
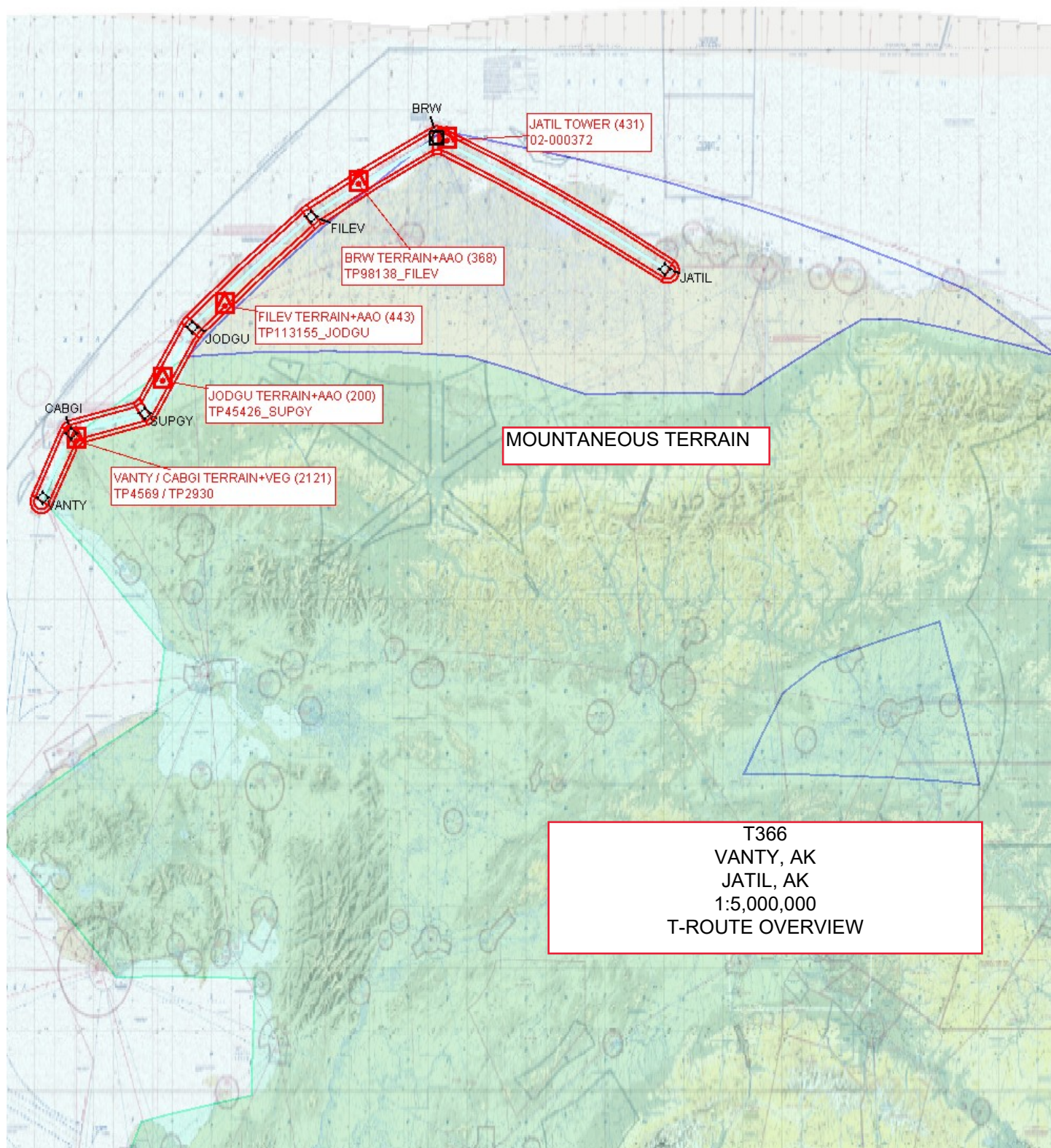
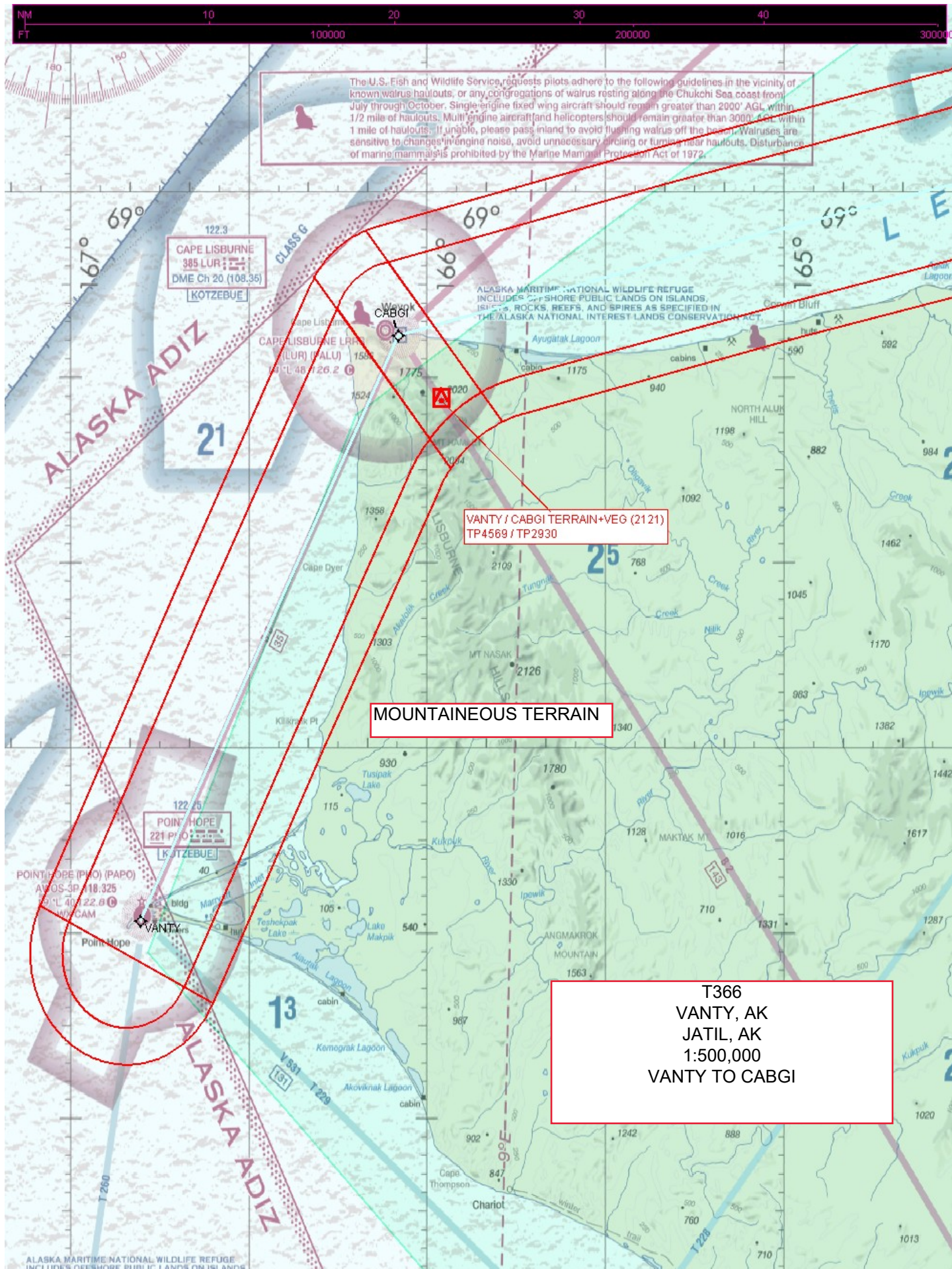


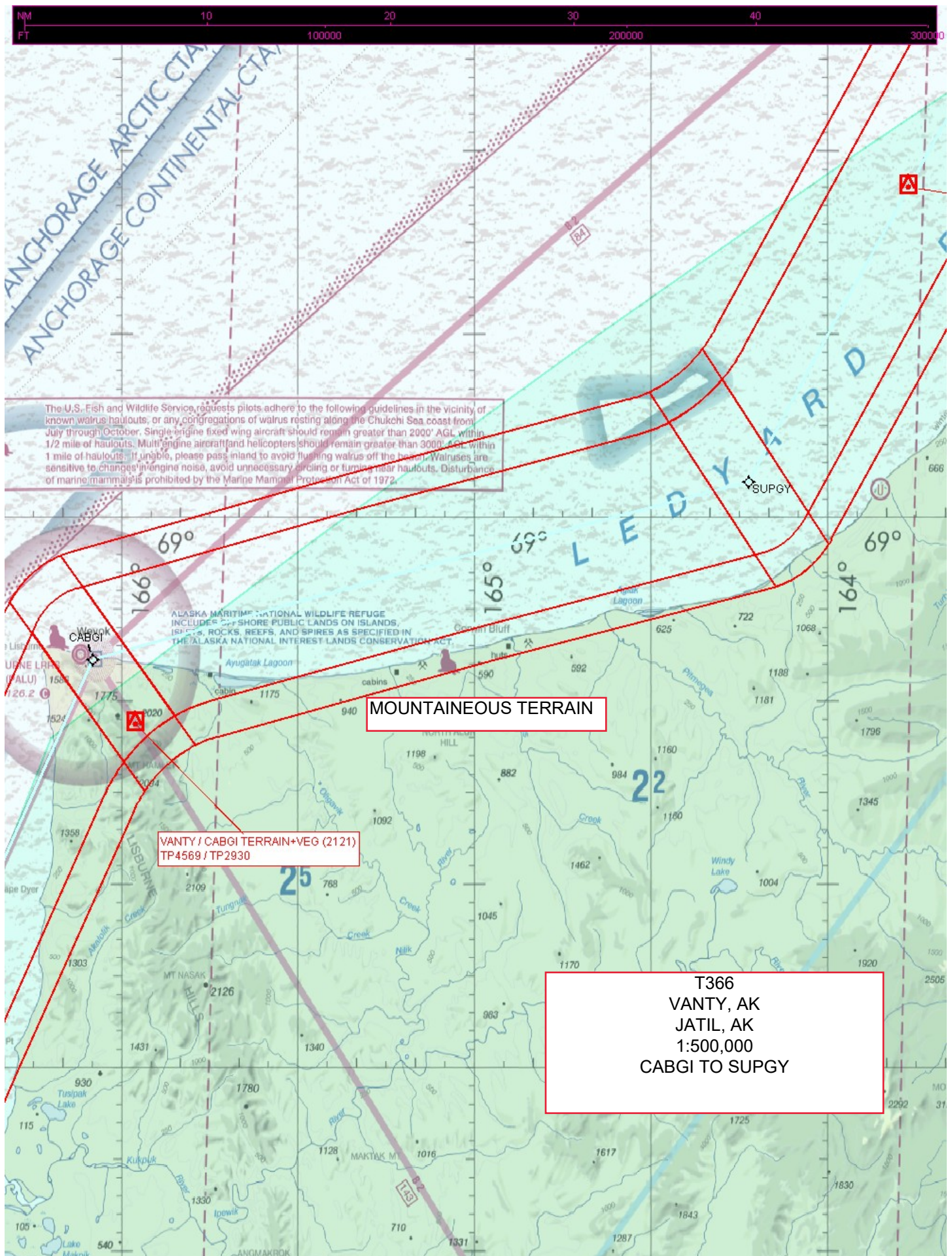
Flight Procedures Cover Page	Task Action: FLIGHT CHECK	Task Type: Route	Estimated Chart Date: 09/08/2022	APWS Task ID: C9DD53ECD59E4B1A9A02D8DC185F24CD	APWS Project ID: 7CC04203A40949A981BB0BC86B8F4C58
Procedure: T366 VANTY, AK TO JATIL, AK		Enroute: YES	Specialist: Dean, Kelly		Agreement Number:
Airport ID:			Airport City:		State:
Facility ID:	Facility Type:	Flight Inspection Remark Type: New FC Slot			
<p>Procedure Comments:</p> <p>T366 VANTY 682040.64N/1664809.96W</p> <p>POC FOR THIS ACTION IS DAVE TEFFETELLER (202) 267-5177</p>					

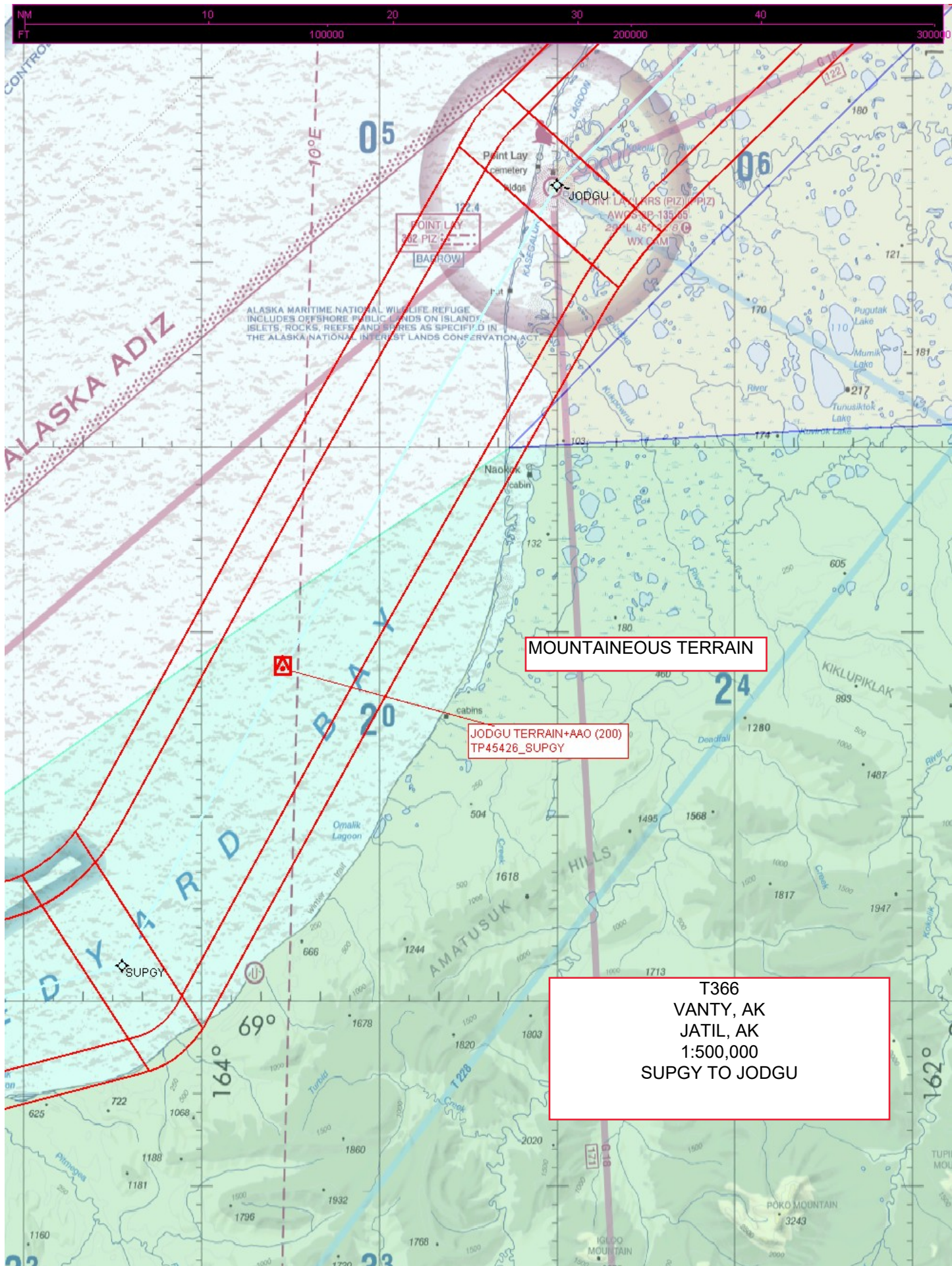


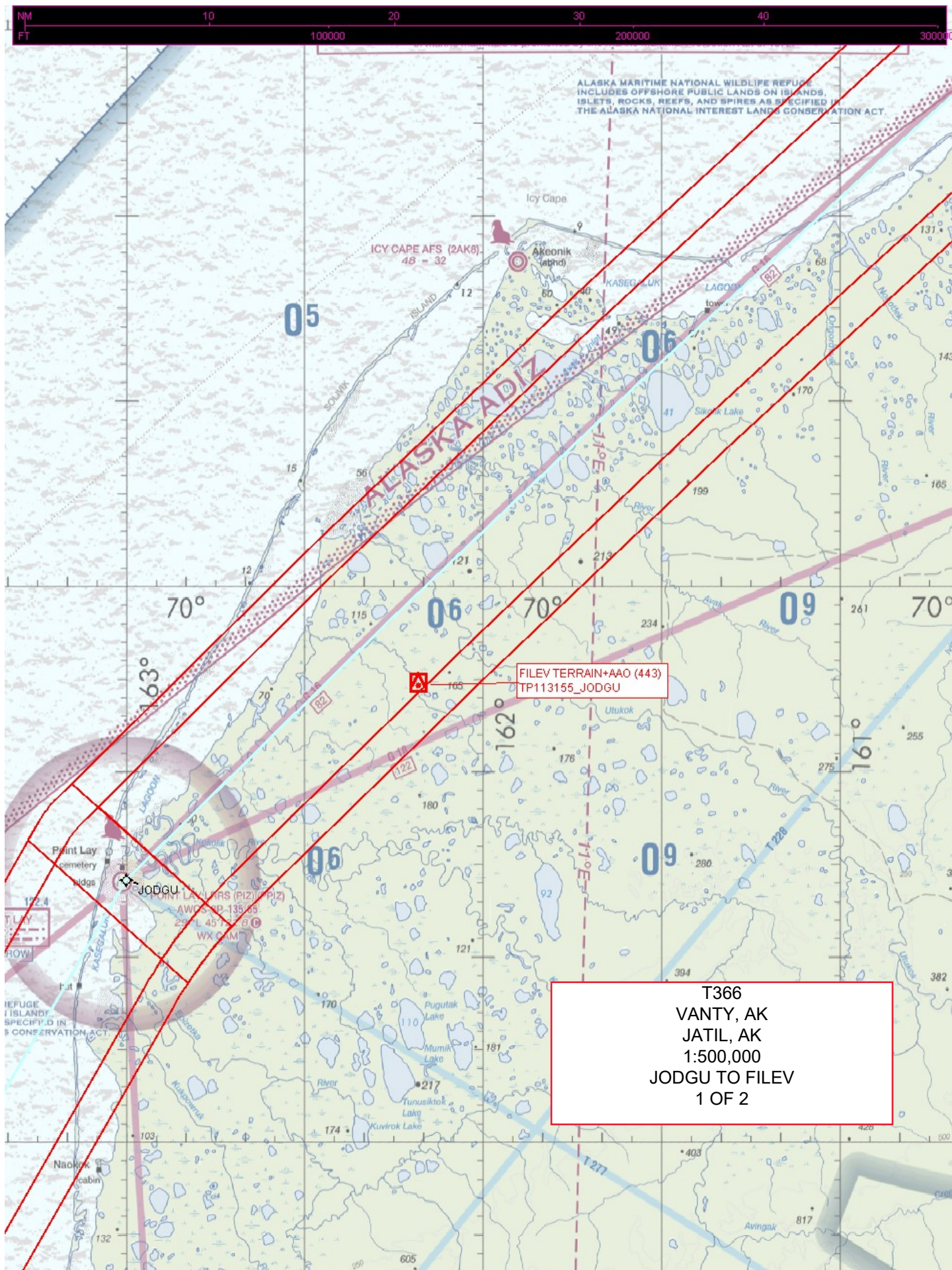
Digitally signed by
SEAN BARBEE
Apr 20, 2022

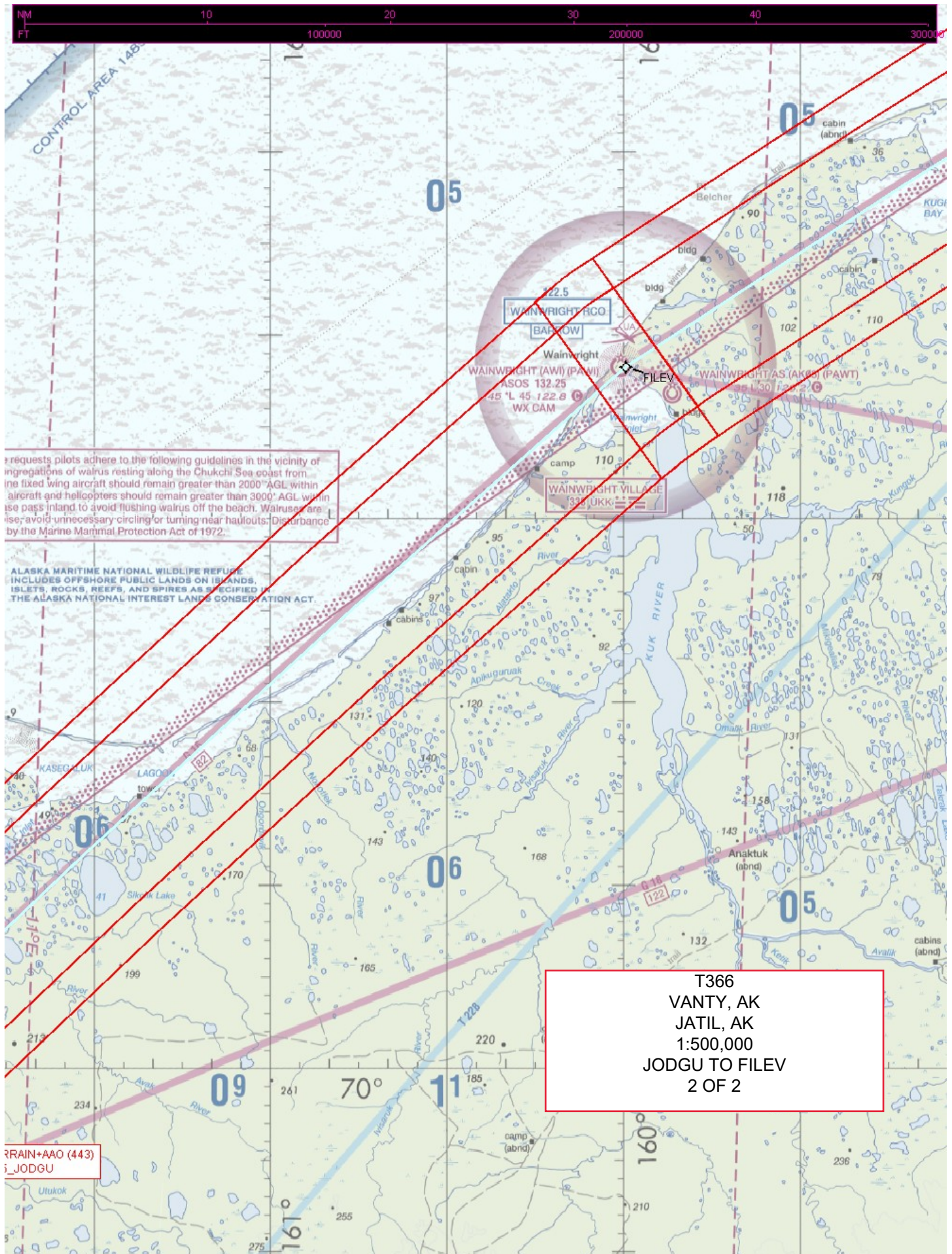


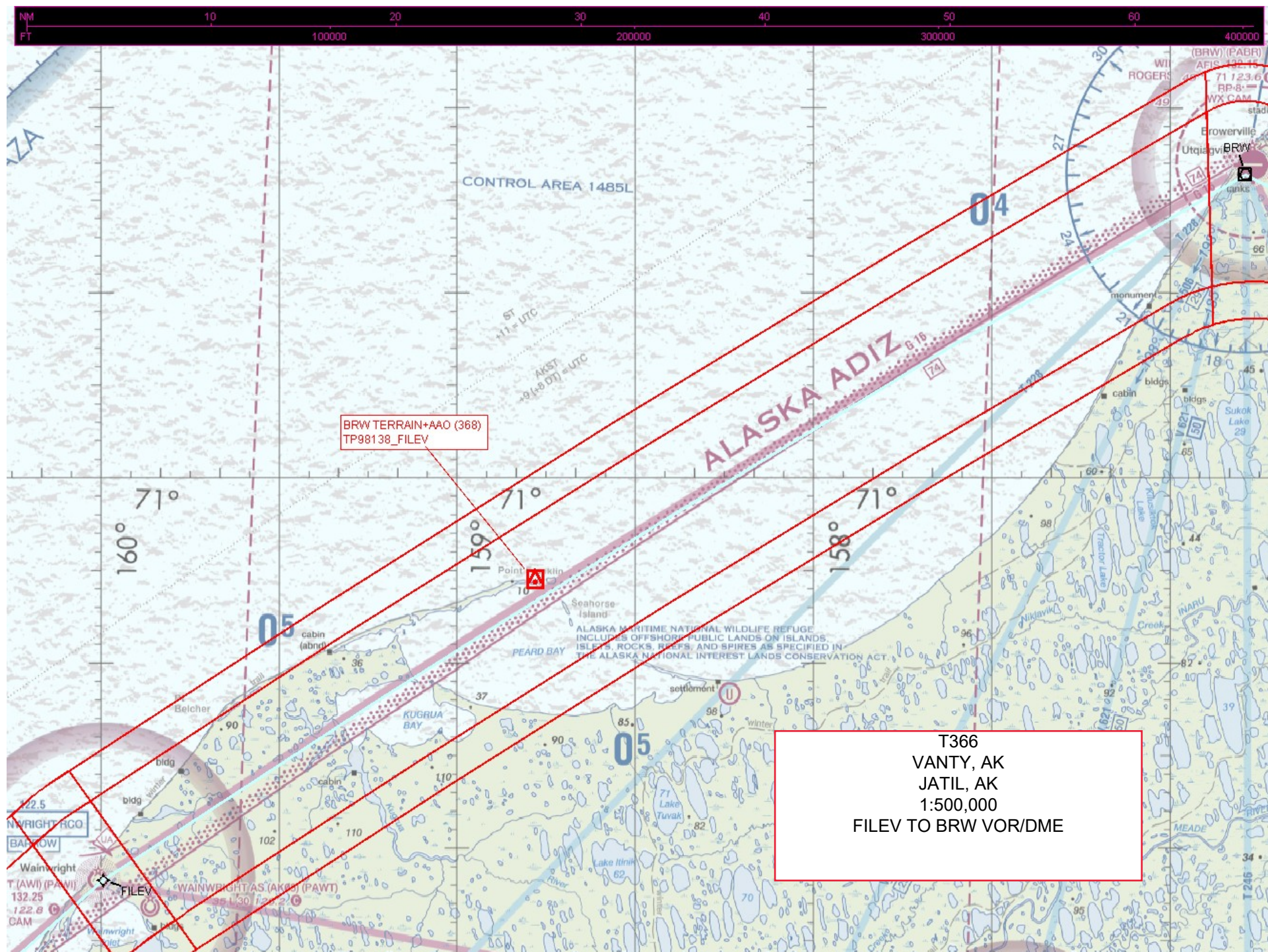


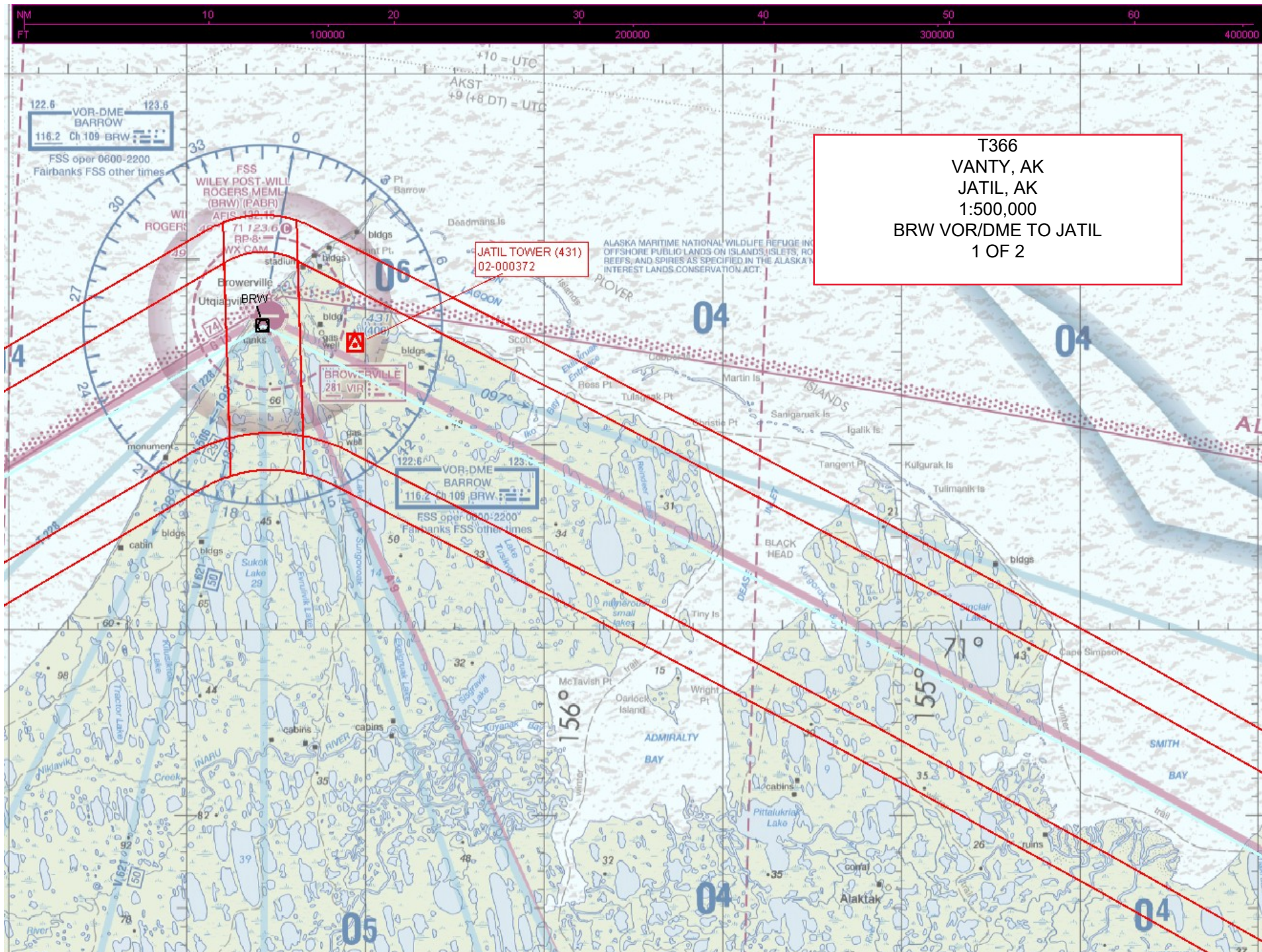


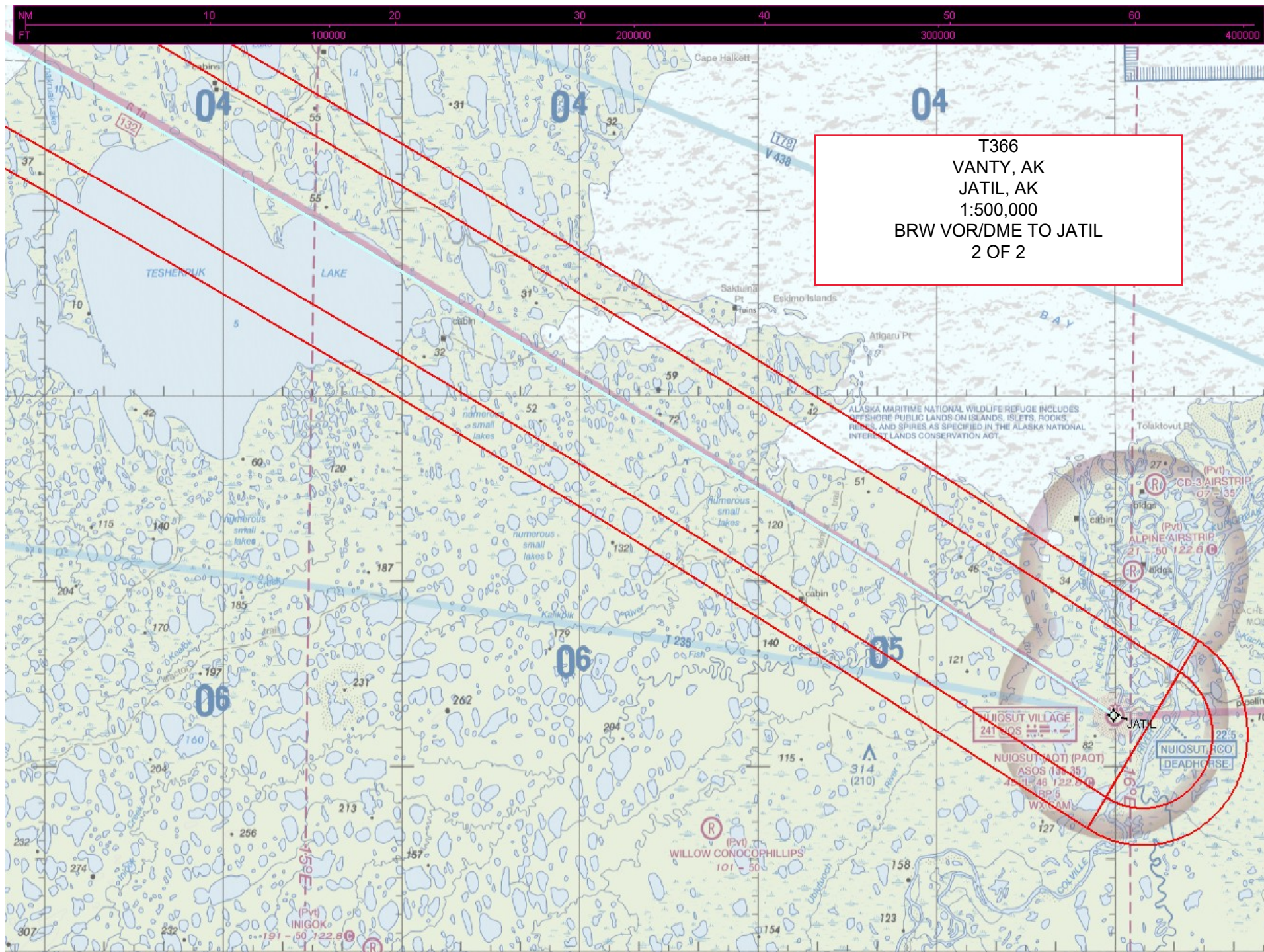












T366
VANTY, AK
JATIL, AK
1:500,000
BRW VOR/DME TO JATIL
2 OF 2

**U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION
CATEGORICAL EXCLUSION DECLARATION**

Alaska

T Routes Structure

Description of Action:

The Federal Aviation Administration (FAA) is proposing to modernize portions of the Alaska low altitude Air Traffic Services (ATS) route network by amending 25 existing T routes and creating 30 new T routes to provide options in addition to the current conventional Federal airways.

