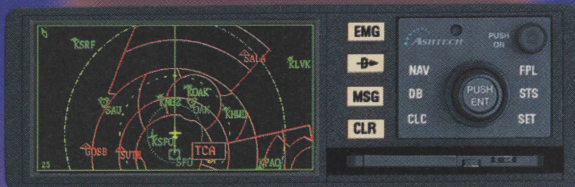


GPS

Unique color moving map displays aircraft position, plus aircraft warning flags (TCA, ARSA, MOA, Prohibited and Restricted Areas).



**Ashtech
ALTAIR™ AV-12**
GPS Receiver

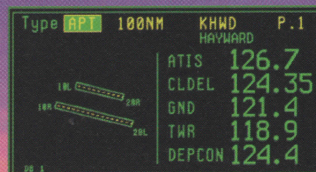
User-friendly interface simplifies flight planning; receiver stores up to 100 flight plans and up to 1000 user-defined waypoints.



Navigation information -- range, bearing, course over ground, speed over ground, ETE and course deviation as graphics and as text.



The bright CRT display replaces LEDs for easy-to-read graphics using symbology common to NOAA sectionals & WAC charts.



Comprehensive airport, NAVAID and communications frequency information plus Emergency Airport Search, "Nearest" (airport, VOR, NDB, waypoint) and "Direct To" functions.



Ashtech... Technology Leader in GPS and Moving Map Avionics

- Fully integrated, high-resolution color moving map display with common NOAA symbology
- Split Screen Mode -- CRT simultaneously displays moving map along with navigation information (XTE, course, speed, distance to go, ETE)
- Dedicated 12 Channel GPS Receiver with one-second update

- rate and low-drag, high-precision GPS antenna for high accuracy 3-D positioning
- Jeppesen NAVDATA with domestic and international database information
- Satellite Status/RAIM
- Course deviation indicator
- Offset range and bearing from reference waypoint

- Stores up to 100 flight plans and up to 1000 user-defined waypoints
- Airspace Warning Flags--TCA, ARSA, MOA, SUA
- Comprehensive NAVAID, Airport and Communications Frequency displays
- Optional PC-based route creation/edit capability

- Optional Differential GPS for meter-level navigation accuracy
- TSO Certification pending



1170 Kifer Road, Sunnyvale, CA 94086
(408)524-1400 Fax(408)524-1500

The Basic Ashtech GPS Survey Team (batteries included)

GPS technology can take you well beyond the limitations of a total station concept, with its ability to measure long lines to a precision of 5mm ± 2 parts per million, measurements without line-of-sight restrictions and near-instantaneous data collection.

Using Ashtech's DIMENSION hardware and software, you can survey a network of many points, hundreds of miles in length without intervisibility between points, and still perform network adjustment and generate reports all in one day.

Can your survey tools match this?

DIMENSION is ten-times more accurate, ten-times faster and considerably less expensive than a total station. And Ashtech GPS technology is FGCC tested.

In today's competitive surveying market, using the best GPS system can put the bottom line on your side. Even small cadastral projects can be cost-effective because with GPS you don't need line-of-sight between points (no more traversing!). Using current geoid models, vertical precision with DIMENSION is often within 1 centimeter (0.03 feet).

Fully self-contained, DIMENSION is rugged, waterproof and easy to operate.



Power comes from the companion Ashtech PowerDisk™, which mounts underneath for tripod use, or

from the PowerPole™, a section of a standard bipod which screws in without the need for cables.

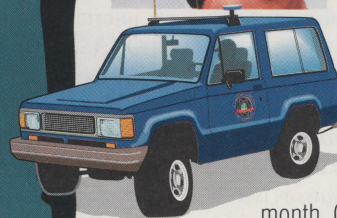
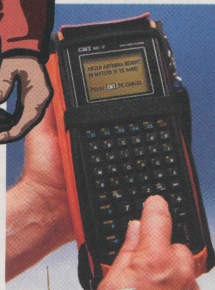
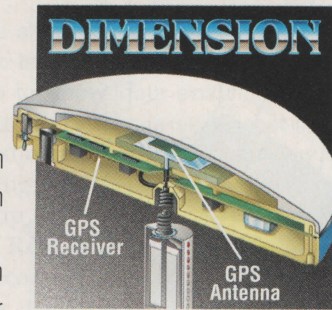
DIMENSION is the simplest, yet most advanced GPS receiver available today. And it's fully automatic; just turn it on to begin, off to stop. Data processing with the Ashtech's PRISM software package is as simple as clicking a mouse pointer on an icon.

