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Whether your surveying business demands the ultimate performance in real-time, centimeter level GPS surveying or if you are looking for high quality, entry-level GPS surveying instruments to improve productivity and expand your services, Ashtech has your solution.

GPS surveying has come a long way since the first commercial system was FGCC-tested in early 1983. Huge advances in hardware and software, combined with the completion of the GPS satellite constellation, have made GPS systems a practical, cost effective tool for the surveyor. The recent advent of real-time GPS surveying has dramatically changed the way GPS systems will be used by the surveying professional. This capability has significantly increased the range of field applications which can now be addressed.

Ashtech offers affordable surveying systems for first-time GPS users as well as mid-range systems with higher levels of capability. These systems are compatible with an expanding variety of surveying application packages. We also produce Real-Time Z-Tracking™ (RTZ) surveying systems affording the highest level of precision and field productivity available in the industry. Special RTZ surveying packages are available for a number of applications including topographic, mine, and seismic surveying.

Ashtech has the solution to your surveying needs. Call 1-800-922-2401 today to find out how much we have to offer you.

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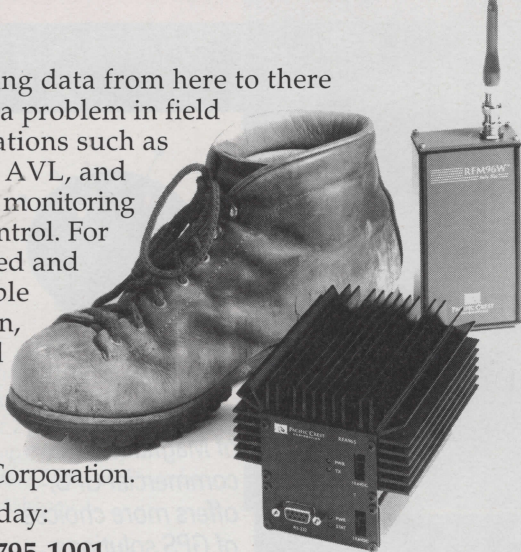
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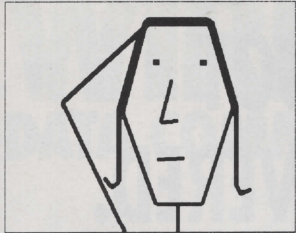
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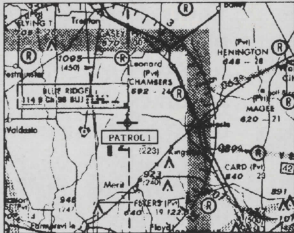
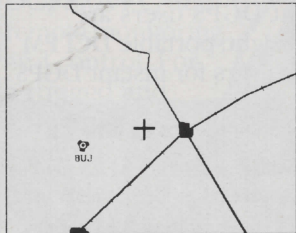
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Would you like a better understanding of GPS technology and its applications?

As part of Ashtech's ongoing commitment to the GPS community, we offer training programs for surveying, navigation, and a variety of other applications.

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Ashtech, the leader in precision solutions for global positioning, has the answer to your GPS questions.

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Moving Targets

Growing up in the farmlands of eastern Oregon, I learned a basic principle of physics — or at least of pheasant hunting: a moving target is harder to hit than one standing still.

Selective availability (SA), the signal-degrading cornerstone of GPS security policy, has been a sitting duck for nearly 10 years, and it looks as though it finally got blasted. The basic GPS satellite and signal design, particularly those elements contributing to civilian and commercial user accuracy, have been standing still for nearly 20 years. They've been hit as well. Both subjects became the target of high-powered advisory committees put together under congressional mandate by the National Academy of Public Administration and National Academy of Sciences (through the National Research Council). Radical as some of the committees' recommendations might sound, they are, overall, quite conservative: they would leave GPS as a public (not privatized) national U.S. asset operated and managed by the Department of Defense with enhanced capabilities for civil users.