T routes are available for use by global positioning system (GPS) equipped aircraft from 1,200 feet (ft) above the surface (or in some instances higher) up to but not including 18,000 ft mean sea level (MSL). The Proposed Action would ensure low minimum en route altitudes (MEA) are maintained and ensure the continuation of safe and efficient operations. An MEA is the lowest published altitude between two points that assures the required navigational signal coverage and communication requirements while meeting obstacle clearance requirements between those points. Aircraft must be able to avoid icing, turbulence, and other conditions by having the ability to fly at the lowest possible safe altitude. However, aircraft on T routes tend to fly higher than the published MEAs.

The Proposed Action is necessary to mitigate the forecasted decommissioning (DeCom) of non-directional beacons (NDB) and canceling of Federal airways in Alaska. The current relevant Federal airways are named with a prefix of either A, B, G, R, or V. An alternative airway structure must be developed given the lack of NDB acquisition, maintenance, sustainment programs, and the increasing number of NDBs that are being decommissioned. Without an alternative airway structure, aircraft would be forced to fly at higher altitudes; this would force instrument flight rules (IFR) aircraft that are not equipped with de-icing protection to fly closer to—or within—the icing level, which could potentially create a safety issue for the aircraft.

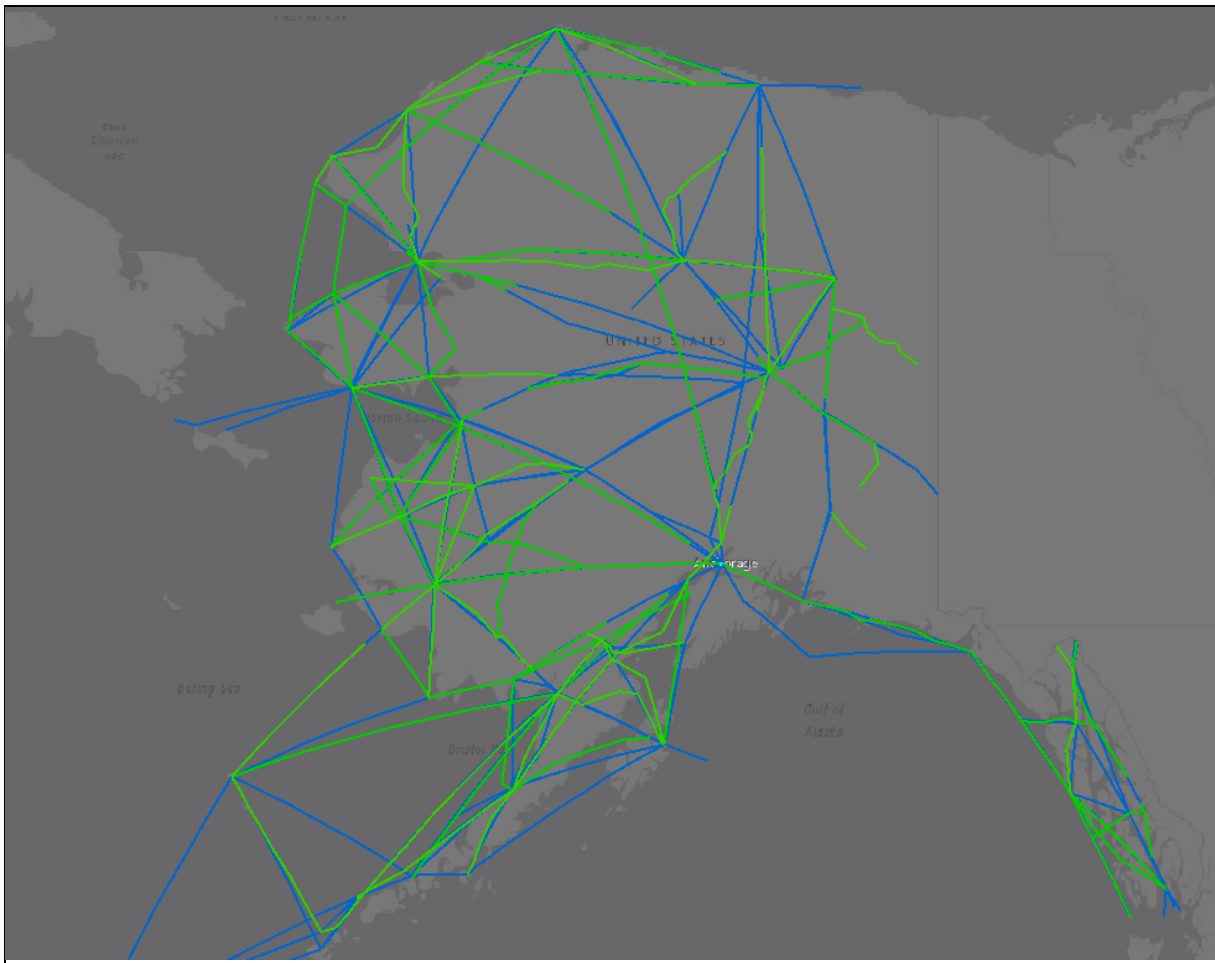
The Proposed Action is driven by an effort to modernize Alaska's ATS route structure using satellite-based navigation and is consistent with the Radio Technical Commission for Aeronautics (RTCA) Tactical Operations Committee's recommendations for the Performance Based Navigation (PBN) route system (dated March 2017). The Alaska Low Altitude Recommendation 5 states that the *"FAA should evaluate all Colored Federal airways for: (a) direct replacement (i.e., overlay) with a T route that offers a similar or lower MEA; (b) the replacement of the colored airway with a T route in an optimized but similar geographic area while retaining similar or lower MEA; or (c) removal with no route structure (T route) restored in that area because the value was determined to be insignificant."*

In addition to RTCA recommendations, specific T routes were proposed jointly by the Aircraft Owners & Pilots Association (AOPA) and Alaska Airmen's Association (AAA). Furthermore, some proposed amendments are driven by recommendations from Alaska air traffic control facilities.

T routes proposed for amendments include: T222, T223, T225, T226, T227, T228, T229, T230, T231, T232, T233, T235, T241, T242, T244, T260, T266, T267, T269, T270, T271, T275, T277, T278, and T282.

T routes proposed as new: T308, T364, T366, T367, T368, T369, T370, T371, T372, T373, T374, T375, T376, T377, T378, T379, T380, T381, T382, T383, T384, T385, T386, T388, T390, T396, T415, T417, T433, and T435.

Following figure depicts the proposed T route structure in green superimposed on the relevant existing route tracks in blue.



In accordance with FAA Order 1050.1F, *Environmental Impacts: Policies and Procedures*, Paragraph 5-2, Extraordinary Circumstances, the FAA has reviewed the Proposed Action for factors and circumstances in which a normally categorically-excluded action may have a significant environmental impact requiring further analysis. The FAA has determined that no extraordinary circumstances exist that warrant additional environmental review.

Declaration of Exclusion:

The FAA has reviewed the above referenced Proposed Action and it has been determined, by the undersigned, to be categorically excluded from further environmental documentation according to FAA Order 1050.1F, *Environmental Impacts: Policies and Procedures*. The implementation of this action will not result in any extraordinary circumstances in accordance with FAA Order 1050.1F.

Basis for this Determination:

Initial Environmental Review (IER) was conducted by the FAA Western Service Center. This review was conducted in accordance with policies and procedures in Department of Transportation Order 5610.1C, *Procedures for Considering Environmental Impacts*, and FAA Order 1050.1F.

The applicable categorical exclusion is:

5-6.5.i. - Establishment of new or revised air traffic control procedures conducted at 3,000 feet or more above ground level (AGL); procedures conducted below 3,000 feet AGL that do not cause traffic to be routinely routed over noise sensitive areas; modifications to currently approved procedures conducted below 3,000 feet AGL that do not significantly increase noise over noise sensitive areas; and increases in minimum altitudes and landing minima.

Recommended by:**Air Traffic Manager Review/Concurrence**

Signature: KRISTINE M KUBITZ Digitally signed by
KRISTINE M KUBITZ
Date: 2022.01.28
11:42:48 -09'00' Date: _____
Name: Talon Medema
Air Traffic Manager
Anchorage ARTCC

Concurrence by:**Western Service Area Environmental Specialist**

Signature: _____ Date: _____
Name: Vikas Uberoi
Environmental Protection Specialist, Operations Support Group
Western Service Center, AJV-W25

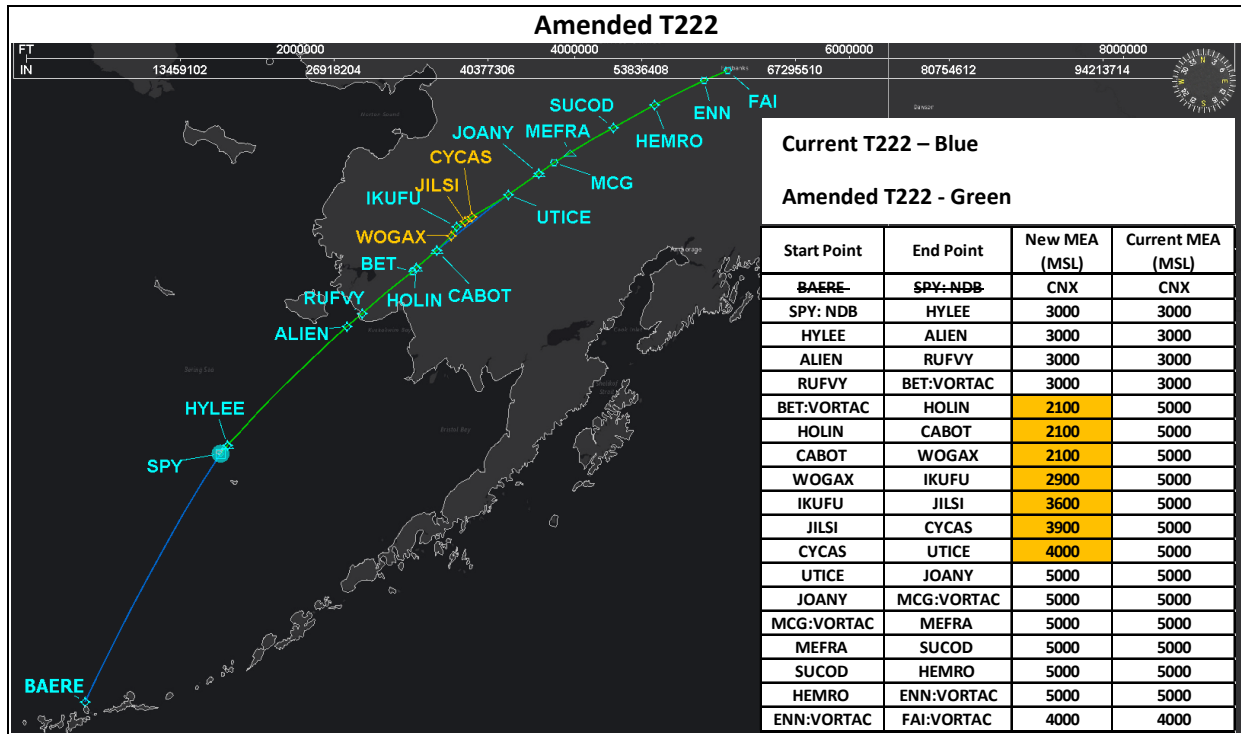
Approval by:**Western Service Area Director or Designee Approval**

Signature: _____ Date: _____
Name: B. G. Chew
Acting Group Manager, Operations Support Group
Western Service Center, AJV-W2

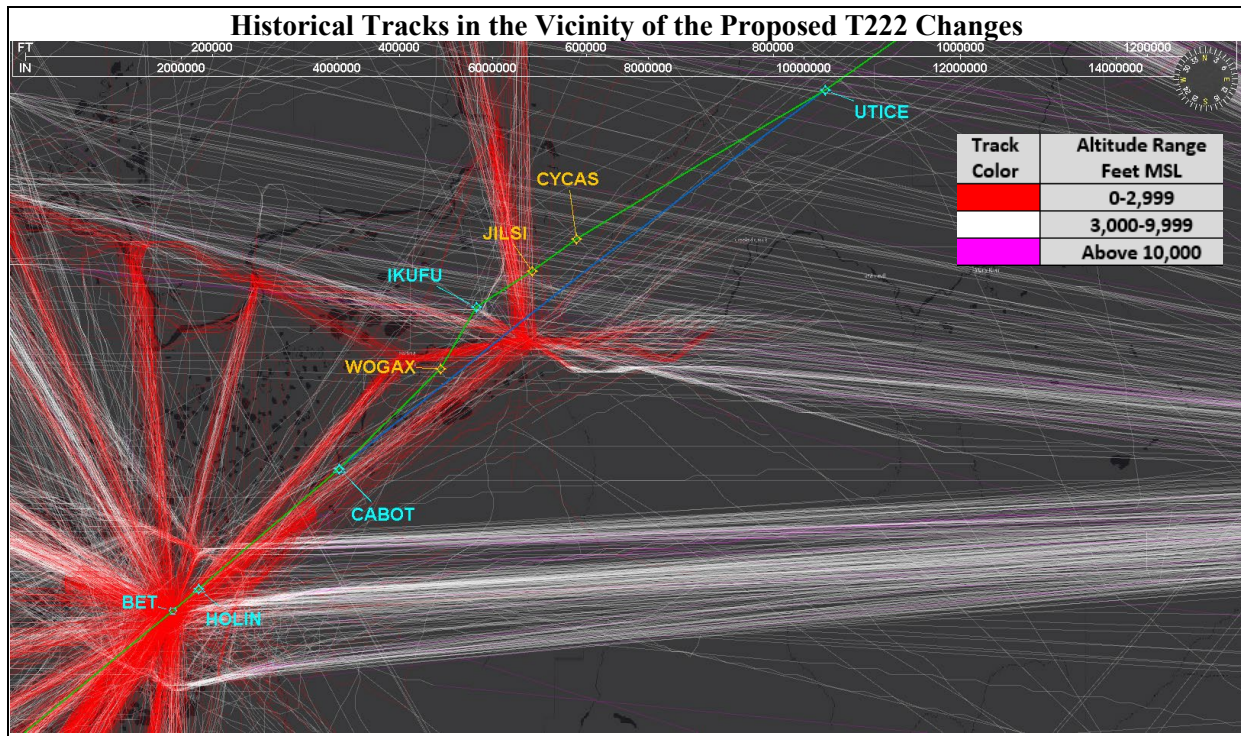
Appendix A: Description and Environmental Review of Proposed T Routes

Proposed T222

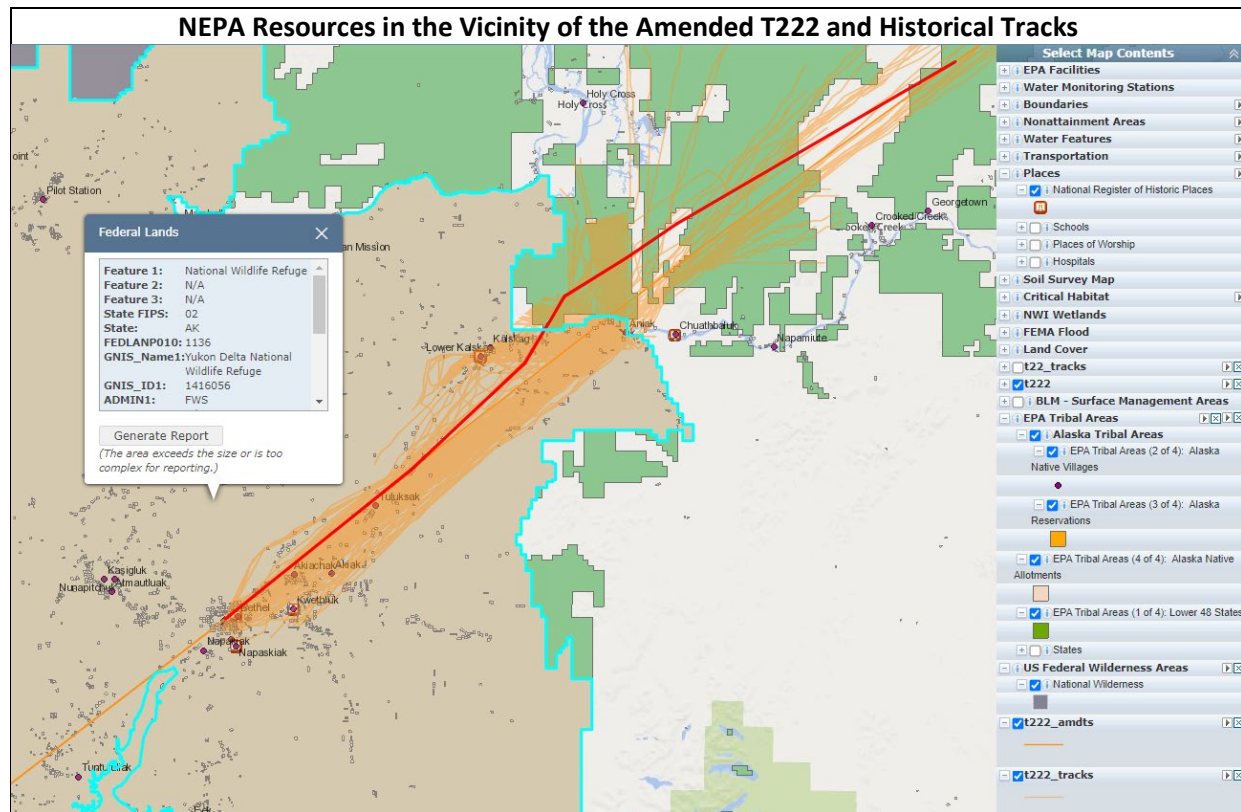
The following figure depicts the overview of the proposed amendments to T222.



The following figure depicts historical tracks in the vicinity of T222, which would have lateral changes resulting in new, lower minimum enroute altitudes (MEA). The tracks shown are not limited to T route usage.

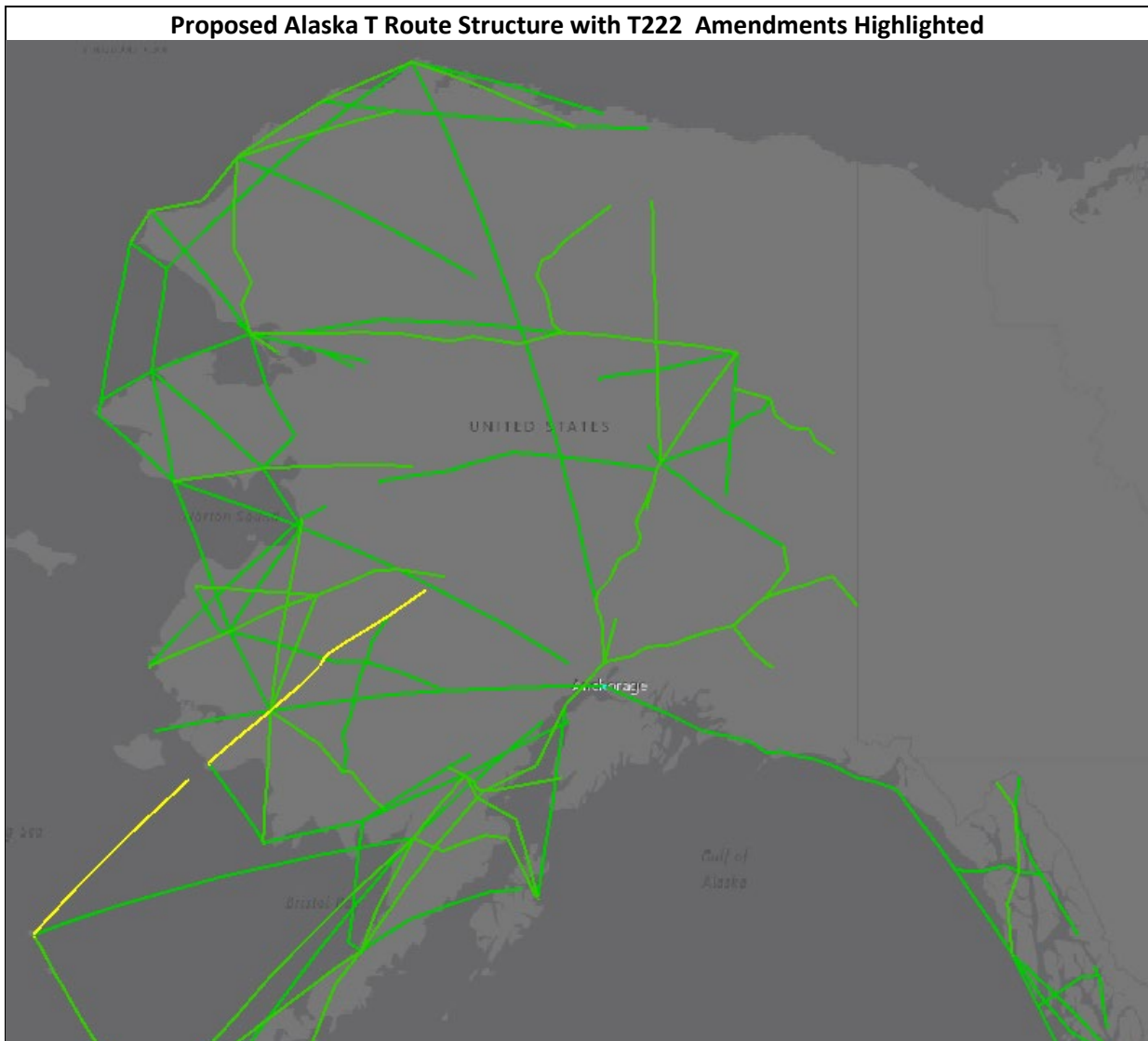


The following figure identifies the location of the Yukon Delta National Wildlife Refuge, historical properties (brown icons), tribal areas (red dots), and public domain lands (green) in the vicinity of the amended T route (thick orange) and historical flight tracks (light orange) from 2019.



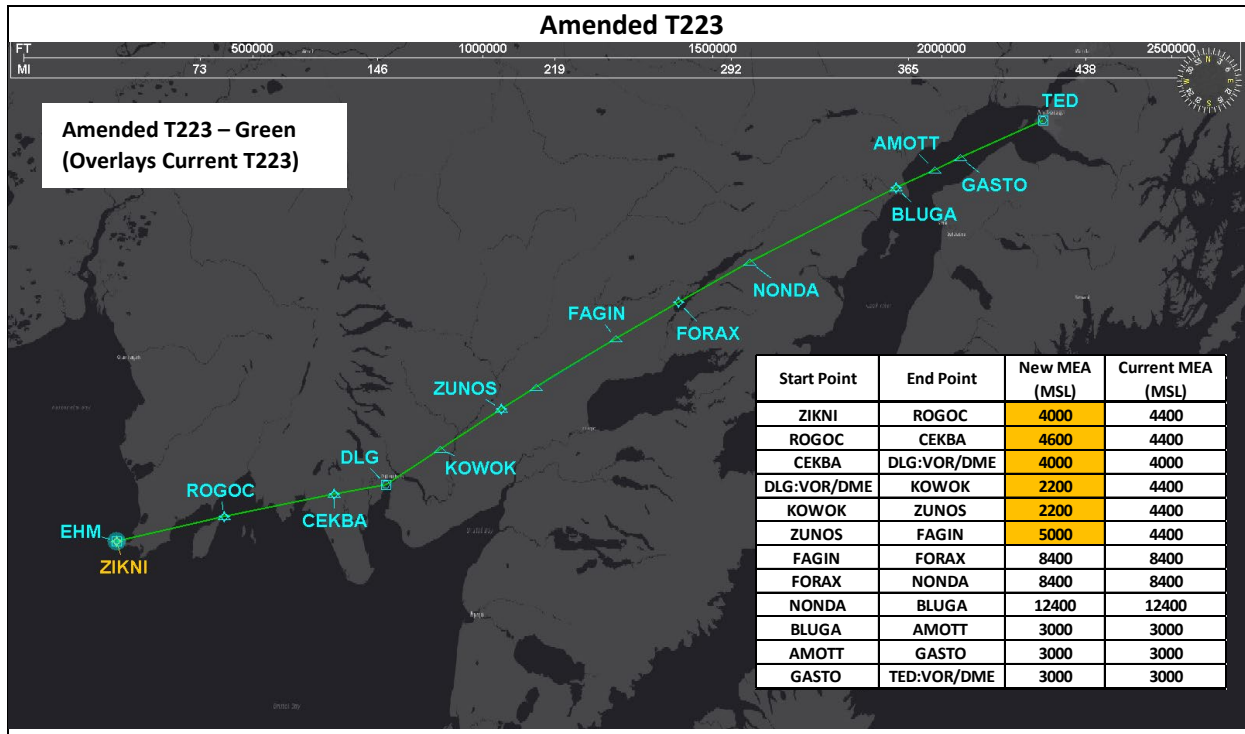
The route is mostly over remote and sparsely populated areas. It is anticipated that aircraft would not be introduced to areas that are currently not exposed to air traffic.

The following figure highlights amended segments of T222 (yellow) in relation to the other proposed T routes (green) that are proposed to modernize Alaska's Air Traffic Services (ATS) route structure.

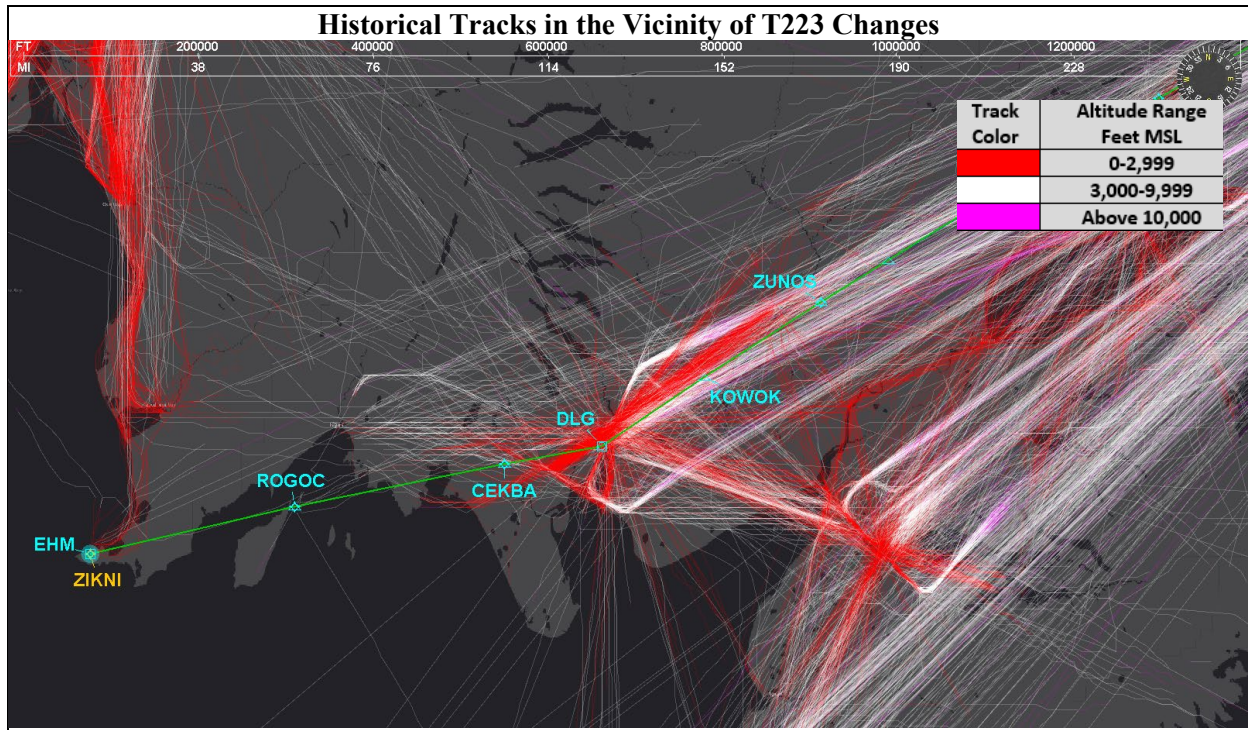


Proposed T223

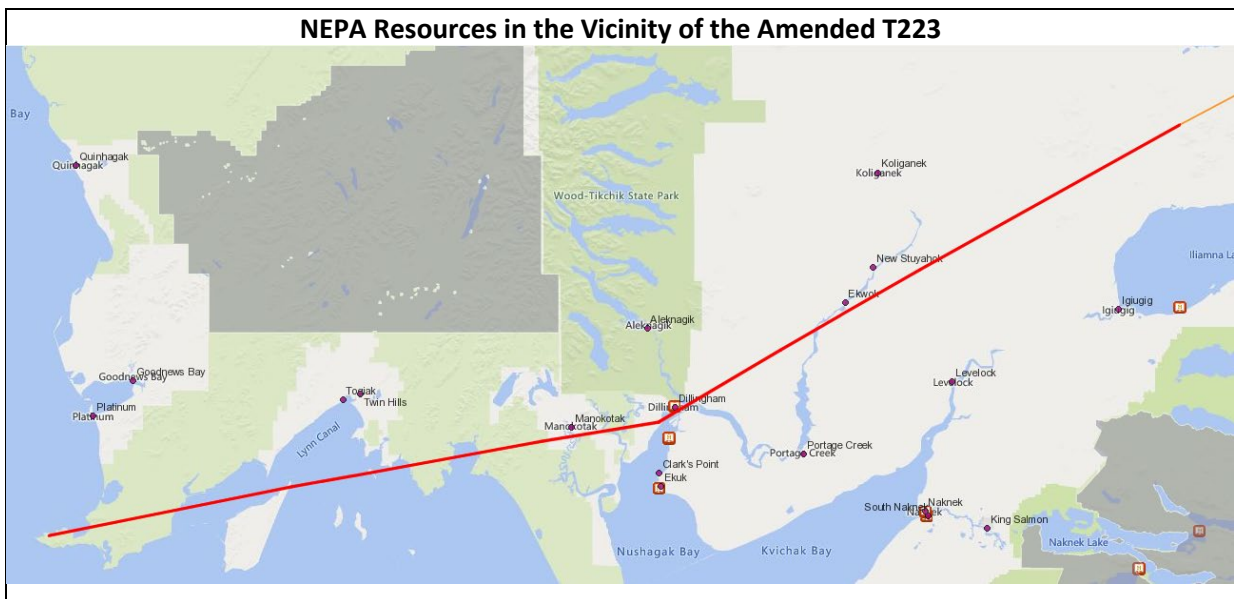
The following figure depicts the overview of the proposed amendments to T223.



