

TRMM HAS BEEN A BIG SUCCESS DURING 3 YEARS, 7 MONTHS
OF NEARLY TROUBLE FREE OPERATION

GREATLY REDUCED UNCERTAINTY IN RAINFALL OVER TROPICAL
OCEANS

REAL TIME USE BY FORECASTERS, ESPECIALLY HURRICANES,
POTENTIAL FOR FLOOD PREDICTION, VIA MODELS

A MOST IMPORTANT BENEFIT WILL BE ASSIMILATION OF DATA IN
MODELS OF ALL SCALES FROM MESOSCALE TO CLIMATE

TRMM HAS BEEN OF GREAT USE TO OCEANS, HYDROLOGY

EASY DATA ACCESSIBILITY – TSDIS AND NRL WEB SITE (TMI)

GPM IS BASED ON SUCCESS OF TRMM: REASONS FOR

- PLANNING: PRIORITIES, ALGORITHMS, DATA SYSTEM
- EXCELLENT COLLABORATION WITH JAPANESE, ON PR AND ENTIRE MISSION. PR STILL WORKING PERFECTLY!
- CLOSE TEAMWORK BETWEEN PROJECT & SCIENCE TEAMS—FREQUENT MEETINGS, DISCUSSIONS
- SCIENCE TEAM WORKED WITH DATA SYSTEM VERY EARLY, TRIED ALGORITHMS ON PROTOTYPE
- “AT LAUNCH” ALGORITHMS GAVE REASONABLE RESULTS—DATA REPROCESSING EVERY 6-12 MONTHS WITH IMPROVED ALGORITHMS

GPM WILL REMEDY TRMM'S TWO SERIOUS PROBLEMS

- SAMPLING – PASSIVE MICROWAVE CLUSTER
- IMPROVE PR REFLECTIVITY-RAIN RELATION WITH DUAL WAVELENGTH – DIFFERENTIAL ATTENUATION MUCH BETTER

NEED MORE YEARS OF TRMM FOR DECREASING DIFFERENCES BETWEEN TRMM PRODUCTS, ESPECIALLY RADAR (LOWER) VS TMI (HIGHER) & IMPROVED LATENT HEATING

GPROF TMI (2A12) ALGORITHM BASED ON CLOUD MODELS
CLOUD MODELS MUST INCORPORATE EFFECTS OF POLLUTION/DUST, WHICH GREATLY DECREASE RAINFALL (TRMM VIRS) – POLLUTION CHANGES LATENT HEATING AMOUNT AND PROFILE---- BIG CLIMATE IMPACT!!