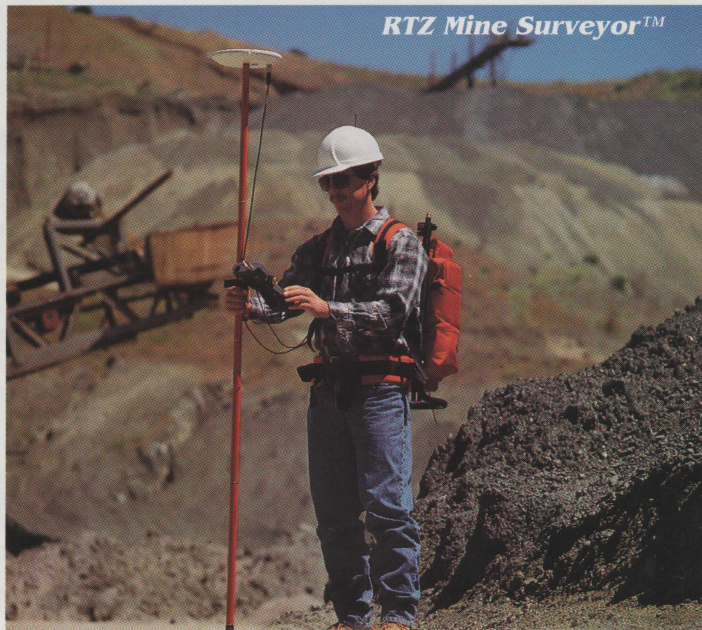
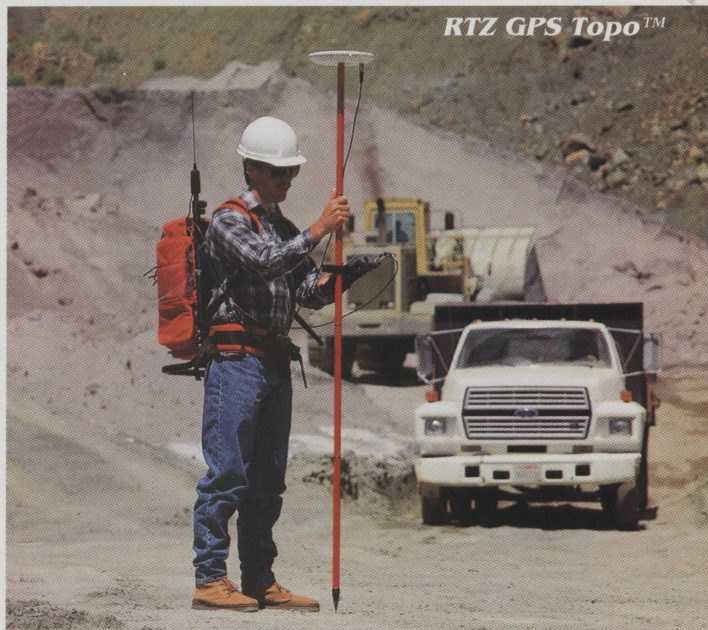
It's not as though SA hasn't been hit before. The uncontrolled proliferation of commercial differential GPS (DGPS) systems has shot some pretty good-sized holes in the rationale behind SA. (The U.S. Coast Guard's DGPS radiobeacon system and the FAA's proposed Wide Area Augmentation System probably fall under the category of friendly fire.) In the meantime, development of the SA-free Russian GLONASS system and burgeoning use of GPS by businesses, public agencies, and private citizens have weakened the underpinnings of selective availability.

But the most compelling argument against SA isn't the hindrance it poses to commercial exploitation. It is the allegation that SA fails, or will soon fail, to serve as an effective security measure that can preserve U.S. and allied forces' military advantage in using GPS. In the near term, the real security solution, most observers outside and inside the Pentagon agree, lies in developing technology that allows DoD users direct access to the encrypted Y-code so that C/A-code and augmentation signals can be jammed or degraded selectively in areas of conflict.

Military and civilian advocates of GPS should join forces to persuade Congress and the administration to provide funding for new equipment and training that gives military users a real edge. At the same time, they should lobby for money to finance technical improvements in the next-generation GPS system that would benefit all civil applications.

Glen Gibbons

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