The following figure depicts historical tracks in the vicinity of T223, which would have changes resulting in new, lower MEAs. The tracks shown are not limited to T route usage.

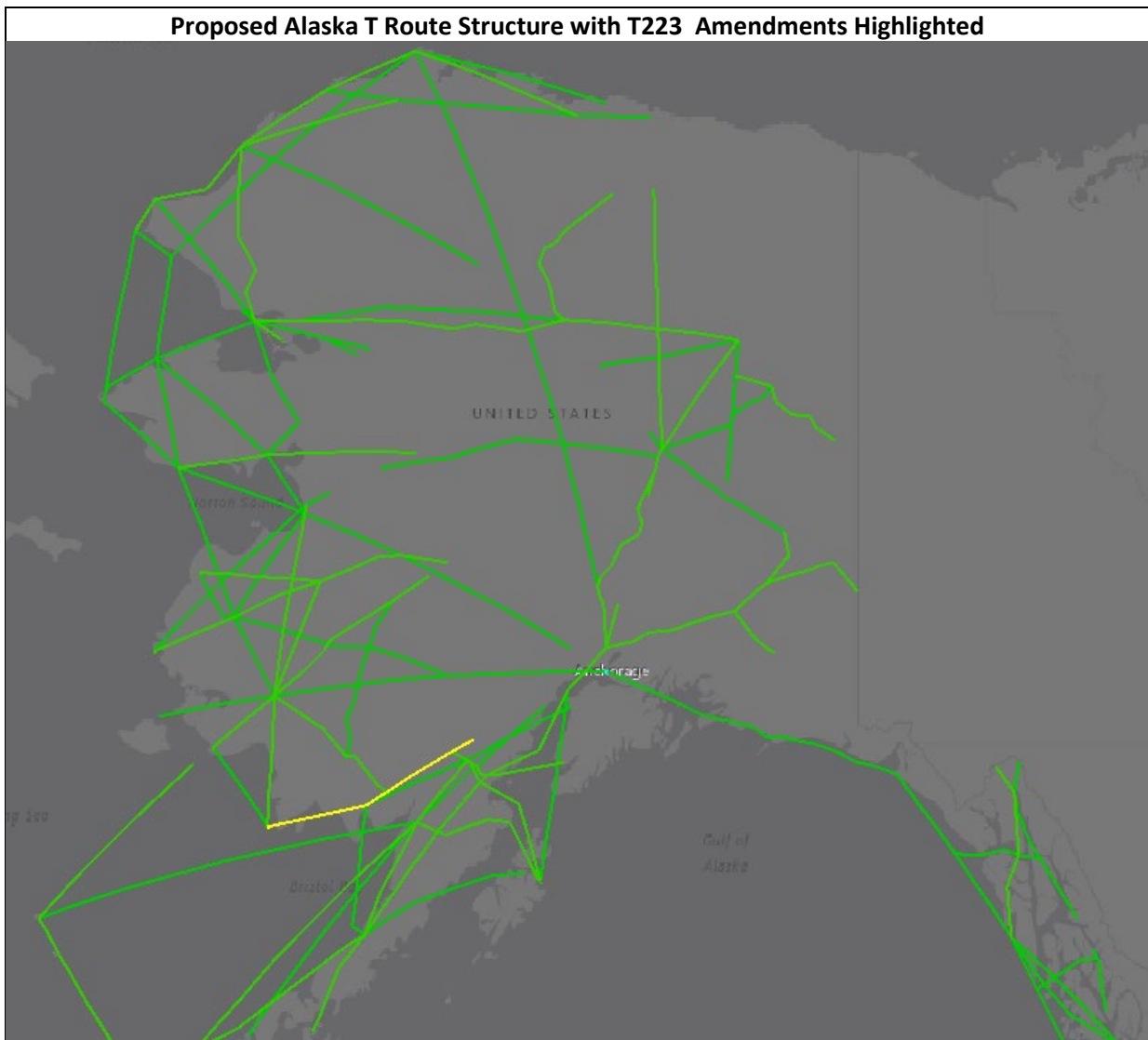


The following figure identifies the location of the wildlife refuges (green area below the route), historical properties (brown icons), and tribal areas (red dots) in the vicinity of the amended T route (thick orange).



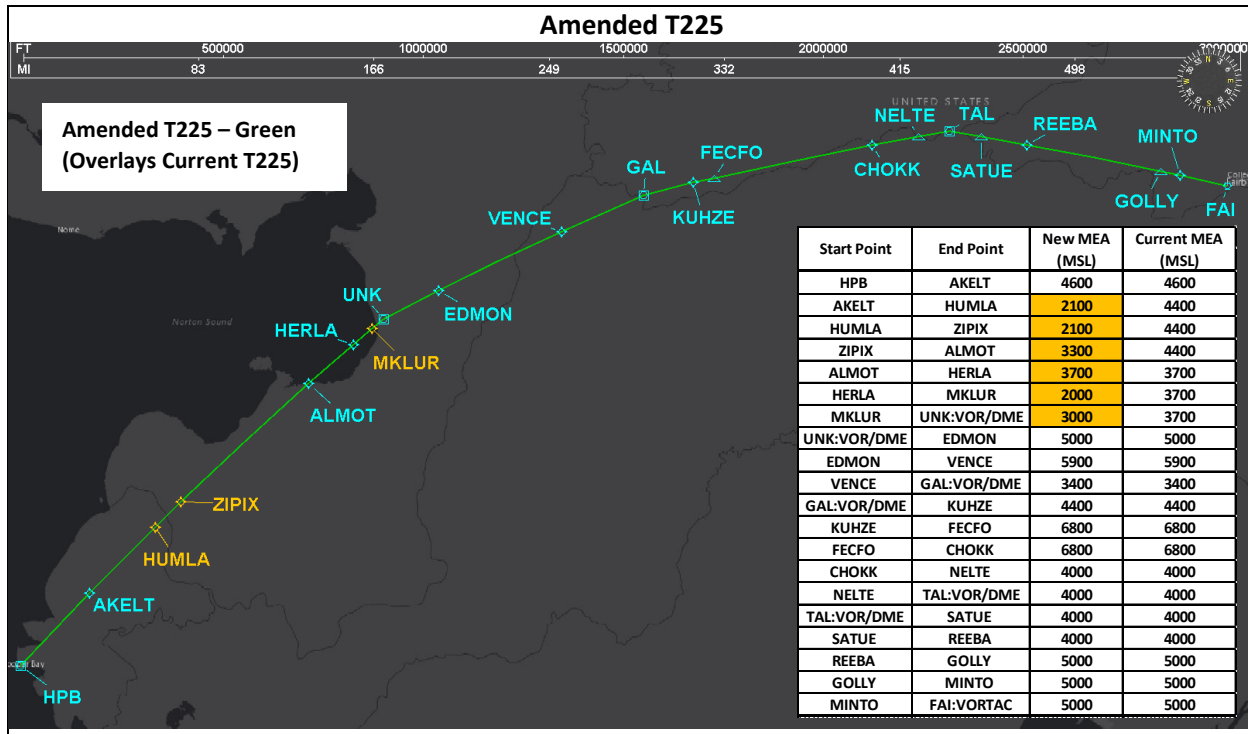
The route is mostly over remote and sparsely populated areas. It is anticipated that aircraft would not be introduced to areas that are currently not exposed to air traffic.

The following figure depicts the overview of amended segments of T223 (yellow) and the other T routes (green) that are proposed to modernize Alaska's ATS route structure.

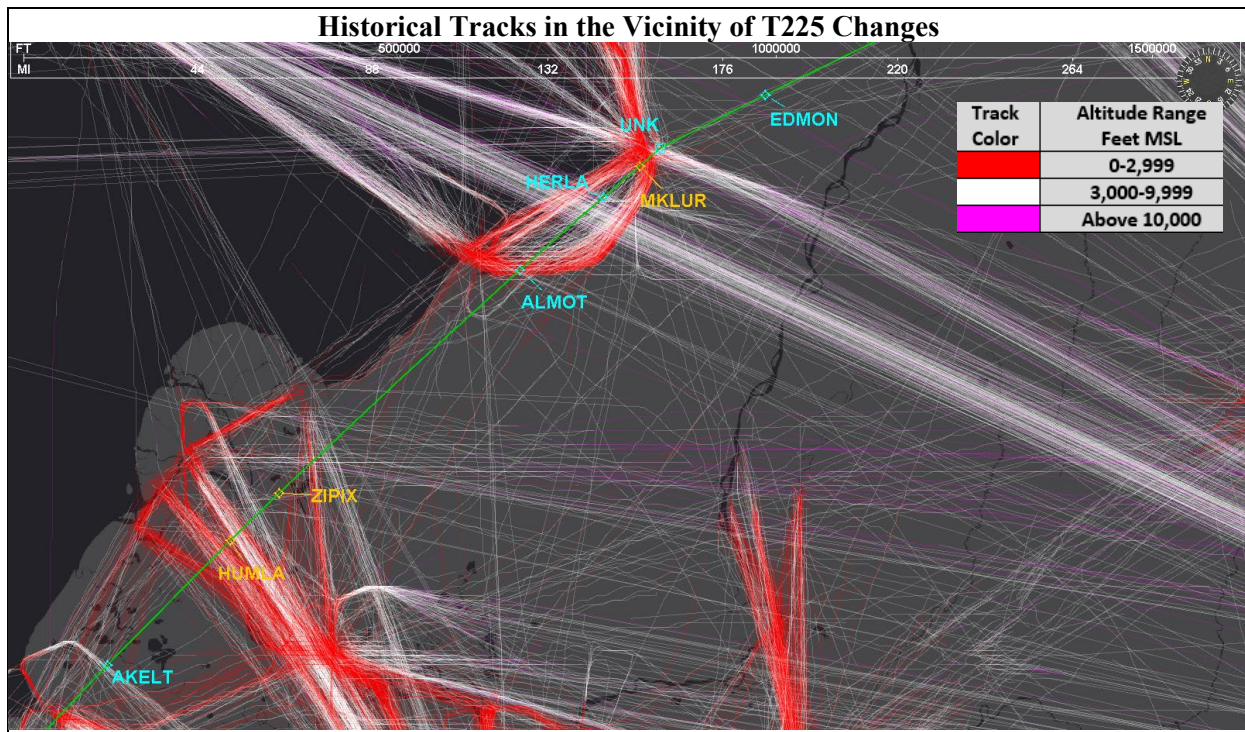


Proposed T225

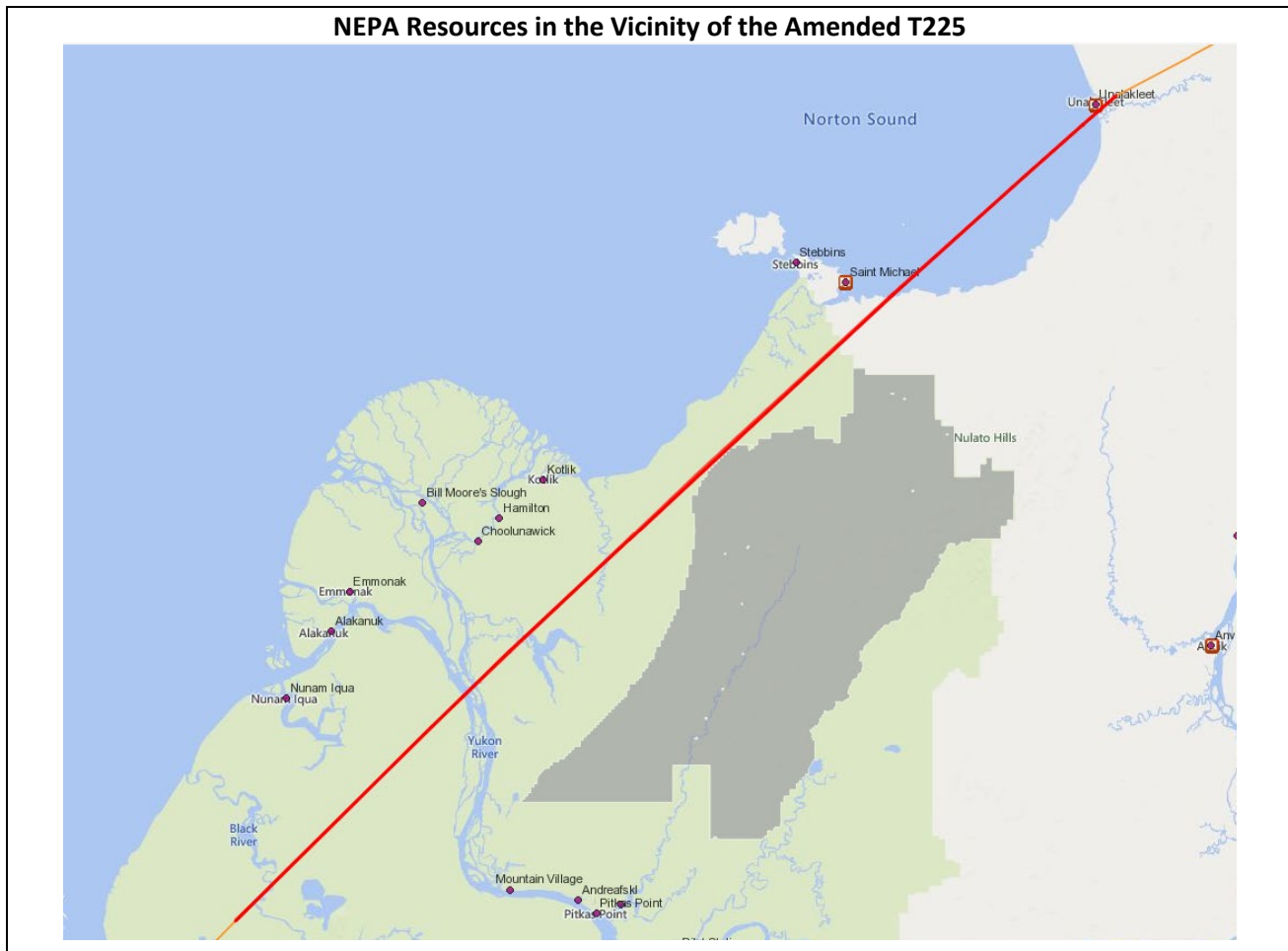
The following figure depicts the overview of the proposed amendments to T225.



The following figure depicts historical tracks in the vicinity of T225, which would have changes resulting in new, lower MEAs. The tracks shown are not limited to T route usage.

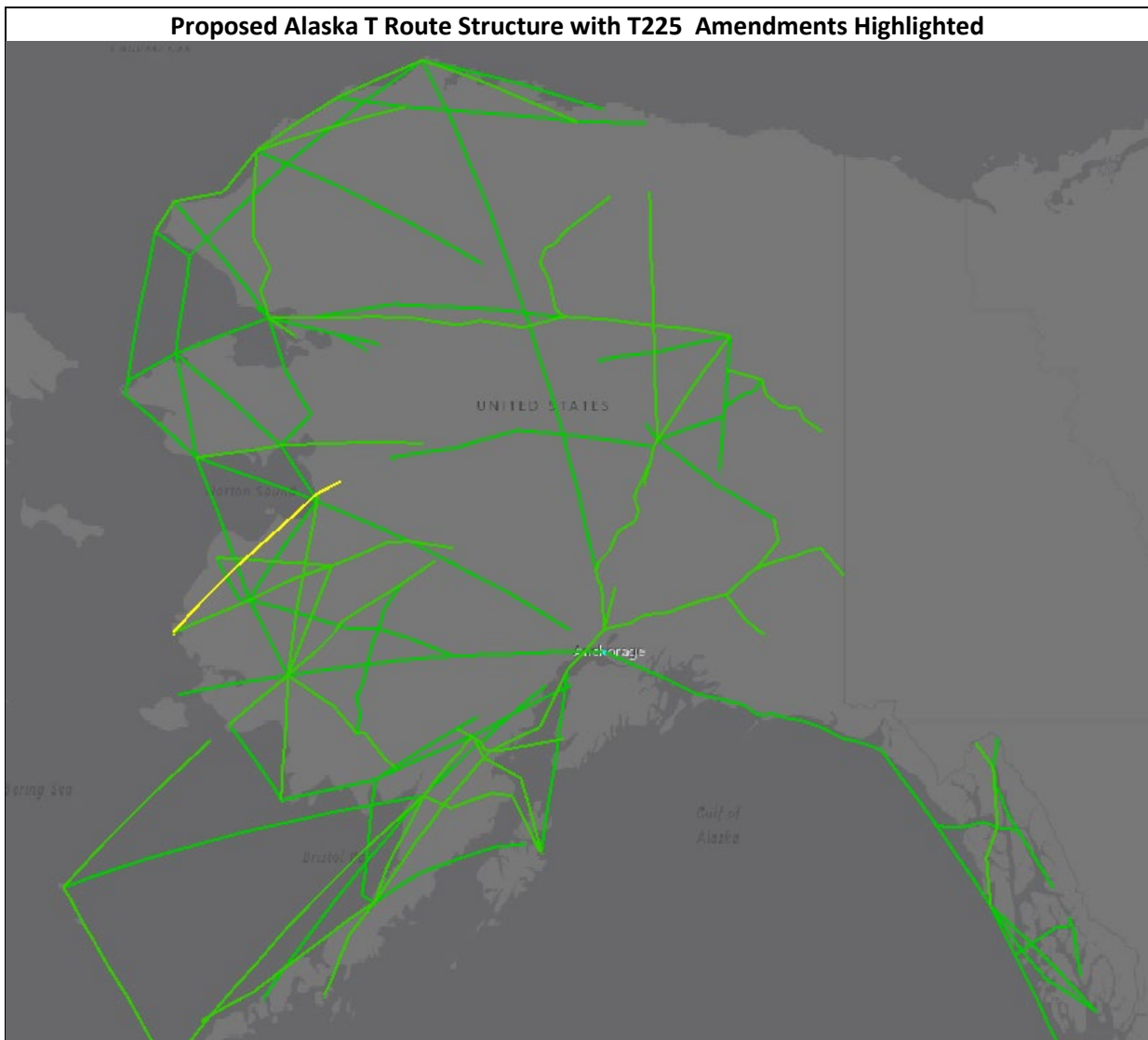


The following figure identifies the location of the Yukon Delta National Wildlife Refuge (green area below the route), historical properties (brown icons), and tribal areas (red dots) in the vicinity of the amended T route (thick orange).



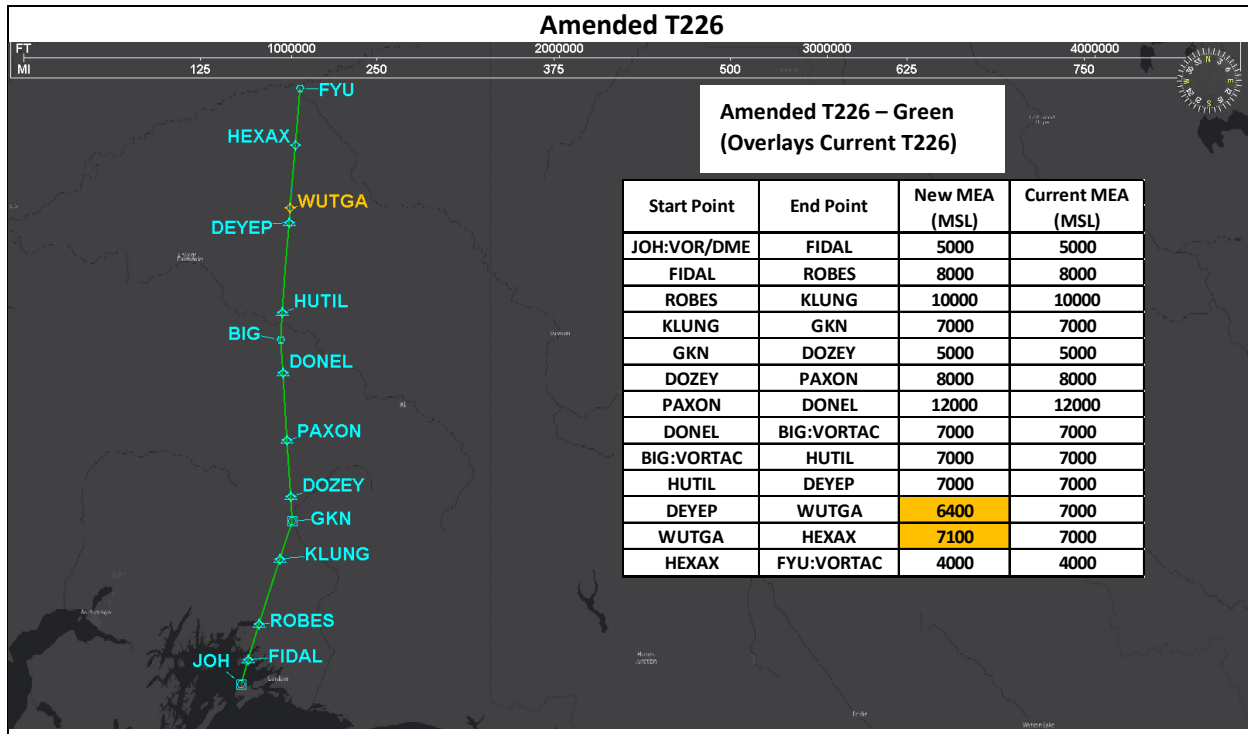
The route is mostly over remote and sparsely populated areas. It is anticipated that aircraft would not be introduced to areas that are currently not exposed to air traffic.

The following figure depicts the overview of amended segments of T225 (yellow) and the other T routes (green) that are proposed to modernize Alaska's ATS route structure.

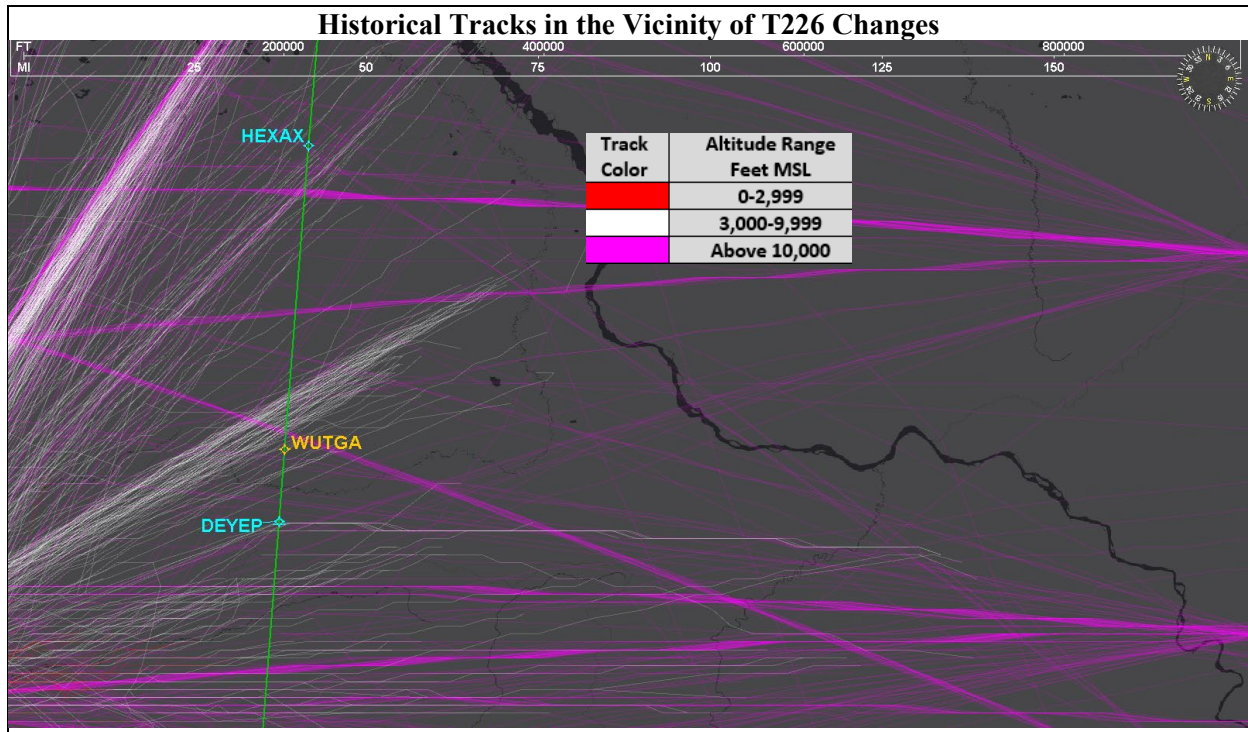


Proposed T226

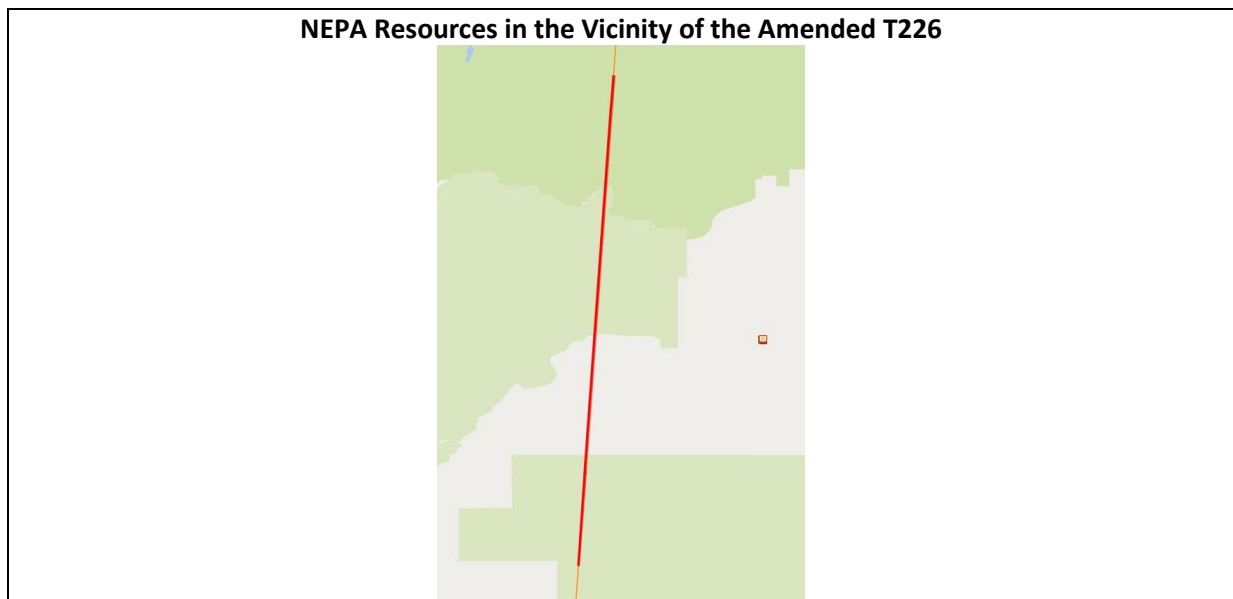
The following figure depicts the overview of the proposed amendments to T226.



The following figure depicts historical tracks in the vicinity of T226, which would have changes resulting in new MEAs. The tracks shown are not limited to T route usage.

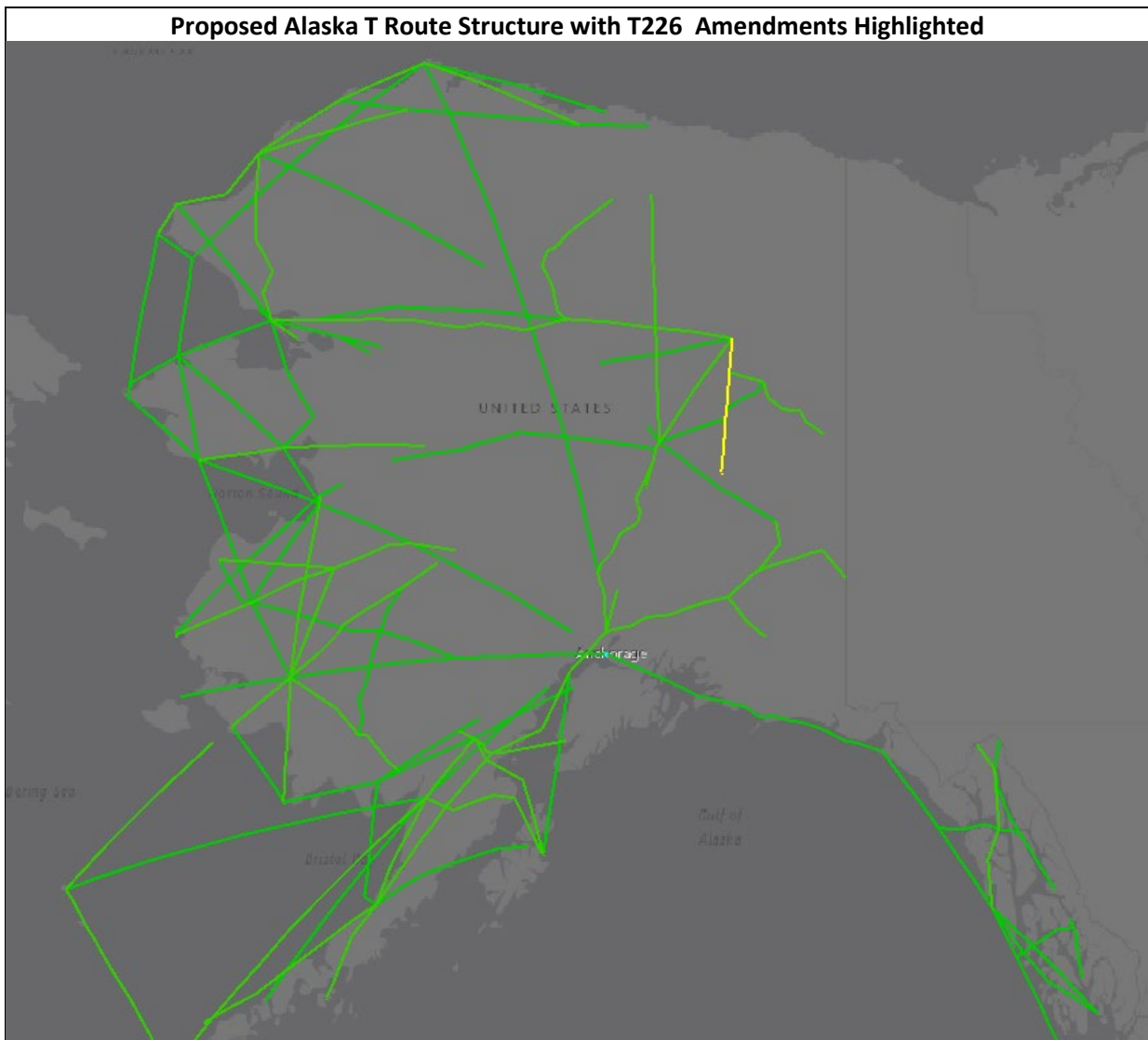


The following figure identifies the location of the Yukon Flats National Wildlife Refuge (darker green) and Steese National Conservation Area (light green) in the vicinity of the amended T route (thick orange).



