Role of GPM in NOAA Testbeds

Research to Operations Strategy

- Develop prototype tools and methods
- Test new ideas – provide a conduit to link research to operations
- Engage with operational community to determine needs, assess/improve prototypes
GPM Data in the Hydrometeorology Testbed (HMT)

- HMT conducts research aimed at improved understanding of precipitation physical processes and improving precipitation estimates (QPE) and forecasts (QPF), with emphasis on extreme precipitation

- Currently TRMM data (3B42) used to improve precipitation analysis and downscaling (time and space)

- HMT can serve as a “proving ground” to test and improve multi-sensor precipitation estimation (QPE)
  - HMT-West (cold season – stratiform rain/snow)
  - HMT-SE (warm season convection/tropical systems)

- GPM data needed for validation and algorithm improvement
QPE Proving Ground Concept

Satellite Input
- MW
- IR
- Radar

Radar Input
- Q2
- Stage IV
- Stage II

Gauge Input
- ALERT
- HADS
- Other

Data Fusion System (MPE, CMORPH..)

Role for GPM data
- Product Validation
- Data Fusion Development

Impact on Hydrologic Runoff

Evaluation Step