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October 5, 1988

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AIR, PESTICIDES & TOXICS DIV

Mr. William B. Hathaway, Director
Air, Pesticides, and Toxics Division
U. S. Environmental Protection Agency
Region 6
1445 Ross Avenue
Dallas, Texas 75202-2733

Dear Mr. Hathaway:

On July 15, 1988, the U. S. Environmental Protection Agency directed that the Texas Air Control Board (TACB) convert to use of the models and procedures identified in the "Guideline on Air Quality Models (Revised)" (Guideline) for all federally regulated actions, including Prevention of Significant Deterioration. We have found that the Guideline is ambiguous in some areas. The purpose of this letter is to obtain clear guidance on the meteorological data to be used in Texas to ensure that modeling is performed in accordance with the Guideline.

The Guideline states that for federally regulated programs, dispersion modeling should be conducted using five recent, consecutive years of meteorological data. In addition, for permitted sources whose emission limitations are based on a specific year of meteorology, that year should also be used when modeling is conducted for the facility at a later time. The TACB would like to define a set of years for modeling so that all permits for all areas of the state may be consistently evaluated with meteorological data covering the same time period. Enclosure I outlines a specific proposal which we are submitting for your review and approval.

We would appreciate your expeditious review of this matter so that we can provide timely guidance to permit applicants. If you have any questions, please call me or Mr. Cyril Durrenberger.

Sincerely,

J. L. Montgomery

for Steve Spaw, P.E.
Deputy Executive Director

Enclosure

cc: Mr. Robert E. Layton, Jr., P.E., Regional Administrator,
U. S. Environmental Protection Agency, Region 6, Dallas

Enclosure I

Proposed Meteorological Data for Dispersion Modeling in Texas Pursuant to the "Guideline on Air Quality Models (Revised)"

Short-Term Prevention of Significant Deterioration (PSD) Modeling

Short-term PSD modeling in Texas has previously been conducted using 1964 meteorological data.

The hourly values for surface data collected from January to August, 1981 have not been recorded at the following National Weather Service (NWS) stations: Abilene, Amarillo, Lubbock, San Angelo, Victoria, Waco, and Wichita Falls. This missing data effectively eliminates the use of 1981 for large areas of Texas where there has been much permit activity in the past.

There are many missing values from the upper air data collected in 1986 at the NWS stations located at Lake Charles and El Paso. These upper air stations are needed for modeling that is performed in West Texas and in the Gulf Coast area. Missing information from these sites effectively eliminates the use of 1986 across large areas of Texas where there has been much permit activity in the past.

This leaves only a four-year core of data from 1982-1985 that can be considered as recent, consecutive years. Therefore, the Texas Air Control Board (TACB) requests that the Environmental Protection Agency (EPA) approve the use of the meteorological data from 1964 and 1982-85 for short-term modeling. Maps showing the surface and upper air stations that are to be used in each county in Texas for 1964 and 1982-1985 are enclosed. Tables are enclosed with the pairings of surface and upper air stations for data preprocessing.

Long-Term PSD Modeling

Long-term PSD modeling in Texas has previously been conducted using Stability Array (STAR) summaries for a composite of a number of years varying from five to fifteen years. The TACB requests that these STAR summaries continue to be used and be considered as being equivalent to one year of data. In addition, the TACB requests that the long-term meteorological data from 1982-85 be used. Maps showing the appropriate stations for each county are enclosed. In addition, a table is enclosed that shows the years covered by each composite STAR summary.

Surface and Mixing Height Station Combinations
for Sequential Data

Years 1982-1985

Surface Station	Mixing Height Station
Abilene	Stephenville
Amarillo	Amarillo
Austin	Victoria
Austin	Del Rio
Beaumont	Lake Charles
Brownsville	Brownsville
Corpus Christi	Brownsville
Corpus Christi	Victoria
Dallas/Fort Worth Airport	Stephenville
Dallas/Fort Worth Airport	Longview
El Paso	El Paso
Houston Intercontinental Airport	Lake Charles
Houston Intercontinental Airport	Victoria
Lubbock	Amarillo
Midland	Midland
San Angelo	Stephenville
San Angelo	Midland
San Angelo	Del Rio
San Antonio	Del Rio
San Antonio	Victoria
Shreveport	Longview
Victoria	Victoria
Waco	Stephenville
Waco	Longview
Wichita Falls	Stephenville

The surface stations shown are also applicable to STAR data files.