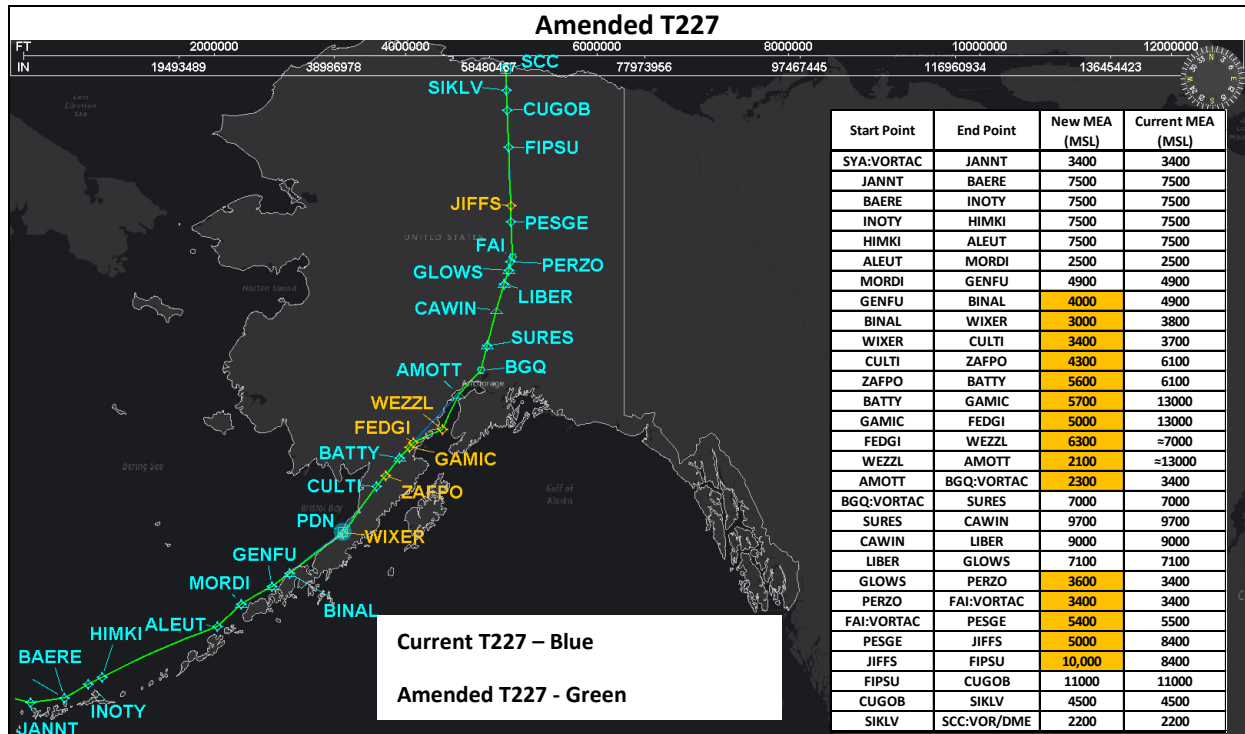
It is anticipated that aircraft would not be introduced to areas that are currently not exposed to air traffic.

The following figure depicts the overview of amended segments of T226 (yellow) and the other T routes (green) that are proposed to modernize Alaska's ATS route structure.

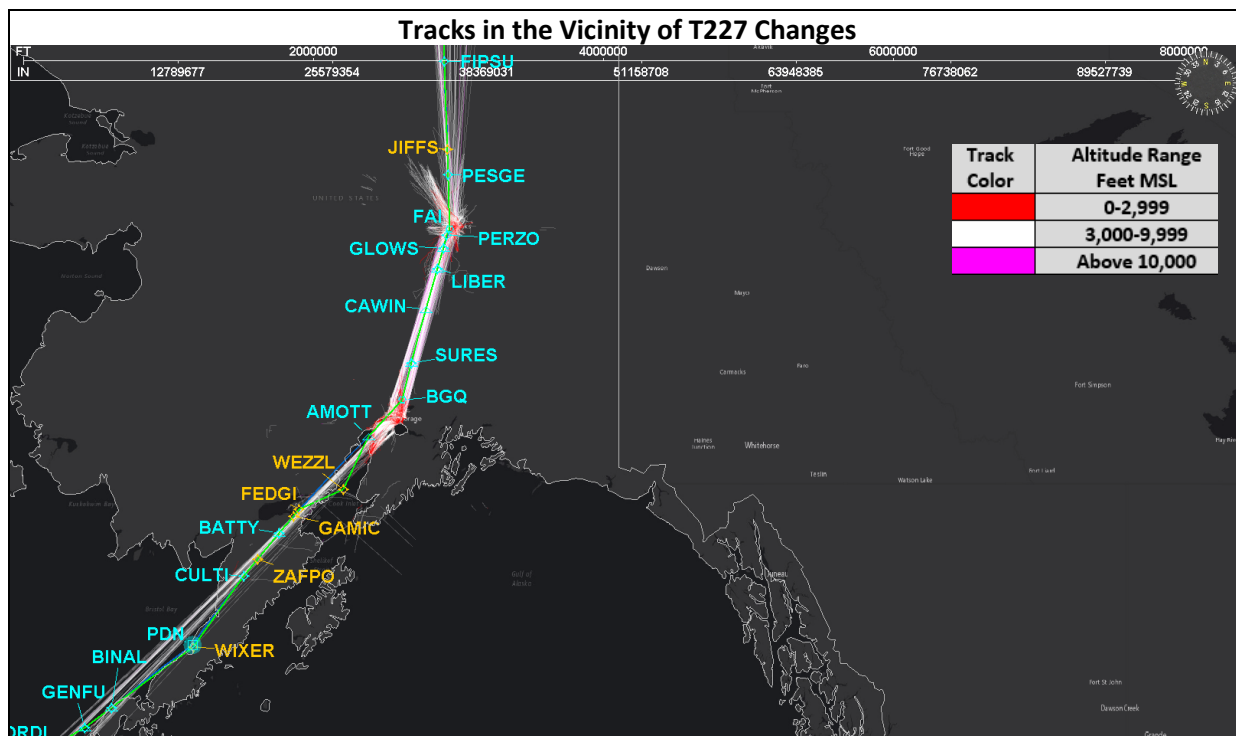


Proposed T227

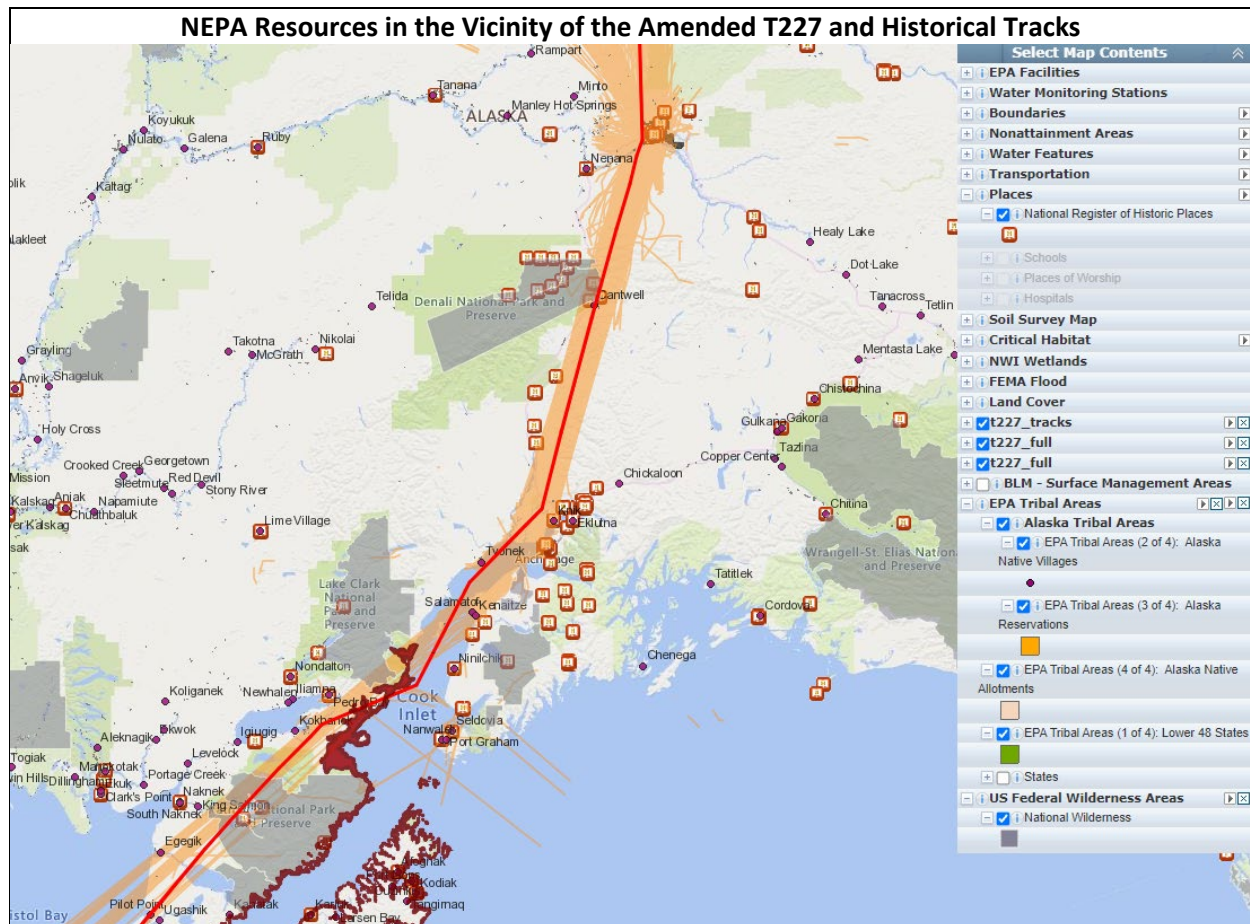
The following figure depicts the overview of the proposed amendments to T227.



The following figure depicts historical tracks in the vicinity of T227, which would have lateral changes resulting in new, lower MEAs. The tracks shown are not limited to T route usage.

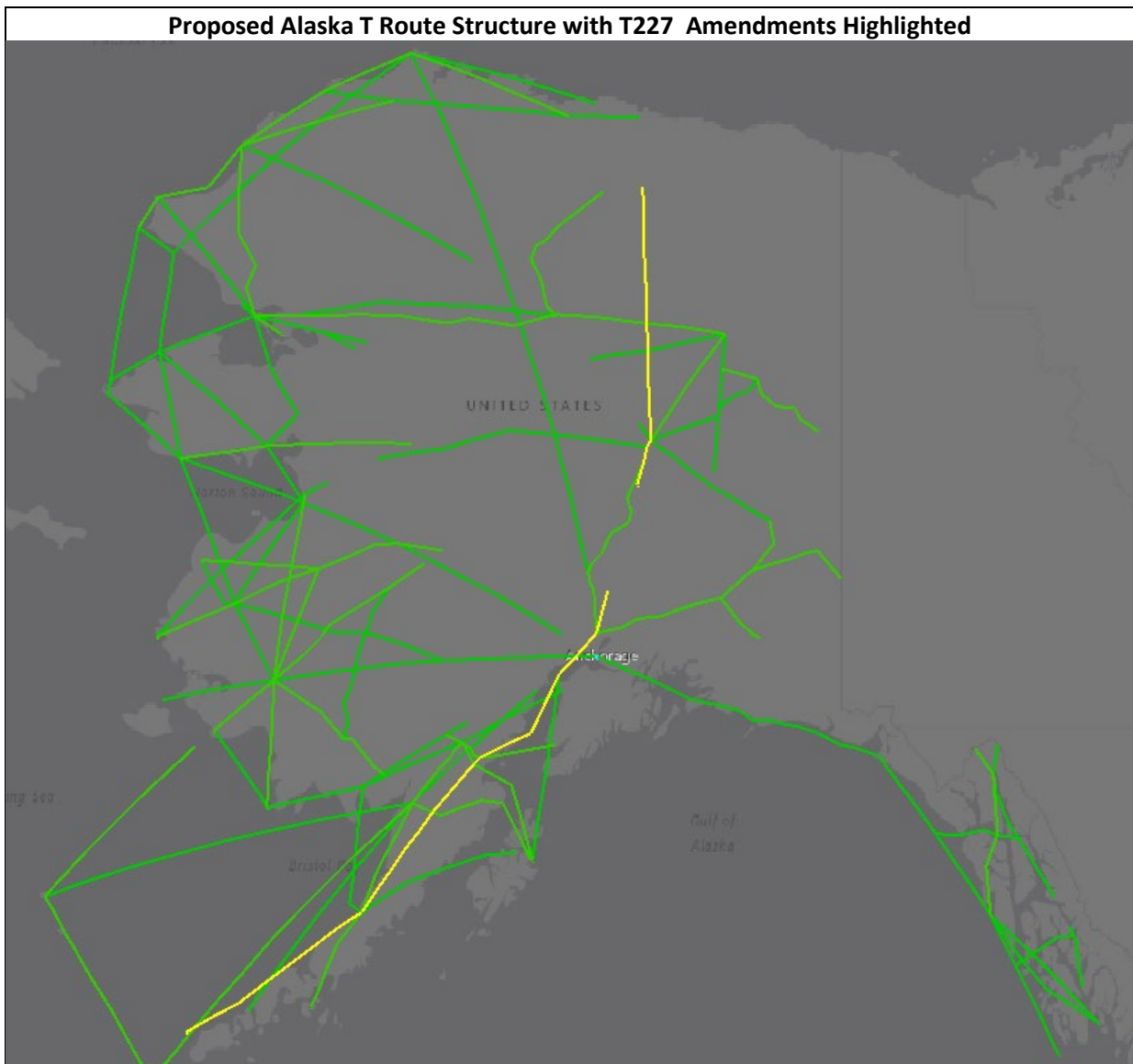


The following figure identifies the location of the historical properties (brown icons), tribal areas (red dots), critical habitats (brown areas), national parks (green) and wilderness areas (grey) in the vicinity of the amended T route (thick orange) and historical flight tracks (light orange) from 2019.



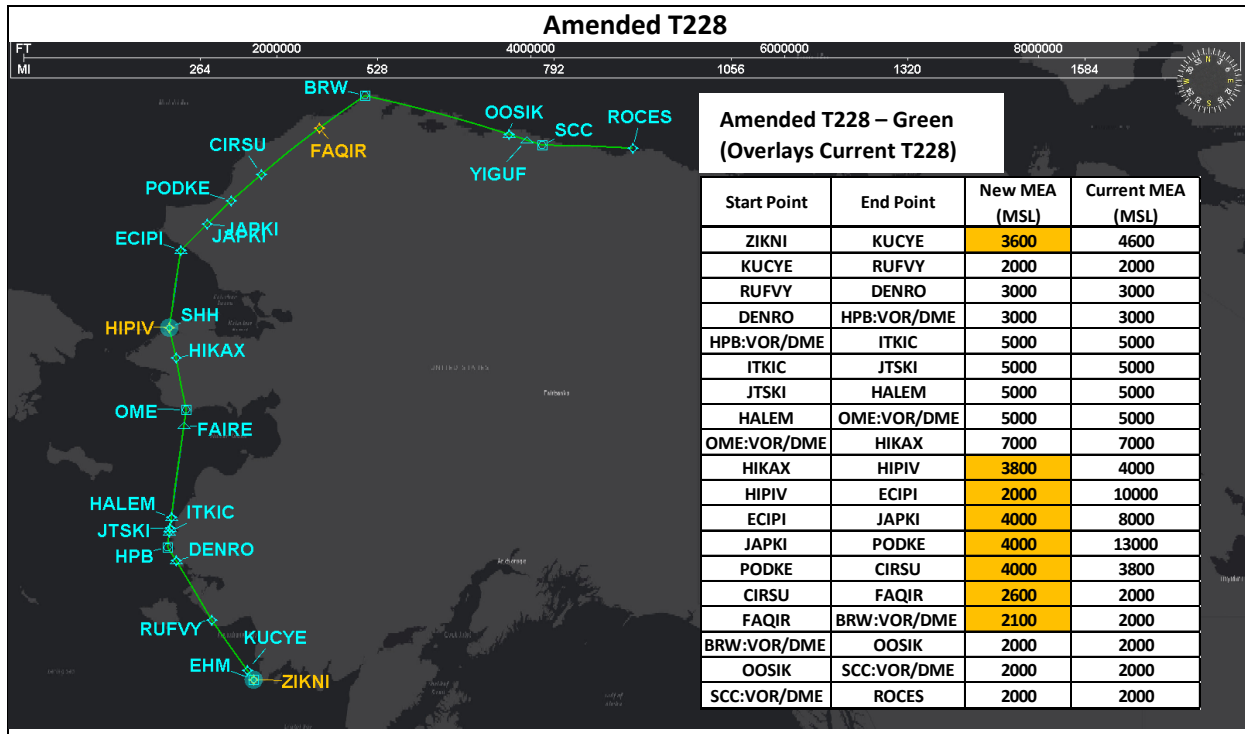
It is anticipated that aircraft would not be introduced to areas that are currently not exposed to air traffic.

The following figure depicts the overview of T227 (yellow) and the other 55 T routes (green) that are proposed to modernize Alaska's ATS route structure.

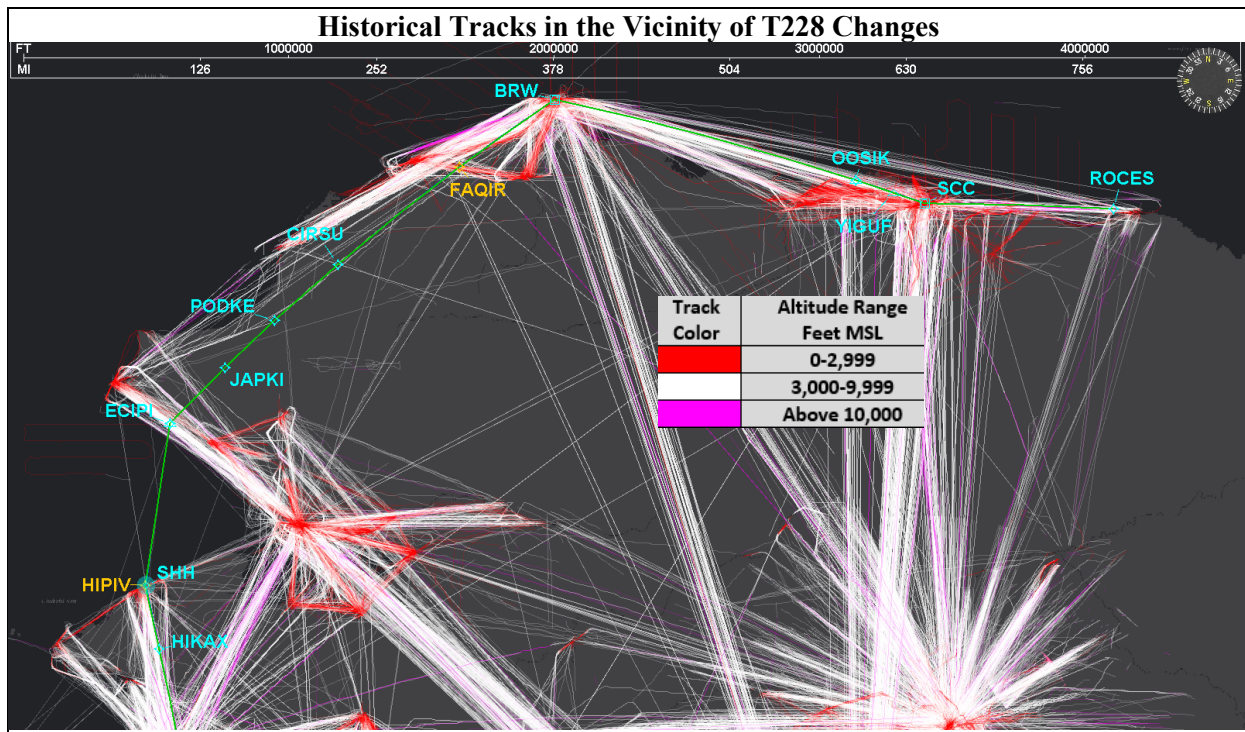


Proposed T228

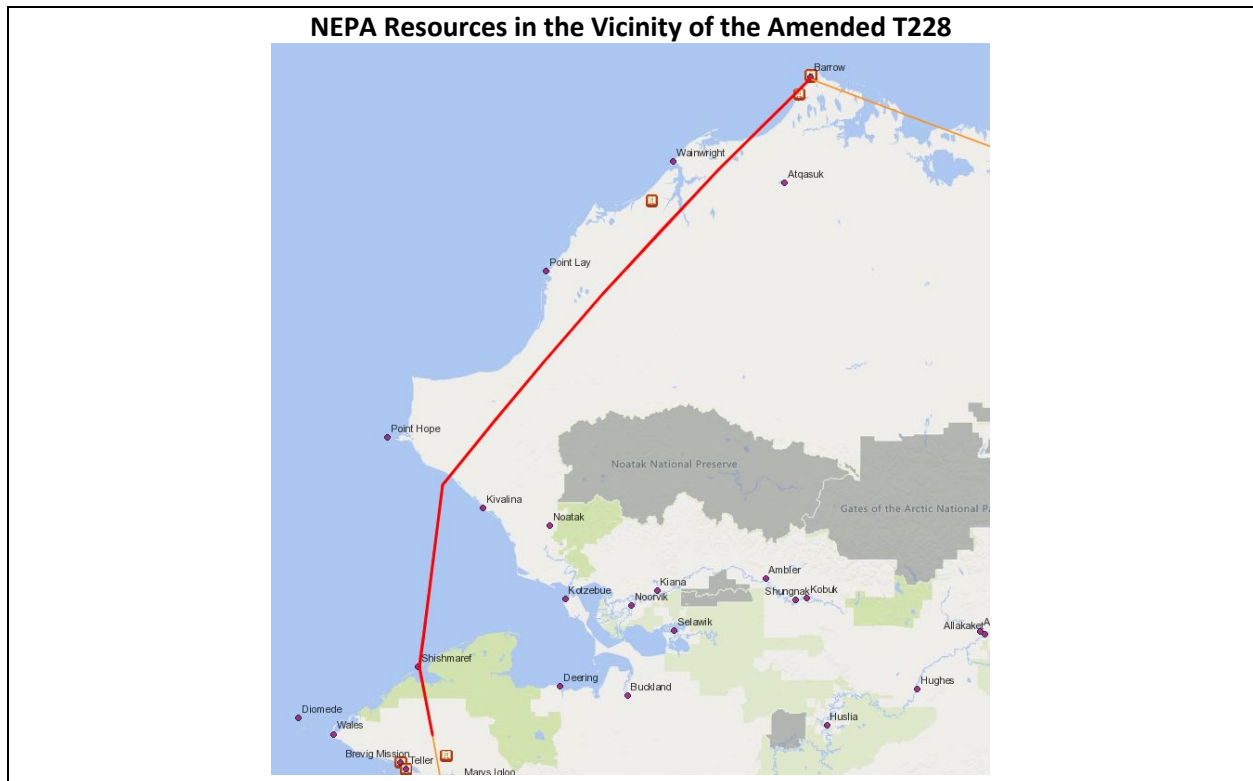
The following figure depicts the overview of the proposed amendments to T228.



The following figure depicts historical tracks in the vicinity of T228, which would have changes resulting in new MEAs. The tracks shown are not limited to T route usage.

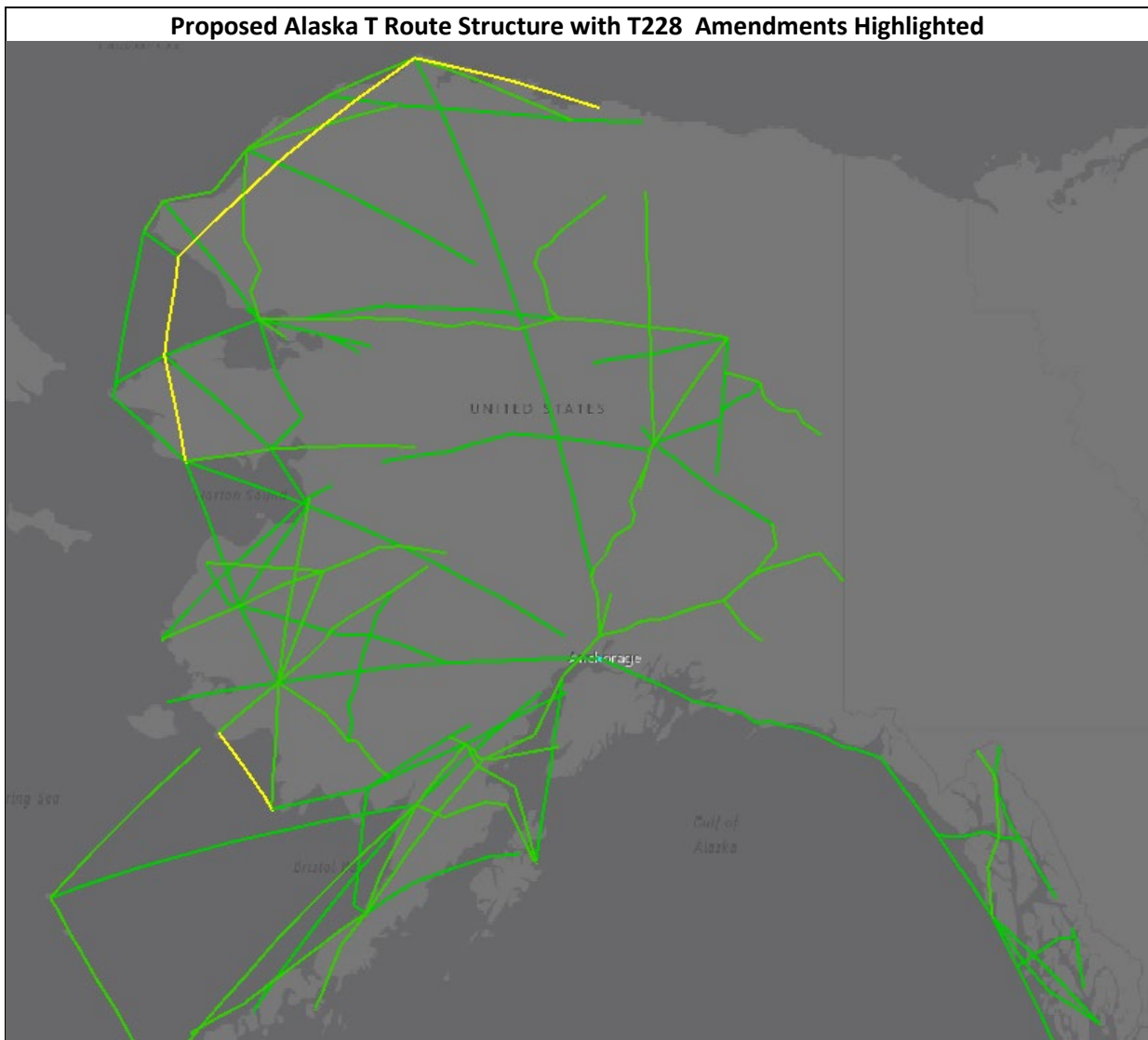


The following figure identifies the location of the Bering Land Bridge National Preserve (green area under the route), historical properties (brown icons), and tribal villages (red dots) in the vicinity of the amended T route (thick orange).



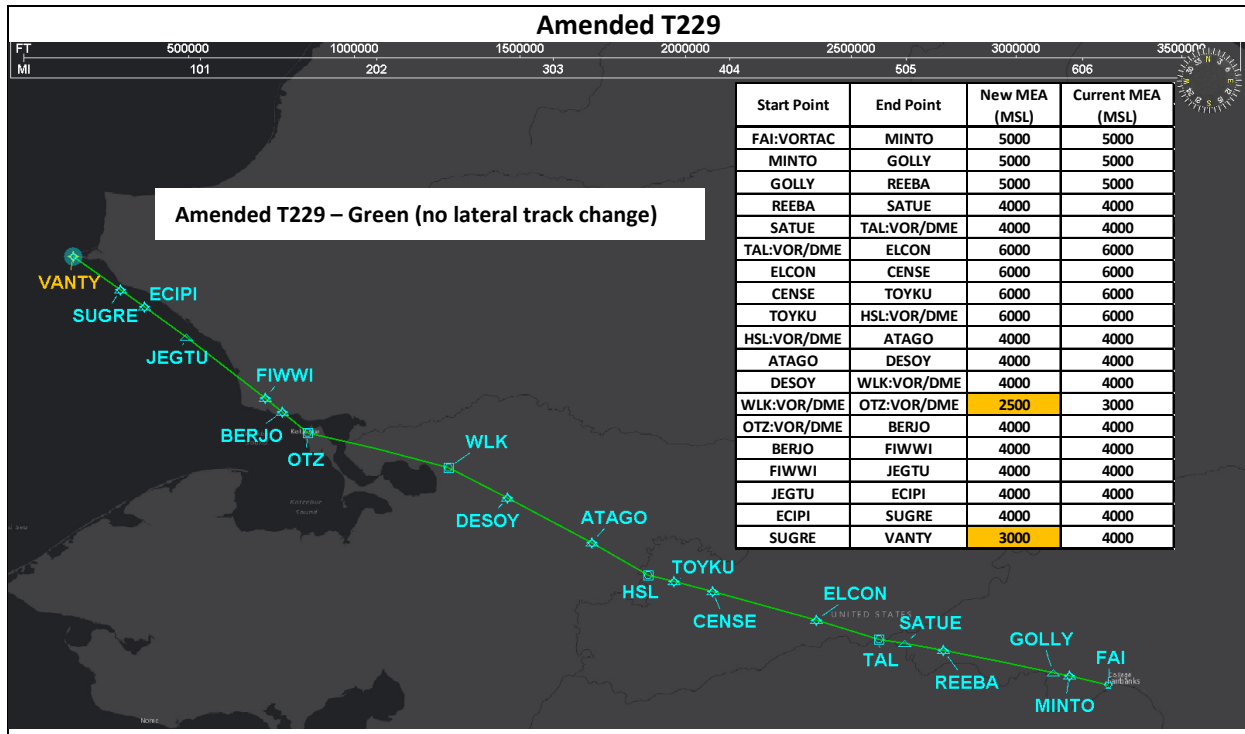
It is anticipated that aircraft would not be introduced to areas that are currently not exposed to air traffic.

