

May 8, 2018

MEMORANDUM

To: Brian Hunt
From: Tom Grimshaw
Subject: Obtaining 1958 Air Photos for USGS Quadrangles in the Hill Country
South of Austin

The primary method of accomplishing geologic mapping for our Mountain City Project has been by mapping on air photo stereo pairs followed by extensive outcrop checks. This method has proven very effective for updating previous mapping, in part because of availability of high-quality air photos taken in 1958. Not only were the photos taken before extensive urban development obscured the geology, but interpretation of the geology is enhanced because of subdued vegetation. Central Texas had been in a severe multi-year drought that ended in 1956, so the vegetation had not yet recovered when the 1958 photos were taken.

In the event that photogeologic mapping may be used in other quads in the Hill Country at and west of the Balcones Escarpment south of Austin, I have noted the availability of 1958 photos for 17 quads in the area (including the Mountain City Quadrangle). Attachment A shows the USGS index for topographic quads for the area. The 1958 photos for the 17 selected quads are listed below and are shown in Attachments B to F.

<u>Attachment</u>	<u>Quadrangle</u>	<u>Attachment</u>	<u>Quadrangle</u>
B	Henly	D	Devils Backbone
B	Dripping Springs	D	Wimberley
B	Signal Hill	D	San Marcos North
B	Oak Hill	E	Sattler
C	Rough Hollow	E	Hunter
C	Driftwood	E	San Marcos South
C	Mountain City	F	Bat Cave
C	Buda	F	New Braunfels West
		F	New Braunfels East

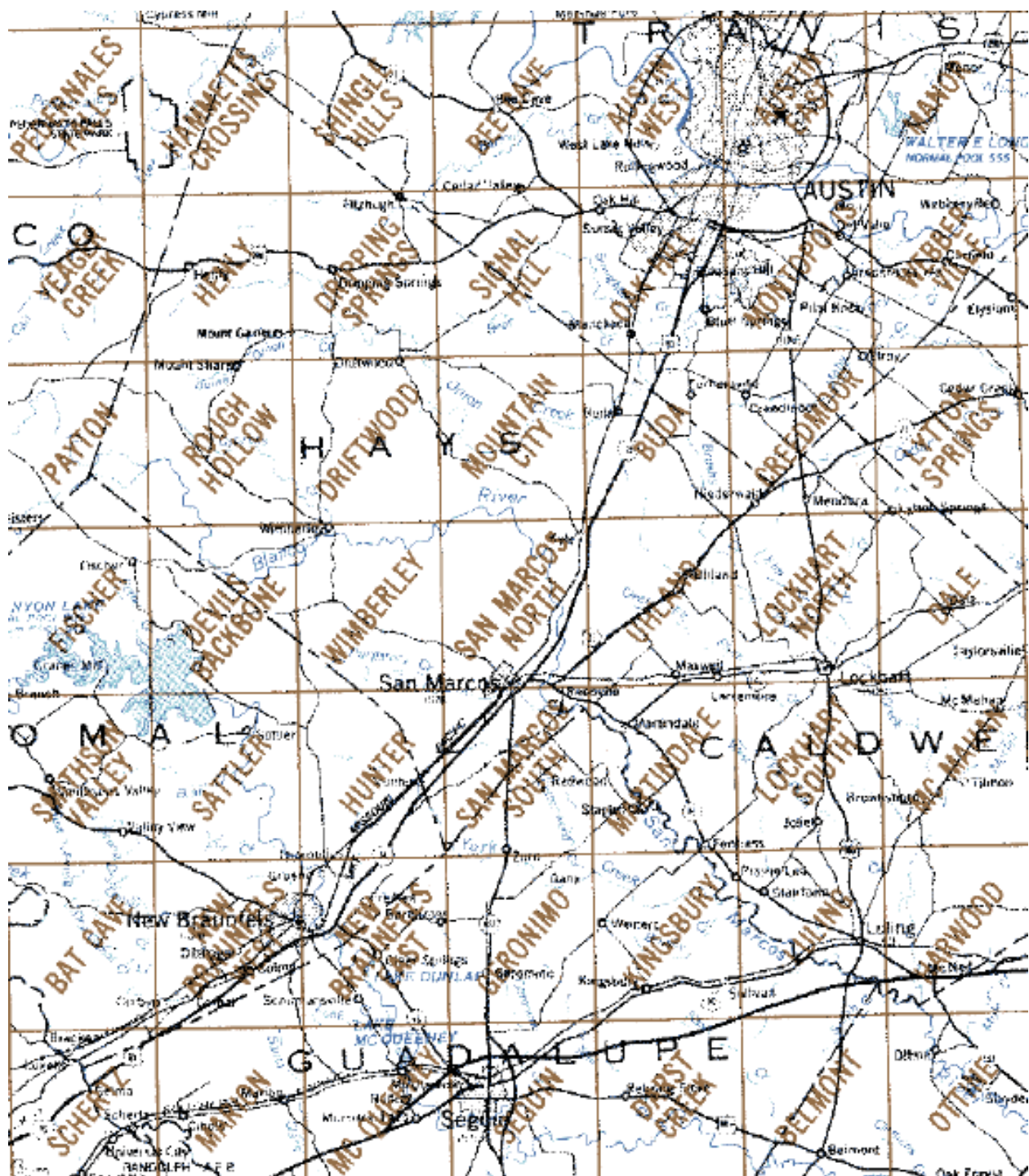
The 1958 photo images are available at the US Geological Survey website, Earth Explorer. Approximately 50 to 75 stereo pairs are required for each quad. The steps for downloading the images are as follows:

