

Current NCEP Verification System

- Reliability
 - a. Component of BSS, RPSS, CRPSS
 - b. Attributes and Talagrand diagrams
 - c. Spread vs. Ensemble mean error
- Resolution
 - a. Component of BSS, RPSS, CRPSS
 - b. ROC, attributes diagram, relative economic value
 - c. Information content
- Limitations
 - a. Only verify against analysis
 - b. Limited regions verified
 - c. No significance testing

Future Implementations

- *Domain Selection:*
 - A user can choose any 3-dimensional box
 - Also, a user can select any time period, or a particular day(s)/month(s) of the year
- *What to verify against:*
 - a. Observations
 - b. Analysis of choice
- *Forecast Elements*
 - a. Type
 - i. Deterministic
 - ii. Probabilistic
 - Based on ensemble forecast
 - User-supplied PDF
 - b. Format
 - i. Gridded
 - ii. Feature-based (Tropical Cyclones, etc.)

Future Implementations

- *Defining events*
 - a. User-defined thresholds (specific value of variable [0 °C, 74 mph, etc.])
 - b. Climo percentiles (10/50/90%, 10 equally-likely bins, etc.)
 - c. Defined by ensemble members (Talagrand-type stats, 10/50/90%, 10 equally-likely bins, etc.)
- *Benchmarks for skill scores*
 - a. Climo
 - b. Persistence
 - c. Another forecast
- *Output format*
 - Grib, BUFR, ASCII, etc.