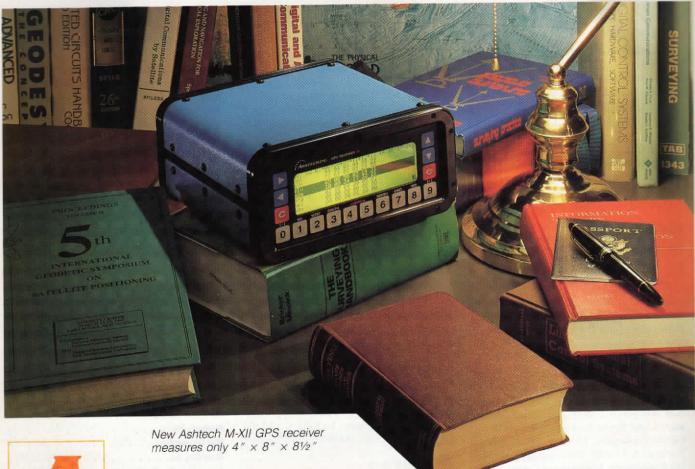
We just rewrote the book on GPS practicality and performance.



A

shtech GPS continues to add new levels of accuracy, portability and op-

erational simplicity. The most sophisticated GPS receiver commercially available today, the Ashtech XII was the first to offer true "ALL-IN-VIEW" automatic tracking. With 12 independent channels, it tracks all satellites — even as new ones join the GPS constellation.

The new, downsized Ashtech M-XII offers the same automatic "ALL-IN-VIEW" operation.

FULLY AUTOMATIC OPERATION

- Maximum Survey Accuracy
- Maximum Reliability
- Maximum Coverage in Kinematic Survey
- Automatic Satellite Selection
- Fully Automatic Operation
- Reduced Risk of Operator Error

There is no need to program or preprogram the Ashtech M-XII receiver. There is no need to enter an initial estimate of position or make any operational selection. As new satellites are launched, they are picked up automatically. There is no need to enter any information or to change the internal software in the receiver.

To begin a survey, just turn it on.



1156 Aster Ave. Sunnyvale CA 94086 Fax: (408) 249-5824 Telex: 402735 ASHTECH INC Telephone (408) 249-1314



USSR / ASHTECH SIGN GPS / GLONASS AGREEMENT FOR DEVELOPMENT

Moscow, USSR—The Institute of Space Device Engineering (ISDE) of the Soviet Union has signed a Memorandum of Understanding with Ashtech Inc., the leading American GPS engineering and manufacturing firm, to jointly develop a combined GPS/GLONASS receiver following the guidelines and pertinent laws of the USSR and the USA.

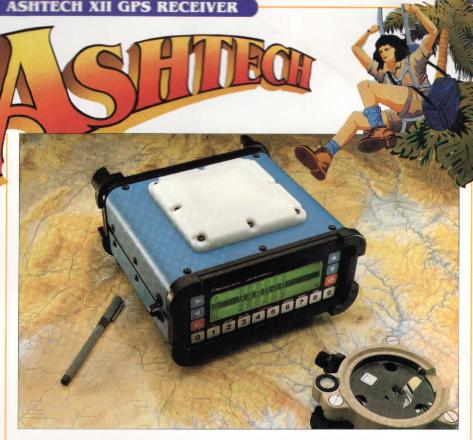
ISDE is the engineering and R & D arm of Glavkosmos, the Soviet equivalent of NASA. GLONASS is the USSR's counterpart of the Global Positioning System and is expected to have twenty-four satellites in place within the next few years.

GPS SURVEY TRAINING

Sunnyvale, CA — A two-day GPS training program in static, kinematic and pseudo-kinematic field survey operations, as well as post-processing procedures and network adjustment, is open to surveyors without tuition. Ashtech's Sunnyvale, California classroom facility can accommodate up to 50 students. Reservations are required. Special arrangements can be made for larger organizations.



Ashtech has been singled out for special recognition by the Institute of Navigation for outstanding design and technological innovation.



ASHTECH INTRODUCES WORLD'S SMALLEST TRIPOD-MOUNTABLE INTEGRATED GPS RECEIVER

Sunnyvale — Packaging most of the standard Ashtech "All-In-View" 12-channel operational features in the most compact configuration yet, the Ashtech MT-XII GPS "All-In-One" is the smallest GPS receiver of its kind available commercially in the world today.

GPS antenna, receiver, memory and battery pack are mounted inside the unit which measures only $8\times8.5\times4.5$ inches. The mounting plate is fitted with tribrach legs as well as a 5/8 standard thread hole. In addition to the internal battery, dual isolated input connections are provided for external power.

Built to withstand the rigors of field use, the MT-XII, along with all Ashtech XII GPS receivers, is constructed with lightweight machined alloy frames and aluminum covers sealed for all-weather protection.

Ashtech cautions that mounting any GPS receiver on an unattended tripod risks damage from falling or setup disturbance. The preferred arrangement is to mount only the antenna on a tripod with the receiver at some convenient distance.

ASHTECH GPS NOW ON GSA

Washington, DC — Ashtech Inc. has been awarded the General Services Administration (GSA) Contract Number GS00F-06977 under Schedule 66, Part I, Section B, Classes 6650, 6655 & 6675. Federal Government purchases should reference this contract number through 30 Sept 1991.

Production procedures, quality control, facilities, financial health and service capabilities of Ashtech were examined by the GSA investigators as part of the contract award.



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Built-in, Real-time Differential GPS for Instantaneous Meter-level Accuracy!

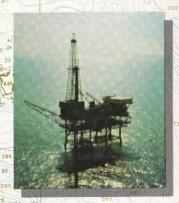
Ashtech XII GPS receivers provide real-time Differential GPS with no need for an external computer or separate software. Simple front panel entry designates receiver as either "base station" or "remote unit." One base station can service any number of receivers within the limits of the data link.

Range corrections computed by the base station, as fast as once per second, are transmitted to remote receivers via radio, cellular telephone or other communications link using the RS-232 serial ports on the receiver back panel.

Full validity checking is performed by all units for satellite orbit data consistency. The unique "multiple ramp" smoothing removes receiver noise without introducing errors caused by the opposite effect of the ionosphere on code phase and integrated Doppler.

Write for additional information.





ASHTECH INC.

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