- Create an account on the EROS Registration System at: <https://ers.cr.usgs.gov/register>. There is no cost for an account.
- Go to the download website at: <https://earthexplorer.usgs.gov/>.
- Select on the “Data Sets” tab.
- Select “Aerial Imagery”.
- Check “Aerial Photo Single Frames”.
- Check “Search Criteria” under “Coordinates”.
- Select “Add Coordinate”.
- Enter the coordinates of the upper left corner of the topo quad of interest (latitude and longitude) in degrees, minutes, and seconds as shown on the quad sheet.
- Click on “Add”.
- Add three additional coordinates in the same manner for the other three corners of the quad. (It is advisable to choose coordinates that are about one minute outside the quad boundary to ensure that all of the needed photos are obtained.)
- When the four coordinates have been specified, go to the “Data Range” area.
- Enter 01/01/1958 to 12/31/1958 in the two windows for dates.
- Click on “Results” in the lower right corner.
- The images are now showing for download.
- For each image, select “Download Options” (5th icon from the left).
- Select “Download” for “High Resolution Product” (75.4 MB).
- Download the photo.
- Go to the next photo and repeat the process. Continue this process until all photos are downloaded for the quad you have selected.

Please let me know if you have comments or questions.

Attachment A.

US Geological Survey Topographic Map Index for a Portion of the Hill Country

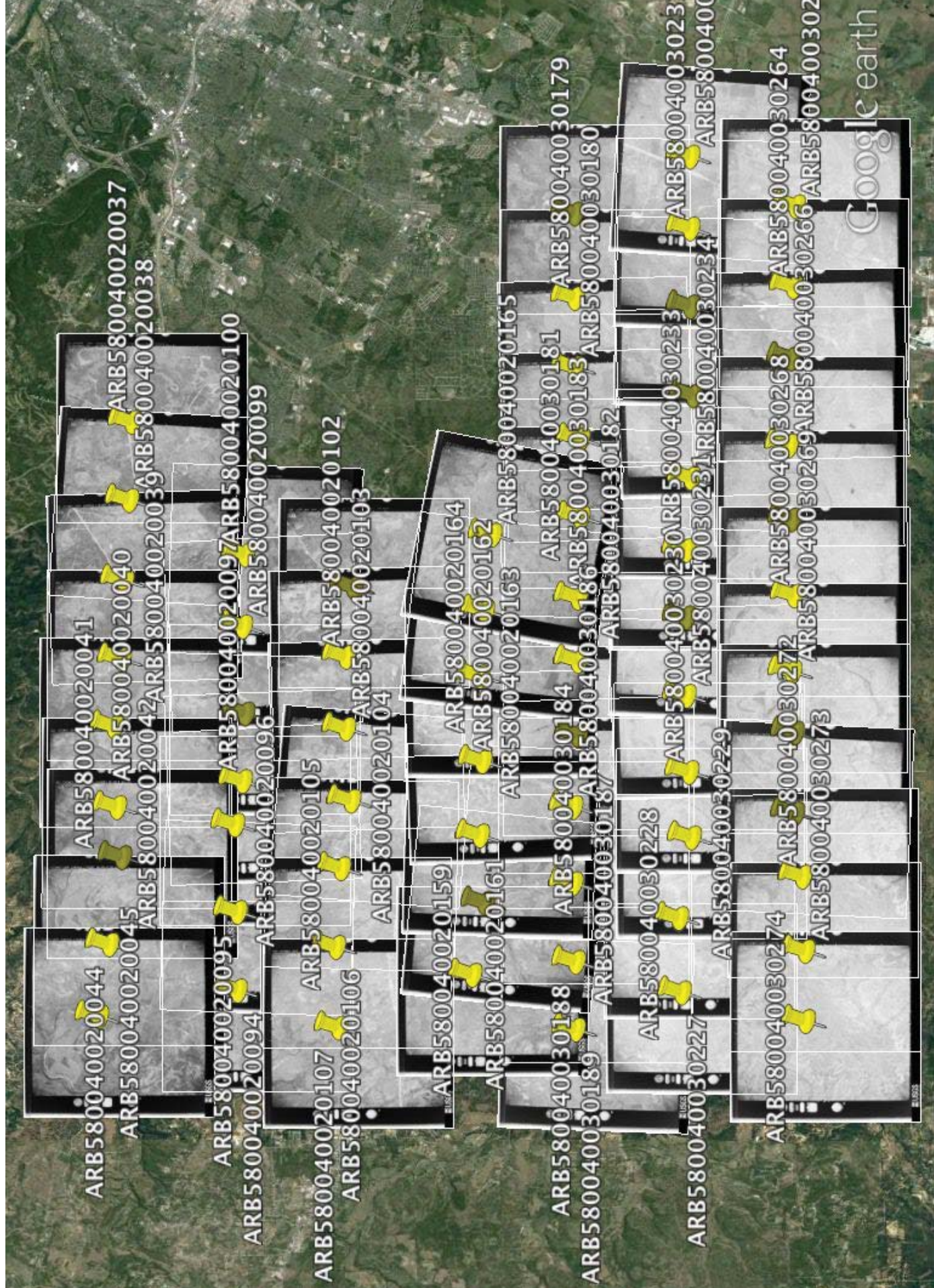


Attachment B.

