

Layer Name: USGS 7.5' Quadrangles (NAD 83)  
File Name: usgs\_quads\_n83  
Layer Type: Polygon  
Status: Complete  
Geog. Extent: Main Hawaiian Islands  
Projection/Datum: Universal Trans Mercator, Zone 4 (Meters), NAD 83, HARN

Description: USGS 7.5' Quad boundaries for the main Hawaiian Islands.

Source: USGS 7.5' Topo Maps.

History: Created by Esri in the NAD83 Datum using the latitude/longitude coordinates of the USGS quadrangle boundaries, and the ARC GENERATE command.

Note: In the late 1990's, the USGS recast the topo maps from the Old Hawaiian Datum to the NAD83 Datum. This results in a shift in position between the old quad boundaries and the new quad boundaries, *regardless of the Datum that they may be displayed in*. The reason that there is a difference between the new quads and the old ones even if they are displayed in the same datum is that the corners of the quads are actually different points on the surface of the earth. In other words, a point in Lat/Long in Old Hawaiian is different from that same coordinate in NAD83.

The difference in co-ordinates between datums is commonly referred to as *datum shift*. The datum shift between two particular datums can vary from one place to another within one country or region, and can be anything from zero to hundreds of meters (or several kilometers for some remote islands). The [North Pole](#), [South Pole](#) and [Equator](#) will be in different positions on different datums, so [True North](#) will be slightly different. Different datums use different interpolations for the precise shape and size of the Earth ([reference ellipsoids](#)).

See [https://en.wikipedia.org/wiki/Geodetic\\_datum](https://en.wikipedia.org/wiki/Geodetic_datum) for more information.

This layer represents the quadrangle boundaries from the new, NAD83 quadrangle maps.

Two Molokai quads (Kamalo and Halawa) added by Office of Planning January, 2006. Also modified Lualailua Hills quad boundary by lowering the southern boundary to include the coastline; Corrected quad numbering November, 2020.

Attributes: Polygon:  
quadname USGS Quad Name  
island\_no USGS Numeric Code for island (e.g. 50-50 = Maui, 50-80 = Oahu)  
topo\_no USGS Numeric Code for Topographic Quad  
Shape\_Length Length of perimeter of polygon in meters  
Shape\_Area Area of polygon in meters

Contact: Hawaii Statewide GIS Program, Office of Planning, State of Hawaii  
PO Box 2359, Honolulu, Hi. 96804; (808) 587-2846.  
email: [gis@hawaii.gov](mailto:gis@hawaii.gov)