The following figure depicts the overview of amended segments of T228 (yellow) and the other T routes (green) that are proposed to modernize Alaska's ATS route structure.

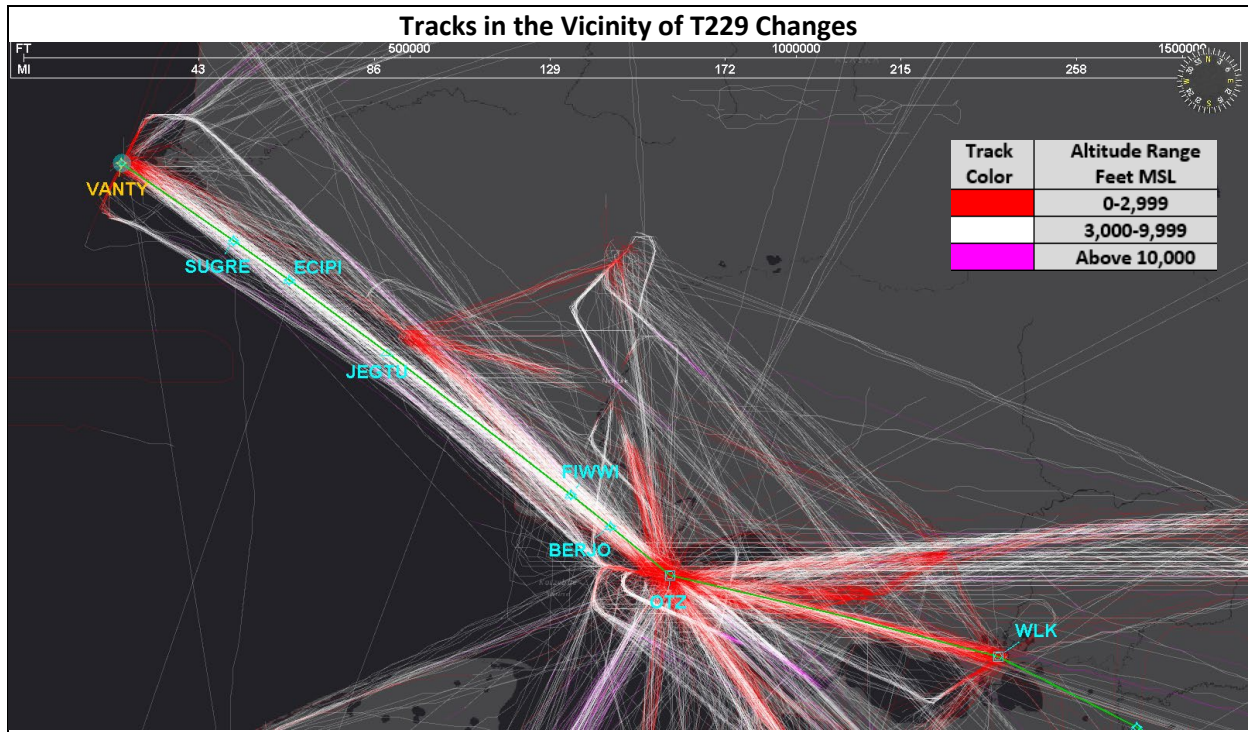


Proposed T229

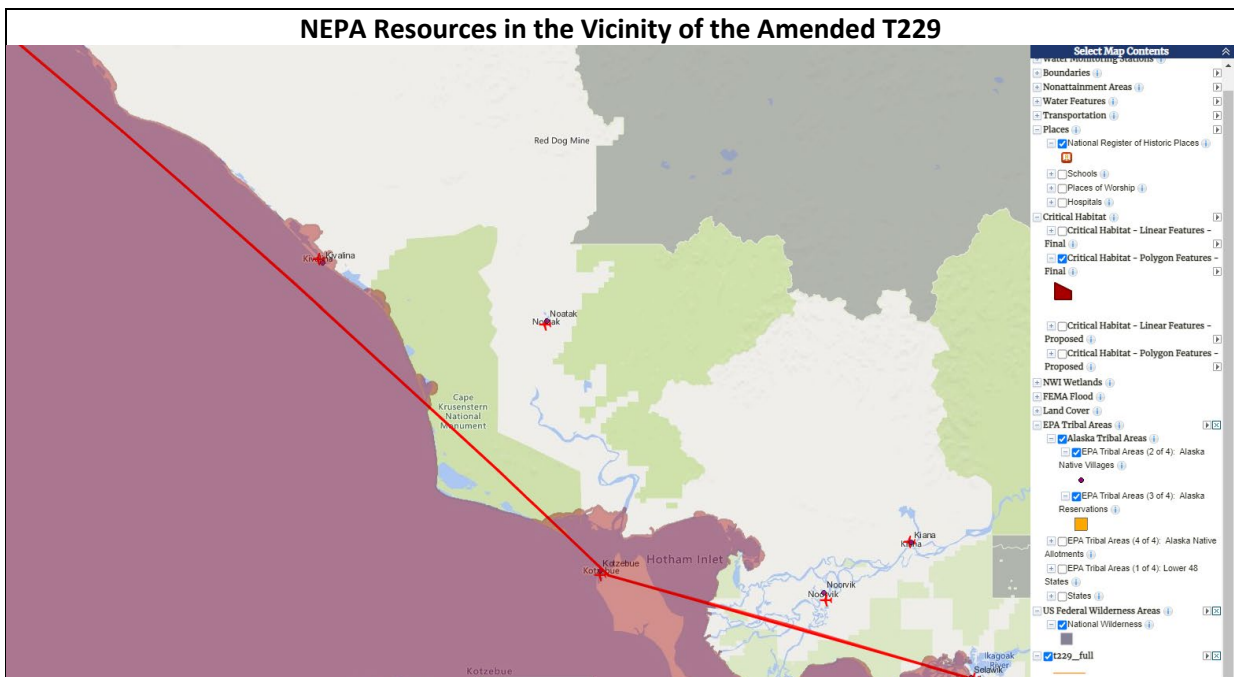
The following figure depicts the overview of the proposed amendments to T229.



The following figure depicts historical tracks in the vicinity of T229, which would have changes resulting in new, lower MEAs. The tracks shown are not limited to T route usage.

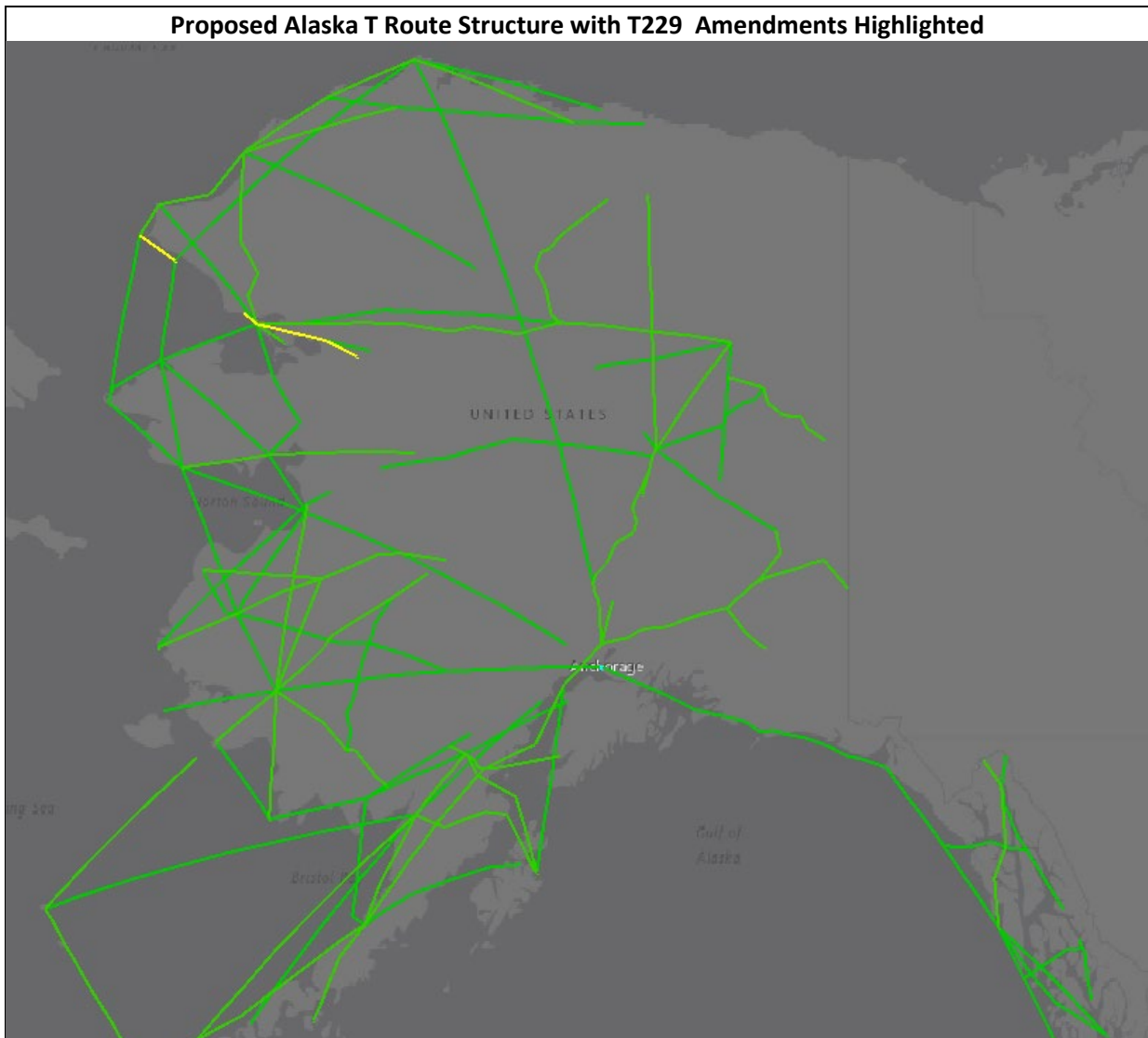


The following figure identifies the location of the Cape Krusenstern National Monument, Selawik Nation Wildlife Refuge, tribal areas (red dots), and polar bear critical habitat (brown areas) in the vicinity of the amended T route (thick orange).



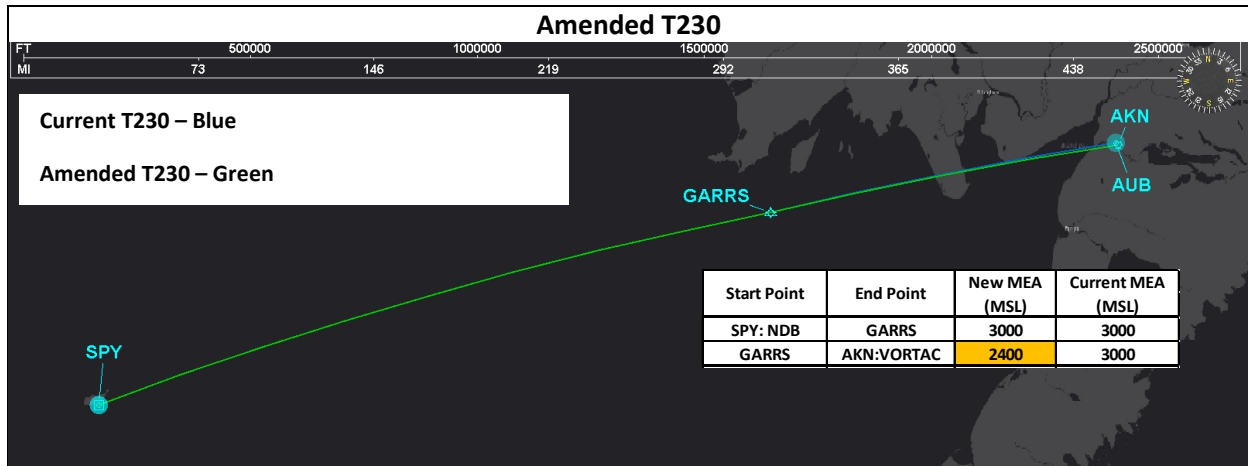
It is anticipated that aircraft would not be introduced to areas that are currently not exposed to air traffic.

The following figure depicts the overview of amended segments of T229 (yellow) and the other T routes (green) that are proposed to modernize Alaska's ATS route structure.

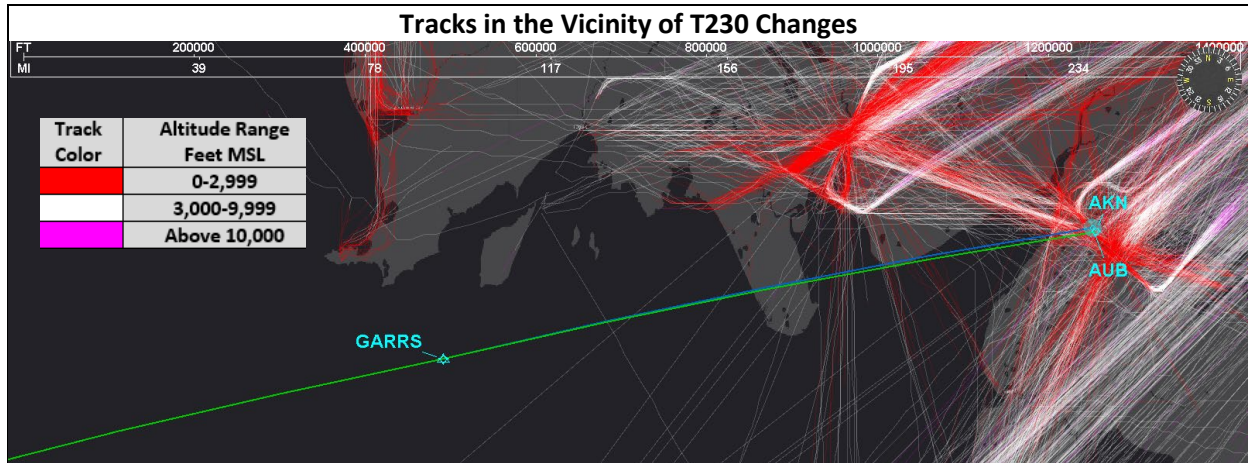


Proposed T230

The following figure depicts the overview of the proposed amendments to T230.



The following figure depicts historical tracks in the vicinity of T230, which would have changes resulting in new, lower MEAs. The tracks shown are not limited to T route usage.

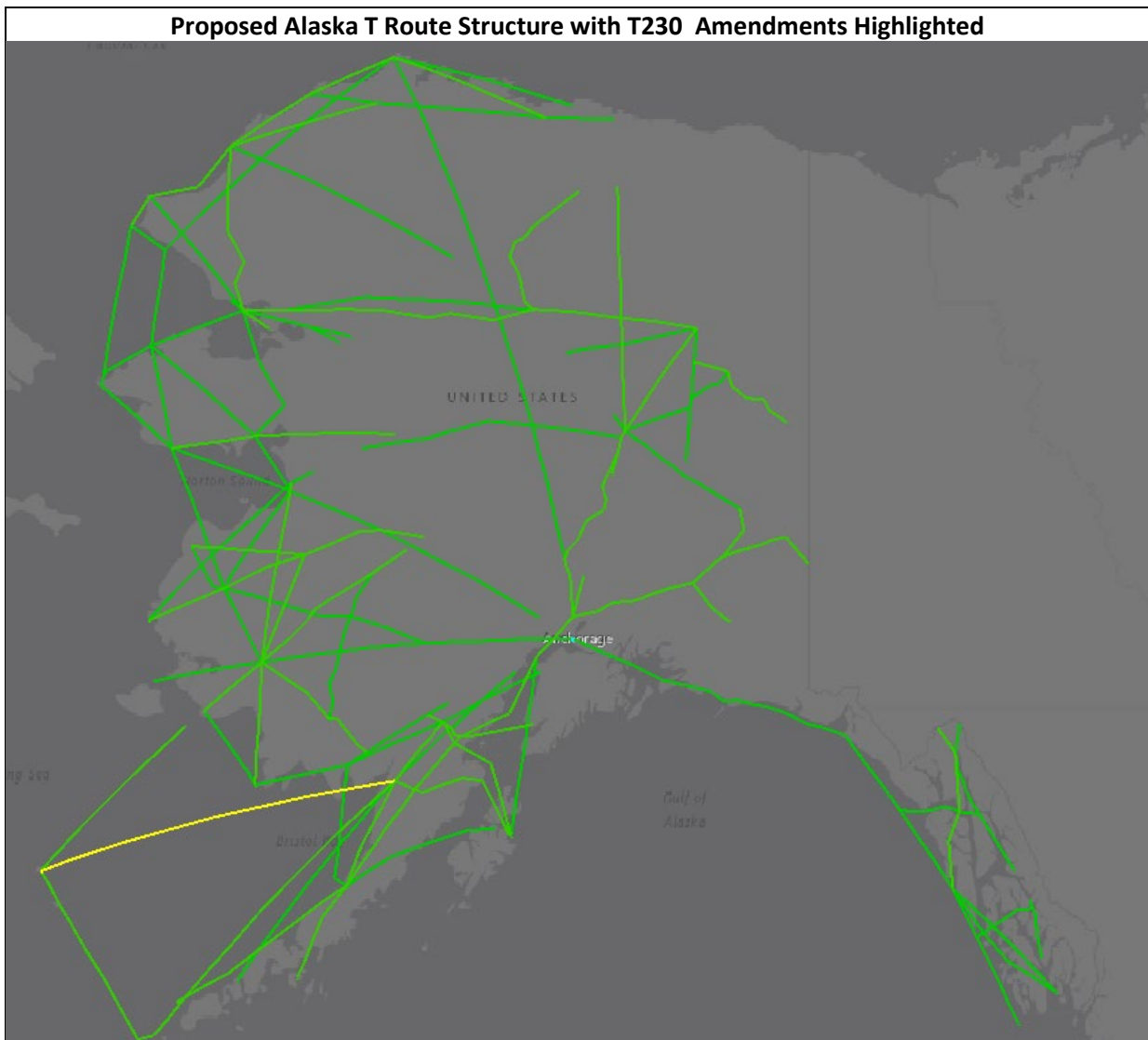


The following figure identifies the location of the Alaska Maritime National Wildlife Refuge (green), tribal areas (red dots), and historical properties (brown icons) in the vicinity of the amended T route (thick orange).



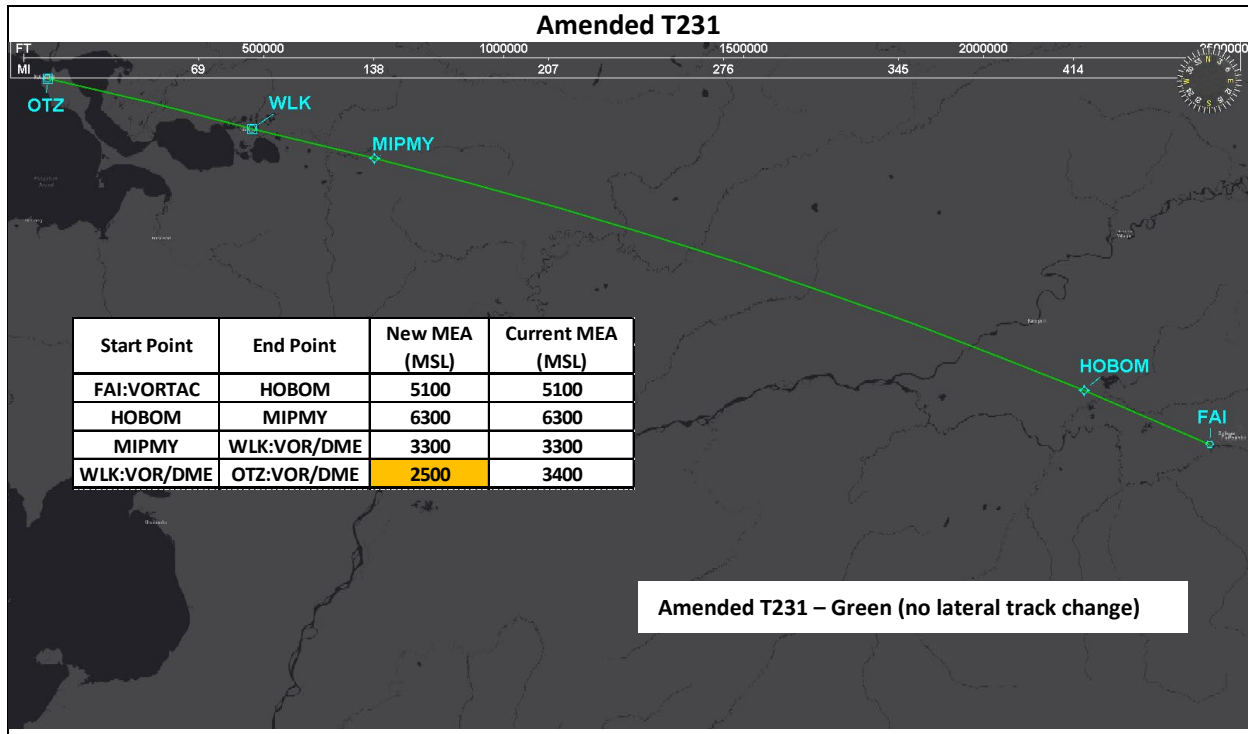
It is anticipated that aircraft would not be introduced to areas that are currently not exposed to air traffic.

The following figure depicts the overview of amended segments of T230 (yellow) and the other T routes (green) that are proposed to modernize Alaska's ATS route structure.

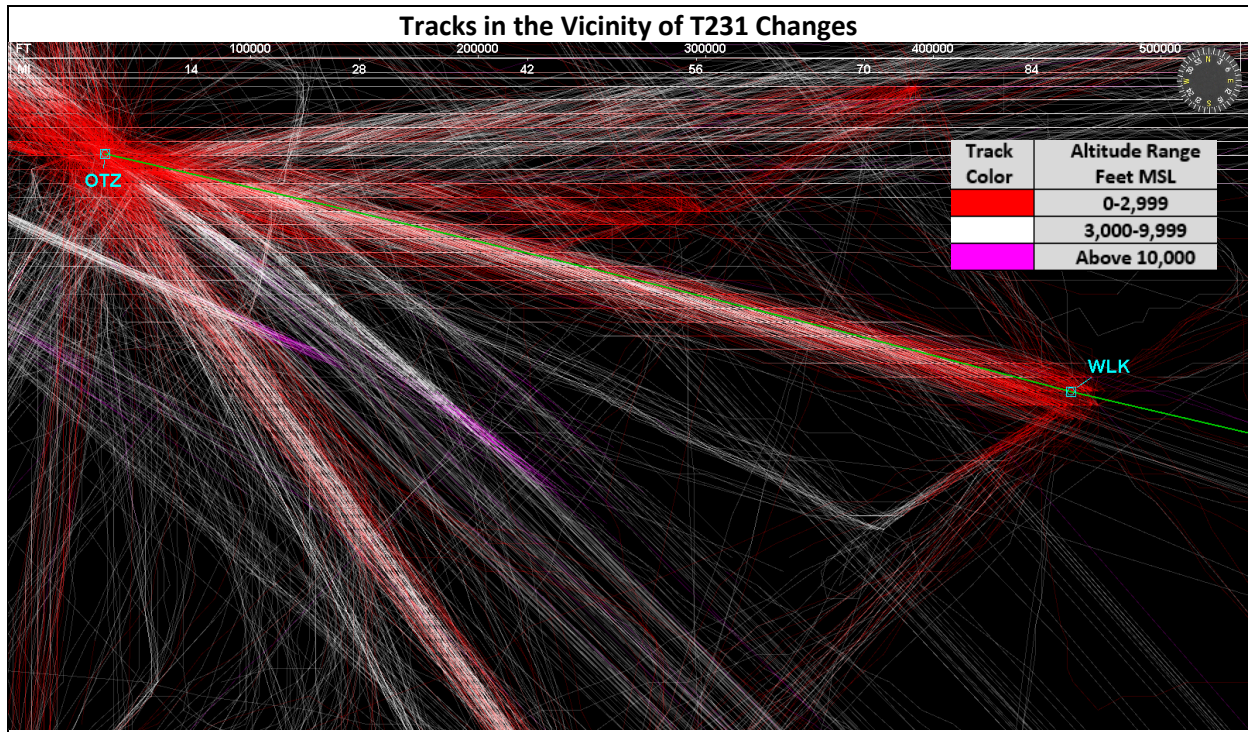


Proposed T231

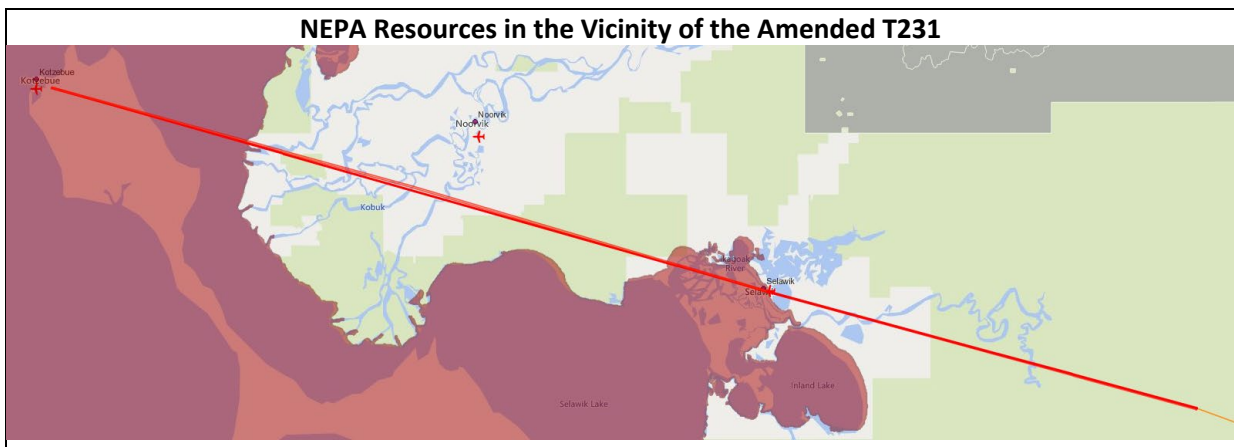
The following figure depicts the overview of the proposed amendments to T231.



The following figure depicts historical tracks in the vicinity of T231, which would have changes resulting in new, lower MEAs. The tracks shown are not limited to T route usage.

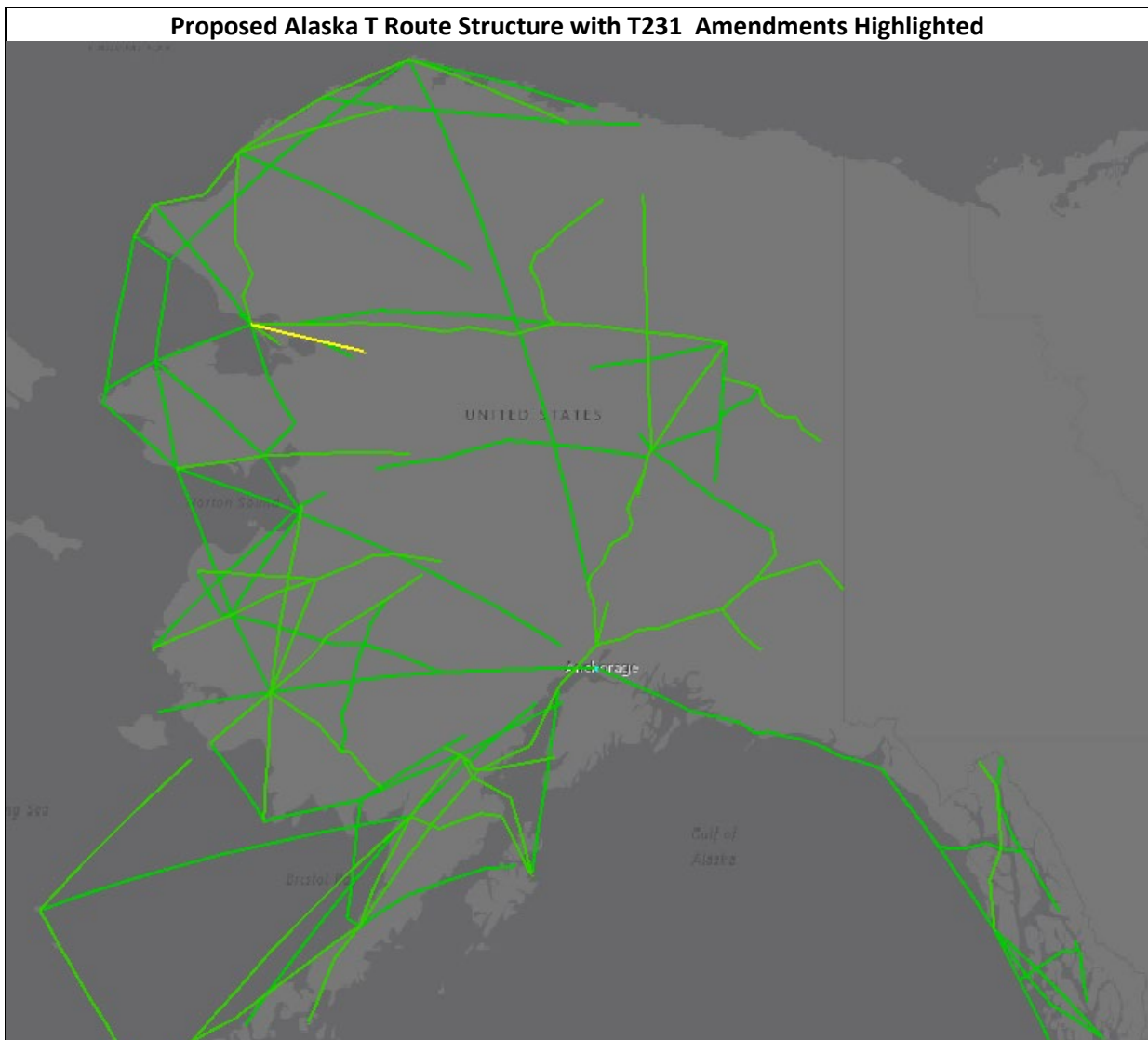


The following figure identifies the location of the Selawik Nation Wildlife Refuge (green), tribal areas (red dots), and polar bear critical habitat (brown areas) in the vicinity of the amended T route (thick orange).