1958 Air Photos for the Henly, Dripping Springs, Signal Hill, and Oak Hill Quadrangles







ARB580040020039

ARB580040020038

ARB580040020037

ARB580040020099

ARB580040020100

ARB580040020101

ARB580040020164

ARB580040020165

ARB580040030182

ARB580040030181

ARB580040030183

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ARB580040030258

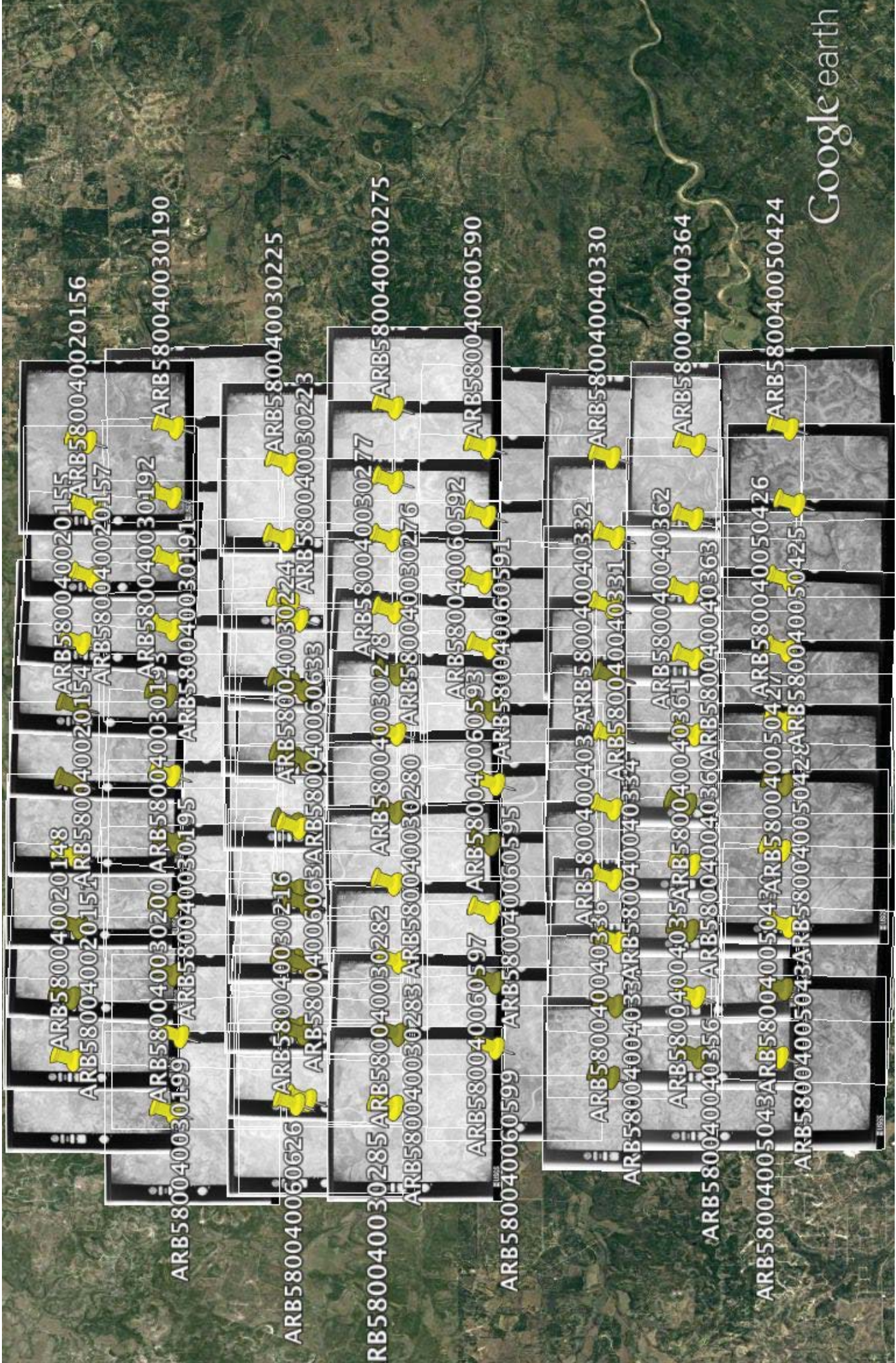
ARB580040030267

ARB580040030262

ARB580040030257

Attachment C.

1958 Air Photos for the Rough Hollow, Driftwood, Mountain City, and Buda Quadrangles





Attachment D.