Note: For both sequential and STAR files, each year is modeled separately.

Surface and Mixing Height Station Combinations
for Sequential Data

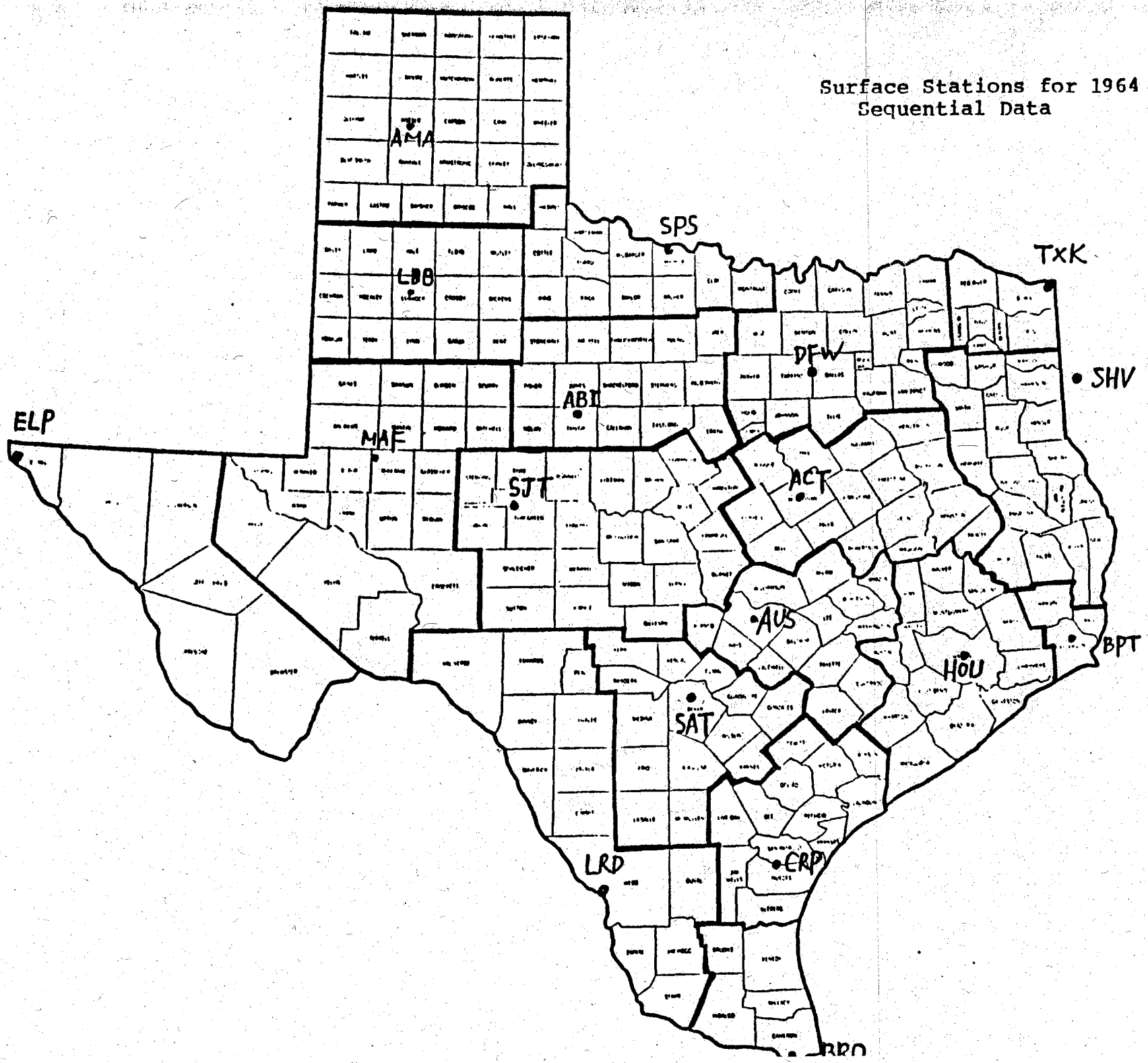
Year 1964

Surface Station	Mixing Height Station
Abilene	Oklahoma City
Abilene	Midland
Amarillo	Amarillo
Austin	San Antonio
Beaumont	Lake Charles
Brownsville	Brownsville
Corpus Christi	Brownsville
Corpus Christi	San Antonio
Dallas/Fort Worth Airport	Oklahoma City
Dallas/Fort Worth Airport	Shreveport
Dallas Love	Oklahoma City
El Paso	El Paso
Houston Hobby	Lake Charles
Laredo	San Antonio
Lubbock	Amarillo
Midland	Midland
San Angelo	San Antonio
San Angelo	Midland
San Antonio	San Antonio
Shreveport	Shreveport
Texarkana	Shreveport
Waco	San Antonio
Waco	Shreveport
Wichita Falls	Oklahoma City

