

NGWT Requirements DRAFT
Version 22 September 2009

- 1.0 The NGWT shall provide the WFO Watch, Warning, and Advisory (WWA) preparation and dissemination functionality in AWIPS.
- 1.2 The NGWT shall integrate WWA input and output capabilities of existing RiverPro, WarnGen, and GHG applications
- 1.3 The NGWT shall operate at all WFOs (replacing RiverPro, WarnGen, and GHG WWA production functionality)
- 1.6 The NGWT shall provide a “Training” mode whereby all the functions and features are provided with the exception that no products will actually be issued or disseminated
 - 1.6.1 The training mode shall have the option to use “live” data as input to the user
 - 1.6.2 The training mode shall have the option to use “stored” data as input to the user
- 1.7 The NGWT shall provide “Inline” help for all functionality and options
- 1.8 The NGWT shall support “WFO backup requirements”
- 1.9 The NGWT shall log all WWA type, user name, and time stamp for each of the following activities:
 - Generation of WWAs
 - Dissemination of WWAs
 - Modification of WWAs
 - Termination or cancellation of WWAs
- 1.10 Flexible enough to expand to RFCs and national centers in future builds

- 2.0 The NGWT shall provide a Threat Definition Tool (TDT) that can be selected from appropriate AWIPS II perspectives
- 2.3 The TDT shall provide the capability to draw a polygon of the area contained within the watch, warning, or advisory being prepared. (*This supports “Hazard-Based Warnings”*)
- 2.4 The TDT shall provide the capability to select any geographic area contained within the WWA polygon area, including but not limited to:
 - Counties
 - Partial counties
 - Marine zones
 - Independent Cities
 - River Basins
 - River Forecast Points
 - Coastline
- 2.5 The forecaster shall be able to toggle on/off the above geographical areas
- 2.6 The TDT shall be able to produce multiple polygons for the same WWA type
- 2.7 The TDT shall be able to produce multiple WWA products for a single polygon

- 3.0 The NGWT shall be capable of providing a monitoring option to display WWAs for the area being displayed, including the following:
 - Active WWAs
 - Expired or cancelled within the last ___ days (*configurable but at least 7 days*)
 - WWAs being created by the user but not yet issued (*easy to find*)
 - “Proposed” hazard information (warnings, advisories, statements, etc.) (*text products, graphics, grids, etc.*) being created at other workstations within the office but not yet issued
 - “Proposed” hazard information (warnings, advisories, statements, etc.) (*text products, graphics, grids, etc.*) being created at other offices but not yet issued
- 3.1 A user-configurable monitoring feature shall be provided for the hazard information described in section 3.0 via at least three interoperable features:
 - Plan view
 - Timeline view
 - Tabular view

- 3.3 The monitoring feature shall provide the option for a user-selectable time period
- 3.4 The monitoring feature shall provide cursor “sampling” for the hazard information being displayed, including the following information, as applicable and locally configured:
 - Issuance time
 - Begin time
 - Expired/expiration time
 - Time remaining
 - Cancelled time
 - Product type(s)
 - Phenomenon and significance
 - Issuing office
 - ETN
 - Zone listing (county, marine zone, etc.)
 - Other information as locally configured...
- 3.5 Multiple levels of audible and visual alarms, customizable at office and/or individual level, linked to NWS Directives/Instructions and other software requirements (e.g., 10 minutes from the expiration of your warning, another office has created a proposed watch, etc.)

- 4.0 Quality assurance and quality control
- 4.1 A popup warning that the product(s) is (are) going to go out “live”
- 4.2 Format checks
- 4.3 Redundancy checks (e.g., same WWA not already issued)

- 5.0 Should be able to use NGWT anywhere in the world (eastern and southern hemispheres)

- 6.0 AWIPS and thin client

- 7.0 Hazard impact assessment and management

- 8.0 Call-to-action and safety information management

- 9.0 GIS requirements
- 9.1 Support full query of GIS databases, including automated and manual queries

- 10.0 Input and ingest requirements
- 10.1 Data from other databases (LSR data, etc.)
- 10.2 Grid data sets from external apps, from pre-published wx grids, or from published wx grids
- 10.3 Forecaster shall be able to edit text before transmission

- 11.0 Output requirements
- 11.1 Support text, graphics, grids as output
- 11.2 Support the following text formats:
 - VTEC
 - UGC
 - Partial-county UGC
 - XML/CAP
- 11.3 Support internal dissemination (e-mail, text messaging)
- 11.4 Utilize templates to allow quick changes to formats between software builds

- 12.0 Operational maintenance (NCF 24/7 support)

- 13.0 Security and privacy

- 14.0 Training (new forecasters and existing forecasters)

- 15.0 Documentation
- 16.0 Constraints (policy and directives)
- 17.0 Uncertainty (support inclusion of uncertainty information)
- 18.0 Other
 - 18.1 CPU performance – user has highest priority
 - 18.2 Local office and/or user configurable
 - 18.3 “Preview” capability prior to product issuance

Notes:

AlertViz – determine current and future functionality and decide how to integrate
Timeline – determine current and future functionality and decide how to integrate