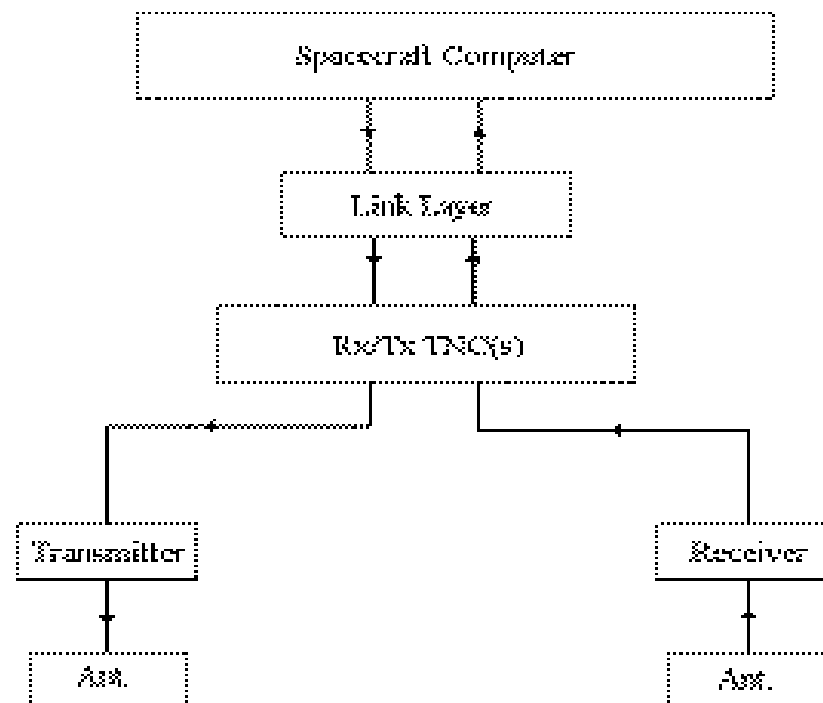


# TTC Spring 98 Semester Review

## April 23, 1998

Dana Irvin, TTC Team Leader

# Basic TTC Subsystem



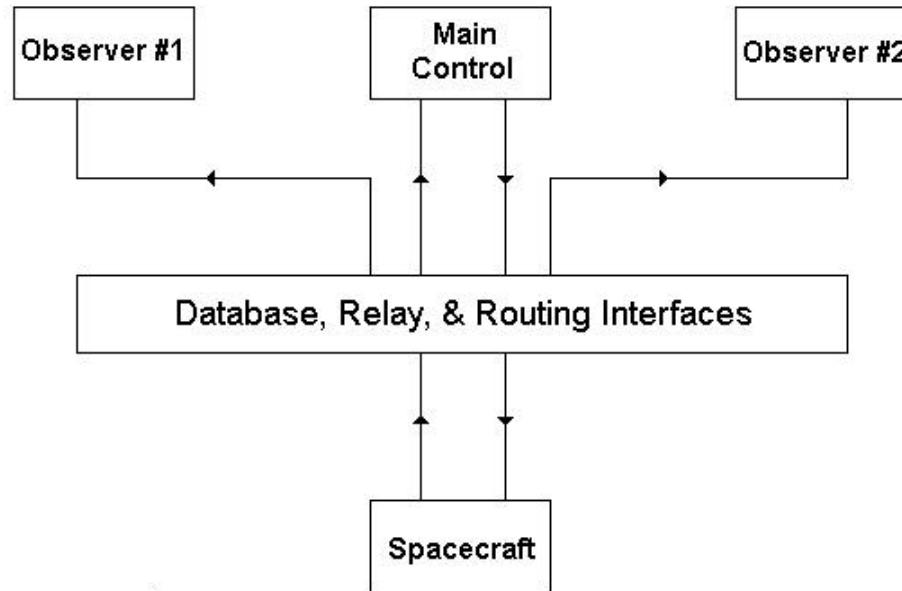
# Groundstation Improvements

- 9600 baud capable
- Increase receiving capability
- Almost ready for full automation
- Equipment grounding