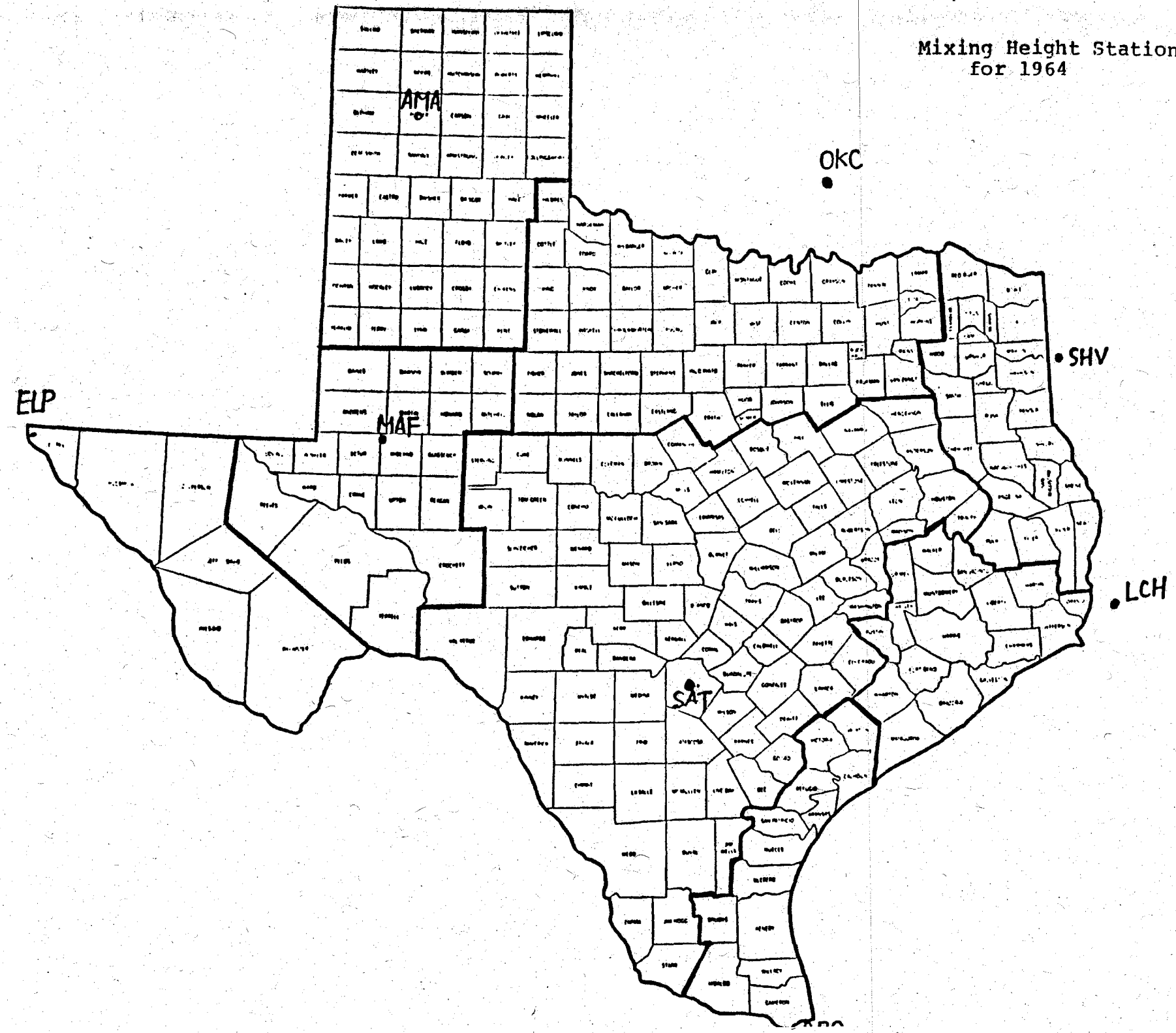
Composite STAR Files

Station	Years
Abilene	61-74
Amarillo	61-75
Austin	61-71
Jefferson County Airport	61-74
Brownsville	61-74
Corpus Christi	61-74
Dallas DFW	61-74
Dallas Love	61-73
Del Rio	69-74
El Paso	61-70
Galveston	51-62
Houston Intercontinental Airport	70-74
