferation. Later, Bartholomew, talking to an Indian correspondent, said that there is no question of putting pressure on India on the nuclear non-proliferation issue. He chose not to say anything about the missile proliferation issue.

Washington's professed concern is that if it acquires the cryo engines and related technologies, India will have much-advanced missile technologies, most likely of the intercontinental type. But this is just the cover story for "technological apartheid." India has already developed indigenously the Prithvi, a short-range missile, and the Agni, an intermediate-range missile, the latter in five years. Both of these use liquid propellant, and any long-range missile can use that too—there is no need for a cryogenic engine. What you do need a cryogenic engine for is to get a satellite into geostationary orbit. In fact, Washington is more interested in stymying India's efforts to develop satellite launchers which would make India a major player in the highly lucrative satellite launch market.

Indigenous effort

As one scribe in the *Economic Times*, the Bombay-based financial daily, pointed out, by curbing India's launch capabilities, the United States will be forcing India to either develop its own indigenous capabilities, go to western launchers with a potful of money, or depend on hiring transponders from foreign satellites. India could approach China and Russia, who offer launches at nearly one-third the current market rates, for the job. While the INSAT-I satellites were prohibited by the U.S. manufacturer, Ford Aerospace, from being launched aboard non-western launch vehicles, with the advent of the indigenously developed INSAT-II series, this hurdle can be overcome.

It is also likely that India will push ahead with the cryogenic rocket engines on its own. According to a document released by ISRO, India is making serious efforts to develop the cryogenic engine and the government had prioritized the project in 1990. However, the recent budget failed to allocate any funds for the project, although it had been earmarked as a priority two years earlier. Nonetheless, development tests on a version of sub-scale cryogenic engines have been completed successfully. Space scientists have reportedly completed designs for various elements of the cryo-liquid oxygen. An ISRO document indicates that an engineering model of a certain type of thrust chamber for the engine has also been fabricated.

According to Prof. M.G. Chandrashekhar, ISRO's scientific secretary, a full scale mock-up of a cryogenic engine has already been built, and the technology transfer ban imposed by the Americans will delay the process of development by

only a few years at the most. Taking a swipe at Washington's muscling, Chandrashekhar said: "The Americans are wrong in trying to block the Russian engine technology sale, particularly because General Dynamics had bid for the contract"—at twice the price the Russians are charging. Calling the Americans hypocrites, Chandrashekhar wondered why Washington did not stop it at that point, when the French and the Americans were vying with each other for the contract. "Where was the threat of missile proliferation then?" he asked.

Political backlash

Prime Minister Rao's government is already facing a political backlash from parliamentarians. The April 27 *Times of India* reported speculation within aerospace circles that it is American pressure which prevented the government from allocating money for the cryogenic engine development project this year. As yet, the accusation is unsubstantiated, and the administration has not responded.

However, in both houses of the Indian Parliament, both the opposition and the ruling party spoke with one voice against the reported U.S. arm-twisting. Members urged the government to break its "stony silence," and criticized the United States for acting as the "world policeman." In the upper house, Rajya Sabha, veteran congressman and leading industrialist K.K. Birla pointed out that the U.S. action was unjustified, as the rocket technology did not have any military implication. There are also proposals for passing a resolution in the lower house, Lok Sabha, condemning the United States. The move is led by Bharatiya Janata Party leader A.B. Vajpayee.

The Russians were not ignored either by the Indian media. In a commentary in the *Economic Times*, M.K. Kothari pointed out that by cooperating with India, the Russians can retain some areas of their fine technological capabilities. But for the Russians to assist in the technological ban is to commit hara-kiri, said Kothari.

The lesson that India must learn is that in the short time the United States has been establishing the new world order, it has twice intervened directly to prevent the Indian government from acting independently. First, India was categorically told—and India obeyed—not to proceed with the sale of a nuclear research reactor to Iran. The Rao government, before making any further gesture toward a strategic consensus with Washington, must take note that the 1992 list of "critical technologies" prepared by the United States consisted of 22 items. The document also listed countries other than Japan, the former U.S.S.R., and NATO which had significant R&D capabilities in these areas. In fact, India was listed in each and every one of the areas. Even China was not listed in more than 10 areas. No matter what the wishful thinking may be in New Delhi, Washington has little interest to see India develop its own capabilities in critical technological areas. The cryogenic engine episode is a reminder of that.