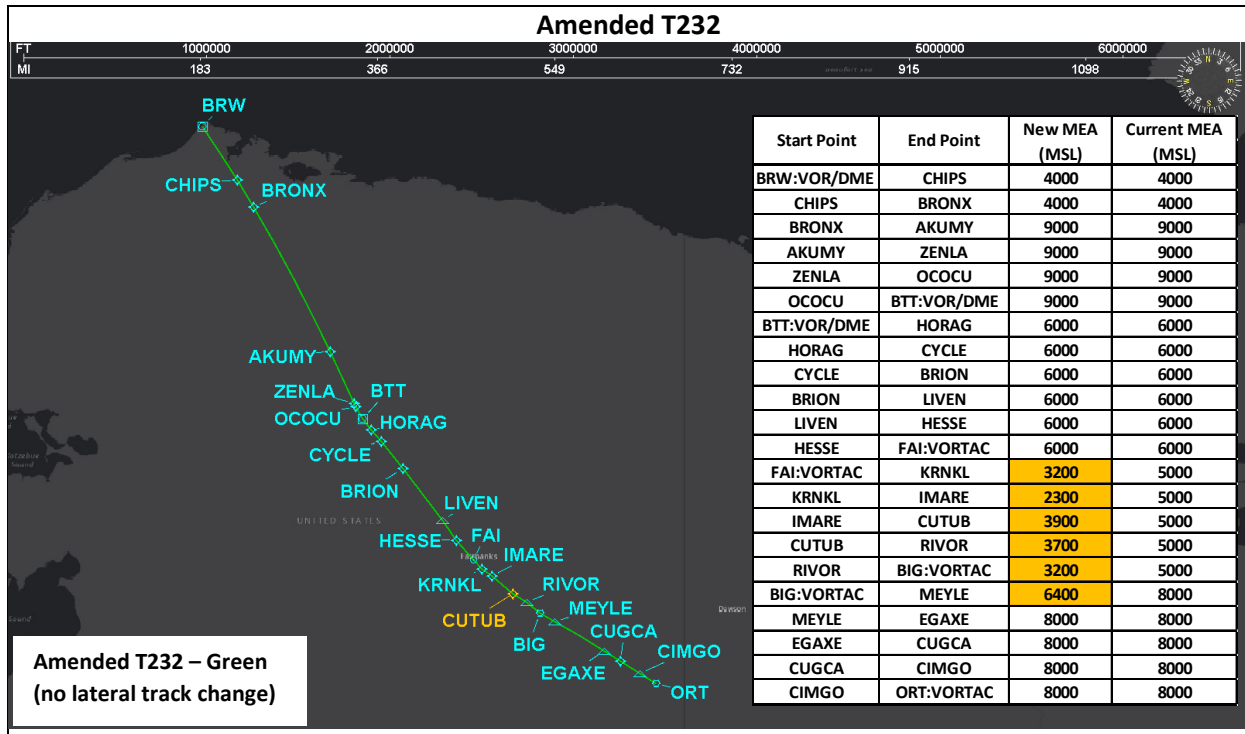
It is anticipated that aircraft would not be introduced to areas that are currently not exposed to air traffic.

The following figure depicts the overview of amended segments of T231 (yellow) and the other T routes (green) that are proposed to modernize Alaska's ATS route structure.

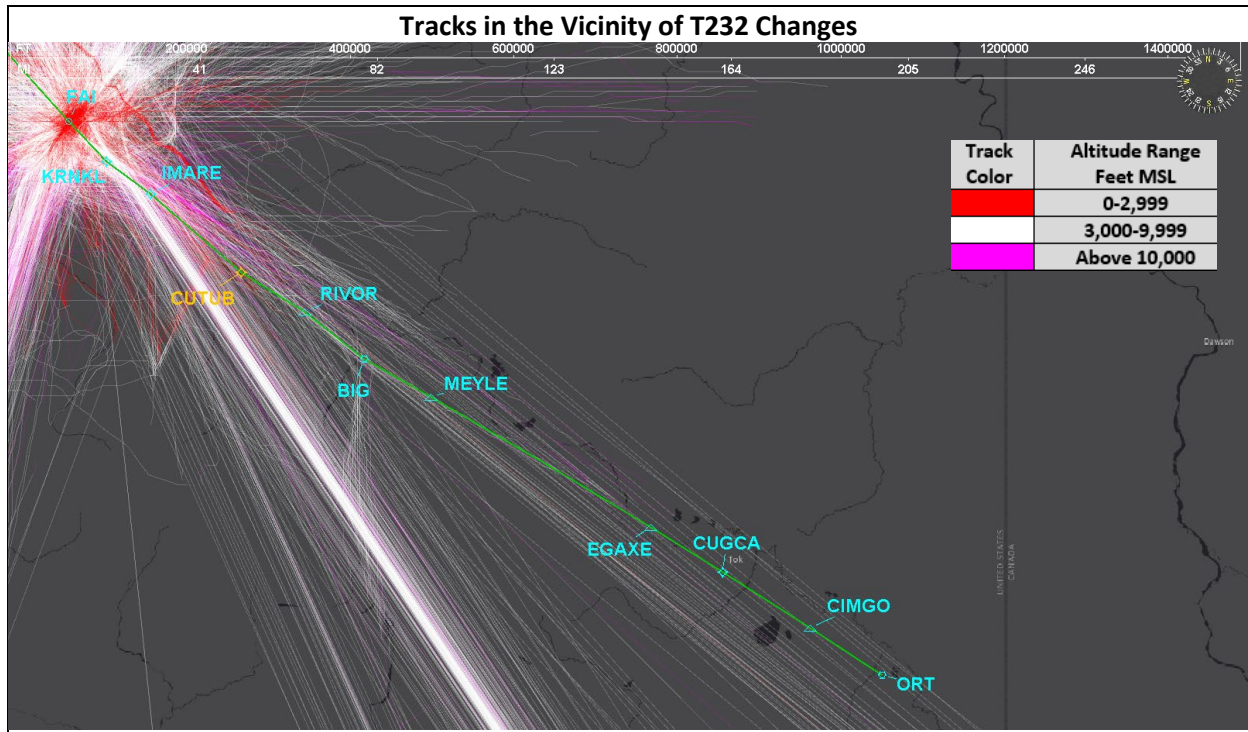


Proposed T232

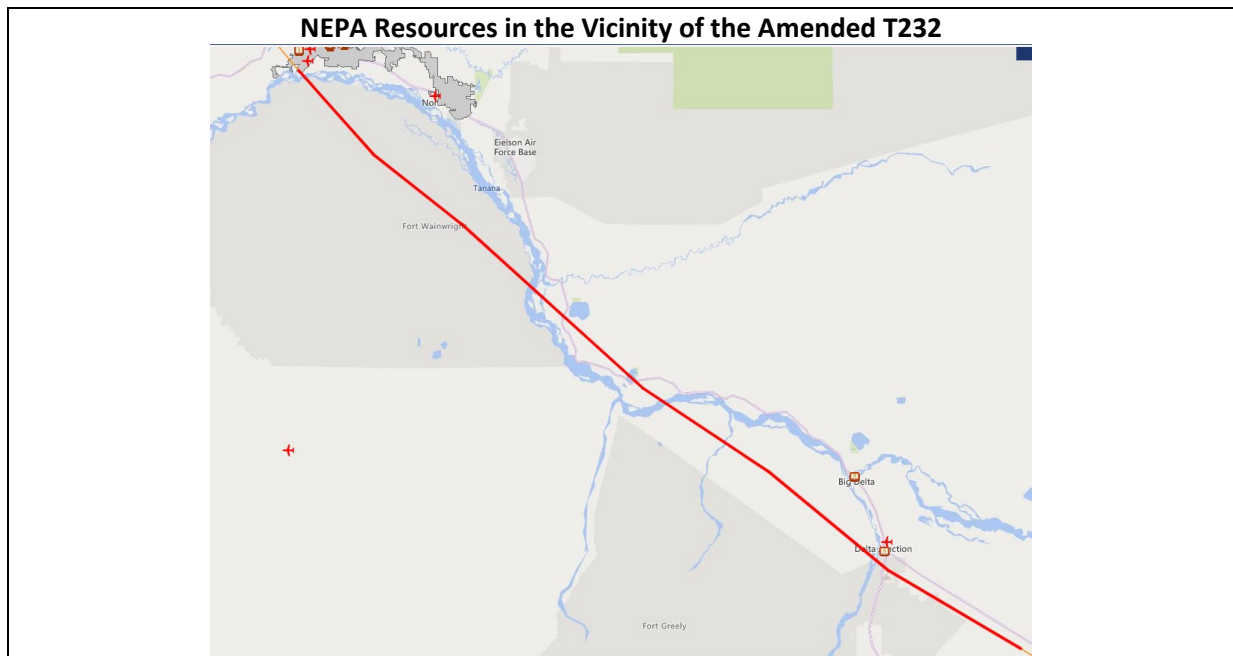
The following figure depicts the overview of the proposed amendments to T232.



The following figure depicts historical tracks in the vicinity of T232, which would have changes resulting in new, lower MEAs. The tracks shown are not limited to T route usage.



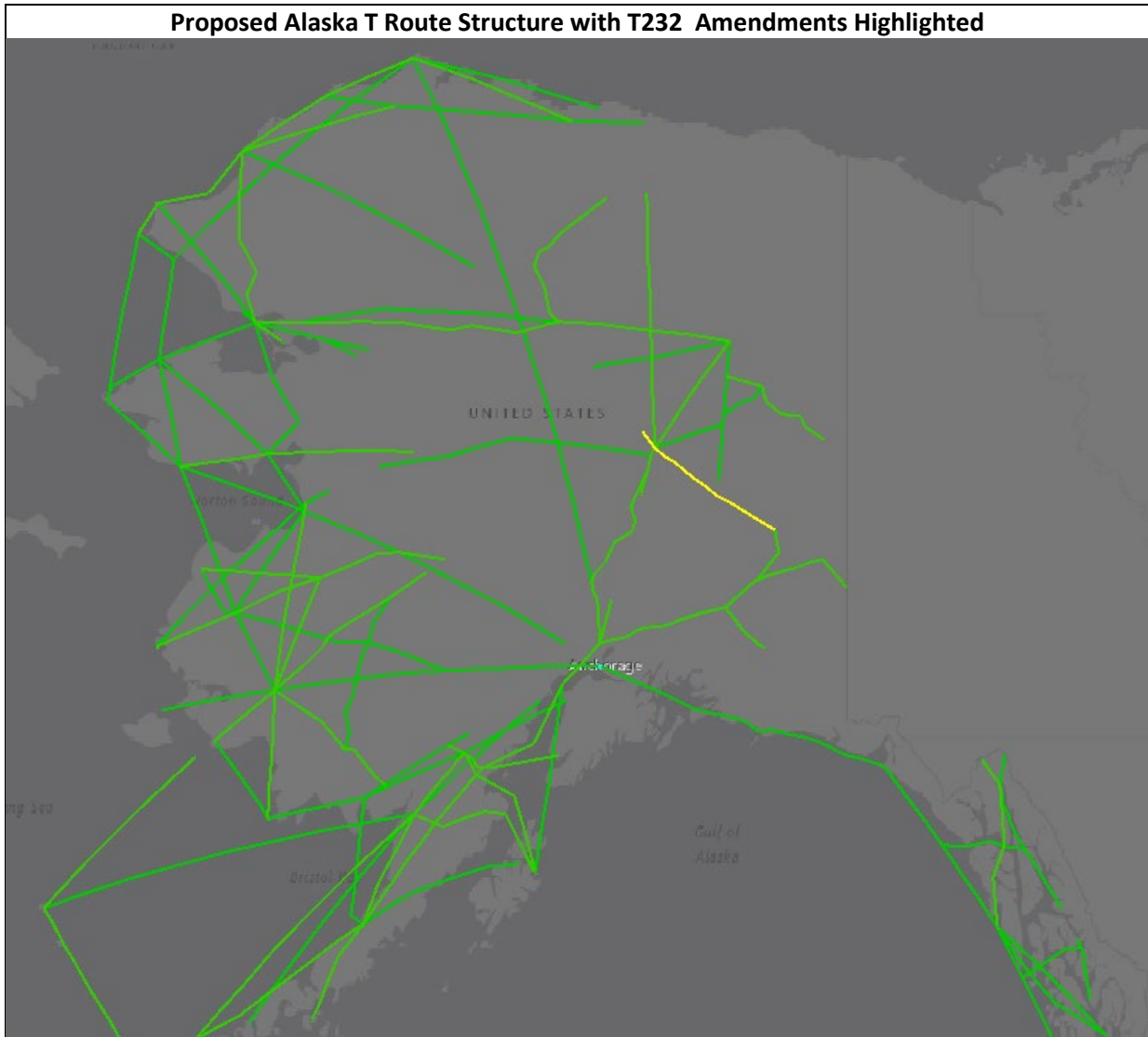
The following figure identifies the location of historical properties (brown icons) in the vicinity of the amended T route (thick orange).



It is anticipated that aircraft would not be introduced to areas that are currently not exposed to air

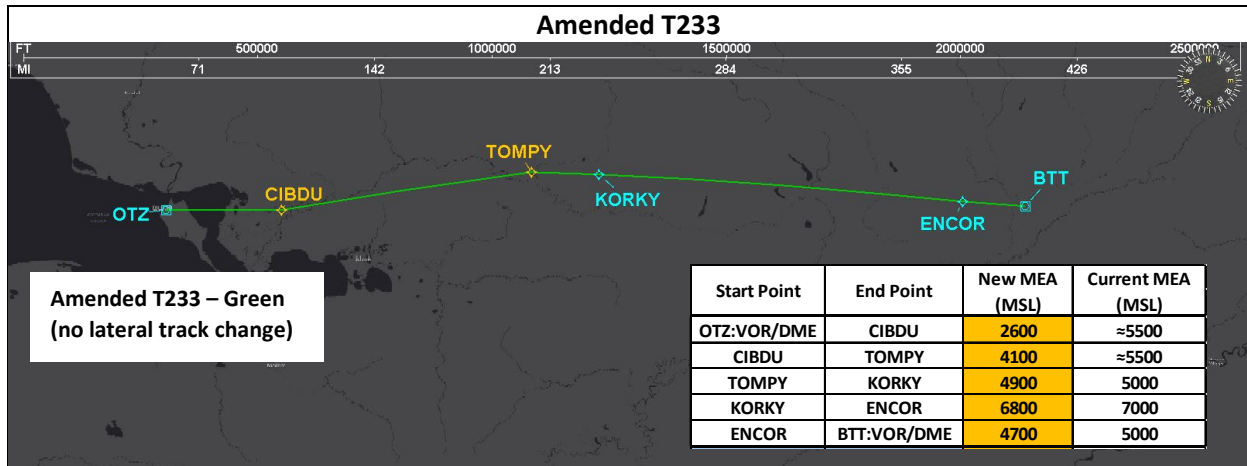
traffic.

The following figure depicts the overview of amended segments of T232 (yellow) and the other T routes (green) that are proposed to modernize Alaska's ATS route structure.

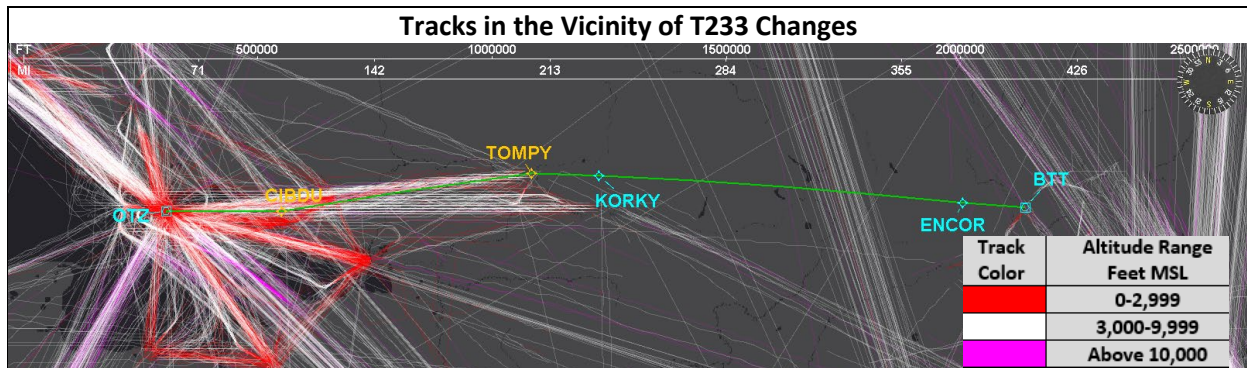


Proposed T233

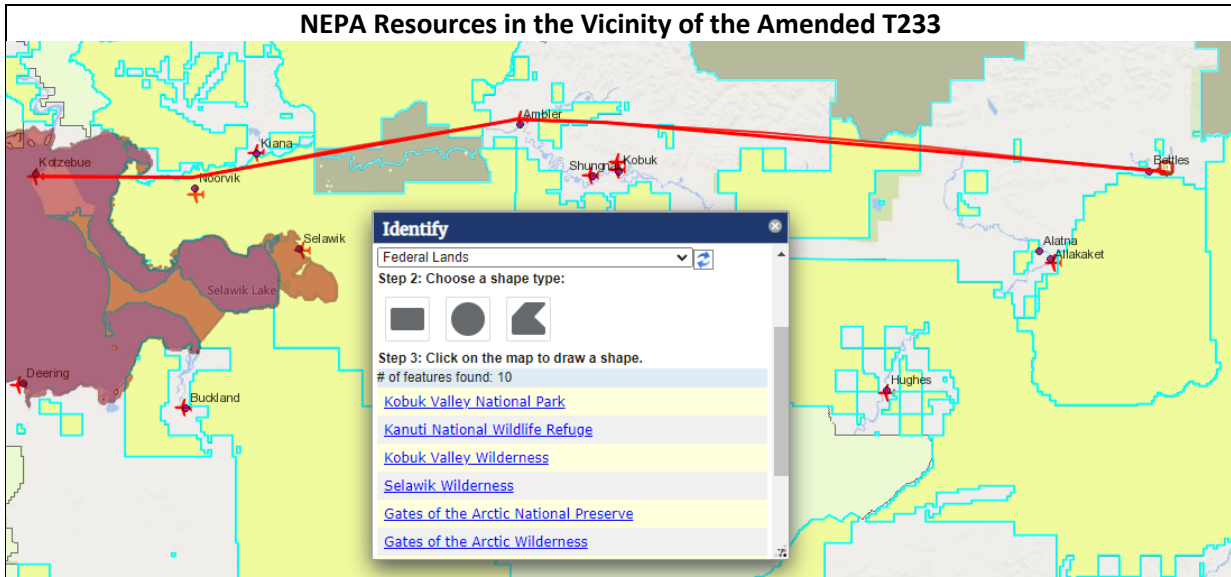
The following figure depicts the overview of the proposed amendments to T233.



The following figure depicts historical tracks in the vicinity of T233, which would have changes resulting in new, lower MEAs. The tracks shown are not limited to T route usage.

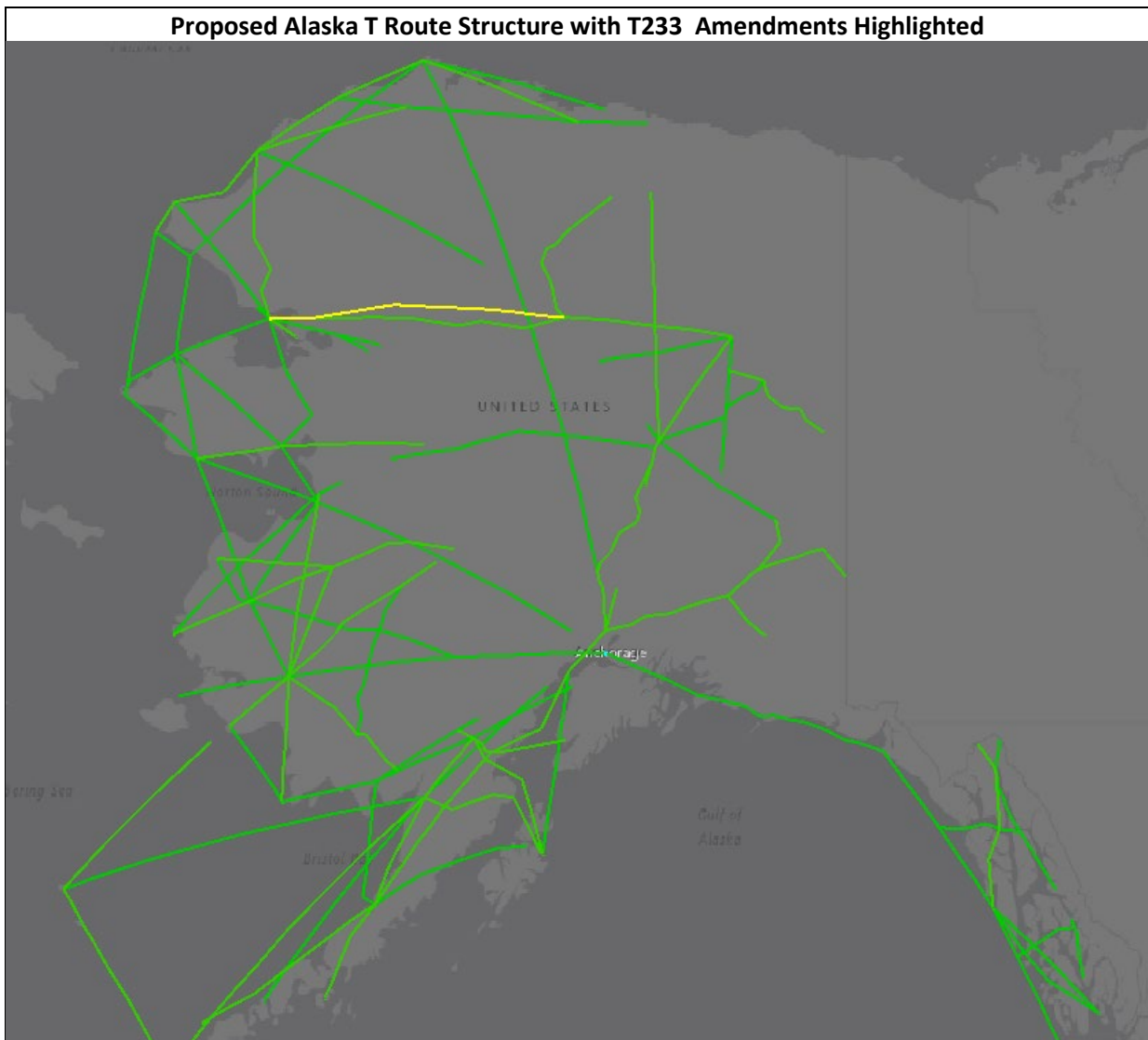


The following figure identifies the location of the historical properties (brown icons), Selawik Nation Wilderness (grey), tribal areas (red dots), polar bear critical habitat (brown areas), and National Parks, Refuges, and Preserves (yellow) in the vicinity of the amended T route (thick orange).



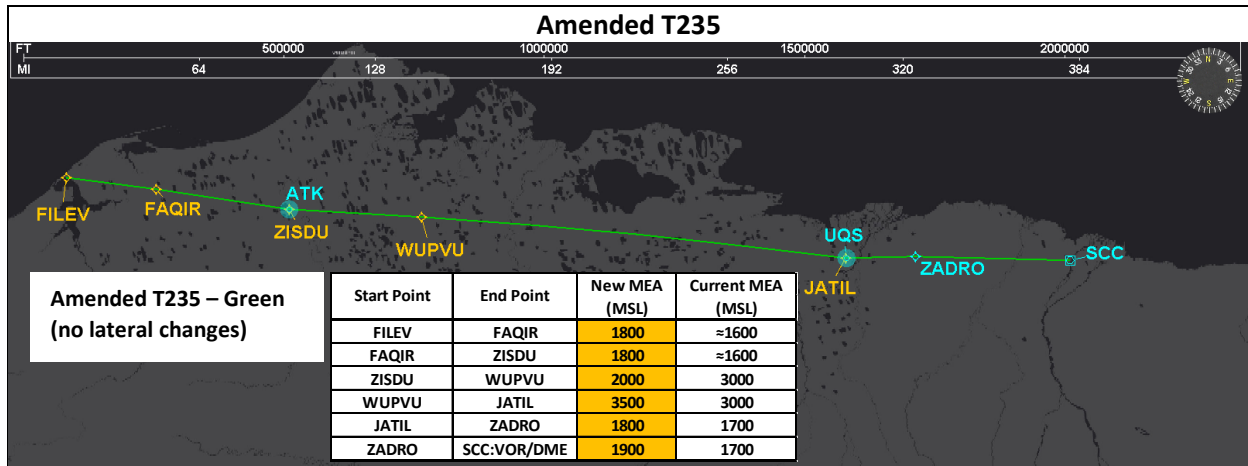
It is anticipated that aircraft would not be introduced to areas that are currently not exposed to air traffic.

The following figure depicts the overview of amended segments of T233 (yellow) and the other T routes (green) that are proposed to modernize Alaska's ATS route structure.

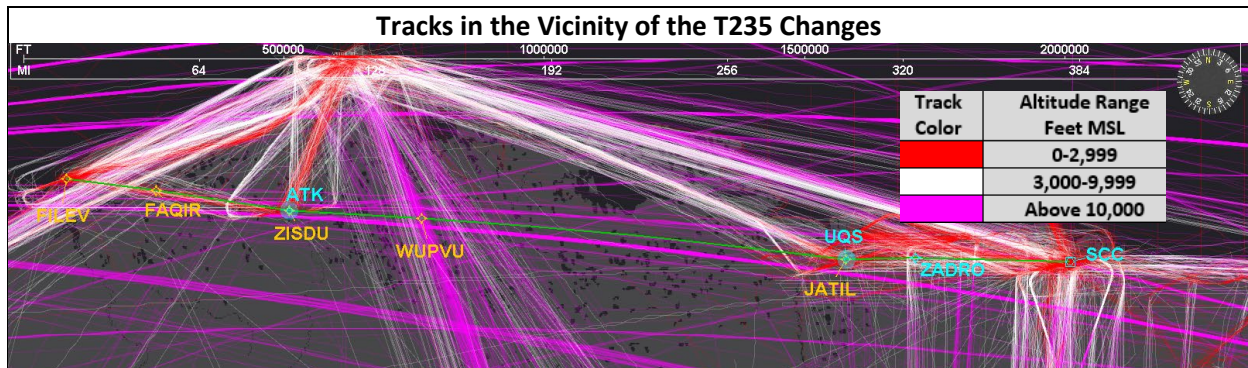


Proposed T235

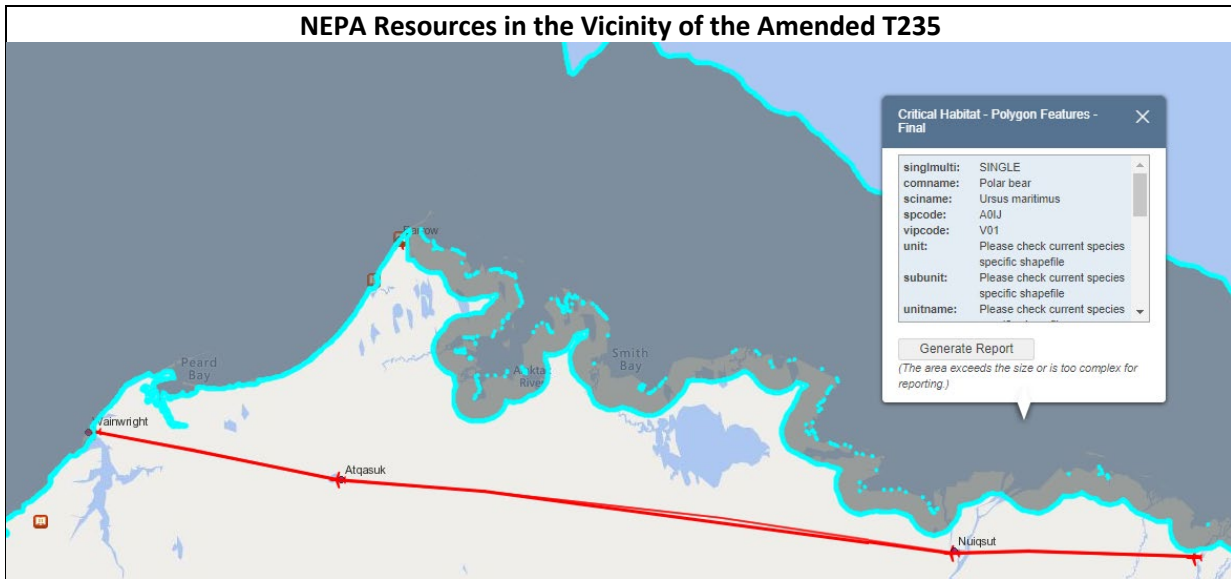
The following figure depicts the overview of the proposed amendments to T235.



The following figure depicts historical tracks in the vicinity of T235, which would have changes resulting in new, lower MEAs. The tracks shown are not limited to T route usage.

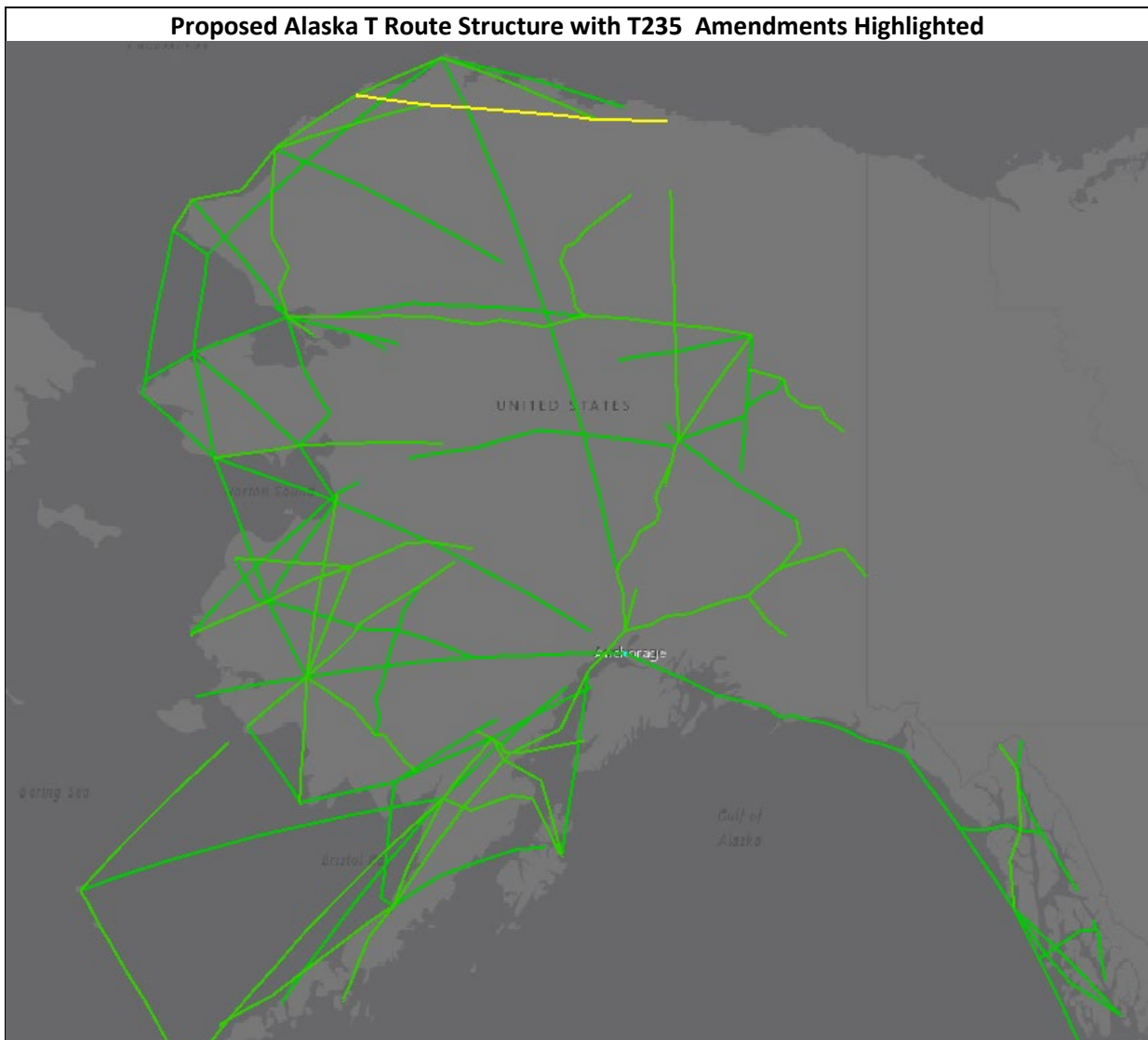


The following figure identifies the location of polar bear critical habitat in the vicinity of the amended T route (thick orange).