Houston Hobby	61-69
Lubbock	61-74
Lufkin	61-73
Midland	61-70
Mineral Wells	66-70
San Angelo	61-70
San Antonio	61-74
Shreveport	49-58
Texarkana	59-67
Victoria	61-77
Waco	61-74
Wichita Falls	61-74
Wink	48-54

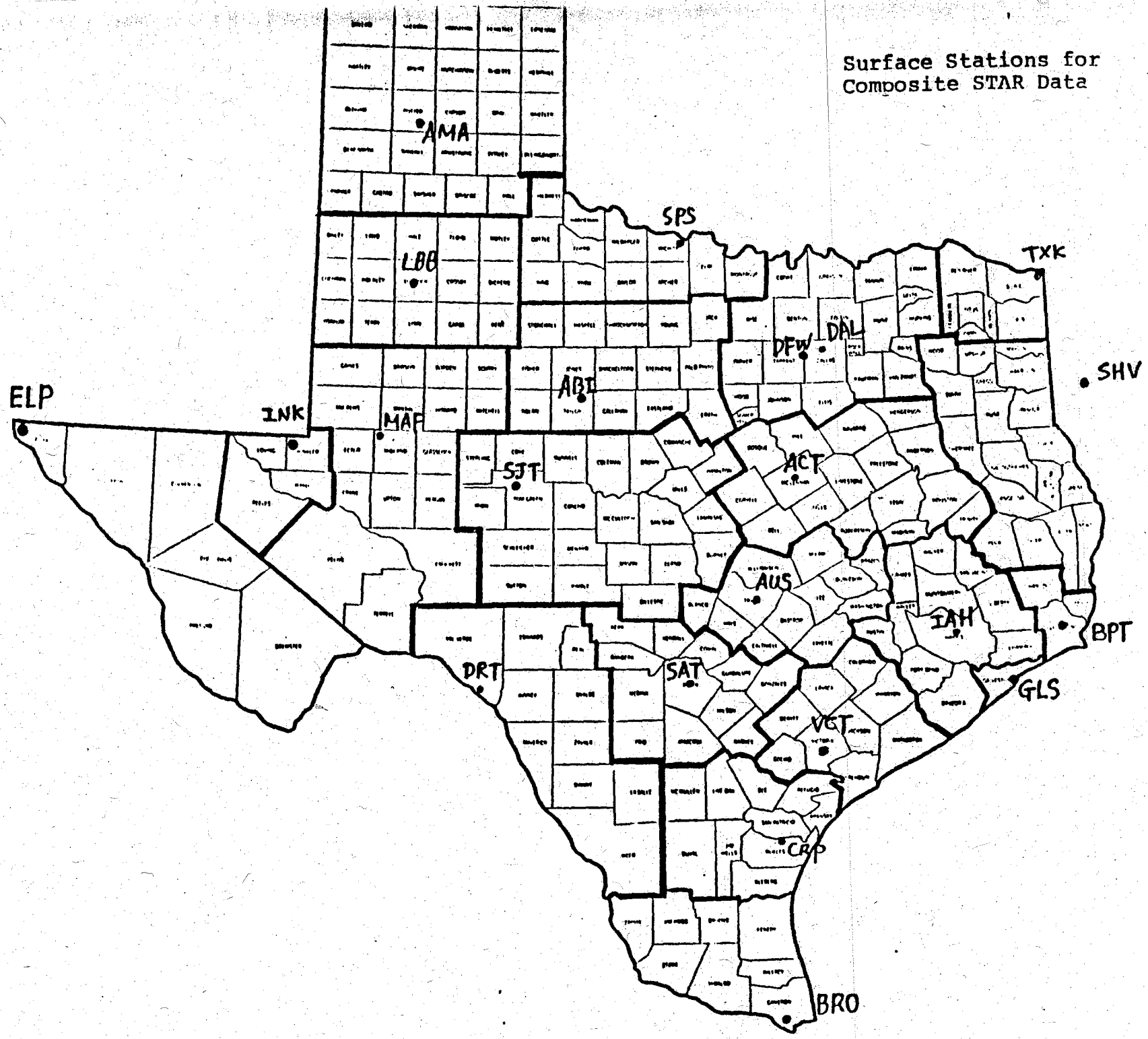
Surface Stations for 1964
Sequential Data



