

Product/Service Description Document
Experimental NY/PHL TRACON Forecasts

Part I - Mission Connection

- a. Product/Service Description - The web based TRACON Forecast provides categorical convective, icing and turbulence guidance for specific locations in the National Airspace System (NAS) allowing for more accurate air traffic management.
- b. Product Type - Experimental
- c. Purpose - The purpose of these experimental products is to provide the Federal Aviation Administration (FAA) and the airlines with expanded weather information for the NY and Philadelphia TRACON airspace. This expanded information begins to address a gap in the NWS convective product suite and the Terminal Aerodrome Forecast (TAF). Specific forecast products are not available that forecast convection, icing or turbulence weather at aeronautical arrival and departure fixes (known as 'gates'). These weather elements occurring at or near these gates have a significant impact on the flow of aircraft through the NAS causing delays. These forecast products will allow critical partners and customers to make more informed decisions regarding the air traffic flow through the NAS.
- d. Audience - The target audience for this experimental product is the FAA and airline dispatchers.
- e. Presentation Format - A variety of presentation formats are used on the enhanced web page including graphical forecast information, and text based information.
- f. Feedback Method -
Technical and content-related comments for this website may be addressed to:

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631.244.0122

E-mail comments can be sent to Brandon.smith@noaa.gov

Comment period: 8/01/11 to 2/29/12

Part II - Technical Description

- a) Format and Science Basis
There is a noted gap in the NWS product suite regarding convective and other high impact aviation weather forecasts from an aerial

perspective. TAFs are designed to forecast convective weather within a small radius of a given airport. The Collaborative Convective Forecast Product (CCFP) provides some guidance regarding aerial thunderstorm coverage over large areas, for convective weather that meets a specified set of criteria.

Forecasters will issue this suite of convective, icing and turbulence forecasts for individual arrival/departure gates, or for groups of gates depending on airspace configuration. This is presented in a color-coded graphical form.

Specific products include (for NY and PHL TRACON airspaces):

SWAP Graphical Forecast:

The web based SWAP Graphical Forecast provides users with a stop-light departure route planning tool detailing when Thunderstorm activity may impact departure routes out of NY Center and into adjacent airspace. The forecast is a graphical update to ZNY's Severe Weather Avoidance Plan (SWAP) statement that is issued daily during the SWAP season.

SWAP Outlooks:

The web based SWAP Outlooks provide air traffic managers and planners with a Day 2 and Day 3 outlook detailing the possibility of ZNY implementing the Severe Weather Avoidance Plan (SWAP).

Oceanic Forecast:

New York's Oceanic Forecast provides information for International Planners for sub-SIGMET criteria such as Icing, Turbulence and Thunderstorm activity throughout ZNY's oceanic sectors.

Compression:

The New York CWSU's wind speed outlook product is tailored to NYC/PHL TRACON's by providing Traffic Managers with maximum wind speeds aloft to aide in the detection of possible compression constraints. The color coded forecast details maximum wind speeds aloft for TRACON specific altitudes.

Icing:

The New York CWSU's icing product is tailored to NYC/PHL TRACON's by providing Traffic Managers with possible Icing conditions at both TRACON's gate areas. The color coded forecast details light, moderate and moderate to locally severe icing conditions.

b) Methods to Construct Page

The TRACON forecast graphics are created via software on the AWIPS Remote Display (ARD) at the CWSU. PHP code is used to generate all webpage content. Some web-based database interaction (MySQL) is expected as the information available on these webpages is expanded.

c) Availability - The website will run 24 hours per day and be monitored by NWS staff.

d) Evaluation and Testing

Examples of these TRACON forecasts are available at:

http://www.erh.noaa.gov/zny/zny_tracon.php This may be used as an example for evaluation purposes. The page will be monitored to ensure accuracy and timeliness of the information provided. In addition, users will be solicited for feedback on the page, and changes made in a rapid prototype environment to best meet the needs of the users. These forecasts will be available for the NY and Philadelphia TRACON airspaces.