

Collaborative Convective Forecast Product Product Description Document

Part I - Mission Connection

a. Product Description - The Collaborative Convective Forecast Product (CCFP) is a graphical representation of expected convective occurrence at 2-, 4-, and 6-hours after issuance time. Convection for the purposes of the CCFP forecast is defined as a polygon of at least 3000 square miles that contains:

- A coverage of at least 25% with echoes of at least 40 dBZ composite reflectivity; and
- A coverage of at least 25% with echo tops of FL250, or greater; and
- A forecaster confidence of at least 25%.

All three of these threshold criteria combined are required for any area of convection of 3000 square miles or greater to be included in a CCFP forecast. This is defined as the minimum CCFP criteria. Any area of convection which is forecasted NOT to meet all three of these criteria will NOT be included in a CCFP forecast.

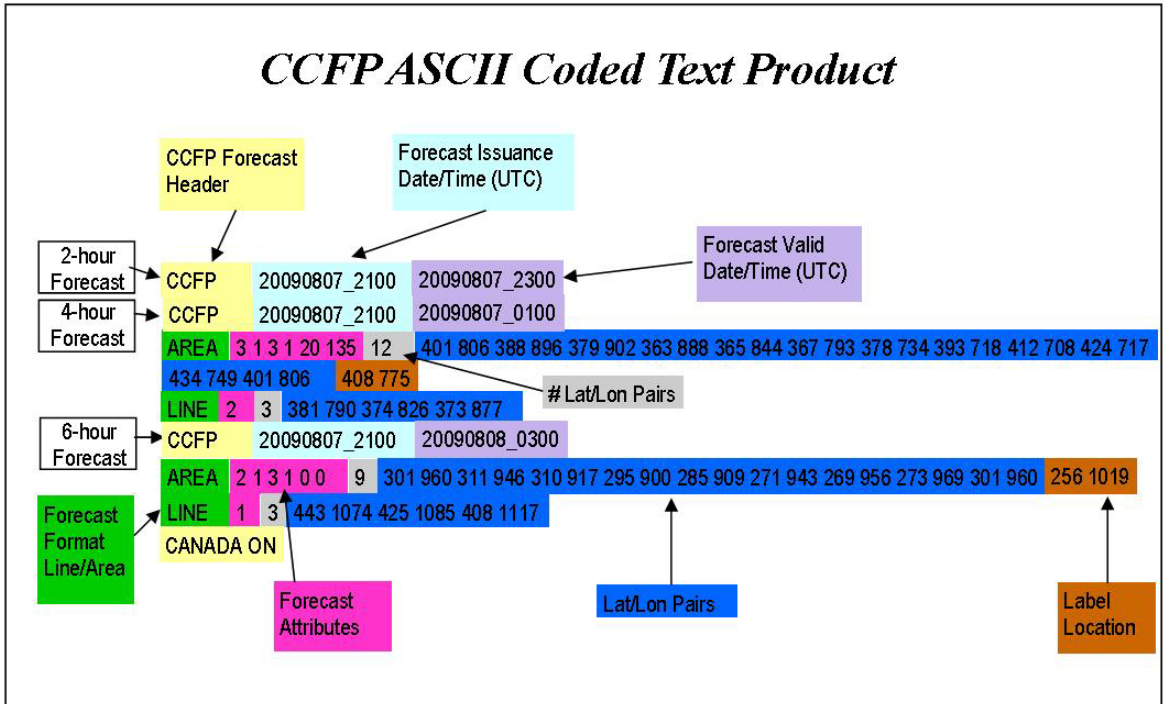
b. Purpose - The purpose of the CCFP is to aid in the reduction of air traffic delays, reroutes, and cancellations influenced by significant convective events. From a User's perspective the CCFP is designed to be used for strategic planning of air traffic flow management during the en route phase of flight. It is not intended to be used for traffic flow control in the airport terminal environment, nor for tactical traffic flow decisions.

From a Producer's perspective, the CCFP itself is designed to address two major purposes:

- An accurate representation of the convection of most significance for strategic decisions of air traffic flow management, and
- A common forecast baseline, as consistent as possible, shared among all meteorological organizations responsible for providing forecasts of convection to the air traffic managers within the FAA and/or within commercial aviation organizations.

c. Audience - The primary users of CCFP are air traffic management which includes both FAA and industry elements. The CCFP is the primary convective weather forecast product for collaboratively developing a Strategic Plan of Operations (SPO). The SPO is finalized during the collaborative TELCONS hosted by the Strategic Planning Team and conducted approximately every 2 hours immediately after the issuance of the CCFP.

d. Presentation Format - The CCFP is available via the National Weather Service Telecommunications Gateway circuit in an ASCII coded text format. An example of the CCFP ASCII coded text product is shown in the following graphic:



The format of the fields in the above graphic are described below.

General Format

CCFP ISSUED VALID

AREA COVERAGE CONFIDENCE GROWTH TOPS SPEED DIRECTION
 VERT# LAT[1] LON[1] LAT[VERT#] LON[VERT#] LATT LONT
 LINE COVERAGE VERT# LAT[1] LON[1] LAT[VERT#] LON[VERT#]
 CANADA_FLAG {ON/OFF}

Forecast Header Format

CCFP	CCFP Forecast Header (UTC)	4 Characters
ISSUED	Forecast Issuance Time (UTC)	CCYYMMDD_hhmm
VALID	Forecast Valid Time (UTC)	CCYYMMDD_hhmm

Forecast Area Format

AREA AREA Type Header 4 Characters

AREAL COVERAGE Convective Coverage Code

High	= 1	75-100%
Medium	= 2	40-74%
Low	= 3	25-39%

CONFIDENCE Confidence

High = 1 50-100%
Low = 3 25-49%

GROWTH

Convective Growth Code

Positive = 1
No Change = 2
Negative = 3

TOPS

Storm Height Code

1 FL400
2 FL350-FL390
3 FL300-FL340
4 FL250-FL290

SPEED

Speed

Knots

DIRECTION

Direction moving Towards

Degrees from North

VERT#

Number of LAT / LON Pairs

Integer

LAT[x] LON[x]

Vertical Latitude and Longitude Coverage Polygon

Latitude = LAT * 10.0 degrees

Longitude = LON * -1 * 10.0 degrees

LATT LONT

Longitude and Latitude of Left Center of Box

Latitude = LATT * 10.0 degrees

Longitude = LONT * -1 * 10.0 degrees

Forecast Line Format

LINE

LINE Type Header

4 Characters

LINE COVERAGE

Convective Coverage Code

Solid Line High Coverage = 1 75-100%

Dashed Line Medium Coverage = 2 40-74%

VERT# Number of Lat / Lon Pairs Integer

LAT[x] LON[x] Vertex Latitude and Longitude of Line of Convection

Latitude = LAT * 10.0 degrees

Longitude = LON * -1 * 10.0 degrees

CANADA_FLAG * CANADA OFF
CANADA ON

* Indicates Canada's participation in production of the CCFP product.

The CCFP is also made available on the Aviation Weather Center (AWC) web site as an image.

