

## **Ending South Africa's Rocket Program: A Nonproliferation Success**

By Henry Sokolski

Overall the U.S. has had a mixed record impeding strategic weapons proliferation through technology controls and safeguards. This shouldn't be surprising. The U.S. and its allies, after all, are liberal, commercial democracies -- countries inclined toward promoting trade and friendly foreign relations -- regimes ill-suited for the hard bargaining, tough diplomacy and secrecy that effective nonproliferation controls and safeguards require. This doesn't mean that the U.S. can't fight proliferation. It does suggest, however, that the U.S. and its allies may have to fight it with more than just traditional types of diplomacy.

Consider South Africa's announcement in the spring of 1993 that it was suspending development of its space launch vehicle program. Had this program continued, South Africa would have acquired an intercontinental ballistic missile (ICBM) capability that the African National Committee (ANC) government could use to lord over its African neighbors and sell for cash to ANC supporters, such as Libya. This program's suspension, then, was significant. More important, as a tracing of its history demonstrates, it was a direct result of U.S. nonproliferation efforts, efforts that were based not on inspections, peaceful end-use pledges, or safeguards, but on a competitive strategy that leveraged America's economic and political strengths against South Africa's economic and political weaknesses.

This U.S. effort began in earnest in September of 1991 with a U.S. Federal Register notice that announced that the U.S. was sanctioning South Africa for importing ballistic missile technology from Israel. Under U.S. law the President is required to prohibit U.S. exports of aerospace items to any foreign entity exporting or importing missile technology in contravention of international guidelines contained in the Missile Technology Control Regime (MTCR).

Since the President had delegated this authority to the Secretary of State to make this determination and the evidence of South Africa's missile dealings with Israel was conclusive (Israeli officials admitted that they had exported Jericho I ballistic missiles), Under Secretary of State Reggie Bartholomew duly filed the sanctions

notice. It seemed like an easy decision. U.S. exports to South Africa were already embargoed under a variety of Congressional and UN anti-apartheid sanctions. Inflicting additional missile technology sanctions, then, would do no more additional harm to South Africa's economy than existing sanctions were already doing.

Or, so it seemed. As soon as the Federal Register notice went out, South Africa's emissary in Washington, Ambassador Harry Schwartz, visited Under Secretary Bartholomew and protested that South Africa's rocket was solely for peaceful purposes. State Department officials listened politely but assumed Schwartz was simply making a pro forma objection. They were wrong.

Within 48 hours, South Africa's President De Klerk followed Schwartz's protest up with a personal phone call to President Bush. The call caught President Bush off-guard. He knew nothing about the sanction. More important, after what he heard from De Klerk, he didn't like it. Bush, after all, had been trying to get Congress and other nations to lift their sanctions against South Africa in recognition of its progress toward majority rule. The last thing he wanted was to impose a new sanction, especially an American one.

As soon as the President got off the phone with De Klerk, he called his national security advisor, Bob Gates. How could the State Department have issued such missile technology sanctions against South Africa without him knowing about it, he asked. Why were sanctions imposed without any prior talks either with him or the South Africans?

It didn't take long for the President's discomfort to reach Under Secretary Bartholomew. In a hastily called meeting with Ambassador Schwartz, Bartholomew amended his earlier action by offering a new deal to resolve the sanctions crisis: The U.S. would lift the sanctions if South Africa limited its rocket activities to development of "peaceful" space launch vehicles, allowed this activity to be "safeguarded" by some form of inspection, forswore building any "military" missiles, and promised to adhere to the export restrictions in the MTCR.

Ambassador Schwartz was intrigued. Not only would sanctions be lifted, but the U.S. would engage in direct negotiations regarding safeguards -- the first direct diplomatic talks on any subject with the South African government in years. Other U.S. officials, including myself and my counterpart at the Arms Control and Disarmament Agency (ACDA), however, were not nearly as tantalized. First,

there was the procedural issue: Under Secretary Bartholomew formulated and tendered his deal without clearing it either with Defense or ACDA.

