

INFORMATION PAPER

SUBJECT: Historic Background: The Former Strategic Arms Reduction Treaty (START) and the Impact on the U.S. Army

1. **PURPOSE:** Highlight the provisions of the former START Treaty that most affected U.S. Army programmatic activities.
2. **BACKGROUND:** The Strategic Arms Reduction Treaty (START I) was a bilateral¹ treaty between the U.S. and Russian Federation that entered into force on 5 December 1994. It expired in December 2009. START focused on limiting certain categories of strategic offensive arms.² Under the treaty, the primary item of accountability was first-stage motors of an Intercontinental Ballistic Missiles (ICBMs) and Submarine Launched Ballistic Missiles (SLBMs). As the U.S. reduced the number of SLBMs and ICBMs to meet START force levels, excess motors were stored. These motors represented a cost effective asset for use as Payload Launch Vehicles (PLVs) for U.S. Army missile defense activities. In addition, these motors were also an attractive option for use a Space Launch Vehicles (SLVs). However, some of these first-stage boosters remain subject to New START Treaty inspection, notification, and telemetry requirements. The U.S. Army also had responsibility for two facilities that are inspectable under START, as well as preparing all U.S. Army facilities and sensitive programs for the possibility of a START Special Access Visit (SAV).
3. **Compliance Issues with use of START-accountable Assets as Payload Launch Vehicles**

- a. The treaty prohibited the launching of a missile (ballistic or cruise) with a range in excess of 600 Km from a ship or submarine unless it was to put an object into the atmosphere.³
- b. The treaty prohibited the launching of a missile of any range from a platform tethered to the sea floor.⁴

¹ Signed in May of 1992, the Lisbon Protocol provided that four of the former Soviet Republics still retaining nuclear weapons (Russia, Belarus, Kazakhstan and Ukraine) would become parties to START I and would assume the responsibilities of the USSR.

² The phrase "strategic offensive arms" was not defined in the former START Treaty.

³ START Article V, 18(A)

⁴In addition, Articles I and II of the Treaty on the Prohibition of the Emplacement of Nuclear Weapons and Other Weapons of Mass Destruction on the

- c. The treaty prohibited the launching of an air to surface ballistic missile with a range in excess of 600km.
 - i. There was an exception to this provision that stated if the booster glided, thus obtaining aerodynamic lift, over part of its trajectory it could fall into a "gray" area because it was neither a ballistic missile nor a cruise missile.⁵ There is concern, however, that such a boost-glide vehicle (BGV) could have been ruled a new strategic offensive arm under the treaty's Second Agreed Statement thus requiring consultation with treaty partners in the Joint Compliance and Inspection Commission (JCIC).
- d. If the PLV used the first-stage motor of a current or former SLBM (Trident I C4, Trident II D5) or ICBM (Minuteman II, Minuteman III, Peacekeeper), it was impacted by several provisions of the former treaty:
 - i. The PLV must have been launched from a designated ICBM or SLBM test range and from a designated test launcher.
 - 1. The U.S. had one identified test range at Vandenberg AFB, with 10 launchers. The number of fixed test launchers could not exceed 20.
 - 2. The U.S. was not allowed to "base" a PLV that utilized an ICBM or SLBM first-stage outside its national territory.⁶ There was no firm definition of the term "base."
- e. If the PLV used an "existing type" of ICBM (Minuteman III or Peacekeeper) or SLBM (Trident I or Trident II) first-stage, the telemetry (or encapsulation) emanating from the booster or the BUS was unencrypted.⁷

Seabed and the Ocean Floor and in the Subsoil (Seabed Treaty) continue to prohibit the deployment, production and testing of launchers of ballistic or cruise missiles for emplacement on or for the tethering to the ocean floor, the seabed, or the beds of internal waters.

⁵ See START Agreed Statement 4.

⁶ Under START's Eighth Agreed Statement, U.S. national territory included "Guam, Puerto Rico, American Samoa, and the Virgin Islands, in addition to the territory of the fifty states and the District of Columbia."

