

APPENDIX A. El Camino Real De Los Tejas National Historic Trail Legislation Page 1 of 2

[A full copy of the National Trails System Act can be found at http://www.nps.gov/nts/ legislation.html]

118 STAT. 1370 PUBLIC LAW 108-342-OCT. 18, 2004 Public Law 108-342 108th Congress An Act Oct. 18, 2004 To amend the National Trails System Act to designate El Camino Real de los Tejas as a National Historic Trail. [S. 2052] Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, El Camino Real de los Tejas National Historic SECTION 1. SHORT TITLE. Trail Act. This Act may be cited as the "El Camino Real de los Tejas Texas. National Historic Trail Act". Louisiana. Mexico. 16 USC 1241 SEC. 2. DESIGNATION OF EL CAMINO REAL DE LOS TEJAS NATIONAL note. HISTORIC TRAIL. Section 5(a) of the National Trails System Act (16 U.S.C. 1244(a)) is amended by adding at the end the following: "(24) EL CAMINO REAL DE LOS TEJAS NATIONAL HISTORIC TRAIL.-"(A) IN GENERAL.-El Camino Real de los Tejas (the Royal Road to the Tejas) National Historic Trail, a combination of historic routes (including the Old San Antonio Road) totaling approximately 2,580 miles, extending from the Rio Grande near Eagle Pass and Laredo, Texas, to Natchitoches, Louisiana, as generally depicted on the map entitled 'El Camino Real de los Tejas' contained in the report entitled 'National Historic Trail Feasibility Study and Environmental Assessment: El Camino Real de los Tejas, Texas-Louisiana', dated July 1998. "(B) MAP.—A map generally depicting the trail shall be on file and available for public inspection in the appropriate offices of the National Park Service. "(C) Administration.—(i) The Secretary of the Interior (referred to in this paragraph as 'the Secretary') shall administer the trail. "(ii) The Secretary shall administer those portions of the trail on non-Federal land only with the consent of the owner of such land and when such trail portion qualifies for certification as an officially established component of the trail, consistent with section 3(a)(3). An owner's approval of a certification agreement shall satisfy the consent requirement. A certification agreement may be terminated at any time. "(iii) The designation of the trail does not authorize any person to enter private property without the consent of the owner. "(D) CONSULTATION.—The Secretary shall consult with appropriate State and local agencies in the planning and development of the trail.

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"(E) COORDINATION OF ACTIVITIES.—The Secretary may coordinate with United States and Mexican public and nongovernmental organizations, academic institutions, and, in consultation with the Secretary of State, the Government of Mexico and its political subdivisions, for the purpose of exchanging trail information and research, fostering trail preservation and educational programs, providing technical assistance, and working to establish an international historic trail with complementary preservation and education programs in each nation.

"(F) LAND ACQUISITION.—The United States shall not acquire for the trail any land or interest in land outside the exterior boundary of any federally-administered area without the consent of the owner of the land or interest in land.".

Approved October 18, 2004.

LEGISLATIVE HISTORY—S. 2052:

SENATE REPORTS: No. 108–321 (Comm. on Energy and Natural Resources). CONGRESSIONAL RECORD, Vol. 150 (2004): Sept. 15, considered and passed Senate. Sept. 28, considered and passed House.

APPENDIX B: CERTIFICATION PROGRAM – Partnership Certification Agreement



APPENDIX C: Mapping Historic Resources along El Camino Real De Los Tejas National Historic Trail

The accurate mapping of historic routes associated with El Camino Real de los Tejas National Historic Trail is a difficult task. This section of the plan addresses some of the major mapping issues. It provides background information and a brief, general description of a strategy for mapping trail resources, with the purpose of encouraging the trail community to use a consistent approach in the identification of trail routes.

Texas and Louisiana archeologists and historians have been working for several decades to document routes of exploration and settlement. However, the extent and complexity of the trail resources designated as part of El Camino Real de los Tejas National Historic Trail require the development of strategies that bring together trail advocates and scholars across a variety of disciplines to collaborate in a major integrated mapping effort. As with all other units of the National Historic Trail System, all decisions on routes (location, alignment) will be based on the preponderance of evidence. It is clear, however, that certain issues or segments will always be in contention.

In the last 20 years, new technologies such as Geographic Information Systems and Global Positioning Systems have revolutionized mapping, making it easier to develop a flexible and accurate geodatabase. The new technology mostly facilitates the storage, retrieval, and analysis of information: it still depends on the research of historians, archeologists, and trail experts to document the path of significant routes.