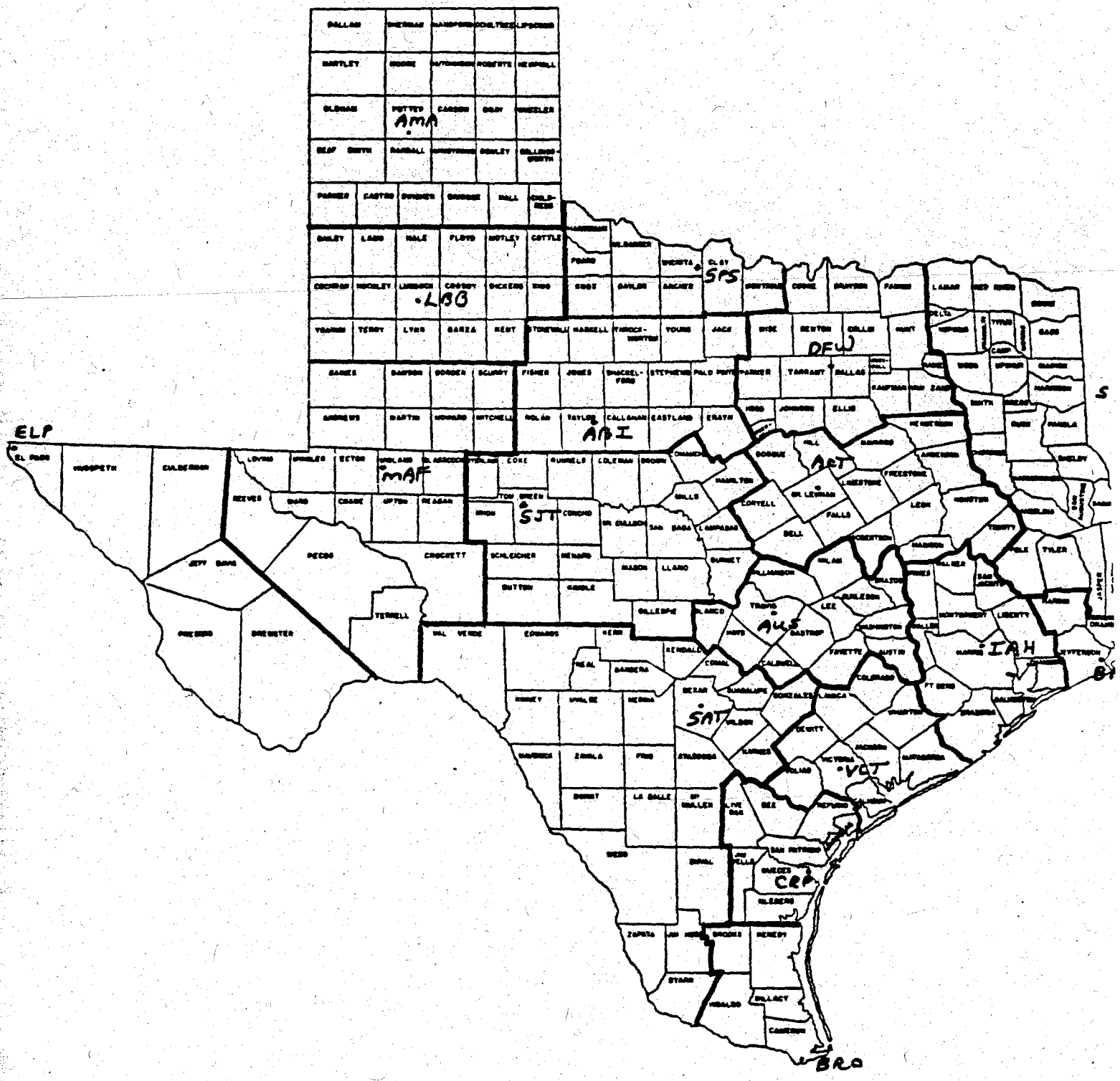
Mixing Height Stations
for 1964