Dual RS-232 ports permit interface with hand-held input devices for control and status monitoring.

You can't afford to wait; GPS receivers are less expensive than they've ever been!

DIMENSION is priced from \$10,000, far less than a comparable total station...you can lease an Ashtech DIMENSION GPS system from \$995 per month. Call today, (800) 229-2400,

for complete details.



**LEASING
PACKAGES
FROM
\$995
/MO**

**Ashtech's DIMENSION™ is better than a total station
...at a fraction of the cost!**



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The Ashtech GPS Seminars

Gain a better understanding of GPS technology and its applications

As part of Ashtech's ongoing commitment to the GPS community, we have expanded our technical training program for surveyors, navigators and all other occupations using GPS positioning technology.

The well-balanced curriculum combines the theoretical aspects of GPS along with hands-on training. Courses are geared to the practical use of GPS with a layman's explanation of the operation of the GPS signal processing methodologies.

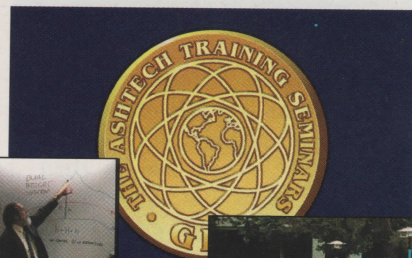
We believe in concepts rather than equations.

The Ashtech GPS Training Seminars are conducted in a modern learning lab, equipped with the latest audiovisual and computer training aids, including two color projector screens for digital and video presentations. Over 20 individual work stations with dedicated computer systems provide extensive software training. The latest GPS equipment is used for real-time, hands-on field training.

Professional Instruction

The faculty includes many pioneers in GPS systems and software development, successful business people as well as those with extensive academic and theoretical knowledge in advanced geodesy, orbital mechanics and digital control systems.

Four week-long seminars are scheduled: Basic Surveying and Dif-



ferential Positioning each month; Advanced Surveying and CAD Solutions every other month. This program allows students, especially international students, to attend all four seminars in any single month. A certificate of completion is awarded at the conclusion of each seminar.

GPS Course Syllabus

Basic GPS Surveying is for new or potential GPS surveyors as well as field and office technicians who post-process data, supervisors who analyze data and others interested in GPS surveying methodology.

Advanced GPS Surveying is for the surveyor with some experience, field and office technicians who want to know

more about kinematic and pseudo-kinematic techniques and professionals who need to know data analysis, network design and analysis using least-squares adjustments and dual-frequency processing, problem data sets and cycle slip fixing.