In the case of El Camino Real de los Tejas National Historic Trail, which has in excess of 2,500 miles of designated routes and more than 300 years of historical developments, the task is more complex. There are three important factors:

1. The existence of an extensive network of American Indian trails before the arrival of the Europeans.

While exploring Texas at the end of the 17th and beginning of the 18th centuries, the Spanish relied exclusively on trails blazed by American Indians, which, in turn, often followed wildlife migration routes. Both Texan and non-Texan Indian groups had used these routes for years for a variety of purposes, including travel, exchange of goods, participations in trade fairs, road networks for obtaining additional food, and routes used by those taking part in ceremonies. Accounts from the 17th and 18th centuries concur that Spanish exploration of Texas was only possible because of the knowledge and assistance of Indian guides; yet, no maps have been found identifying these pre-contact American Indian routes. In those cases, where Indian travel guidance was not available, Spanish explorers wandered and, inevitably, often lost their way. The ability to communicate with the American Indians was also crucial to the success of various expeditions: Spanish explorers often waited for translators before they would proceed on their journeys. Aside from El Camino Real de los Tejas National Historic Trail, many other national historic trails originated as American Indian routes and eventually became preferred travel routes for Europeans and Anglo-Americans.

2. A lengthy and complex period of historic development.

The Spanish explored and developed El Camino Real de los Tejas National Historic Trail routes for more than a century (1680s– 1820). The routes continually evolved, as travelers made adjustments due to environmental conditions, such as flooding or drought. Indeed, routes varied from year to year, depending on the season, real or perceived threats from American Indian groups, and the purpose of the trip. These Spanish Colonial routes eventually linked up with a number of secondary roads and covered a sizable territory. The constant shifting of these routes over a long period of time greatly complicates mapping. Even with the assistance of Geographic Information Systems, it is a challenge to create a single map that accurately reflects complex conditions on the ground.

Widespread contraband and other illegal commercial operations also complicate mapping, as many of the routes used by smugglers were chosen precisely to avoid being observed by Spanish Colonial authorities. Spain and France, the two European powers that vied for control of Texas and western Louisiana for most of the 18th century, tried to enforce mercantile policies that greatly limited opportunities for trade and commerce. Such policies made life hard in frontier communities, where survival depended upon the availability of supplies. Spanish authorities were particularly keen to discourage contraband and any other illegal activities that could strengthen French claims. In reality, though, the great distances involved and the difficulty of access, particularly along sections of El Camino Real de los Tejas National Historic Trail in eastern Texas and western Louisiana, meant that local settlers were dependent on merchandise and weapons illegally purchased from merchants in Frenchcontrolled Louisiana. Smugglers used less-traveled routes, away from official thoroughfares, to avoid being detected by Spanish troops garrisoned at presidios such as Los Adaes. There is no official record of smuggling routes but historic sources, directly and indirectly, document the existence of such activities. It is not clear if there are any surviving traces of such routes.

3. Special environmental conditions.

El Camino Real de los Tejas National Historic Trail covers more than 2,500 miles and crosses the entire state of Texas in a southwestern– northeastern direction, beginning at the Río Grande and ending at Natchitoches, in western Louisiana. The trail traverses a variety of ecoregions, from relatively arid and sparsely vegetated South Texas to the humid and heavily vegetated pine forests of East Texas and western Louisiana. Mapping such a lengthy route, which, in many locations, is more than 300 years old, requires consistency in approach and methodology.

Spanish expeditions into Texas faced a challenging environment. They had to cross a series of major rivers-the Río Grande, Nueces, Frío, San Antonio, Guadalupe, San Marcos, Colorado, Brazos, San Jacinto, Trinity, Angelina, Neches, and Sabinewhich often required the use of ferries. Unexpected flash floods could strike at any time of the year, instantly turning most of these rivers into insurmountable obstacles. Quite often, expeditions had to change routes in order to find suitable places to make their river crossing. Shifts in river courses and changes in morphology since the time of the original expeditions challenge those trying to map and field-test these historic routes today. For example, at the Conquista Crossing of the San Antonio River, debris washed downriver during periods of high flow have created an island that did not exist during the Spanish Colonial period.