⁷ START Telemetry Protocol, Article III. 2 (c); START, Article X, 3.

- i. Telemetry originating with the reentry vehicle could be encrypted on former and "retired types" (Minuteman II) as well as two flights a year on an "existing type" of ICBM or SLBM.⁸
 - ii. The front section (above the BUS) only of a PLV that utilized the first-stage of a retired or former type of ICBM or SLBM could have been encrypted.
- f. START, Article VIII, paragraph 3(f) required notification regarding flight tests of START-accountable assets. Notification was based on the US-USSR Notifications of Launches of Intercontinental Ballistic Missiles and Submarine Launched Ballistic Missiles of May 31, 1988.
- a. Article I of the Launch Notification Agreement requires that notification be made to Russia of the launch of any strategic ballistic missile, whether it be an SLBM or an ICBM. Notification is required NLT 24 hours in advance of the event.
 - b. The notification included the type of system, date of launch, the launch range, and define the potential impact area (in terms of geographic coordinates of its corners or the center of a circle with a radius specified in nautical miles or kilometers) for debris. The notification was valid for four days--counting from the indicated launch date.
- g. The Polaris A1 SLBM was exempt from START provisions because of its use on the Army's STARS program.⁹ The STARS system was covered under the Intermediate-range Nuclear Forces (INF) Treaty.¹⁰

4. Compliance Issues with use of START-accountable Assets as Space Launch Vehicles

- a. START required each party not to engage in activity that denied full access to telemetric information, including encryption, jamming, narrow directional beaming, and encapsulation.¹¹ All telemetry tapes associated with the

⁸ START Telemetry Protocol, Article III 2(b)

⁹ START Agreed Statement 29

¹⁰ INF Treaty, Article VII, 12.

¹¹ START, Article X, section 2. There were some exceptions to that provision that will be discussed in subsequent sections.

flight test were turned over to the Russians within 65 days of the conclusion of the launch.

- i. SLVs that used START-accountable first-stage motors were exempt from having data emanating from the payload be unencrypted. Once objects entered orbit or reached escape velocity, the flight test was considered over and the telemetry from the payload could be encrypted from that point.¹²
- b. START Notification Protocol Section VI, paragraph 1 of the Notification Protocol to START established notification requirements for delivering objects into "the upper atmosphere or space." Once again, notification was based on the Notification of Launches of Intercontinental Ballistic Missiles and Submarine Launched Ballistic Missiles of May 31, 1988.
- c. START-accountable SLVs were launched from designated Space Launch sites. The U.S. was allowed five under the treaty and had two, Wallops Island and Vandenberg AFB, officially designated.¹³ In addition, Kodiak Island, Alaska, White Sands Missile Range, New Mexico, and Meck Island, Kwajalein Atoll, Republic of the Marshall Islands were approved by the U.S. Government but not officially declared.

5. Compliance Issues associated with START Inspection Protocol

- a. The U.S. Army had two facilities that were subject to START inspections, Camp Navajo, Arizona and Army Material Command's (AMC) facility at Goose Creek, South Carolina.
- b. Camp Navajo was a designated SLBM and ICBM storage facility. Several hundred Minuteman IIs and Trident Is were located in the facility's 778 storage igloos.
 - i. Article XI of START established twelve different types of inspections that could be conducted under the treaty.
 1. Camp Navajo was subject to data update inspections. These were the most common type of inspections, with Russia allowed to conduct 15

¹² START, Agreed Statement Annex, Thirty-first Agreed Statement.

¹³ START, 1. Article IV para 4a-4b

in a calendar year but only two inspections per year at a single location.

