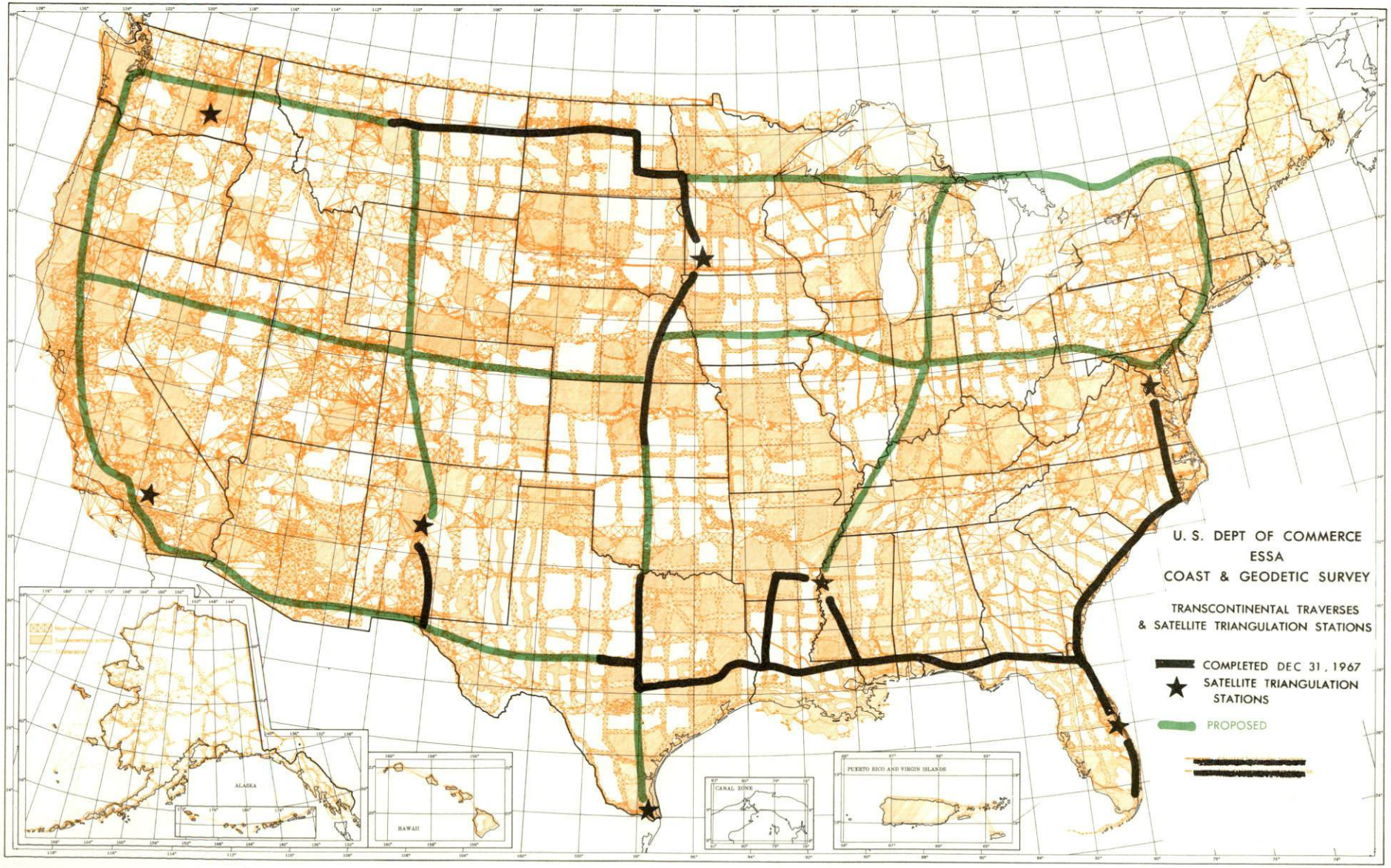
U. S. DEPT OF COMMERCE
ESSA
COAST & GEODETIC SURVEY
TRANSCONTINENTAL TRAVERSES
& SATELLITE TRIANGULATION STATIONS
COMPLETED DEC 31, 1967
SATELLITE TRIANGULATION STATIONS
PROPOSED
ALASKA
HAWAII
CANAL ZONE
PUERTO RICO AND VIRGIN ISLANDS

HIGH-PRECISION TRANSCONTINENTAL TRAVERSE SURVEYS

The high-precision transcontinental traverse surveys in the United States, started in the latter part of 1961, have been extended over a distance of 4,500 miles. The attached U. S. diagram shows the sections which had been completed at the end of December 1967, the proposed continuation of the network, and stations of the satellite triangulation net.

Stations along these traverses are being established in the form of elongated diamond figures with the two points near the middle of the diamond spaced about 100 feet apart. The sides of the diamond, ranging in length from 5 to 10 miles depending on the terrain in a particular area, are measured with different Geodimeters on two nights. Angle observations are made at each station on at least two nights with 16 positions of the circle on each direction. First-order astronomic observations for azimuth and position are made at the terminals of each diamond. The results of these surveys indicate that relative accuracies approaching one part per million have been obtained.

At the present time (March 1968) one field party is extending the traverse westerly from the 98th meridian in Texas. A second party is working northward along the 98th meridian from the Texas-Oklahoma boundary.

The primary purpose of these high-precision surveys is to provide scale for the U. S. satellite triangulation net and to serve as basic control for upgrading the existing horizontal control network.

Future resurveys of these traverses will furnish valuable information on small movements in the earths crust.

Environmental Science Services Administration
Coast and Geodetic Survey
Rockville, Maryland 20852