



**WA4SIR**



Shuttle Amateur Radio Experiment  
on the Space Shuttle Columbia



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AMSAT

Shuttle Amateur Radio Experiment  
STS-35/ASTRO-1

### Mission Highlights

The Shuttle Amateur Radio Experiment-II (SAREX-II) was flown as a secondary payload on the Space Shuttle Columbia as a joint effort between NASA, the American Radio Relay League (ARRL) and the Radio Amateur Satellite Corporation (AMSAT). The primary objective of SAREX-II was to bring the science and technology excitement of space flight and amateur radio to student groups and ham radio operators the world over. STS-35/ASTRO-1 was launched at 6:49 UTC on December 2, 1990. Approximately 15 hours later, Dr. Parise initiated SAREX operations. During the 9 day mission, the station amassed nearly 100 voice and nearly 700 packet radio contacts with ham and student groups in over 27 countries and 28 telebridge contacts with student groups around the U.S. The mission ended with a night landing at Edwards Air Force Base on December 11, 1990 at 5:54 UTC.

To: **YV2AEH**

Confirming:

- Our two-way voice contact
- Your voice station heard
- Our two-way packet contact # \_\_\_\_\_
- Your packet station heard # \_\_\_\_\_

Dates: December 2-10, 1990

Frequencies: 144-146 MHz Mode: F3

Overall Hardware

Responsibility: NASA Johnson AF

Transceiver: Modified Motorola MX-300 2M F3  
Transceiver built by Motorola Am Radio Club in Florida

Antenna: Side window mounted antenna.  
Designed and built by Schaumburg, Motorola ARC.

TNC: Tasco/Heath HK-21 Packet Packet

Computer: Shuttle Grid Laptop

73,

Dr. Ronald A. Parise, WA4SIR