1958 Air Photos for the Devils Backbone, Wimberley, and San Marcos North Quadrangles

ARB580040040335 ARB580040040336 ARB580040040334 ARB580040040332 ARB580040040333 ARB580040040330

ARB580040040356 ARB580040040357 ARB580040040360 ARB580040040363 ARB580040040362 ARB580040040364

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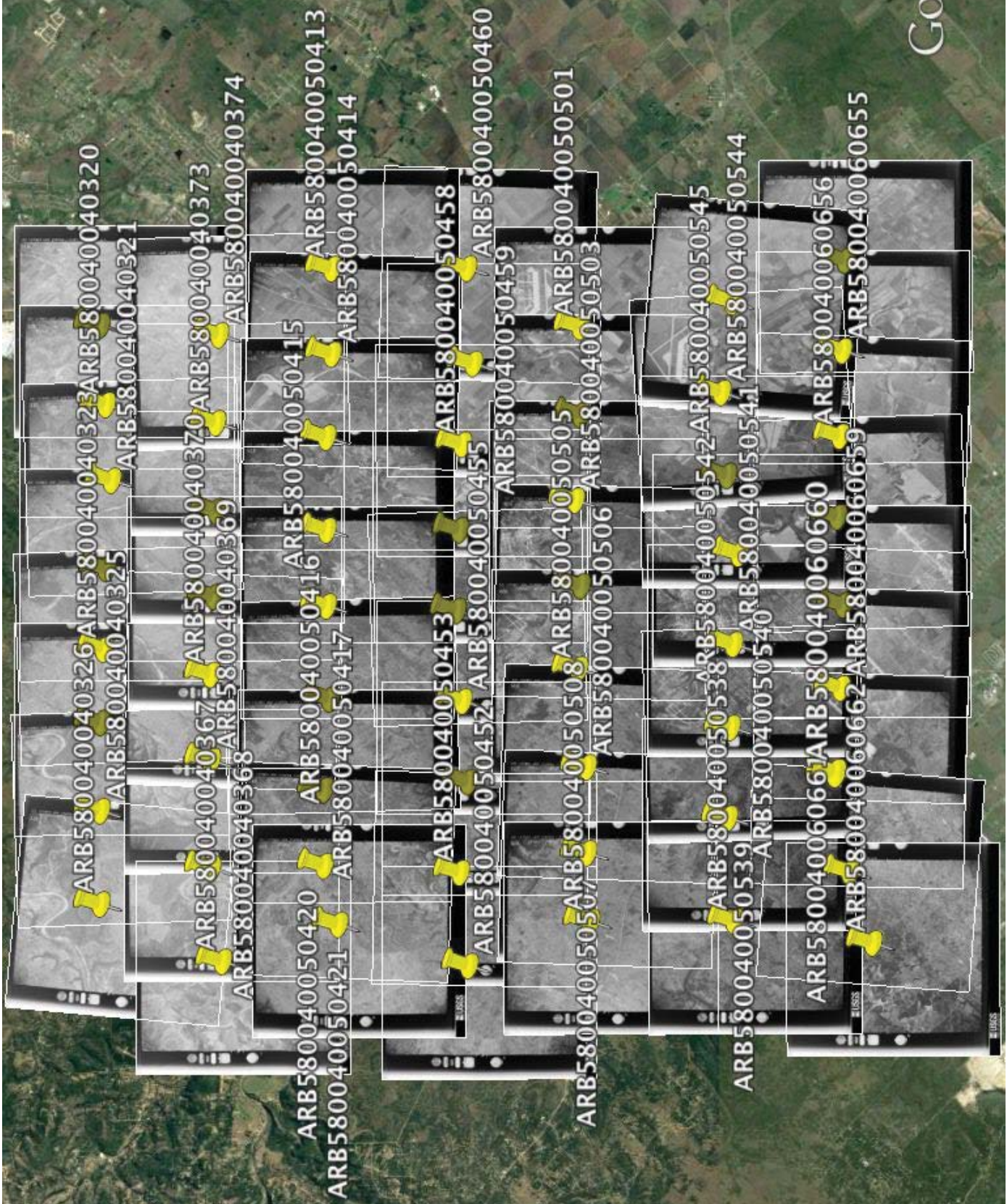
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Attachment E.