Second, the offer was substantively flawed. For starters, the distinction between “peaceful” space launch vehicles and “military” ballistic missiles, which the deal hinged on, was spurious. As President Kennedy had explained 30 years before, the only difference between the rocket that launched John Glenn into orbit and those the U.S. used to threaten nuclear destruction against the Soviet Union was “attitude”: One flew directly into space, the other did so only to reenter the atmosphere to hit a specific military target.

This made hash of the notion of “safeguarding” space launch vehicle activities. Again, as with nuclear weapons usable materials, detecting military diversions of space launch vehicles in a timely fashion was not possible. Space launch vehicle production lines are virtually identical to ICBM production lines. Also, an SLV could be reprogrammed to fly at an offensive trajectory in a matter of hours -- hardly enough warning to allow any outside party time to block the diversion once it was detected. Admitting these facts and doing nothing was preferable to pretending and trying to “safeguard” against such diversions.

Finally, offering South African such a deal to “save” its commercial SLV program mistakenly assumed that the program was a money maker worth protecting. In fact, economic analysis that I had the RAND Corporation do a year earlier for the Defense Department demonstrated that South African projections of a commercial success with their SLV program were nonsense. There was no way any nation, much less South Africa, which was so new to space activities, could turn a profit launching satellites. The space launch market was simply too small to make the investment profitable. In fact, if full the costs of rocket development (which the U.S. government paid for) were factored into U.S. commercial space launch balance sheets, no U.S. launch firm would have yet broken even.

This economic point was critical to the future of the South African project. If the U.S. could keep South African officials true to their word that their project was solely for commercial purposes, then, in due course, it would collapse financially on its own. If the U.S. failed to emphasize this point and let South Africa proceed with the rocket project, South Africa would lose money on the project and only be able to break even by selling the project’s rocket technology to

those willing to pay -- the Irans, Iraqs and Libyas of the world. The real question was whether or not the U.S. would focus on this point and keep South African officials from subsidizing the project.

I marshaled these points in a memo for general distribution at State; it hit a responsive cord. The foreign service officers responsible for South African matters, it turns out, were emotionally opposed to doing anything that coddled the dying White minority government and were eager to walk back Bartholomew's deal. Two major interagency meetings were soon held on the issue with the result that Assistant Secretary of State Richard Clarke, ACDA Assistant Director, Brad Gordon, and I were asked to negotiate with the South Africans in Capetown. The focus of these talks, however, would not be on safeguarding any "peaceful" rocket activities, but on getting the South Africans to recognize the economic futility of maintaining any rocket program.

The negotiations were to last two days. Ambassador Schwartz was present as were key representatives of South Africa's foreign and defense ministries and the aerospace industry. The first morning was spent explaining the new U.S. position on missile sanctions. The sanctions would remain in place until South Africa agreed to stop importing missile technology for its rocket and further agreed to control its export of missile technology in accordance with the guidelines of the MTCR. The U.S., finally, would only back South Africa for membership in the MTCR if it agreed to abandon its space launch vehicle program.

This new U.S. position was poorly received. Ambassador Schwartz, after all, had been told in Washington that South Africa could keep its space launch vehicle program and still have the sanctions lifted. He made it clear that South Africa was not about to stop the program. Others at the meeting also argued that they had too much invested to give up.

That evening, though, a very different picture emerged. The South Africans hosted a buffet dinner to honor what was the first high-level meeting between U.S. and South African officials on South African soil in over three decades. Pik Botha, South Africa's foreign minister, made a point of attending.

At dinner, Assistant Secretary Clarke and I sat with Botha and several liberal members of South Africa's parliament. About half way through dinner, Botha turned to the missile issue. "All right let's

talk substance. If South Africa forgoes its rocket program,” he asked, “What do we get?”

Clarke took the question: “You get to join the family of nations and become a member of the MTCR.”

Botha frowned. “Yeah, fine. But what do we really get? We’ve got lots of people working on this project. As soon as we kill it, they become unemployed. What are you going to give us in exchange?”