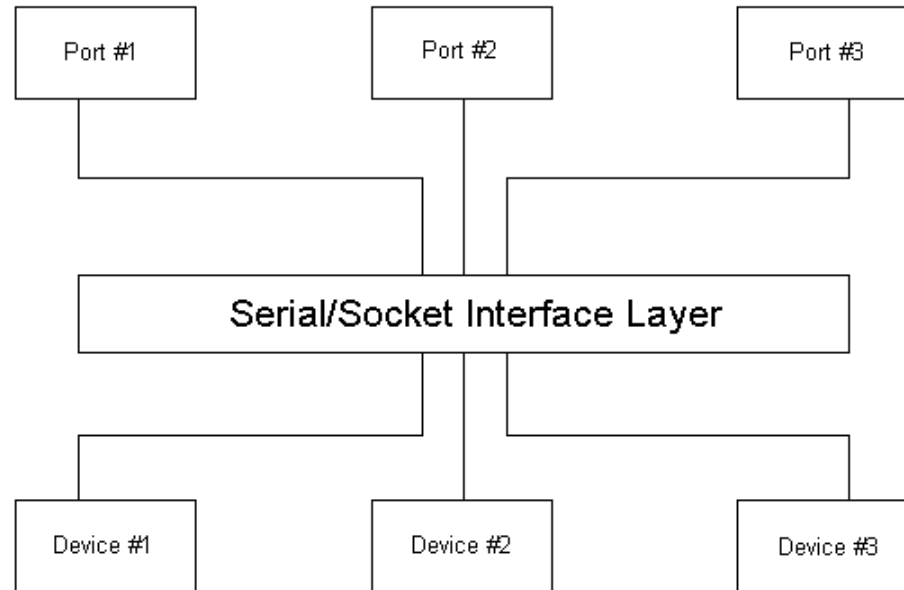
# Groundstation Software

- Easy to database telemetry
- Data instantly available for analysis
- Accessible anywhere in world
- Platform independent
- Control functions must be secure

