ARE YOU LOOKING FOR BETTER THAN ONE METER ACCURACY...



All the reasons you need real-time navigation capabilities will convince you to use the Ashtech Super C/A Sensor™

The Ashtech Super C/A Sensor GPS receiver is a powerful navigation system that offers Real-Time Differential capability and Super C/A Tracking. There's a long list of features that outperform other receivers and some of them may surprise you.

It Provides Higher Accuracy

As a stand-alone unit, the Super C/A receiver is capable of 25 meters SEP. In Real-Time Differential mode, you can achieve <1 meter accuracy and optionally, using Ashtech's PNAVTM post-processing software, an accuracy of 1 cm is achievable.

It's Efficient

One independent measurement is determined per second. Data from all satellites in view are computed simultaneously. A 1 PPS timing pulse, accurate to 50 ns, can be advanced or delayed for different triggering applications. Real-time data outputs are standard to accommodate a variety of raw pseudorange, ephemeris and position data.

It's Flexible

The Super C/A uses different antenna configurations for unique applications. It supports a telemetry link such as a data radio or a maritime beacon system. Three RS-232 serial ports provide interfacing with external devices using the NMEA 0183 format. Optionally photogrammetry/event input marker information and carrier phase are available and a 4Mb memory board can be added for post-processing applications.

It's Economical

At half the price of comparable receivers, you can't afford not to use the Ashtech Super C/A Sensor. For more information, call us at 1-800-229-2400.





©1994 Ashtech Inc.

GPS ANTENNAS



Micro Pulse provides high-quality GPS solutions innovatively designed to exceed customer performance specifications. Micro Pulse continues to refine customized solutions including integrated antenna and amplifier units.

"Innovation in Every Application"



409 Calle San Pablo Camarillo CA 93012 USA (805) 389-3446 FAX: (805) 389-3448

DON'T LET THE COST OF GPS EQUIPMENT PREVENT YOU FROM HAVING THE LATEST TECHNOLOGY

GPS can increase your profits, productivity and give you the competitive edge.

Ashtech offers complete rental and leasing programs designed to meet a wide variety of applications at a price you can afford.

Call today for details Our experts can answer all of your technical and financial questions.

1 (800) 229-2400

"all rentals earn purchase credit"

1170 Kifer Road Sunnyvale, California 94086



EDITORIAL ADVISORY BOARD

Vidal Ashkenazi

The University of Nottingham, United Kingdom

Alison K. Brown

NAVSYS Corporation, United States

Paul A. Cross

The University of Newcastle upon Tyne, United Kingdom

Peter Daly

The University of Leeds, United Kingdom

Colonel Nicolas de Chezelles

Ministry of Defense, France

Robert L. French

Robert L. French and Associates, United States

Yuri G. Gouzhva

Russian Institute of Radionavigation and Time, Russia

Gennady N. Gromov

All Union Scientific Research Institute for Radio Equipment, Russia

Matthew B. Higgins

Queensland Department of Lands, Australia

Larry D. Hothem

U.S. Geological Survey, United States

Yoshimichi Inada Japan GPS Council, Japan

Nicolay E. Ivanov

Institute for Space Device Engineering, Russia

Len Jacobson

Global Systems & Marketing, United States

William J. Klepczynski

U.S. Naval Observatory, United States

Gérard Lachapelle

The University of Calgary, Canada

Wolfgang Lechner

Avionic Center Braunschweig, Germany

Keith D. McDonald

Sat Tech Systems, Inc., United States

Jules G. McNeff

Office of the Assistant Secretary of Defense (C3I), United States

Bradford W. Parkinson

Stanford University, United States

George Preiss

Olsen Norway Ltd., Norway

Penny Saunders

NASA/Johnson Space Center, United States

William H. Scott

LORAL Federal Systems Company, United States

Günter G. Seeber

University of Hannover, Germany

F. Michael Swiek

U.S. GPS Industry Council

A.J. Van Dierendonck AJ Systems, United States

Randolph H. Ware

University Navstar Consortium, United States

David E. Wells

University of New Brunswick, Canada

The Editorial Advisory Board of *GPS WORLD* is composed of grownest figures in research, development, and applications of the Global Positioning System. They assist the magazine's editorial staff by recommending article and column topics or prospective authors, offering advice on technical questions and industry trends, and criticaling the magazine's content and design. Manuscripts should be submitted to Glen Gibbons, Editor G. 859 Willamette Street, Eugene, Oregon 97401-6806, USA, (503) 343-1200.