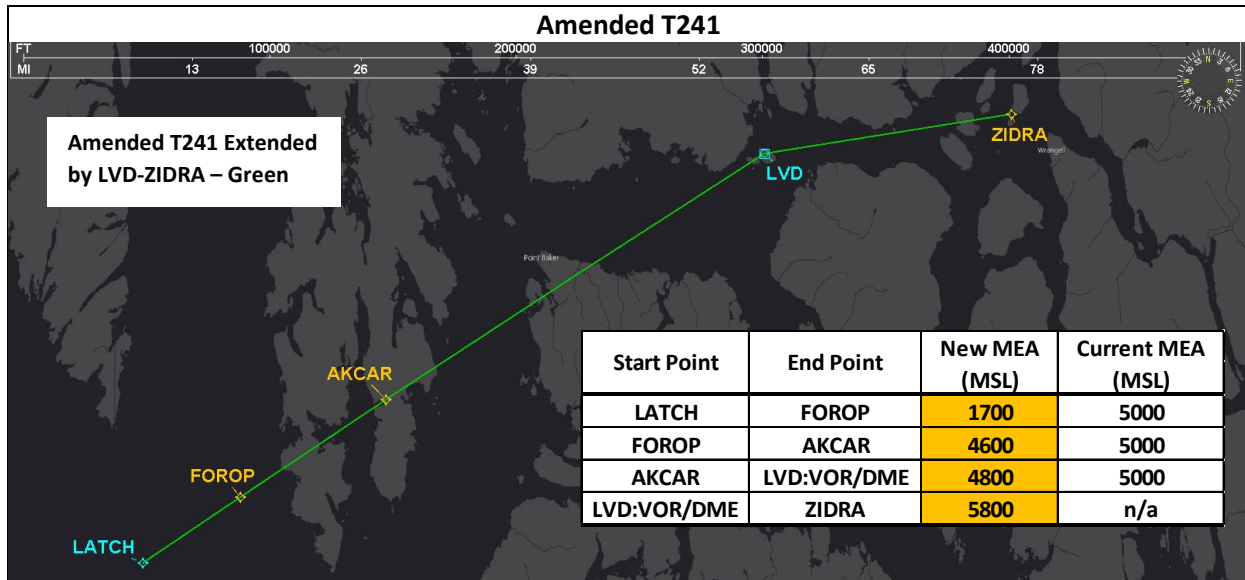
It is anticipated that aircraft would not be introduced to areas that are currently not exposed to air traffic.

The following figure depicts the overview of amended segments of T235 (yellow) and the other T routes (green) that are proposed to modernize Alaska's ATS route structure.

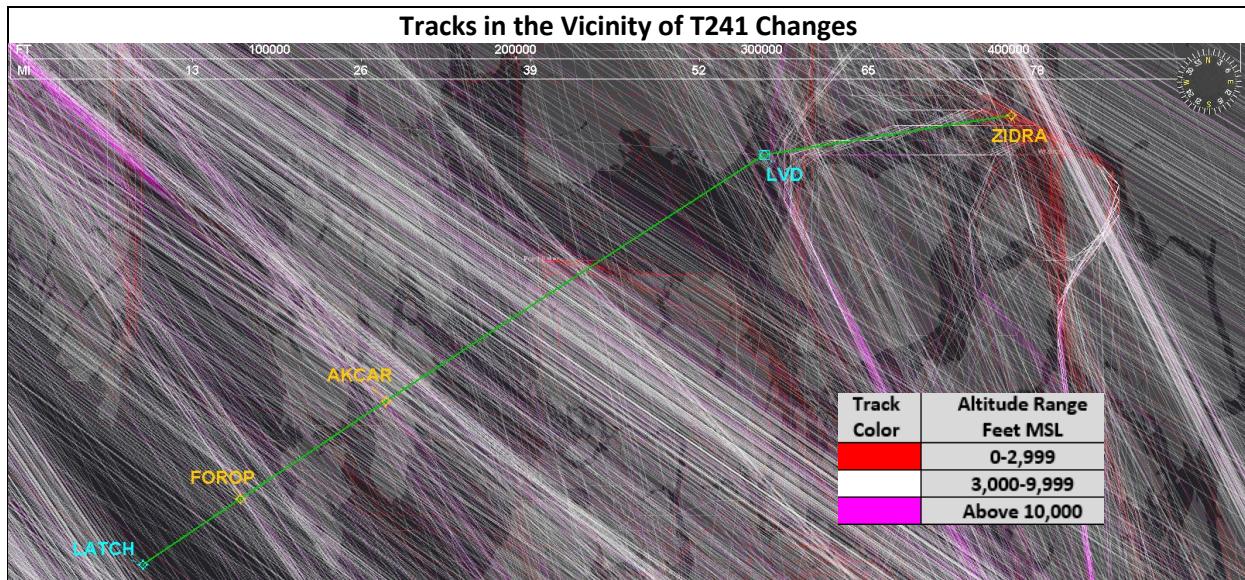


Proposed T241

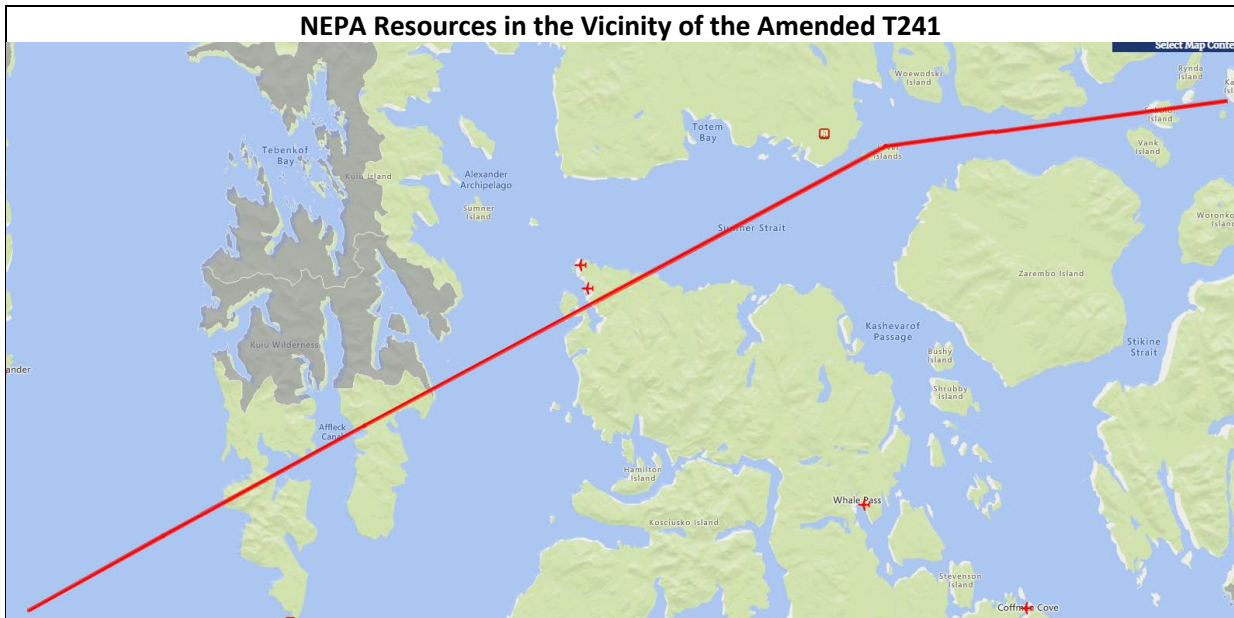
The following figure depicts the overview of the proposed amendments to T241.



The following figure depicts historical tracks in the vicinity of T241, which would have extended segment and changes resulting in new, lower MEAs. The tracks shown are not limited to T route usage.

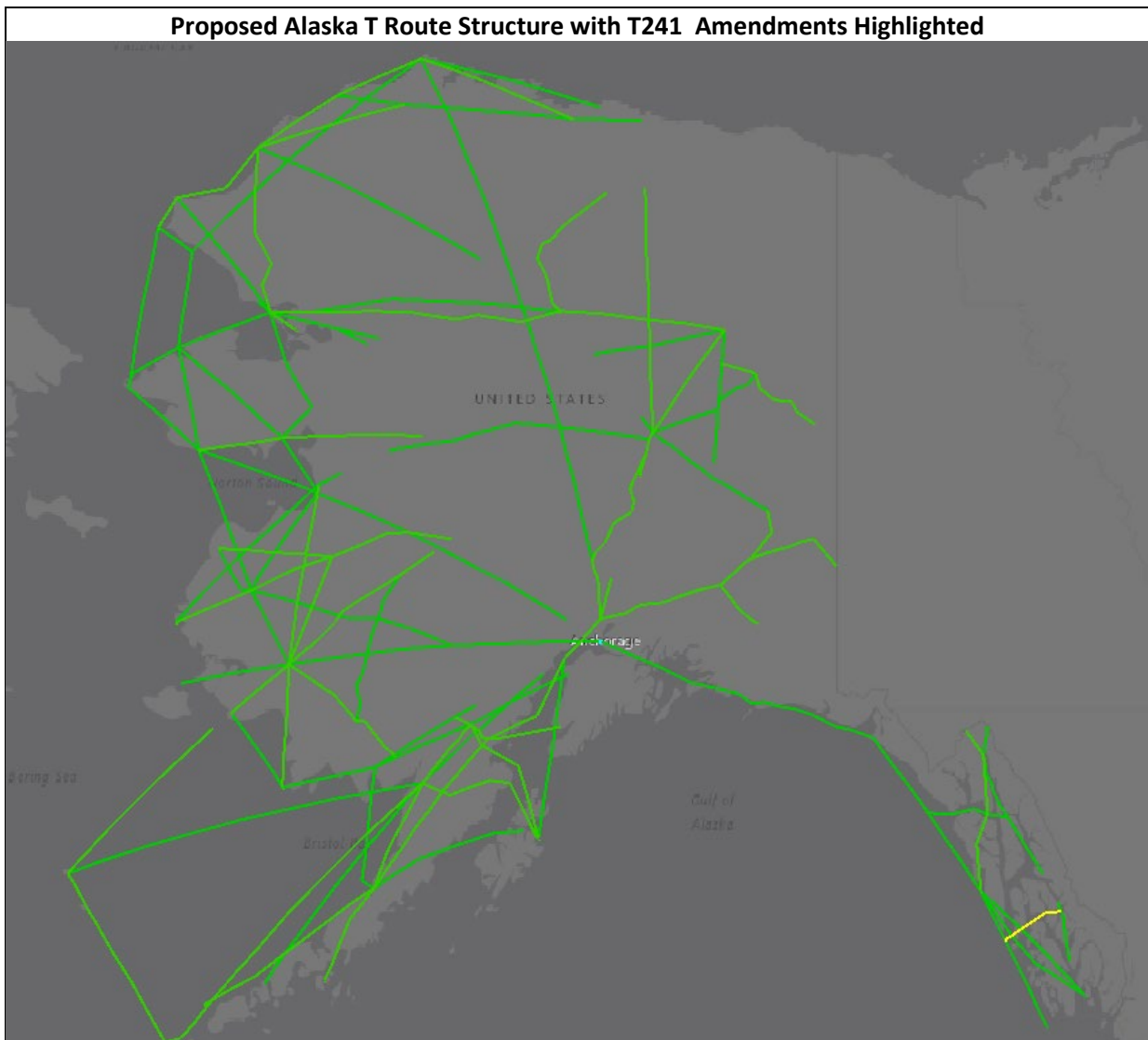


The following figure identifies the location of Tongass National Forest (green) and wilderness areas (grey) in the vicinity of the amended T route (thick orange).



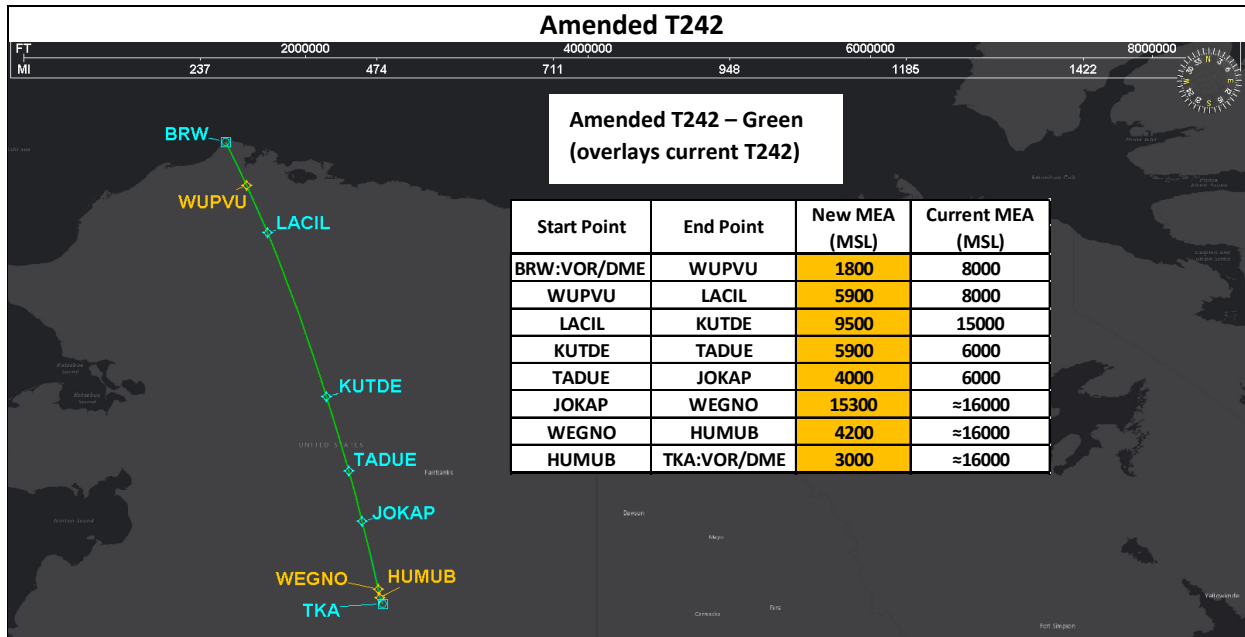
It is anticipated that aircraft would not be introduced to areas that are currently not exposed to air traffic.

The following figure depicts the overview of amended segments T241 (yellow) and the other T routes (green) that are proposed to modernize Alaska's ATS route structure.

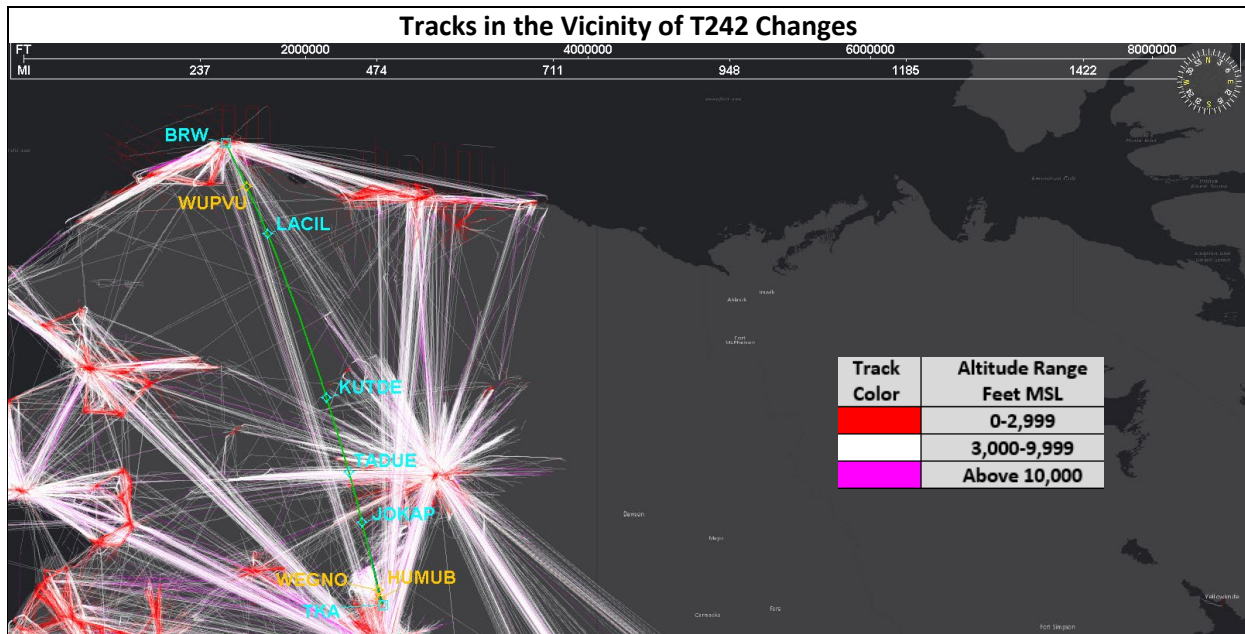


Proposed T242

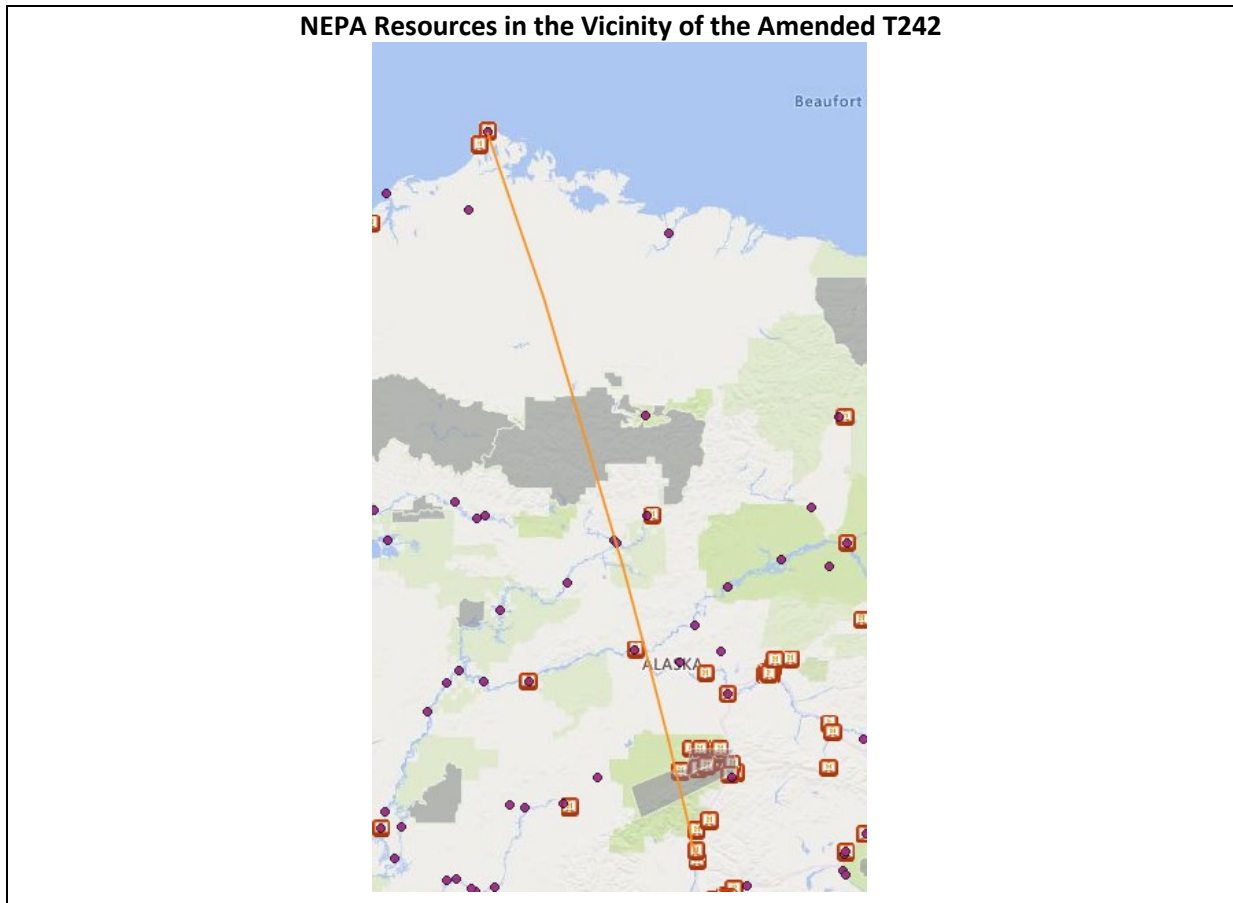
The following figure depicts the overview of the proposed amendments to T242.



The following figure depicts historical tracks in the vicinity of T242, which would have changes resulting in new, lower MEAs. The tracks shown are not limited to T route usage.

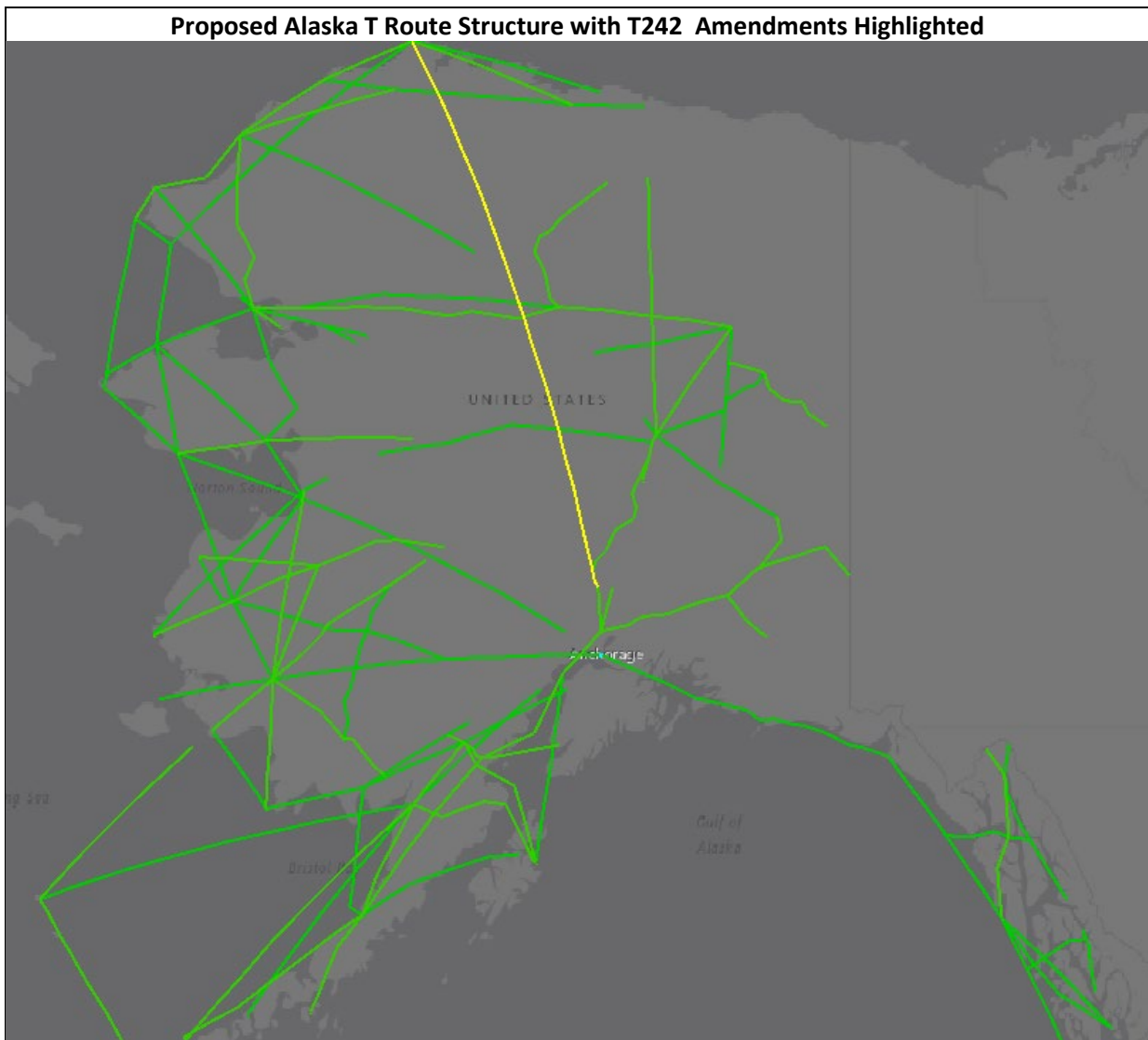


The following figure identifies the location of Denali National Park (green below the route) and wilderness areas (grey) in the vicinity of the amended T route (orange).



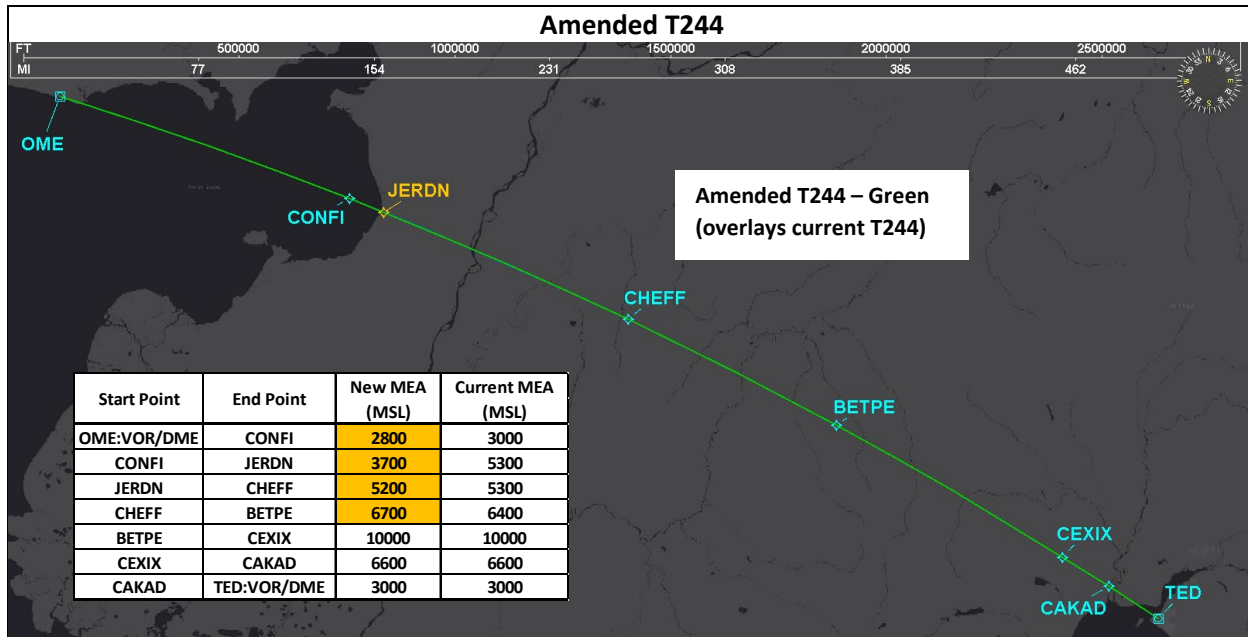
It is anticipated that aircraft would not be introduced to areas that are currently not exposed to air traffic.

The following figure depicts the overview of amended segments of T242 (yellow) and the other T routes (green) that are proposed to modernize Alaska's ATS route structure.

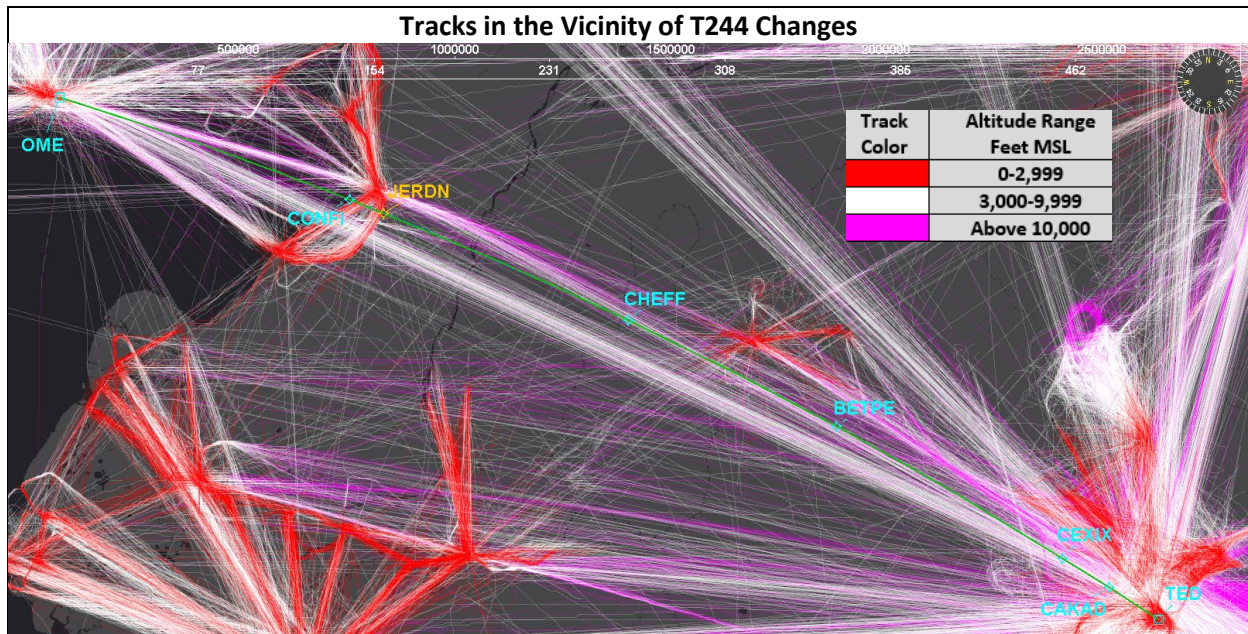


Proposed T244

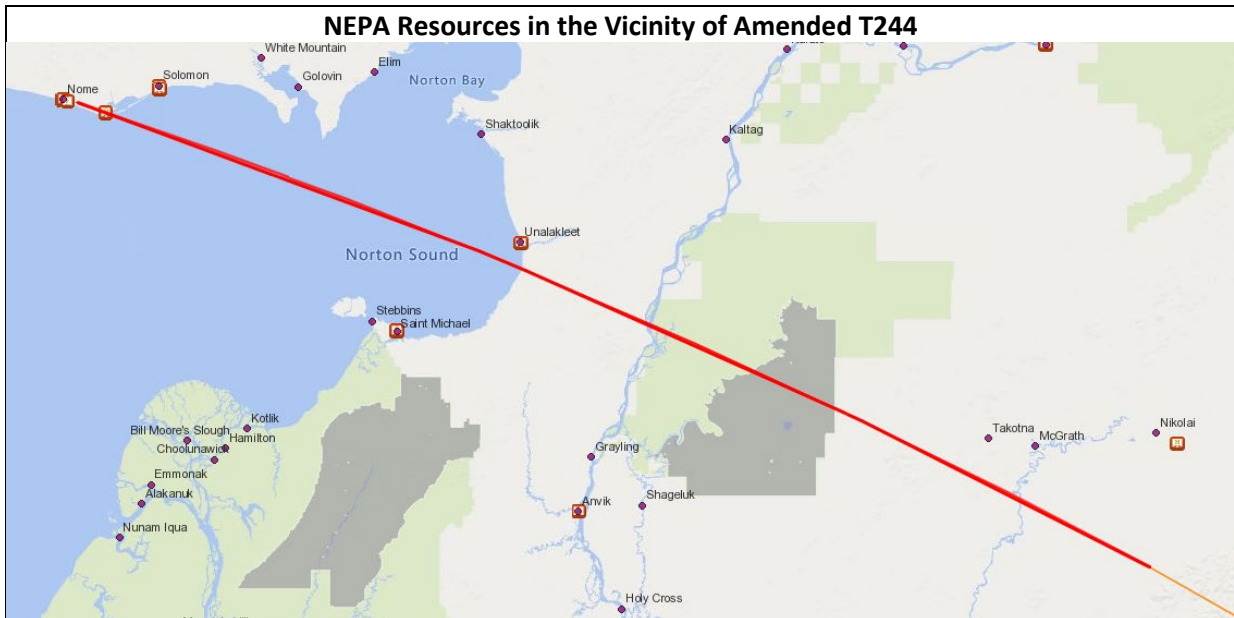
The following figure depicts the overview of the proposed amendments to T244.



