

# ELIMINATION OF TDRSS FROM EOS

## MODIS SOLUTIONS

- I Two (or more) ground stations
  - a. Provides contingency for ground station failure.
  - b. Cost - delta to existing station and 15 years of operation.
  - c. Possibility of an international partner.
  
- II Onboard loseless data compression (30%).
  - a. External box w/GSFC chip set - \$1.2-1.5M.
  - b. Compressor is part of s/c data system.
  - c. Decompressor at ground station is additional \$50-100K.
  
- III Reduce MODIS data output.
  - a. Output +/-45 degree swath ( $45/55=0.818$ , 19.2% reduction).
  - b. Drop a 250m band over oceans ( $1.85\text{Mbs}/10.6\text{Mbs} \cdot 0.6=0.105$   
10.5% reduction if 250m band is off 60% of daytime).
  - c. Max data rate (day) reduced 29.7%.