As in the case of other historic trails, rugged terrain often determined route selection. Early travelers almost exclusively followed already blazed Indian trails, particularly since the rugged topography in Central and East Texas greatly limited route options. When looking at the topographic information, it becomes clear why much longer routes were selected. For example, in the 1740s, the viceroy of New Spain ordered Captain Joaquín Orobio y Basterra of the Presidio at Bahía del Espíritu Santo to explore the coastal area, where French were supposedly getting established by way of Matagorda Bay. After two failed attempts to go directly east, Orobio finally traveled in a northerly direction, a considerable distance out of his way, to reach the crossing place for the Trinity River (probably near Robbin's Ferry), then traveled back down to his desired destination. The selected route

was much longer, but it was the only option to reach the coast.

Finally, it should be noted that the ephemeral nature of Spanish settlements (missions, presidios, villages) resulted in a multiplicity of short-lived roads that, like the settlements they linked, are difficult to document.

Documenting An Historic Route

Historic documentation. The first step in mapping is to gather appropriate historic information to document the location of historic routes. In the case of Texas and western Louisiana pertinent materials, including both primary and secondary sources, are voluminous, which adds to the challenge of mapping routes. It is essential to ensure that the historic evidence is solid and that more than one independent source confirms the location of the route. It is not enough to know the beginning and the end of a route; it is essential to have intermediate points that allow the identification of the specific route followed by the trail.

Expedition diaries. The traditional historic sources used to reconstruct the early Spanish routes into the Texas and Louisiana territories are expedition diaries. Unfortunately, surviving documentations for the period 1680-1780 include no more than 40 descriptions of routes of travel-many of them officials' reports on the condition of missions and presidios, which did not carefully detail the routes they followed. Even detailed descriptions of itineraries fail to provide conclusive information about the exact routes: distances were often misjudged, river names were confused, travel directions were not always correct, among other problems. Diaries may confirm that a certain river was crossed; however, the exact location of the crossing is much harder to identify. Underwater or low-water rock ledges, which created a shallow ford, were the most common natural features found at river crossings; but where there are several fords within a small geographic

area, it is difficult to ascertain which crossing was the most commonly used.

The original expedition diaries were in Spanish or French; it is problematic to depend on translations that were not prepared with the idea of mapping routes in mind. Translating historic documents is a challenging task, and it is quite easy to make mistakes that could complicate the already-demanding task of historic mapping. Where there is conflicting evidence or field testing is not conclusive, it might be helpful to check the original documents for mistakes in translation.

Historic maps. A fairly high number of historic maps survive, but as in the case of the diaries, they do not provide conclusive evidence to clarify points of contention. Such maps are often of a scale that merely suggests the general direction of travel and does not permit field verification. In some cases, historic maps may distort the relative location of sites. As with all primary sources, it is important not to rely on any one mapping source as the sole determinant of a route.

General Land Office cadastral survey plats. These documents are of great assistance in mapping 19th- and 20th-century roads, and can be effective tools in identifying some Spanish Colonial roads. They are excellent documents, but they are most helpful at the individual-property level or in some cases at the county level. Because of their scale, it would be necessary to examine thousands of plats to reconstruct the congressionally designated El Camino Real de los Tejas National Historic Trail route. To use these General Land Office plats efficiently, it is important to have a fairly clear idea of the location of the trail in the area: not all plats include the names of historic roads.

Secondary sources. Secondary sources can be very helpful, but they should be used with care. Even historians like Herbert Bolton, who compiled the map information for his work, modified the data presented in the sources that he used (such as the names of the roads in Stephen Austin's map). Of course, Bolton's main professional aim was the analysis of historic political development in early Texas history; the preparation of accurate route maps was secondary to his goals. Ethnographic studies may also include information that can be used to help clarify conflicting evidence.

Archeological Reports. Archeological resources play an essential role in helping historians verify the association of a site or segment with El Camino Real de los Tejas National Historic Trail. The State of Texas has one of the nation's best sources of information on archeological sites at the state level: the Texas Archeological Research Laboratory located in Austin¹. Texas archeologists have produced a number of excellent reports confirming the alignment of road segments linked to El Camino Real de los Tejas National Historic Trail, which can be used as models to assist in the identification of trail routes.²

Aerial photography. Aerial photography became common in the 1930s, due to important technical advances between the two World Wars and its widespread adoption for land surveys by U.S. Government land-management agencies, such as the Soil Conservation Service,