# Interface Diagram



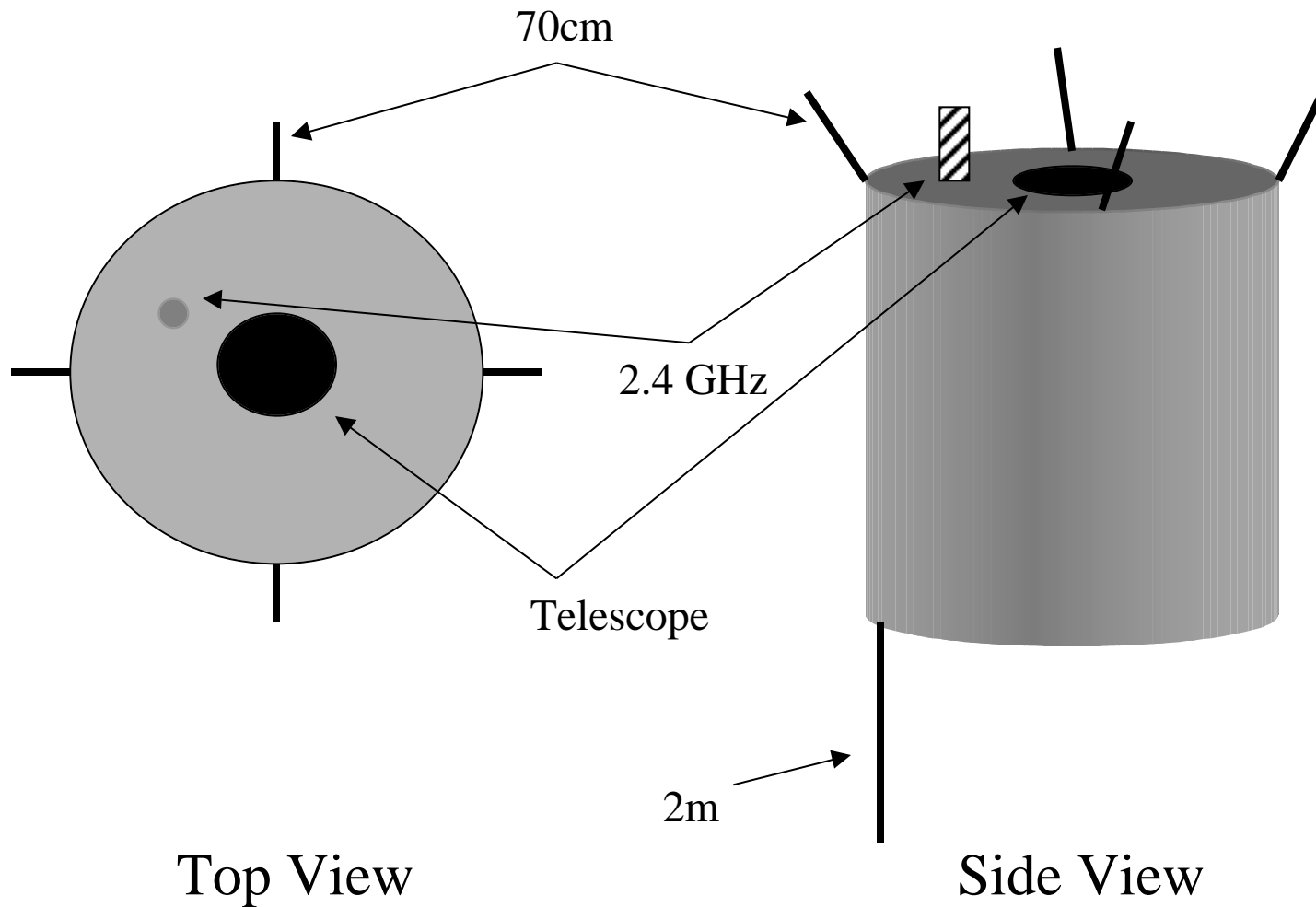
# Serial-Socket Interface



# Antenna Design Specs

<i>Antenna</i>	<i>type</i>	<i>Function</i>	<i>Gain</i>
2m (150 MHz)	monopole	PACSAT Uplink	
70cm (428 MHz)	turnstile	PACSAT Downlink	
2.4 GHz	helical	Data Downlink	10 dB

# Antenna Placement





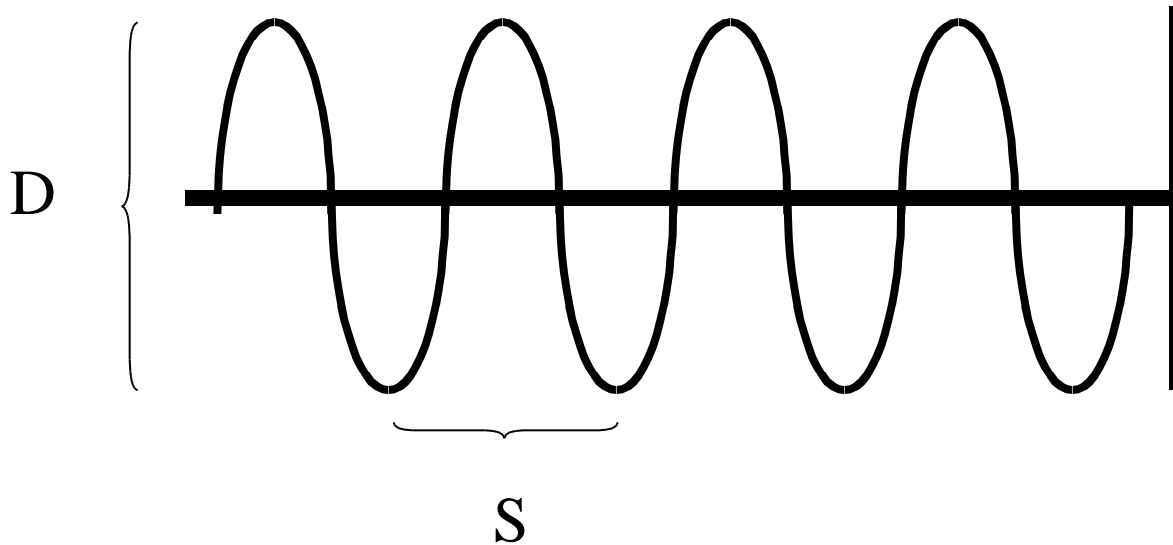
# 2.4 GHz Antenna Design

Diameter (D) = 4 cm  
# turns (N) = 20  
coil pitch (S) = 1 cm

Peak Gain = 20.8 dB

Half-Power Beamwidth = 17.9 degrees

Axial Ratio = 1.025



# 2.4 GHz Beam Pattern

