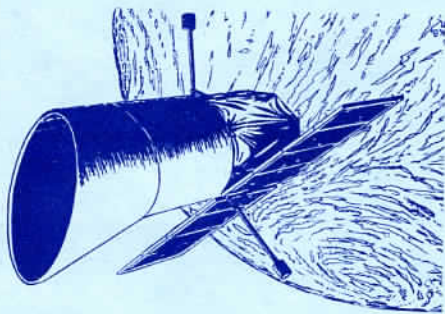




The Amateur Space Telescope Project

Yes! I would like to help support the Amateur Space Telescope Project. Payment is enclosed for membership under the following classification:

- ___ Supporting Member: \$15 per year
\$20 outside N. America
- ___ Patron Member: \$25 per year
\$30 outside N. America
- ___ Sponsoring Member: \$50 per year everywhere

My organization would like to become a corporate member under the following classification:

- ___ Contributing: \$25 per year
\$30 outside N. America
- ___ Supporting: \$50 per year everywhere
- ___ Patron: \$100 per year everywhere

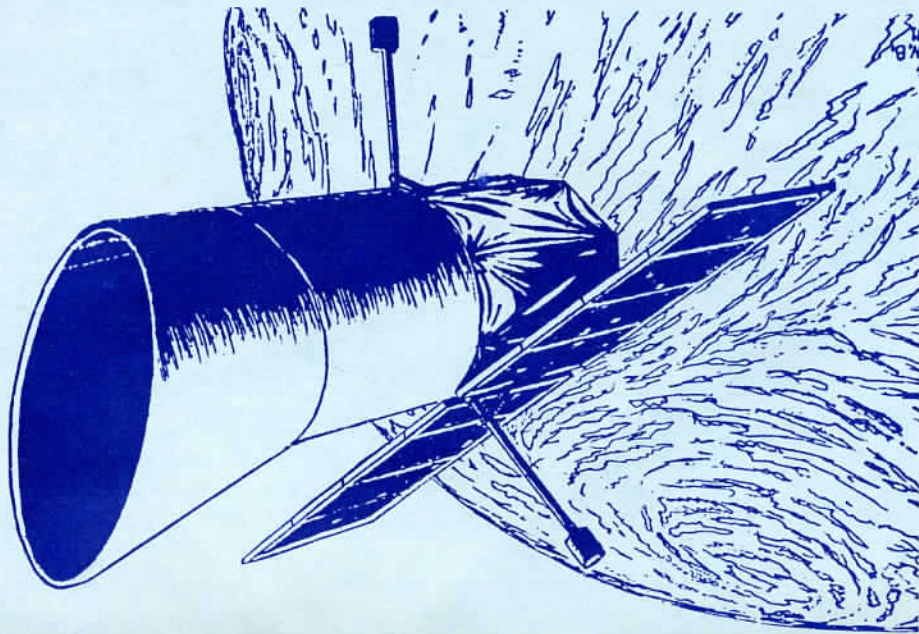
NAME _____

ADDRESS _____

CITY _____ STATE OR PROVINCE _____

COUNTRY _____ POSTAL CODE (ZIP) _____

Membership Secretary
Independent Space Research Group, Inc.
P.O. Box 1246
Troy, NY 12180
USA



The Amateur Space Telescope Project

THE INDEPENDENT SPACE RESEARCH GROUP and THE AMATEUR SPACE TELESCOPE PROJECT

The Independent Space Research Group (ISRG) is a worldwide, not-for-profit, scientific organization. Its primary mission is to design, construct, and operate a series of increasingly advanced astronomical satellites for use by serious amateurs, students, and professionals. The first of these, called the "Amateur Space Telescope" or AST, is targeted for launch in early 1985.

The ISRG has its headquarters in Troy, NY, USA, and is developing the AST in cooperation with two teams of students and faculty at Rensselaer Polytechnic Institute and the University of Rochester. Several professionals in the aerospace field -- including some who have worked on NASA's Large Space Telescope -- are acting as advisors, and a volunteer staff is giving support in areas such as technical writing, artwork, and public relations.

The ISRG membership includes students, amateur astronomers, and professionals in many fields who wish to support this new grassroots effort in space astronomy. Members hail from all areas of the United States and (at last count) 13 other countries.