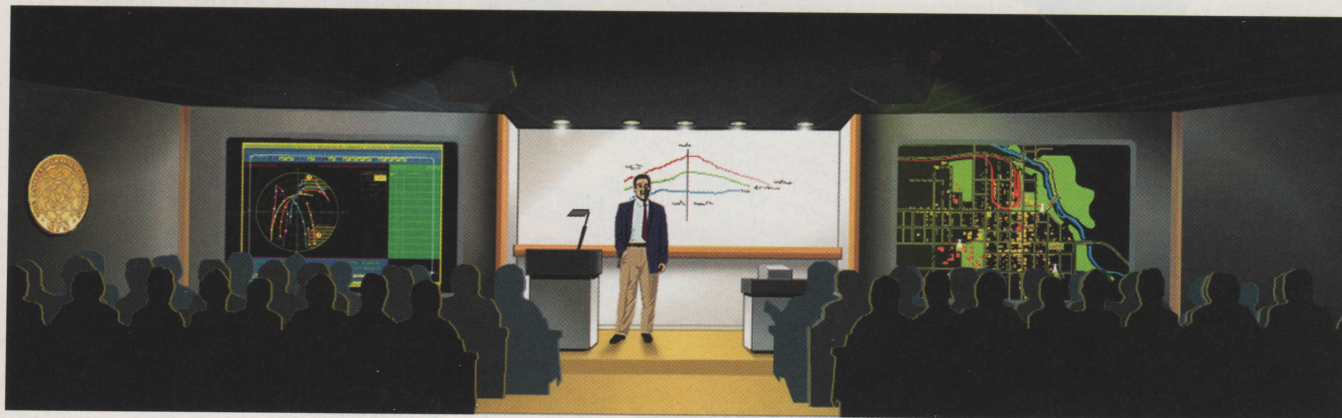
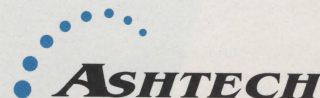
Real Time Differential GPS is recommended for those involved in navigation, hydrography, aerial photogrammetry and other real-time positioning applications of GPS.

GIS Data Acquisition with GPS is aimed at GIS field and office technicians and GIS administrators. Topics include post-processed code-phase and carrier-phase differential positioning, GPS CAD displays and links to existing GIS databases.

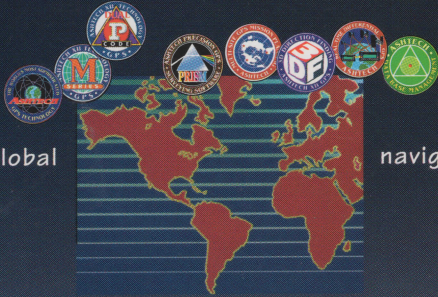
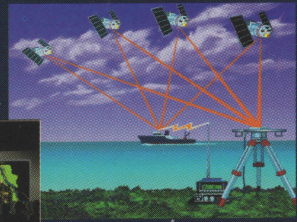
GPS CAD Solutions pack is for the advanced Surveying/GIS technician who produces finished CAD products.

The Ashtech training center in Sunnyvale, California is convenient to both San Francisco and San Jose International Airports and is surrounded by a network of quality hotels and restaurants.

To learn more about this series of exciting GPS Seminars and to reserve your place in this vital career field, call toll-free the Director of Training at Ashtech 1-800-229-2400.



Ashtech means GPS... receivers, software and training for precision geodetic surveying



and global

navigation, real-time differential positioning on land or sea, aerial

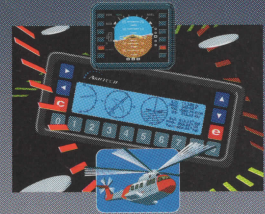


photogrammetry, advanced dual P-Code surveying, attribute

tagging for GIS, precision



GPS avionics and 3-dimensional direction finding.



From field to finish, Ashtech has the future covered!

As the Navstar Global Positioning System constellation nears completion, the scope of applications for its use moves into the 21st Century. Ashtech, the world leader in GPS technology offers the best solutions for both global surveying and differential navigation. ■ Ashtech's Z-12 dual-bit, analog-to-digital GPS Receiver mitigates the effects of Anti-Spoofing (AS), allowing the continuation of civilian applications. ■ Our PRISM state-of-the-art software modules provide user-friendly processing support to GPS users involved with acquisition, analysis and management of data collected with GPS Receivers. ■ Our Precision Navigation software (PNAV), when combined with



dual-frequency data from an Ashtech Z-12 receiver, presents a powerful new capability for GPS surveying, providing centimeter-level accuracy on-the-fly! This capability is valuable to terrestrial surveyors and crucial to the creation of robust sub-decimeter photogrammetric flight trajectories. ■ Ashtech continues to anticipate the requirements of the future, designing advanced, fully-integrated systems to meet those needs. Our global distribution network has ancillary offices in Houston, Paris and Moscow. ■ Call (800) 229-2900 for more information.

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