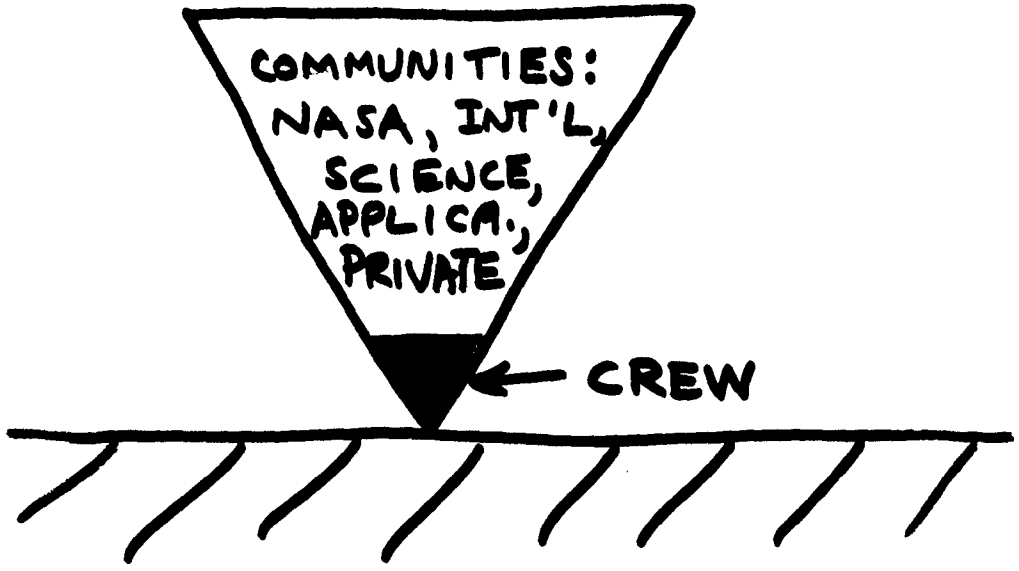
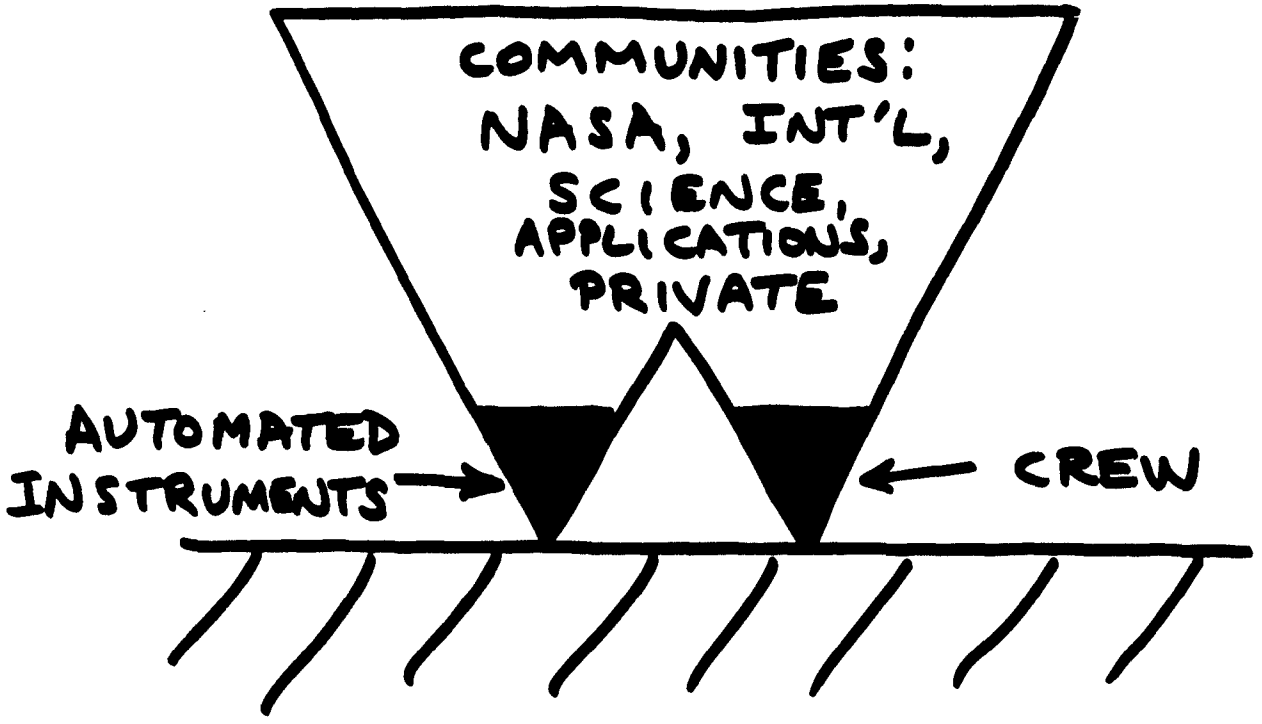
SPACE STATION COMMUNICATIONS