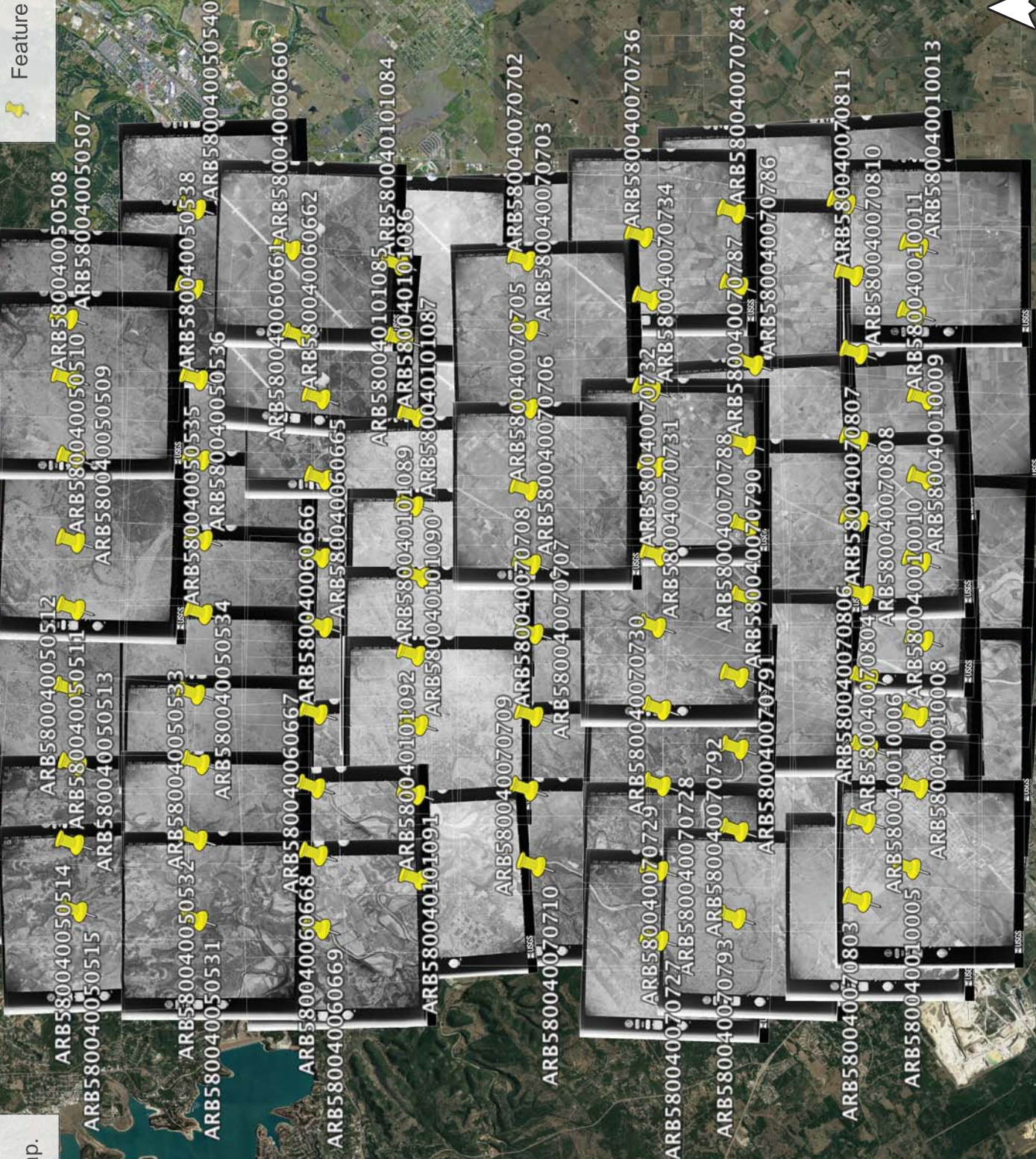
1958 Air Photos for the Sattler, Hunter, and San Marcos South Quadrangles

Hunter Replace

Write a description for your map.

Legend

Feature 1



[illegible]

Attachment F.

1958 Air Photos for the Bat Cave, New Braunfels West, and New Braunfels East Quadrangles

