



United States  
General Accounting Office  
Washington, D.C. 20548

Accounting and Information  
Management Division

**B-258184**

**August 24, 1994**

**Colonel Gerald J. Palumbo, USAF  
Director of Financial Management  
and Controller  
Los Angeles Air Force Base  
2420 Vela Way, Suite 1467  
Los Angeles, CA 90245**

**Dear Colonel Palumbo:**

**This letter responds to the July 18, 1994, request from your office that we sanction the use of the Army Corps of Engineers' Prototype Electronic Signature System for your electronic commerce/electronic data interchange project at the Los Angeles Air Force Base. This project includes financial and procurement software applications.**

**In January 1993, we issued a letter sanctioning the Corps' Prototype Electronic Signature System.<sup>1</sup> It is our understanding that you are asking for clarification on whether our sanction of this system would apply to your use. Specifically, your office is concerned because the Corps' system is still undergoing development and evaluation, and, to date, we have only sanctioned the operation of the prototype system on a test basis for the Corps' new financial management system.**

**In reviewing the Corps' prototype electronic signature system, we evaluated oral and written information provided by the Corps. We concluded that the electronic signatures generated will provide at least the same quality of evidence as the handwritten signatures they were designed to replace. Furthermore, we stated that the prototype system's internal controls, if properly implemented, should meet our requirements and could be used in electronic contracting, procurement, and**

---

<sup>1</sup>Electronic Signature Prototype System (GAO/AFMD-93-44R, January 5, 1993).

**B-258184**

**financial management applications. (We provided a general outline of the necessary requirements of electronic signatures in 71 Comp. Gen. 109 (1991).)**

**The Corps plans to evaluate the prototype system during the first quarter of 1995. This evaluation may identify additional controls that are needed before we can sanction the operational system. However, your adoption of the Corps' Prototype Electronic Signature System is acceptable, provided that the following provisions are met:**

- 1. Any changes identified during the evaluation of the Corps system are incorporated into your system.**
- 2. A federal agency, not a private party, must generate and distribute the smart cards.<sup>2</sup> Because the generation of the cryptographic keying material contained in the smart card is critical, steps must be taken to ensure that the cryptographic key is properly generated and protected.**
- 3. The Corps' electronic signature system must be properly integrated into your application.**

**It is our understanding that your office has agreed to (1) make any changes that we find necessary in the Corps' system and (2) ensure that a federal agency generates and distributes the smart cards. We also suggest that an external party, such as the Air Force Audit Agency or the Defense Department's Inspector General, review your approach to integrating the Corps' system into your application to ensure its adequacy.**

**Although we sanction your use of the Corps' Prototype Electronic Signature System, this letter does not constitute GAO approval of your financial management system, as defined by 31 U.S.C. 3512(f)(2).**

**We appreciate the challenges you face in upgrading your procurement and financial management systems and believe that adopting the Corps' electronic**

---

<sup>2</sup>**A smart card is a hardware device, about the size of a credit card, that contains one or more integrated circuit chips that function as a computer. In the Corps' system, the smart card contains cryptographic information and other data that identify the authorized user.**

**B-258184**

**signature system will significantly reduce your risks, costs, and time frames. We look forward to working with you on this and other efforts in the future. Should you have any questions, please contact Chris Martin, Assistant Director, at (202) 512-9481.**

**Sincerely yours,**

A handwritten signature in black ink, appearing to read "Rona B. Stillman". The signature is written in a cursive style with a large initial "R".

**Dr. Rona B. Stillman  
Chief Scientist for Computers  
and Communications**

**(511473)**

**GAO/AIMD-94-179R Use of Corps Electronic Signature System**