The idea behind ISRG is not new. For almost over two decades, amateur radio operators ("hams") have built amateur radio communications satellites for about 2 percent of what it would cost NASA or a large corporation for equivalent devices. The great savings come from the use of skilled volunteer labor, off-the-shelf parts, and proven systems designs. The hams have successfully built over a dozen satellites and arranged for free "piggyback" launches for them aboard NASA and European Space Agency rockets. The ISRG believes that these same methods can be applied to space astronomy, as well as other areas of scientific space activity.

THE AST

The Amateur Space Telescope (AST). Will be 9 cu ft in volume, weigh 175 lb, and carry an 18" d Ritchey-Chretien Cassegrain telescope, two solid state CID TV cameras, three photometers, a small spectrograph, and the necessary control and communications hardware. The ISRG is working toward a launch for the AST aboard a US Space Shuttle or a commercial rocket by early 1985.

The AST will be available to students, educational institutions, amateur astronomers, and professionals. It will be operated like a conventional observatory on

Earth. Those wishing to perform observations will submit proposals to the ISRG, which will then schedule the approved observations in available time slots. The ISRG will also perform observations of its own, including regular photography of planets, photometric measurements of variable stars, and astronomical survey work. These are all routine tasks that the Large Space Telescope and other planned instruments won't have time for.

Anyone with about \$400 worth of equipment will be able to receive pictures and data directly from the AST, record them, and display them on a black & white television set or homemade photographic printer. The equipment will be similar to that used for amateur radio slow scan television. The capabilities of an orbiting telescope will thus be brought directly into the classroom, planetarium, and even living room. Students at major universities might also be allowed to directly control the satellite as part of their observational astronomy programs.

The cost of the AST and part of a backup has been estimated at about \$100,000 US.

THE G.A.S. TEST FLIGHT

The first phase of the AST project involves a test flight of critical components within a "Get-Away Special" (GAS) canister aboard a Shuttle flight during 1983. This 5 cubic foot canister, donated to the ISRG by the Inter-Space Society, will carry many of the electronic and mechanical components that will be used on the AST. Extra space within the canister will house experiments provided by RPI faculty members and students. The equipment will be returned to Earth for later re-use aboard the AST itself.

Parts for the GAS payload will cost about \$7,000. Funds for this phase of the project have already been raised.

A worldwide network of ground stations will be necessary to control the AST and receive data from it. The ISRG is starting to organize such a network, to be made up of existing advanced amateur radio stations. This network will be similar to those used for the amateur radio satellites. Possible use of government installations is also being examined.

Funding for these projects will come from grants, tax deductible contributions, and membership dues. The ultimate goal is a membership large enough to finance space astronomy projects through individual dues and donations. According to figures gleaned from other space-related organizations, a membership of about 3,000 people should be

sufficient, and also attainable after several years of growth. The ISRG is well on its way toward achieving this goal.

YOU can be part of this effort, an effort that can lead, in the coming decade, to a privately funded space astronomy program. We welcome your support in any one of our membership categories.

ISRG MEMBERSHIPS

Supporting Membership: \$15 per year.
This entitles a member to

- six bi-monthly issues of our Newsletter
- a vote in the affairs of the organization
- a chance to participate in ISRG projects.

Patron Membership: \$25 per year.

This entitles a member to all the above and provides additional financial support to the AST effort.

Sponsoring Membership: \$50 per year.
All sponsoring members will have their names printed on 'mission decals' which will fly in a special compartment reserved for commemorative souvenirs from GAS users. After the flight, each decal will be mounted on a handsome plaque and returned to the appropriate sponsoring member.

Corporate Membership:

Corporate memberships are open to all organizations, businesses, and educational institutions. Each corporate member gets a subscription to the Newsletter and one vote in the affairs of the ISRG.

Contributing Membership: \$25 per year
Supporting Membership: \$50 per year
Patron Membership: \$100 per year

NOTE: If you are living outside of North America, please add an extra \$5 to the Supporting, Patron, and Corporate Contributing membership rates.

===== ISRG MAILING ADDRESS =====

Membership Secretary
ISRG
P.O. Box 1246
Troy, NY 12180
USA