SPACE STATION COMMUNICATIONS

- MOST PRECIOUS COMMODITIES: CREW TIME AND EXPERIMENT RUN TIME
- "ESSENTIAL" (NOT SIMPLY "REQUIRED") COMMUNICATIONS AND COMPUTATIONALLY RICH ENVIRONMENT
- SCIENCE AND ENGINEERING CREW ARE THE "LAB TECHS" FOR A HUGE ENTERPRISE
- HOWEVER, MANY MEASUREMENT RESULTS ARE NOT SELF EVIDENT, & LIKELIHOOD OF EFFECTIVE IMMEDIATE CREW INTERVENTION UNCERTAIN

SPACE STATION COMMUNICATIONS



SPACE STATION COMMUNICATIONS

- POLICIES
- CONTINGENCIES
- END-TO-END PERSPECTIVE

SPACE STATION COMMUNICATIONS

- POLICIES

- STATION IS NOT AN EXPLORER, OR EVEN AN HST
- SATISFACTION OF COMMUNICATIONS NEEDS (AND THEIR IDENTIFICATION) IS NOT A CODE T OR S FUNCTION
- CODE A MUST LEAD WITH T&S INPUT

SPACE STATION COMMUNICATIONS - POLICIES

- FRACTION OF ORBIT COVERED
  - IMPLICATIONS TO INT'L DRS's
- DEDICATION OF COMMUNICATION RESOURCES
- CHANNEL CAPACITIES, QUEUING, DELAYS
  - IMPLICATIONS TO INT'L DRS's
  - IMPLICATIONS TO ON-BOARD PROCESSING/BUFFERING/STORAGE
  - IMPLICATIONS TO FEASIBLE USES

SPACE STATION COMMUNICATIONS
- POLICIES

- SINGLE-POINT FAILURE MODE PRACTICE
  - MISSION, LIFE-CRITICAL
  - ROUTINE
- ACCESS TO STATION VIA COMM. BY FOREIGN PARTNERS
- ACCESS TO STATION VIA COMM. BY NON-NASA U.S. PARTICIPANTS
- DATA DISTRIBUTION PRACTICE

SPACE STATION COMMUNICATIONS
- CONTINGENCIES

- EMERGENCY SCENARIOS
- S-BAND OMNI TO GROUND
- IMPLICATIONS TO INT'L PARTNERS
  - GROUND STATION SUPPORT

SPACE STATION COMMUNICATIONS

- END-TO-END PERSPECTIVE

- DEFINE "TELESCIENCE" CAPABILITIES
  - "OBSERVATIONS OF OPPORTUNITY" INSIDE OR OUTSIDE CABIN
- DEFINE "OPERATIONAL" CAPABILITIES
  - THE "PERISHABLE" DATA ISSUE
- DOMESTIC AND INTERNATIONAL COMMUNICATIONS LINKS

SPACE STATION COMMUNICATIONS