2 - Jeff Williams, "GIS-Aided Archeological Research"; Joachim McGraw A., John W. Clark Jr., and Elizabeth A. Robbins (eds.), A Texas Legacy: The Old San Antonio Road and the Caminos; James E. Corbin, Jeffrey M. Williams, Victor J. Galan, and Rebecca St. John, "Cultural Resource Survey of Fort Boggy State Park"; Elizabeth Erickson and James Corbin, "Archeological Survey and Cultural Resource Assessment of Mission Tejas State Historical Park"; for a current inventory of trail resources based on all publicly available archeological reports, see Deirdre Morgan Remley's "Cultural Resources Inventory of Previously Documented Resources for El Camino Real de los Tejas National Historic Trail," in progress and available upon request at the NPS office of the National Trails Intermountain Region. the U.S.D.A. Forest Service, and the U.S. Geological Survey. Aerial photography can be very helpful in areas that have not been impacted by major changes in land use, such as road construction or urban development. Where available, it can settle specific issues in relatively small geographic areas, especially in cases where there are visible traces of the trail. Remote sensing today often uses technology such as LiDAR3 and has become one of the most accurate, reliable, and cost-effective mapping systems currently available. It allows completing topographic surveys significantly faster and at a lower cost than using traditional survey methods. It is particularly helpful in detecting historic routes in heavily vegetated areas. Stephen F. Austin University in Nacogdoches, Texas, has pioneered the use of this technique to identify El Camino Real de los Tejas routes in East Texas.4

Putting the Lines on the Maps. Once systematic historical documentation has been collected, the route needs to be marked, using an adequate resolution. Because of the length of national historic trails, it is usually recommended that the route be plotted in maps of a scale of 1:100,000. For specific locations, it might be appropriate to have finer resolution, such as 1:24,000. At this stage, the information can also be captured and stored in a Geographic Information System.

B. Verification of routes on the ground. Ground truthing is an essential task if historic trails are to be mapped with precision. A substantial portion of original

I - TARL is a nationally recognized archeological research facility and the largest archeological repository in the state. It is an organized research unit under the College of Liberal Arts at the University of Texas at Austin. Its mission is to collect, preserve, and curate archeological specimens and records, train students, conduct archeological research, and disseminate information about Texas' archeological legacy. For additional information, look at their Web site: http://www.utexas. edu/research/tarl/

^{3 -} LiDAR (Light Detection and Ranging) is an optical remote sensing technology that measures properties of scattered light to find the range and/or other information of a distant target. Like the similar radar technology, which uses radio waves instead of light, the range to an object is determined by measuring the time delay between transmission of a pulse and detection of the reflected signal. LiDAR technology has application in archeology, geography, geology, geomorphology, seismology, remote sensing, and atmospheric physics.

^{4 -} Jeff Williams, "GIS Aided Archeological Research," MS Thesis, Stephen F. Austin State University, August 2007.

routes are still visible today, but, in many places, historic traces have been totally obliterated either by extensive highway construction or by changes in land use, such as commercial agriculture or silviculture (tree farming). Some of the obstacles facing those interested in tracing the path of the routes of El Camino Real de los Tejas National Historic Trail are dense vegetation, changing river morphology, urban growth, even the construction of reservoirs. Using the remote-sensing technologies described above, on-theground evidence can be gathered to validate or modify, if necessary, the information from the historical documents.

Swales, ruts, or remnants of old trails are often still visible in the trail corridor; however, not all visible road traces are associated with El Camino Real de los Tejas National Historic Trail. Trail advocates need to search the historical records for documents that provide information on the development and use of such sites/segments. In some cases, archeological investigations are necessary to establish clearly how certain sites/ segments are linked to a particular historic period. The widespread road development that characterized Texas during the mid-1800s included many railroad branch lines and county roads, as well as an extensive network of cattle trails. These newer historic traces can be easily confused with the Spanish Colonial roads established in the previous century.

Conflicting evidence often challenges researchers. It is almost an unavoidable step in the early stages of route documentation. Only after systematically examining documents; checking archeological reports, secondary sources, aerial photography, and other remote sensing data; and field-checking the information obtained can we establish with certainty the existence of the historic roads linked to the development of El Camino Real de los Tejas National Historic Trail. It is a time-consuming task, requiring the collection and systematic analysis of pertinent data. The addition of new information, as it becomes available, makes this a constant work-in-progress. But it is a rewarding activity, which can greatly assist in the protection of the nation's significant resources.