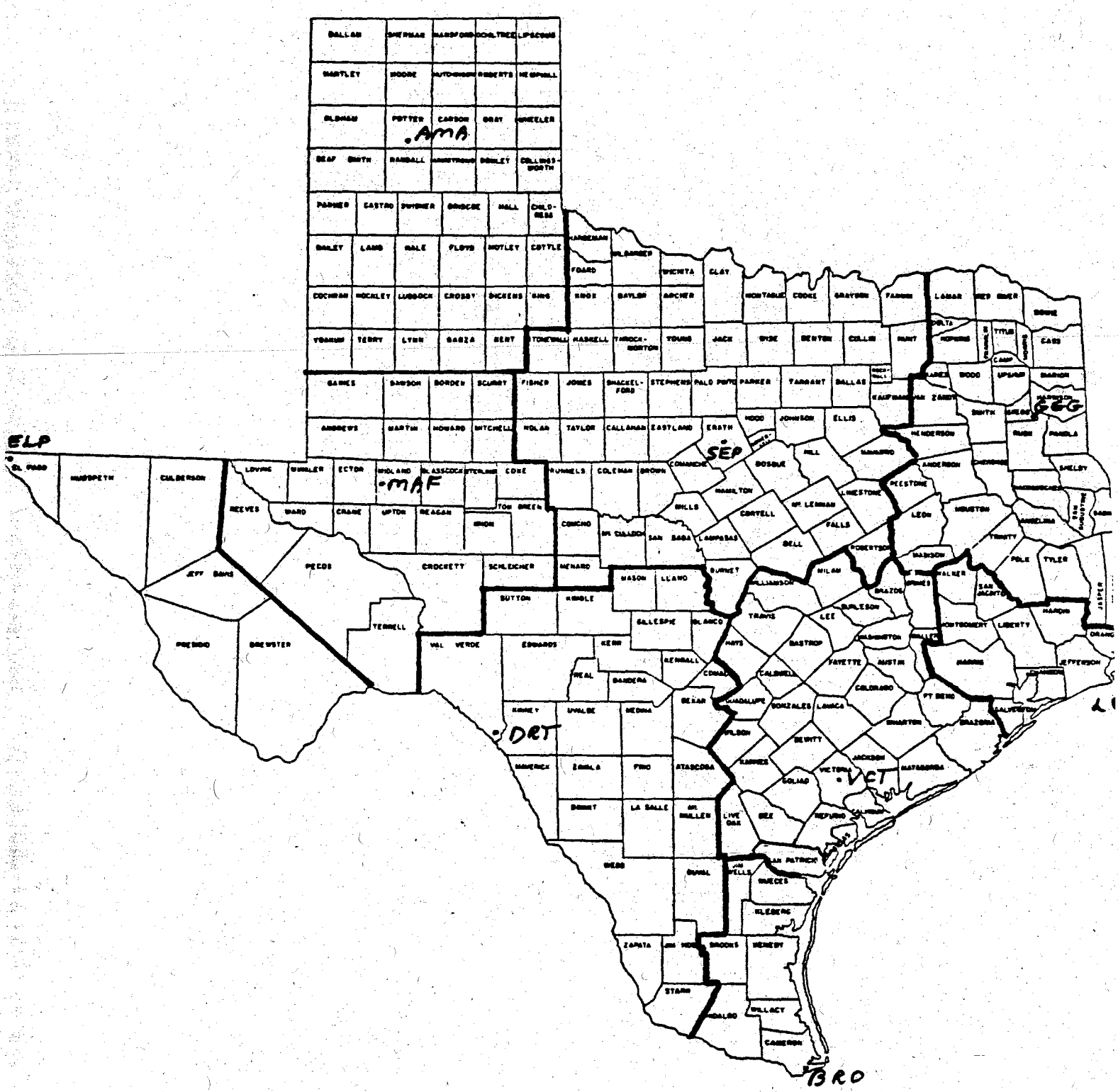
Surface Stations for
Composite STAR Data



