

G-1 Overview



ASP Max-Mex lead: Jeff Gaffney

Chief pilot: Bob Hannigan

Aircraft operations: John Hubbe

Mission and instruments:

Larry Kleinman

Peter Daum

Linda Bowerman (nee Nunnermacker)

Pramod Kulkarni

Yin-Nan Lee

Gunar Senum

Stephen Springston

Jian Wang

Mike Alexander

Haf Jonsson

Judy Lloyd

Jochen Rudolph

G-1 Operations

- 75 hours flight time
 - 3:00 to 3:45 per flight _ 22 flights
 - Ferry to MCMA = 35 minutes
- 180 knots sample, 250 knots ferry
- 1 or 2 flights per day
 - 2 hour turn-around
 - 8 AM to 6 PM primary, 6 – 11 PM possible
- Episodes
 - Single flight up to 4 days in a row
 - Hard to do 2 flights/day back to back

Science Objectives

- Source region

Oxidants, precursors, aerosols

"Before" processing, Max. $P(O_3)$, Max. O_3

- Test model predictions of basin flow

Zhong and Fast, de Foy et al

Residual layer, upslope flow, return flow, convective mixing

- Aerosol time evolution

T1-T2 Lagrangian experiment

Photochemical age

Follow tetraol

Flight Plans - Components

- Urban Area

Large – full box, source region, upslope region S and W

Small – source region