At this point, I wanted to speak. Clarke turned to me.

“How would you like up to a billion dollars and over 1,000 highly trained aerospace engineers?” I asked.

“Now you’re talking,” Botha replied with a smile. “How do we get that?”

“It’s easy. All you have to do is stop doing what you are doing now,” I answered. “The money and the trained personnel you want are already being invested in the rocket project. Drop it and the money and men are yours to use for any other purpose you choose. If, on the other hand, you persist in developing your civilian rocket, all of this money and trained manpower will be lost on a project that will lose money no matter what you do.”

At this point, the members of parliament’s jaws at the table became slack. Most of the members frowned. The one closest to Botha spoke up, “You told us this space thing was going to make money. Now we are being told that it’s costing us Kruggerands we don’t even have.”

The last point was painfully true. Since the imposition of general United Nations sanctions, South Africa’s economy was shrinking. More important, as South Africa made plans to move toward majority rule, its white minority government knew that the country would have to attract billions in foreign investment to build housing for its black majority and to cope with an entire generation of black citizens who were largely illiterate because of two decades of school boycotts.

Economics had sold the project. Now it was going to kill it. After receiving the RAND briefing on space launch vehicle economics and several other private economic market analyses, the South African government announced it would stop subsidizing the project and directed those working on it to figure out how to make the

project profitable. For the next year, the project's directors tried to find satellite customers in Europe. They essentially got nowhere. Meanwhile, officials at the International Monetary Fund (IMF) made it clear that they would have difficulty approving new loans to the South Africa government if it continued to fund the project.

The message was clear. The next step was definitive. On June 30, 1993, in his capacity as acting President of the country, Mr. Botha officially announced that South Africa was abandoning the project to "allay suspicions" that South Africa was still working on ballistic missiles.

This story is interesting but hardly unique: The U.S. took the same basic approach in 1990 and 1991 with Taiwan's and South Korea's budding space launch programs and with similar results -- both suspended their projects. It also was employed (along with private U.S. investment and the transfer of several older U.S. jet fighters) to convince the civilian Argentine government to suspend its military's efforts to develop the Condor II "space launcher system." In the end, the Condor II boosters that Argentina had (and were about to send to Iraq) were destroyed voluntarily.

Of course, there's nothing permanent about this process. Less than a year after Pik Botha's announcement, U.S. officials were concerned about reports that South African engineers and scientists were offering their nuclear and aerospace expertise to proliferators in the Middle East. South Korea also has asked that it be released from its 1991 pledge to the U.S. not to acquire space launch vehicles and instead be allowed freer access to Western rocket technology. And there must always be a concern that the Condor II project will find new financial backers in the Middle East that might tap Argentina's aerospace expertise.

That said, none of these nations has yet gone ballistic. Whether they ultimately do depends on economic and political issues. Will Argentina's move toward free markets continue and be rewarded? Will the civilian leadership there continue to hold the upper hand over the military? Will North Korea desist in threatening the South? Will South Korean preparations for peaceful unification take a more serious bent (i.e., will South Koreans begin to raise money for this purpose)? Will cultural and military competition between elements in South Korea and Japan moderate? Will the economy in South Africa show strong signs of growth? With its high technology assets be put to more leveraged uses (e.g., satellite development rather than rockets)?

Just as important, will the United States and other like-minded nations who are committed to fighting proliferation continue to keep up the pressure on these nations not to proliferate strategic missile capabilities? Will the U.S. and its friends continue to enforce export controls on this technology and keep South Korea, Taiwan, South Africa and Argentina to their earlier pledges not to acquire large missile capabilities? Will the Missile Technology Control Regime maintain adherence to these pledges as the criteria for maintaining or assuming membership or make concessions as long as the missile capabilities developed are intended for “peaceful” purposes?

Finally, and most important, will the United States and its friends continue to leverage their economic, military, and political strengths to help emerging democracies answer these political, economic and security concerns in fashion that makes these nations’ acquisition of strategic weapons seem even more unnecessary than it does today? If so, more nonproliferation successes are possible.