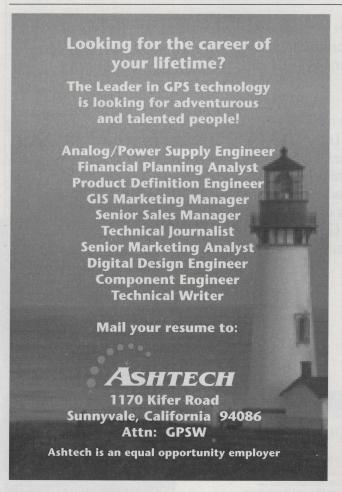


Circle 7

PICODAS GROUP INC.

100 WEST BEAVER CREEK RD., UNIT #6

RICHMOND HILL, ONTARIO L4B 1H4, CANADA TEL: (905) 764-3744 FAX: (905) 764-3792



The Welcome Mat

Other nations considering implementation of GPS must sometimes feel like inadvertent bridesmaids at someone else's wedding. The banns have been published, the time and place set, the refreshments ordered. The only choice that remains is to pick up the train of the bridal gown and follow along.

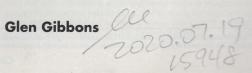
Or not.

For Americans, the remarkable achievement of GPS is in the finest "can do" tradition — Step A: Build the better mousetrap. Step B: Wait for the world to beat a path to your door.

But for those considering whether to accept the "gift" of GPS and all the ramifications for their own programs that it entails, the situation appears less simple. They have to consider the question of dependence on a foreign military-controlled system, their unclear status in shaping international policies and procedures affecting and affected by GPS, and their long-standing investment in regional navigation systems with their own user communities. What sometimes seemed like a unilateral take-it-or-leave-it attitude may have actually slowed the process of acceptance of GPS, although it probably hastened the actual design and building of the system.

Even as they dragged their feet, however, other nations have provided a service by sharpening the many-sided analyses technical, economic, and political — to which GPS has been subjected. They've also encouraged, directly or indirectly, the development of similar systems such as Russia's GLONASS, or of augmentation systems such as a European consortium proposes (through use of Inmarsat satellites) for civil aviation. The European Communities have committed, through their various multilateral agencies, considerable resources to exploring the technical and institutional dimensions of a Global Navigation Satellite System, and international groups such as IMO, IALA, and ICAO are looking after their maritime and aviation constituencies. Along the way, much important work has been accomplished by non-U.S. organizations in researching and testing the capabilities and limitations of GPS.

Now it's time for U.S. champions of GPS to really get the welcome mat out: to define the partnership opportunities, the clear dimensions of equity, if not parity; to formalize the commitment to signal access and agreements on operational procedures; to acknowledge through their actions and attitude that the full benefit of GPS for the United States, as well as the rest of the world, can only come by the willing investment of others in this heretofore distinctly American product.



The Ashtech Super C/A Surveyor

Submeter in Real Time -Centimeter Post-Processed

The Ashtech SCA-12 Surveyor is the first truly portable GPS system capable of both geodetic and submeter results, all in the same lightweight, low-power package. Whether you're walking with the belt pack or set up on a static point, the SCA-12 Surveyor will flex to fit your spec.

Whether you're running an asset inventory, walking a terrain profile, or guiding a vehicle, the SCA-12 Surveyor performs reliably, consistently, and accurately...all with real time Submeter precision. The SCA-Surveyor links to US Coast Guard DGPS broadcasts, commercial subscription services and your own Ashtech Universal Base Station.

Whatever your real time application, the Ashtech SCA-12 Surveyor system is sure to exceed your expectations.

For reliable geodetic static and dynamic results with centimeter-level accuracy, combine the SCA-12 Surveyor with Ashtech's PRISM II post-processing software. Our modular software accommodates feature and application upgrades as you go.

We work with the industry-standard Husky FS/2 controller to load and store a variety of Ashtech interface programs. From mining to topo, seismic to GIS—whatever your application, Ashtech has the program and the built-in accuracy to meet your needs.

Call us at 1-800-229-2400 for more information.

We're the single solution to your GPS application.

Circle 39

170 Kifer Road, Sunnyvale, CA 94086 • (408) 524-1400 • FAX (408) 524-1500

Blenheim Office Park, Long Hanborough, Oxfordshire OX8 8LN England • 44 993-883-533 • FAX 44-993-883-977

APKIL 1995