AMSAT® is dedicated to keeping amateur radio in space. Its membership includes a worldwide group of radio hams who monitor amateur radio satellite signals and use satellites for QSOs. They also design and build the satellites, and control them once in orbit.

Since 1961, more than 90 amateur radio satellites have successfully reached orbit and begun operation. Our Vision is to deploy satellite systems with the goal of providing wide area and continuous coverage. AMSAT will continue active participation in human space missions and support a stream of Low Earth Orbiting satellites developed in cooperation with the educational community and other amateur satellite groups.

We are always interested in having committed people join AMSAT and help design, build and maintain our amateur satellites.

We'd Like to Have You as a Member

Both you and AMSAT will benefit when you join. You get the AMSAT Journal bi-monthly and support from AMSAT Area Coordinators. Member dues and donations provide AMSAT's primary support.

Find AMSAT on-line at:

http://www.amsat.org

This book will show you how it's done:

AMSAT offers the ***Getting Started with Amateur Satellites*** book... Available on-line at: **https://www.amsat.org/shop/**

How Do I Get Started in Amateur Satellites?

You can get a variety of information from AMSAT to get you started in amateur radio satellites.

- *The AMSAT Journal* reaches our members six times a year bringing articles on satellite operation, news of amateur satellites, and technical data about current satellites.
- The AMSAT Web site **www.amsat.org** provides up-to-date detailed amateur satellite information useful to the beginner or old-timer, and it's at your fingertips 24/7.
- AMSAT also offers an email forum (AMSAT-BB) that anyone can use to ask questions or trade ideas and information with other satellite operators.

You may already own the amateur radio equipment to get started

Some amateur satellites can be operated with as little as a dual-band HT and hand-held antenna. Imagine working Canada from Florida or California from Vermont. You can do it daily with this simple equipment. Satellite communications are line-of-sight and don't rely on ionospheric conditions. Both stations need only to be able to "see" the same satellite at the same time to communicate through it. Tracking software is available from AMSAT that shows you when the satellites will be over your QTH.

Enjoy continent-wide coverage using a portable station ... or build a home satellite station

Join Amateur Radio in Space ... Join AMSAT ...

1 year membership is $44.00 US and includes 6 bi-monthly issues of *The AMSAT Journal*

I enclose my ☐ Check ☐ Credit Card Information:

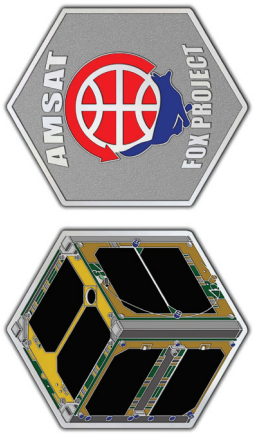
Card Number _____ Exp. _____

Name _____ Call _____

Street _____

City _____ State _____ Zip _____

Daytime Phone _____



A $100 or higher donation will earn you a Fox Challenge Coin

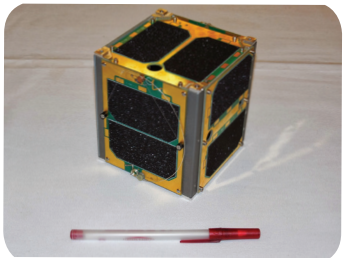
Choose where your contribution should go:

☐ AMSAT-Fox Project ☐ ARISS

☐ Future Projects ☐ General Fund

Join on-line at: www.amsat.org, e-mail: martha@amsat.org, Phone: (888) 322-6728 in the US, or (301) 822-4376

AMSAT Fox-1 Cubesats



AMSAT pioneered the concept of small satellites in low orbits. AMSAT's Project Fox consists of a series of CubeSats that have FM transponders with a 70 cm uplink and a 2 meter downlink, and that will match the ground performance of previous FM satellites.

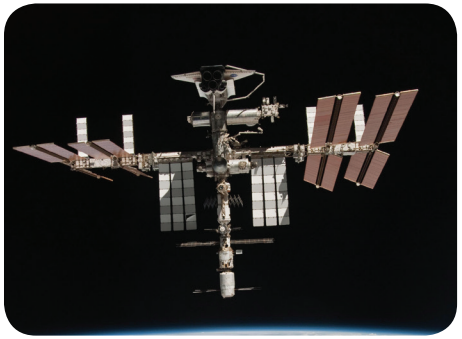
A dual-band radio capable of full-duplex operation with an external antenna is enough to get started:

- 435 MHz FM Uplink
- 145 MHz FM Downlink

You may also consider using one radio to receive and another radio to transmit for full-duplex operation.

AMSAT operates a fleet of five amateur radio cubesats on-orbit or ready for launch ...

- **Fox-1A** (AO-85) was launched on a NASA ELaNa flight on 8 October 2015, and is currently operational. This satellite has a UHF uplink and a VHF downlink.
- **RadFxSat (Fox-1B/AO-91)** was launched on 18 November 2017 with an FM transponder and the Vanderbilt University radiation experiments and is operational.
- **Fox-1Cliff** planned to launch Summer 2018 on a SpaceX Falcon 9 from Vandenberg AFB, CA. UHF and L-band uplinks with the VHF downlink plus a camera experiment.
- **Fox-1D (AO-92)** launched in January, 2018 aboard a PSLV flight from India and is operational. Fox-1D orbits an FM transponder with UHF and L-band uplinks and a VHF downlink plus a camera experiment.
- **RadFxSat-2 (Fox-1E)** will launch no earlier than 2nd quarter 2018 aboard a Virgin Galactic LauncherOne flight. It will carry a 30 kHz wide mode V/U linear transponder. It will also have a 1200 bps BPSK telemetry beacon.



AMSAT partners with NASA, the ARRL, and the Amateur Radio on the International Space Station (ARISS) team to provide amateur radio equipment for the ISS. There are multiple amateur radio experiments aboard the ISS involving voice, digital, and visual amateur radio modes encompassing both SSTV and the digital ATV experiment in the Columbus module.

Be a part of Amateur Radio's exciting future in space!

2018 and beyond promises to bring more satellites, sky high technology and educational outreach ...

- Introducing AMSAT-Golf - Greater Orbit, Larger Footprint ... 3U cubesats with deployable solar cells, attitude determination and control, earth imaging, university experiments, SDR transponder.
- AMSAT microwave groundstation to support 5 GHz uplink and 10 GHz downlink for our future High Earth Orbit and Geosynchronous flights.
- Support ARISS to deploy the new Kenwood radios and Multi-voltage Power Supply on the ISS.
- Educational outreach and STEM involvement with students at the high-school and university level.

You can operate as a portable or a fixed station on the linear satellites with a dual-band radio such as the Yaesu FT-817.

Mail this form to ...

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Postage Required