2. Russia gave a notification of at least 16-hours in advance of its intention to conduct this type of inspection.¹⁴
3. Between four and 24-hours before the inspection team arrived at the point of entry, the site and type of inspection were declared. Upon arrival, the inspected party had nine-hours to transfer the visiting inspection to the site. Consequently, an inspection could have occurred at a designated site in as little as 13-hours after arrival at the point of entry.¹⁵
4. Once a team arrived at the site, an inspection could last 24-hours, with the possibility of an 8-hour extension if both parties agreed. Under START's Inspection Protocol, each party had a total of 15 such inspections but no more than two with a year at a single facility.¹⁶

c. AMC's facility at Goose Creek, South Carolina was a logistics center located within the confines of a START formerly declared facility SWFLANT-DET.

- i. Under the former START Treaty, each Party had the right to inspect formerly declared facilities.¹⁷ START authorized three Formerly Declared Facility inspections per year, but stipulated that no single facility could be inspected more than twice per treaty year.¹⁸

d. Since that was joint Army-Navy facility, START responsibilities were outlined in a Memorandum of Agreement (MOA) between the U.S. Navy and the U.S. Army. Under that MOA, the Army was required to facilitate

¹⁴The notification message had to contain the point of entry into the host country, date and estimated time of arrival, the date and time for the site that will be selected, the names of the inspectors and the aircrew.

¹⁵ START Inspection Protocol, Section III, paragraph 3 (a-d), paragraph 4(b).

¹⁶START Inspection Protocol, Section VII, paragraph 2. In addition, inspection parties had the right to designate one additional sequential inspection at a different facility in accordance to the Inspection Protocol, Section III, paragraph 7 and 8. That sequential inspection counted toward the total fifteen allowed under the former START treaty.

¹⁷ START, Article XI, paragraph 10.

¹⁸ START Inspection Protocol, Section XIII, paragraph 1 and 4.

inspections by implementing pre-inspection restrictions on vehicles and containers large enough to contain START items of inspection (IOI); preparing its buildings and structures for inspection; ensuring that inspectors had access to containers, structures, and buildings that were large enough to contain START IOI; and to liaison with SWFLANT-DET personnel during the START inspection.¹⁹

i. Formerly Declared Facility Inspections followed the same timeline as a data update inspection, except for a single significant difference:

1. No later than one-hour after the designation of a formerly declared inspection, the facility had to implement pre-inspection provisions. Containers and enclosed vehicles large enough to hold an item of inspections (i.e. the first-stage of an ICBM or SLBM) could not be removed from the site.²⁰

e. Although **highly unlikely**, all U.S. Army facilities located in national territory must have been prepared for the possibility of a START Special Access Visit.²¹ In addition, Army Special Access Programs (SAPs) must have had individual inspection plans as required under AR 380-381, Special Access Programs and Sensitive Activities, April 2004,

i. A SAV was an on-site inspection conducted at Russian request made during a special session of the Joint Compliance and Inspection Commission (JCIC) as a specific method to resolve an urgent concern relating to compliance with the former START Treaty. All Army installations and Government Owned Contractor Operated (GOCO) facilities were potentially subject to a SAV. For START purposes, items of inspection (IOI) concerning the US were the first-stage motors of long-range strategic booster systems (Trident I, Trident II, Poseidon, Minuteman I, II, III, and Peacekeeper). There were no START IOI at any Army facilities outside of Camp Navajo. There were "strategic systems" that resemble START IOI

¹⁹ Memorandum of Agreement between U.S. Army CEG-A, Charleston, SC and Commanding Officer, SWFLANT-DET, paragraph 3(a)3.

²⁰ START Inspection Protocol, Section XIII, paragraph 3.

²¹ JCIC Protocol, Section III, paragraph 3.

at several facilities that could have raised suspicion of non-compliance and lead to a SAV request.

- ii. SAVs were not routine inspections, were not short-notice, and could have had serious international political ramifications making their occurrence unlikely.
- iii. The former START Treaty was vague about SAV inspection implementation and left the specific method for resolving the concern to the former Treaty's Joint Compliance and Inspection Committee (JCIC) on a case-by-case basis.

6. Summary: Although START affected several other areas; the primary impacts were on the Army's use of START-accountable assets, inspection of its two facilities, and preparing for the possibility of a SAV.