

also made it categorical that any attempt by the Russians to sell cryogenic rocket engines off the shelf would be rejected out of hand, primarily because this would imply that after two launches of the geostationary satellites, the geostationary launch vehicle (GSLV) has to be redesigned completely.

India space scientists are also thinking aloud at this point as to whether ISRO can altogether abandon the cryogenic route and develop a four-stage rocket with four liquid boosters.

### Technological apartheid

While there is little doubt that the Indian space program is now at a stage where scrapping of the cryogenic rocket engine technologies will not have major impact, the larger issue here is the brazen adoption of the policy of technological apartheid by the West. The MTCR is not a treaty like the Nuclear Non-Proliferation Treaty (NPT) or the proposed convention for chemical and biological weapons (CBW) which a government can ratify and become a party to. It is simply a club where the seven western nations with advanced missile capabilities, are trying to maintain their missile superiority for commercial or military reasons, or both, by offering the carrot and stick to others.

No nation can formally join this club, unlike the NPT, and will require approval of the seven nations to become a member.

The MTCR, a brainchild of the United States, was formulated on April 16, 1987 as a set of common export policy guidelines (called Guidelines) applied to a common list of controlled missiles and launch vehicle-related technologies (called ANNEX), and was informally agreed upon by the United States, Canada, France, Germany, Italy, Japan and the U.K.—the Group of Seven nations.

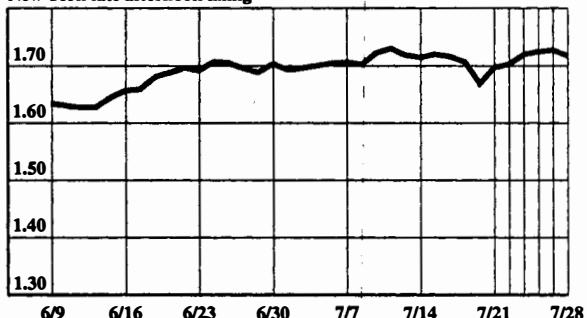
Since then, Australia, Austria, Belgium, Denmark, Finland, Greece, Iceland, Ireland, Luxembourg, the Netherlands, New Zealand, Norway, Portugal, Spain, Switzerland, and Sweden have been allowed into the elite club, raising the members to 23. From the developing world, two countries, Argentina and Brazil, were earlier lured to join. It is evident that Argentina will soon become a member, but Brazil, which refuses to stop its sounding rocket project, the civilian launch vehicle program, and the missile program, has been slapped with sanctions by the club, although Brazil follows the MTCR guidelines scrupulously.

More importantly—and all developing nations must take note—the MTCR is yet another tool to deny technologies to developing nations. Already, the Australia Group, Commodity Control List (CCL), Cocom (Coordinating Committee for Multilateral Export Control), EPCI (Enhanced Proliferation Control Initiative), Foreign Policy Export Controls, NSEC (National Security Export Control), NSG (Nuclear Suppliers' Group), and the Supercomputer regimes are in place to deny a myriad of essential technologies to the developing nations.

## Currency Rates

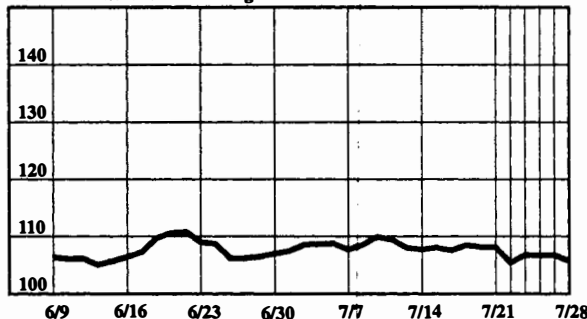
### The dollar in deutschmarks

New York late afternoon fixing



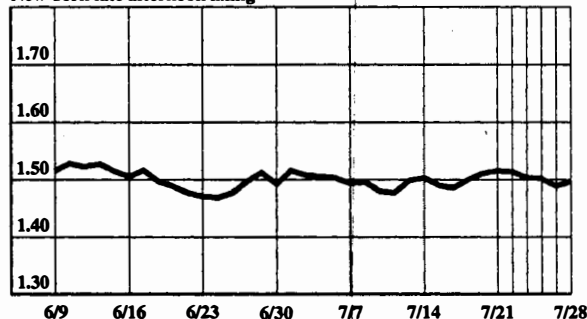
### The dollar in yen

New York late afternoon fixing



### The British pound in dollars

New York late afternoon fixing



### The dollar in Swiss francs

New York late afternoon fixing