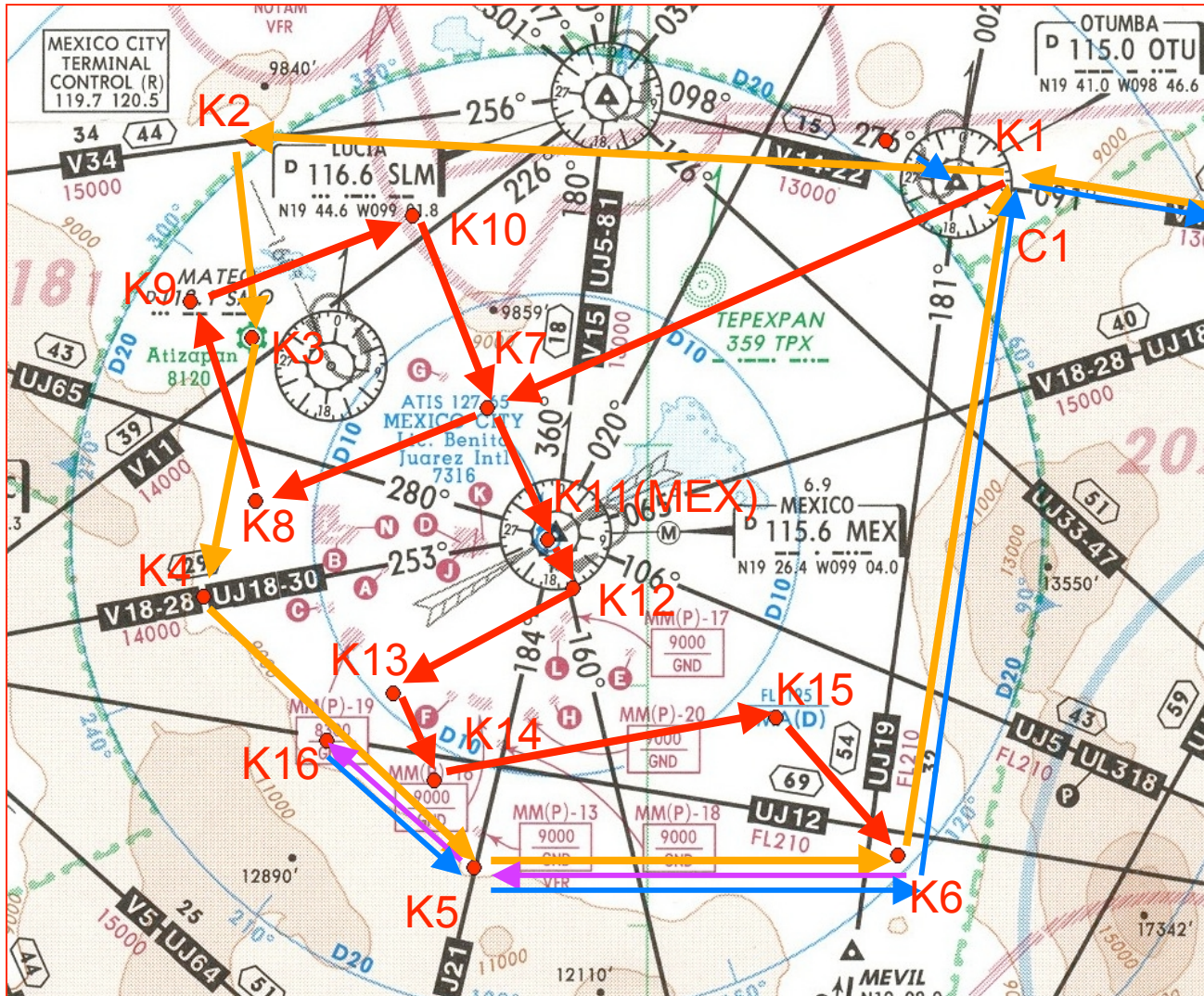
- Curtains

T1 and T2 3 or 4 altitudes

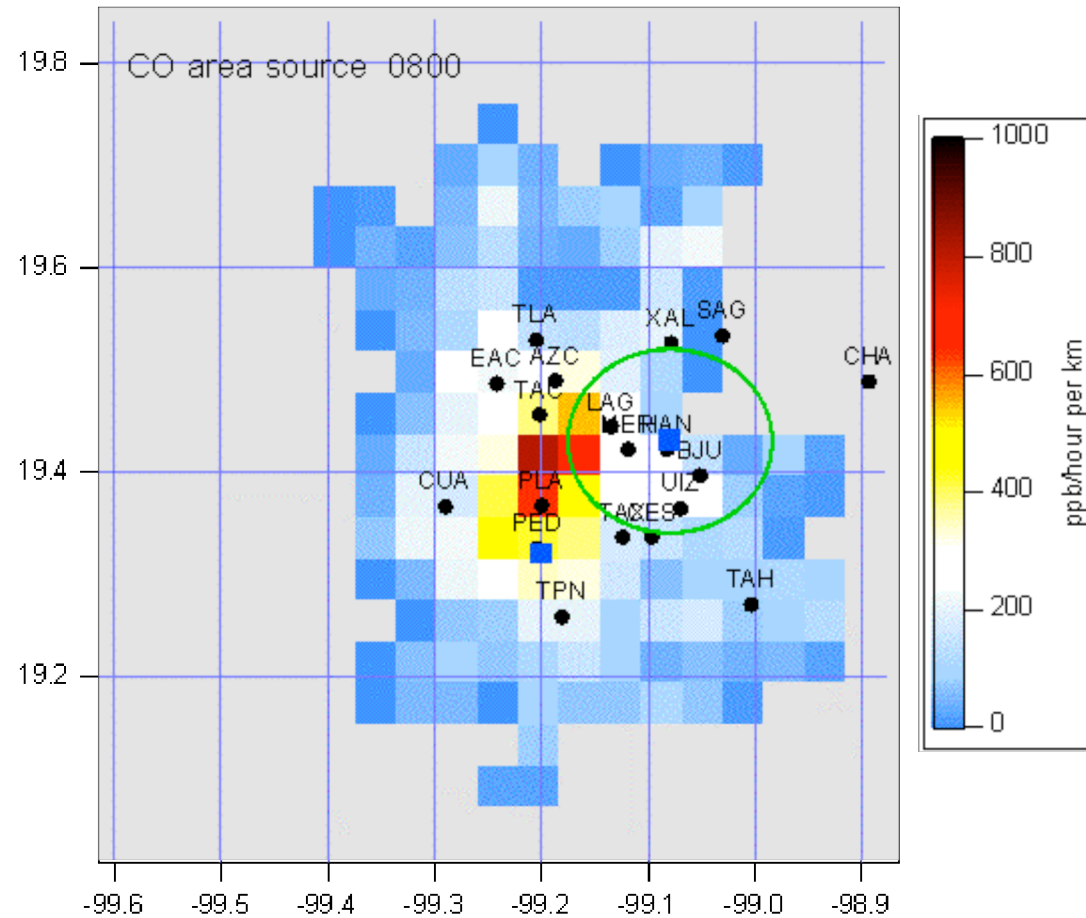
- Arcs

50 – 200 km downwind

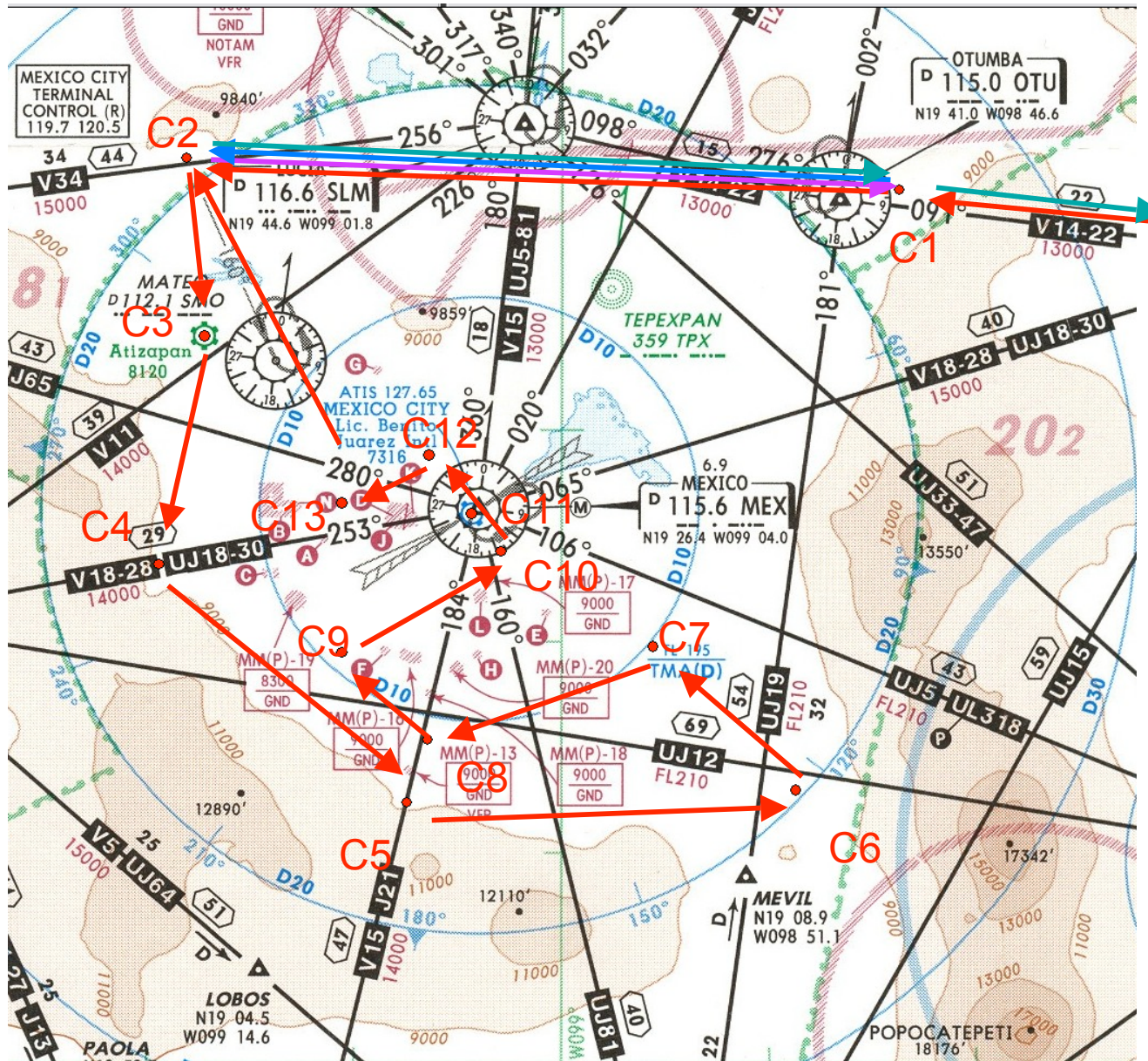
Source Region



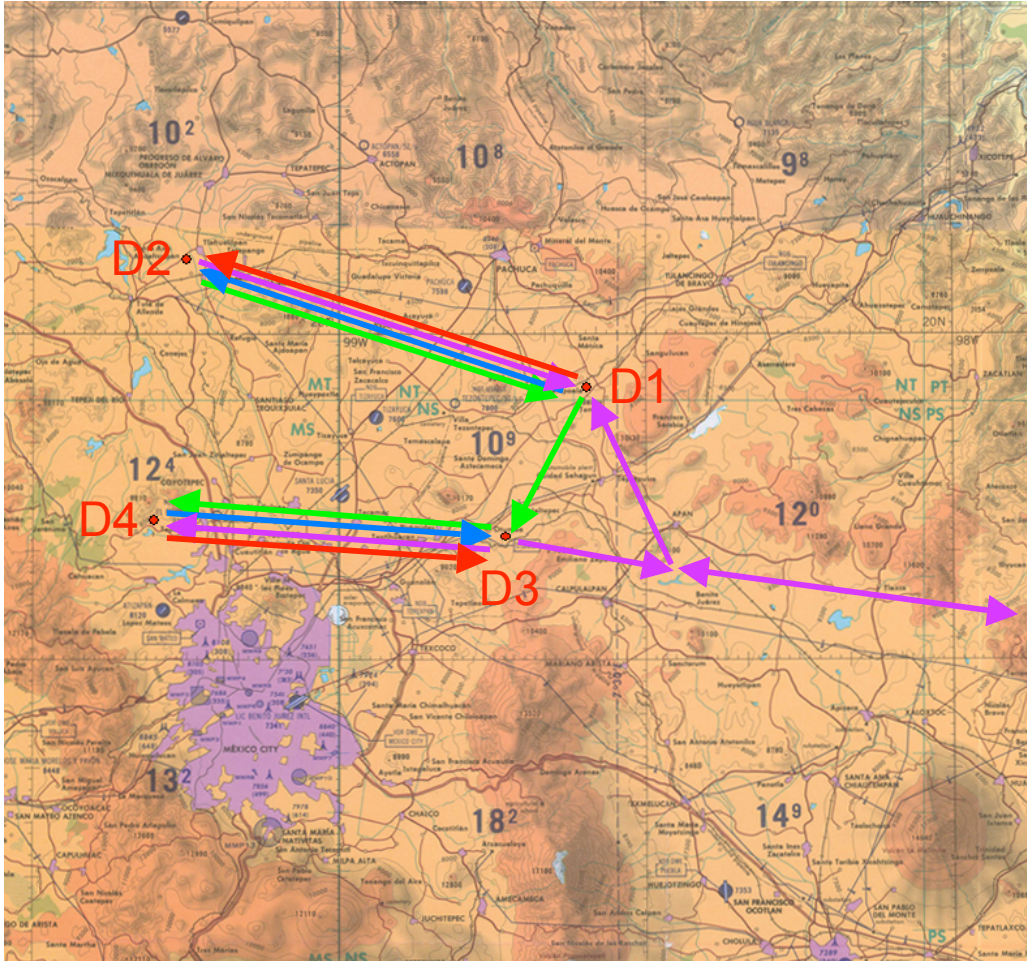
Mexico City CO Area Source Emissions



Source Region + T1 Curtain



T1 and T2 Curtain



Arcs at 30, 45, 60 and 70 nm from MC