Surface Stations for
1982--1985 Sequential/STAR
Data



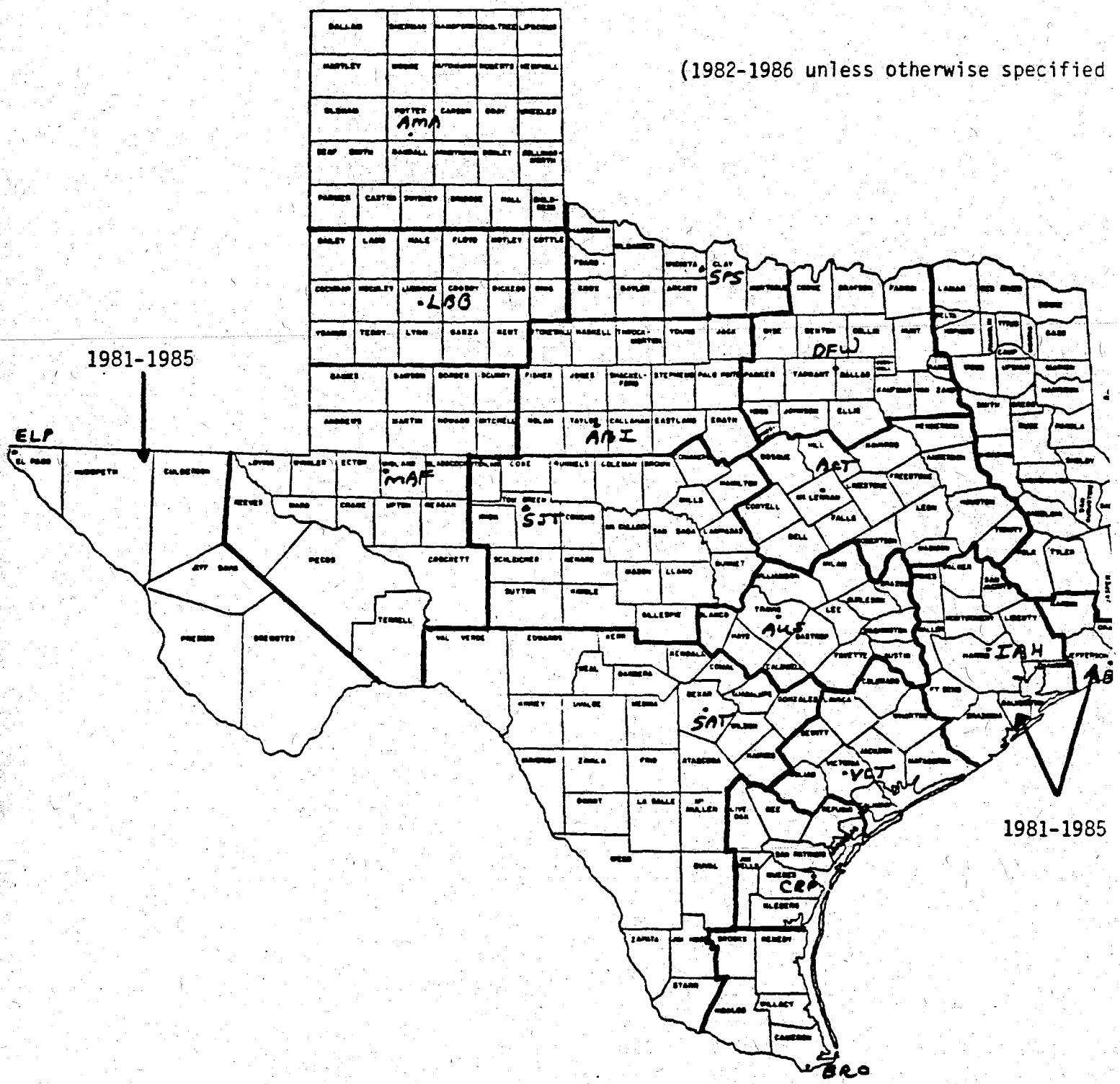
Mixing Height Stations
for 1982--1985



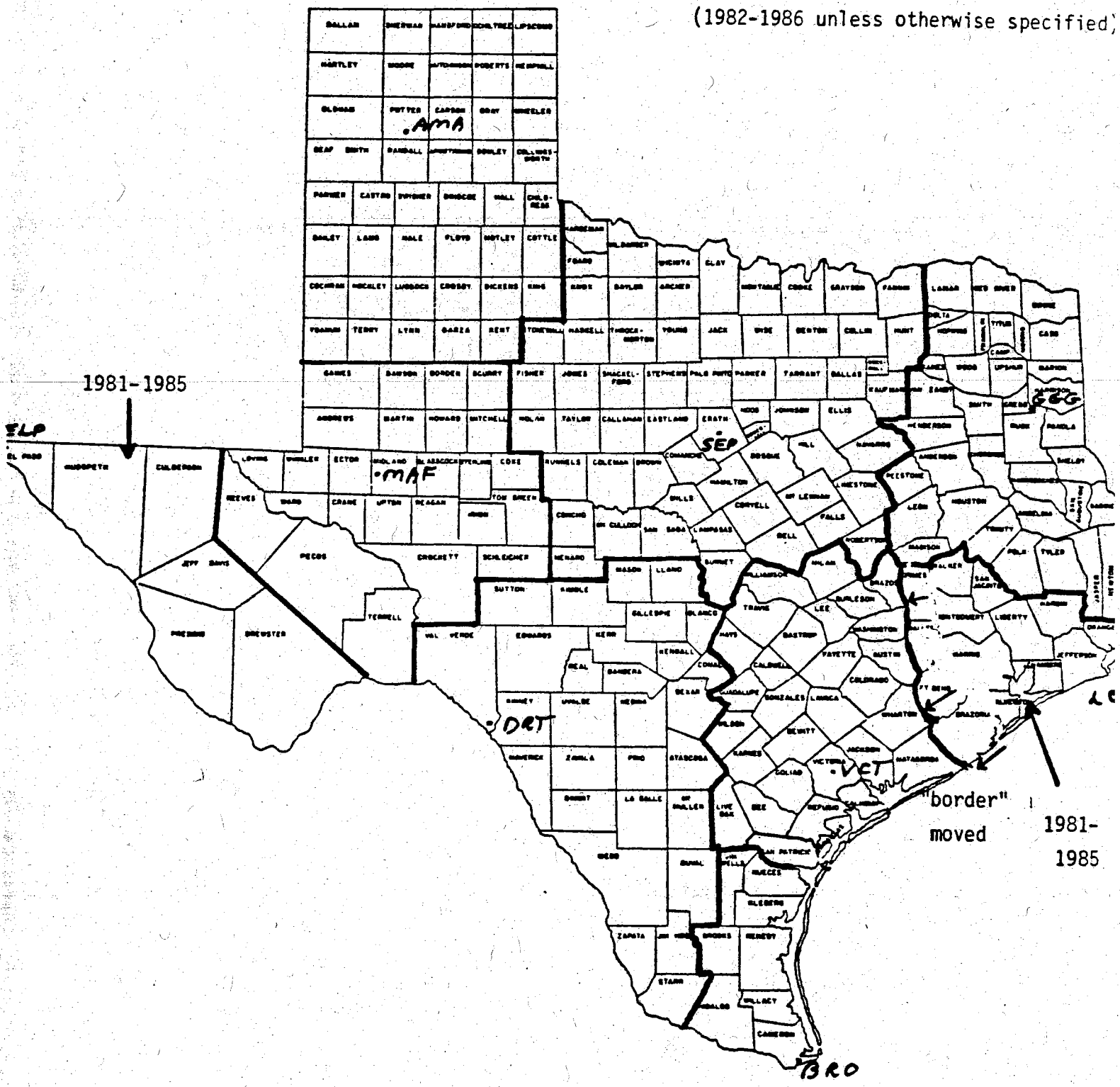
Attachment 2

Surface Stations for Sequential/STAR Data

(1982-1986 unless otherwise specified



Attachment 3

Mixing Height Stations

(1982-1986 unless otherwise specified)