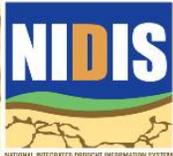# GPM Requirements: Perspectives from NIDIS and FEWS NET

Jim Verdin
U.S. Geological Survey
NIDIS Program Office
NOAA/Earth System Research Laboratory
Boulder, Colorado

Applications for Drought Monitoring

- Daily gridded 24-hr accumulations at 1-10 km
  - Rolling maps of last 30 days for: number of rain days, days since last rain, maximum consecutive dry days
  - Seasonal totals, percent of average, anomalies (mm)
  - Standardized anomalies (SPI) for 1, 3, 6, 9, 12, 18 months, on a rolling basis
  - Forcing crop water balance models
  - Estimating rain fed component of crop water use determined by LST energy balance methods
  - Assimilation by LSMs which estimate soil moisture, snow water equivalent
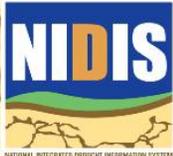
Required characteristics

- Daily time-series of 24-hr precipitation accumulation grids

- Updated in near real time (next day availability)

- Supported by a 30-year reanalysis

- Continuously appended time-series using consistent data processing and modeling techniques

- An unrestricted, public domain product available over the web

Applications for Drought Monitoring

- Satellite observations can fill gaps in station and NEXRAD coverage

- National needs in support of NIDIS

- International needs in support of GEO Global Drought Monitoring and FEWS NET

Thank you

NIDIS
NATIONAL INTEGRATED DROUGHT INFORMATION SYSTEM