Three years ago, Ashtech began with one simple idea: to make the world’s best GPS receiver. In 1988, after completing all FGCC test procedures, the Ashtech XII was delivered... the first GPS receiver to offer “all-in-view” operation with 12 independent channels, automatic tracking and modular performance options.

Built to withstand the rigors of harsh field environments, two 12-channel M-XII receivers are small enough to fit into a standard briefcase.

With the tripod-mount option, the M-XII becomes the world’s smallest integrated GPS receiver, antenna, receiver with data logging memory are included in the unit which measures only $8 \times 8.5 \times 4.5$ inches. Dual isolated inputs are also provided for external power.

Advanced Ashtech GPS technology presents a full range of GPS solutions... from point positioning/data-logging for mapping and GIS data update to precision geodetic surveys, photogrammetry applications and dual-frequency operation.

Ashtech XII is your best GPS investment

Any Ashtech receiver may be ordered for a specific use and later upgraded to more advanced applications. This Ashtech concept of AFFORDABLE UPGRADEABILITY means that your investment in GPS is always fully protected.

For example, if your immediate need is precise positioning for GIS, you can start with the low cost M-XII “Ranger” configuration for under $15,000. Accurate time-tagged 3-dimensional positions can be recorded as fast as 4 points per second to update maps and provide accurate GIS referencing.

With the Ranger, a single operator can plot up to 100,000 positions on land or water at speeds up to 1000 knots for later map readout and analysis; no external logger is required.

Today’s most versatile, most practical GPS receiver

The Ashtech M-XII, the heart of the most efficient, most accurate GPS survey system features automatic operation from field to finish!
The plot of recorded data can be interfaced with several GIS programs; even displayed in conjunction with US Census Bureau "TIGER" files for viewing with accurate relationship to highways, roads and other local landmarks.

When teamed with a companion Ashtech XII GPS base station receiver via radio, cellular phone or other communications link, the Ranger can achieve meter-level accuracy using either real-time differential or post-processed differential GPS positioning options.

**Ashtech technology is engineered for unmatched accuracy**

As your needs grow, the same Ashtech XII GPS receiver can be upgraded to conduct precision static, kinematic and pseudo-kinematic surveys, photogrammetry, and other enhanced Ashtech XII options.

Optional dual frequency (L1 + L2) operation offers increased accuracy for long lines as it can remove the effects of ionosphere delay and improve survey results to about 1ppm, irrespective of solar conditions.

With the photogrammetry "camera input" option, accurate time and GPS position data can be recorded automatically. Post-processing determines the camera position in serial photogrammetry, eliminating the need for separate ground control points.

**New dimensions to GPS survey planning and post-processing software**

Included with any system, Ashtech GPPS-2 software expands both post-processing and analysis capabilities for all GPS surveys. The exclusive "All-In-One" menu design provides automated interface and simplified graphics at a single command; you need only identify the type of survey performed...static, kinematic or pseudo-kinematic.

Menu-managed GPPS-2 walks the seasoned or novice operator through all steps of mission planning, data transfer, processing network adjustment and report generation with easy-to-use mouse-driven graphics.

Reflecting the worldwide interest in GPS and the Ashtech presence in both survey and navigation applications, the company has moved to expanded headquarters in California's Silicon Valley.

Ashtech is committed to GPS and continues to add new levels of accuracy, portability and operational simplicity to the art and science of the geodetic survey.
GPS Training Seminars Set for Summer/Fall at Ashtech

SUNNYVALE, CA- The two-day GPS training seminar program in static, kinematic and pseudokinematic field survey operations, as well as post-processing procedures and network adjustment has been scheduled for Summer and Fall at the new Ashtech headquarters facility in California's Silicon Valley. Each seminar is open to surveyors and others interested in GPS without tuition.

In addition to the basic program, an advanced two-day seminar series has been set for July, August and October, 1990, covering advanced data processing and network adjustment and analysis.

The new Ashtech Training Center can accommodate up to 50 students; reservations are required--Ashtech Training (408) 737-2400.

The new Ashtech building is convenient to San Jose International Airport (SJC) and only 30 minutes South from San Francisco International (SFO). From either airport, take Highway 101 to Sunnyvale's Mathilda Avenue, right on Maude, then left to 390 Potrero Avenue.

Dedicated to the Art and Science of the Geodetic Survey