The following figure depicts historical tracks in the vicinity of T244, which would have changes resulting in new, lower MEAs. The tracks shown are not limited to T route usage.

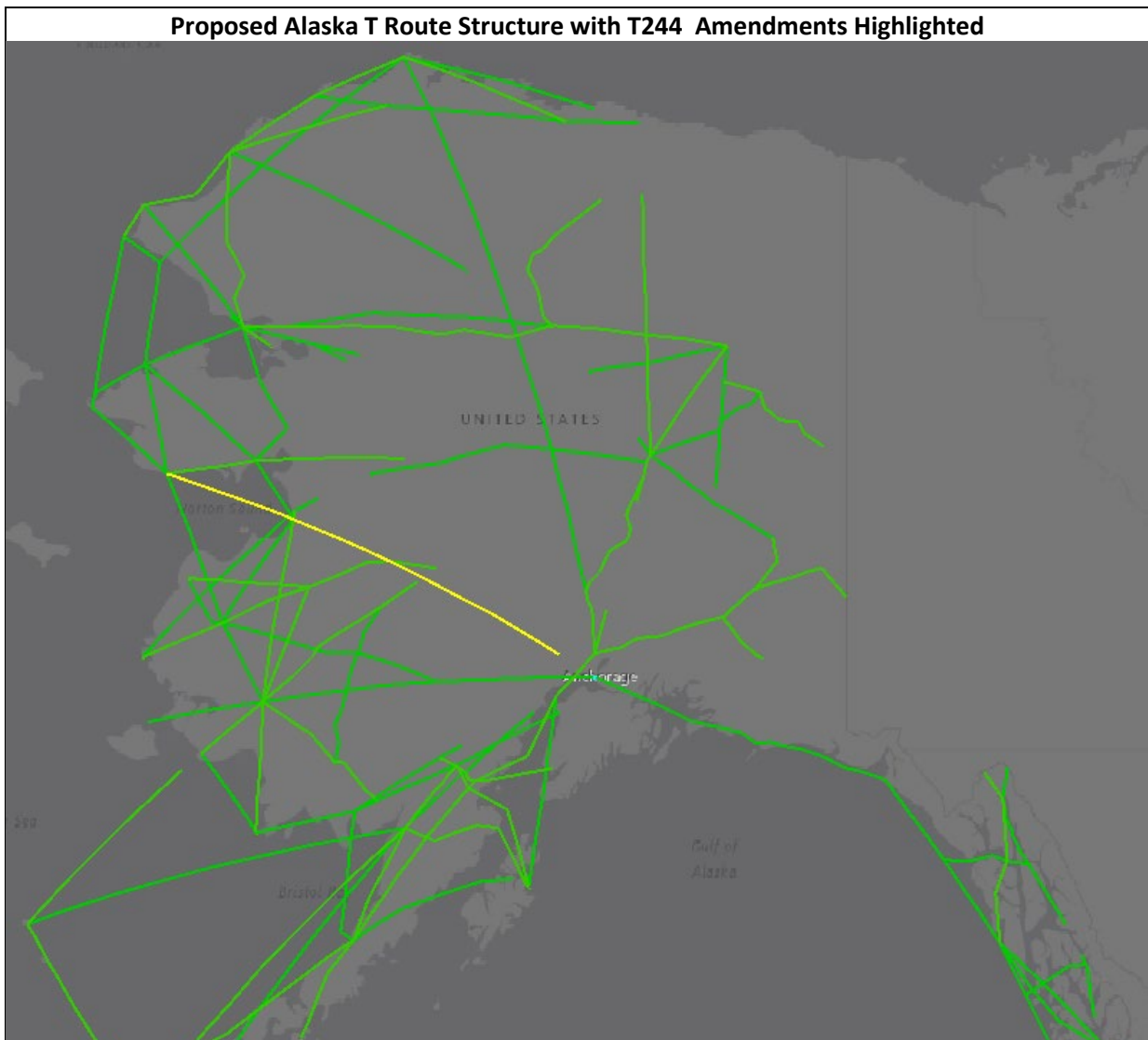


The following figure identifies the location of historical properties (brown icons), tribal villages (red dots), and wilderness areas (grey) in the vicinity of the amended T route (orange).



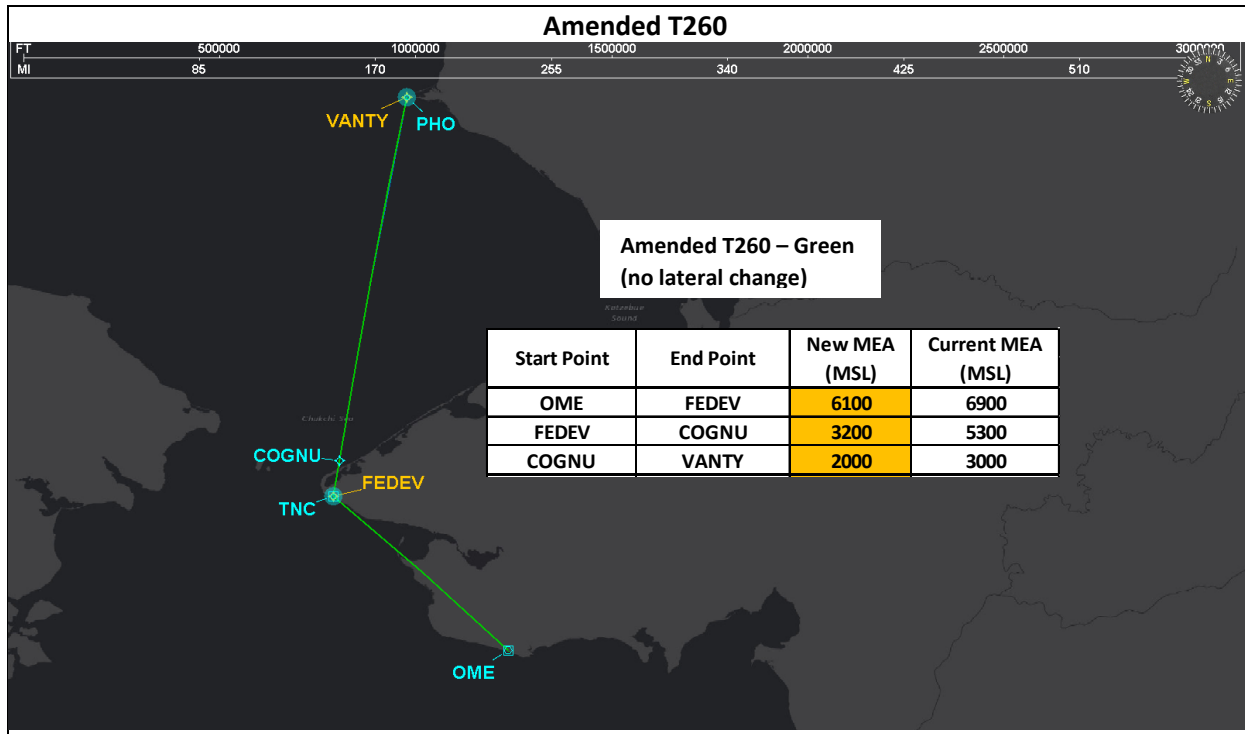
It is anticipated that aircraft would not be introduced to areas that are currently not exposed to air traffic.

The following figure depicts the overview of amended segments of T244 (yellow) and the other T routes (green) that are proposed to modernize Alaska's ATS route structure.

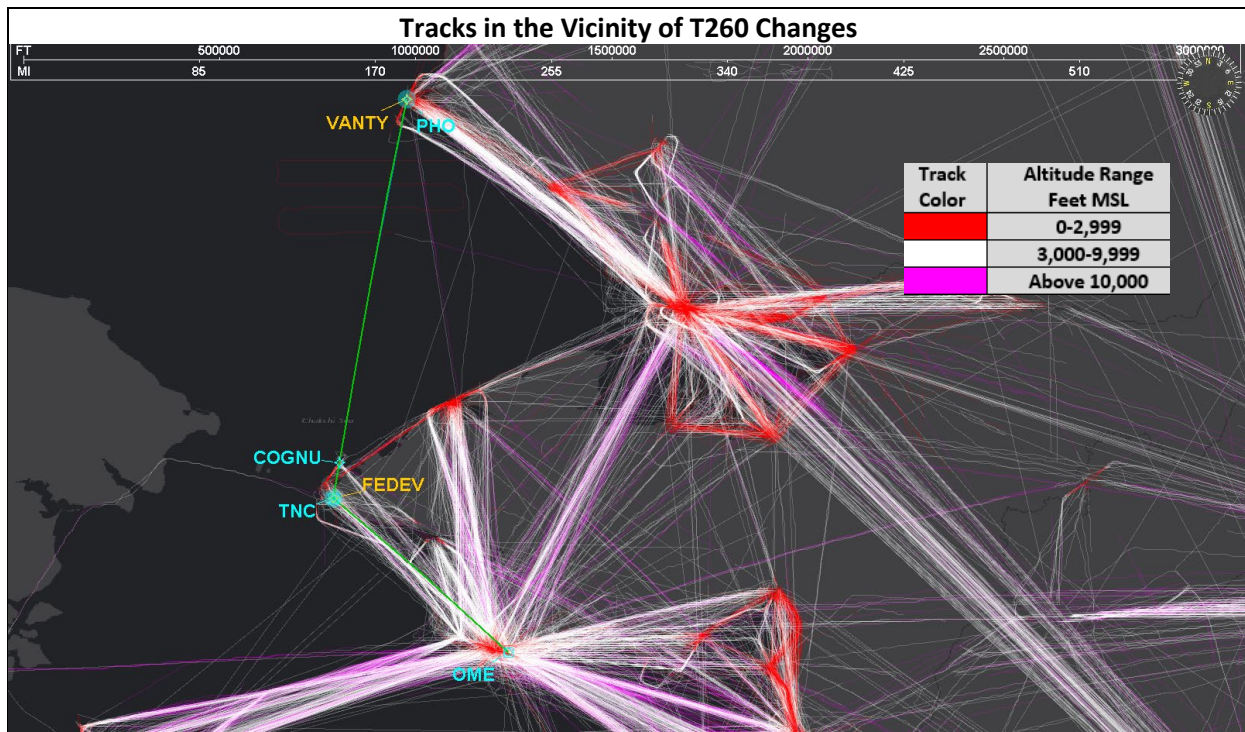


Proposed T260

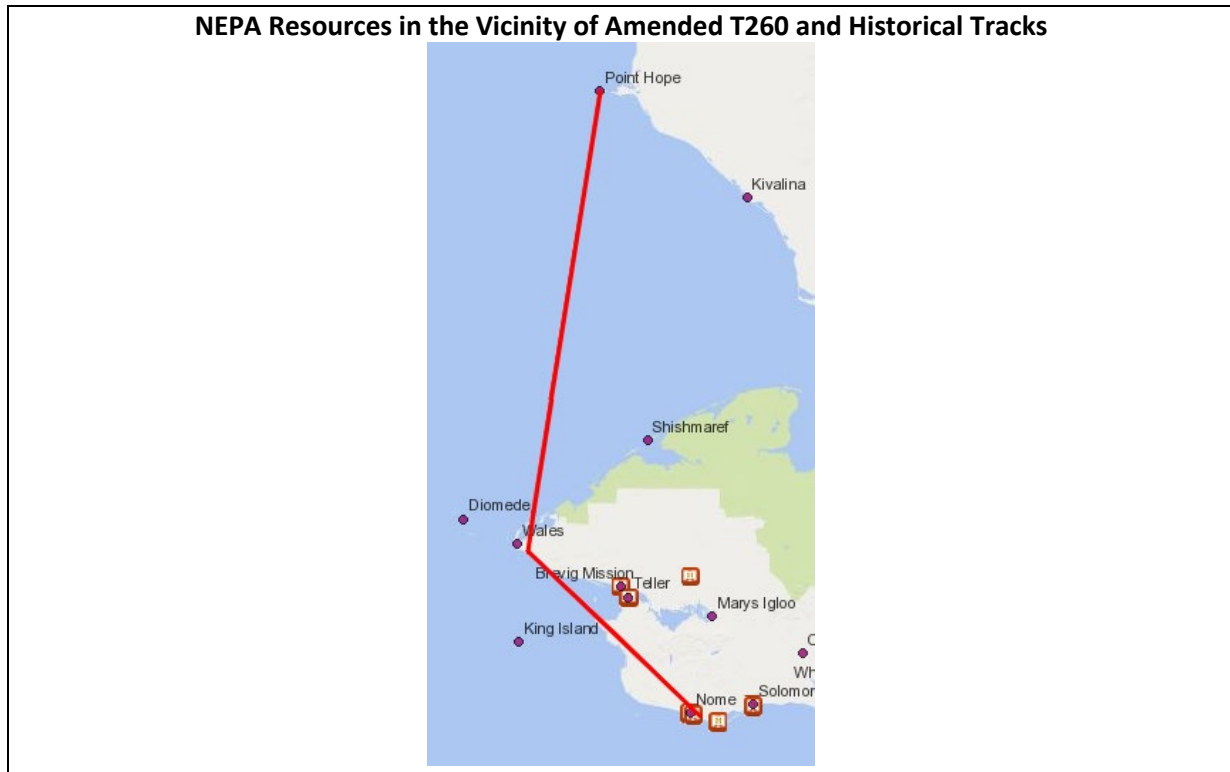
The following figure depicts the overview of the proposed amendments to T260.



The following figure depicts historical tracks in the vicinity of T260, which would have changes resulting in new, lower MEAs. The tracks shown are not limited to T route usage.

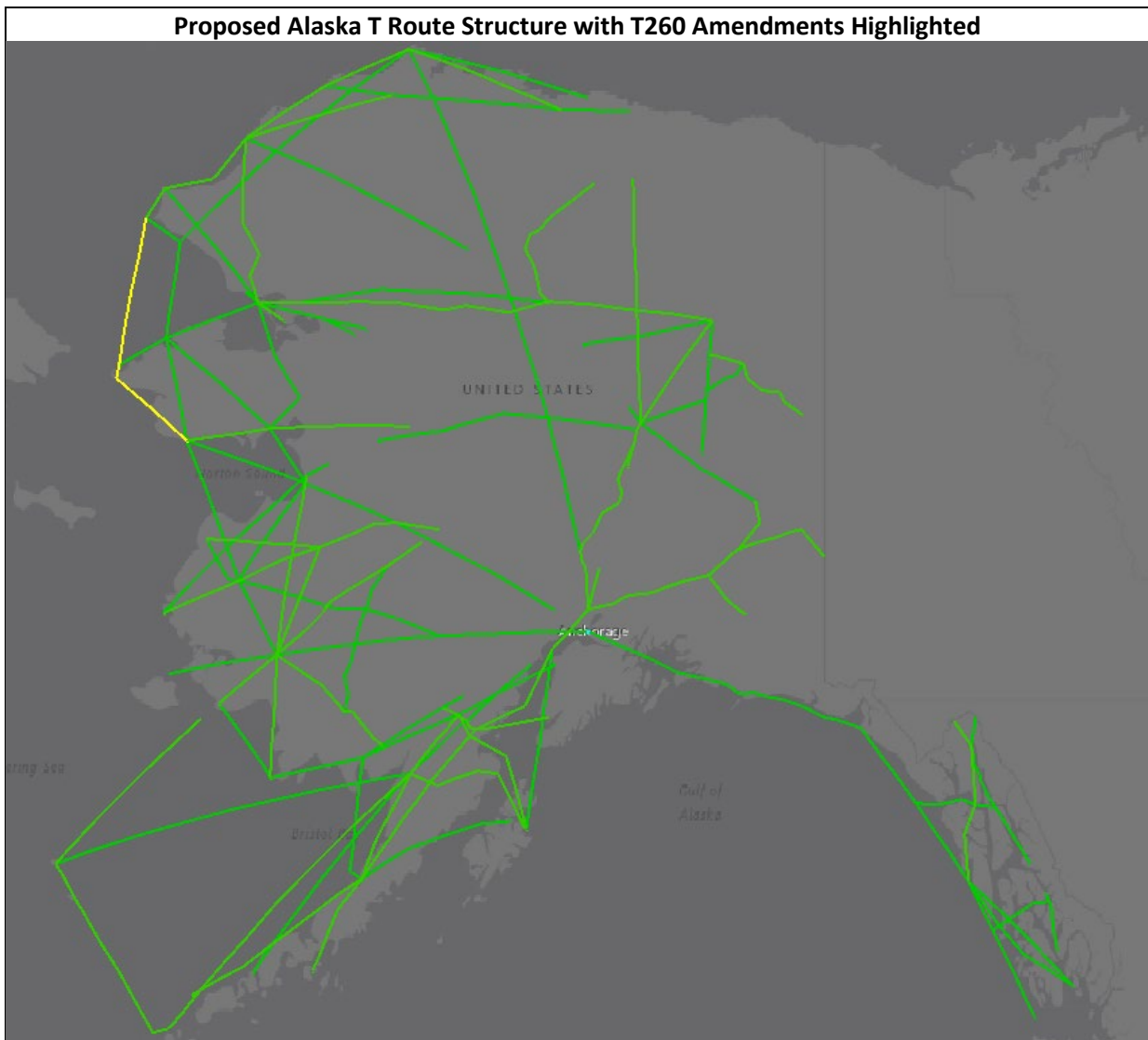


The following figure identifies the location of historical properties (brown icons) and tribal villages (red dots) in the vicinity of the amended segments of T route (thick orange).



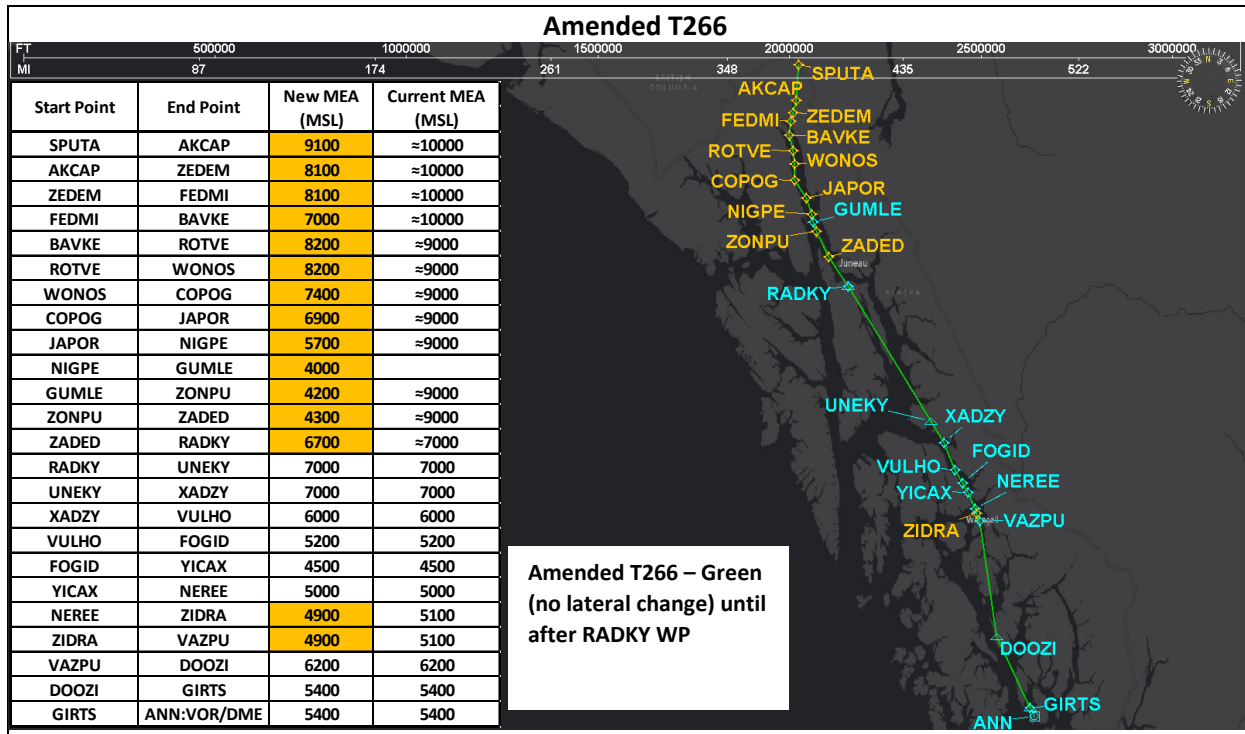
It is anticipated that aircraft would not be introduced to areas that are currently not exposed to air traffic.

The following figure depicts the overview of amended segments of T260 (yellow) and the other T routes (green) that are proposed to modernize Alaska's ATS route structure.

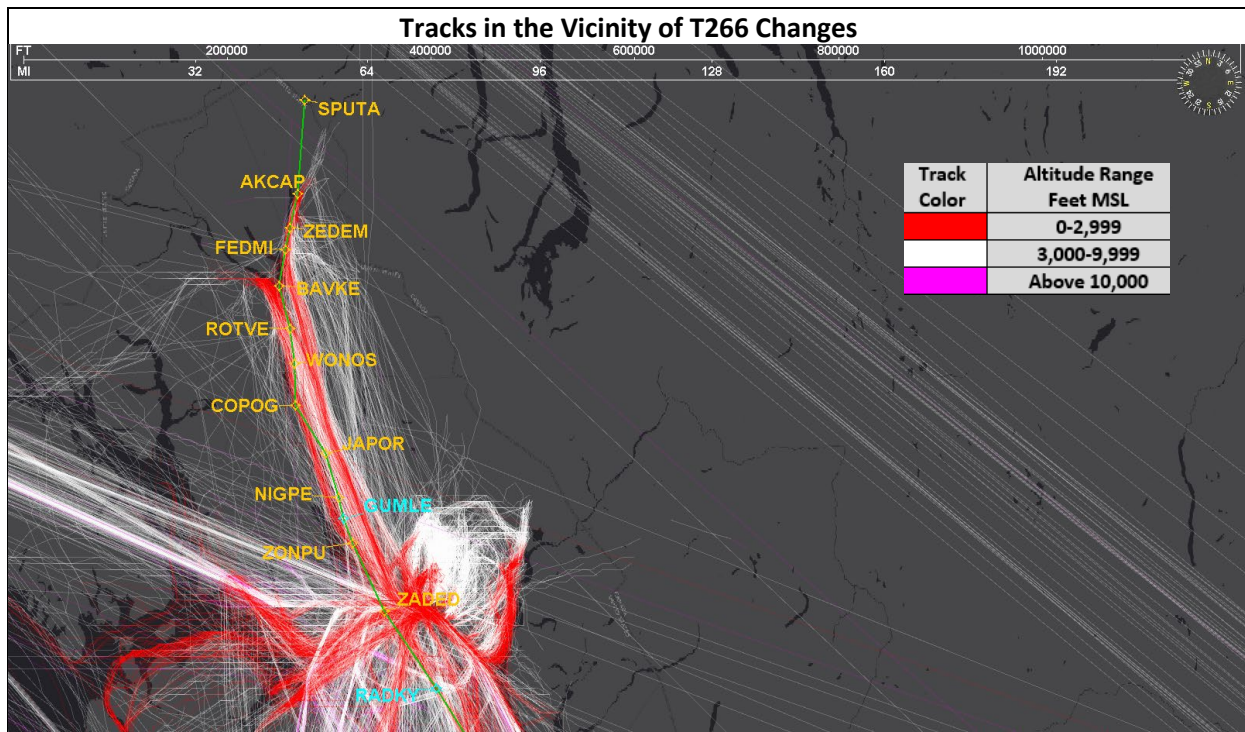


Proposed T266

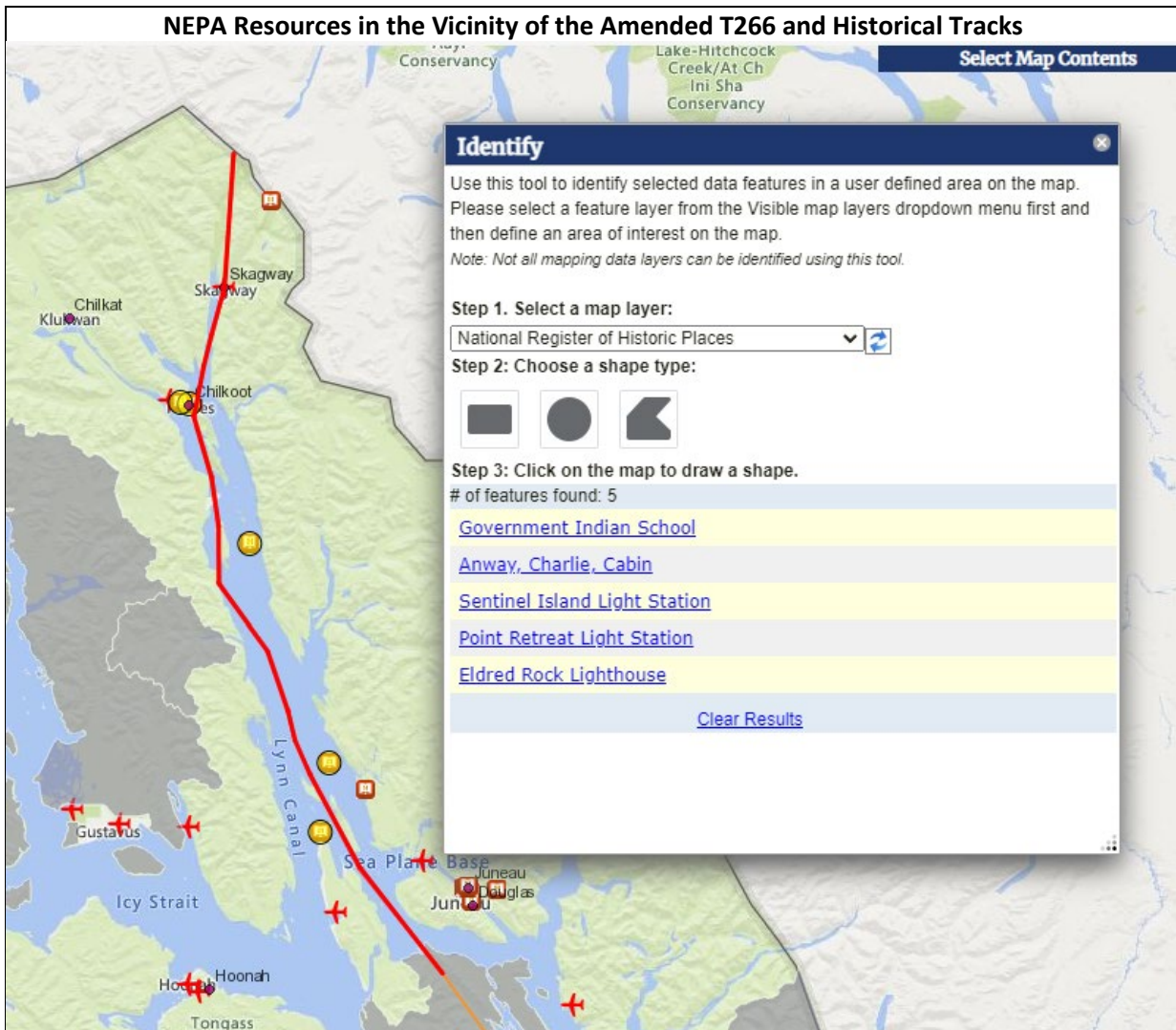
The following figure depicts the overview of the proposed amendments to T266.



The following figure depicts historical tracks in the vicinity of T266, which would have changes resulting in new, lower MEAs. The tracks shown are not limited to T route usage.

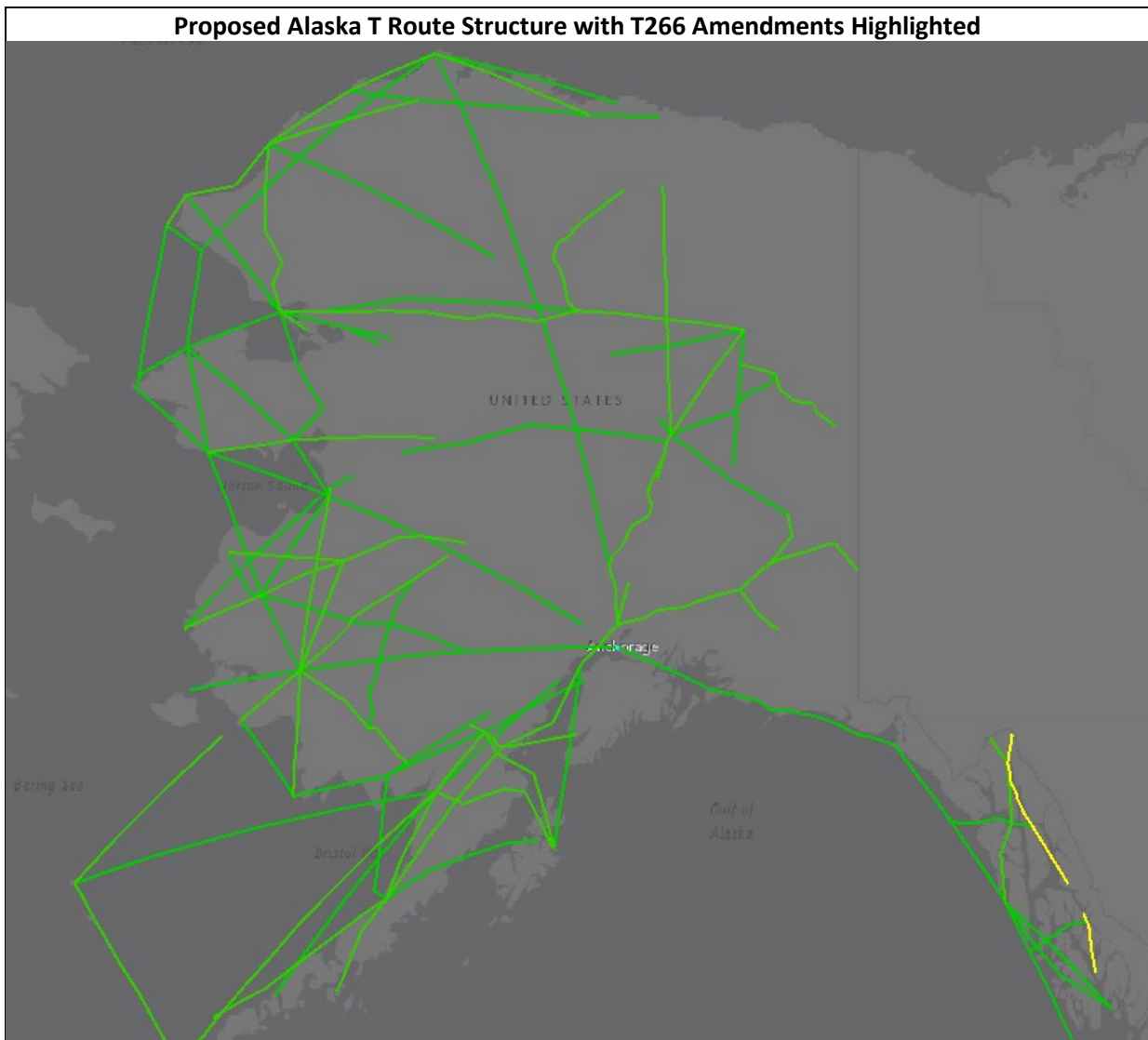


The following figure identifies the location of the historical properties (gold icons), tribal areas (red dots), wilderness areas (grey), and Tongass National Forest (green) in the vicinity of the amended segments of T route (thick orange).



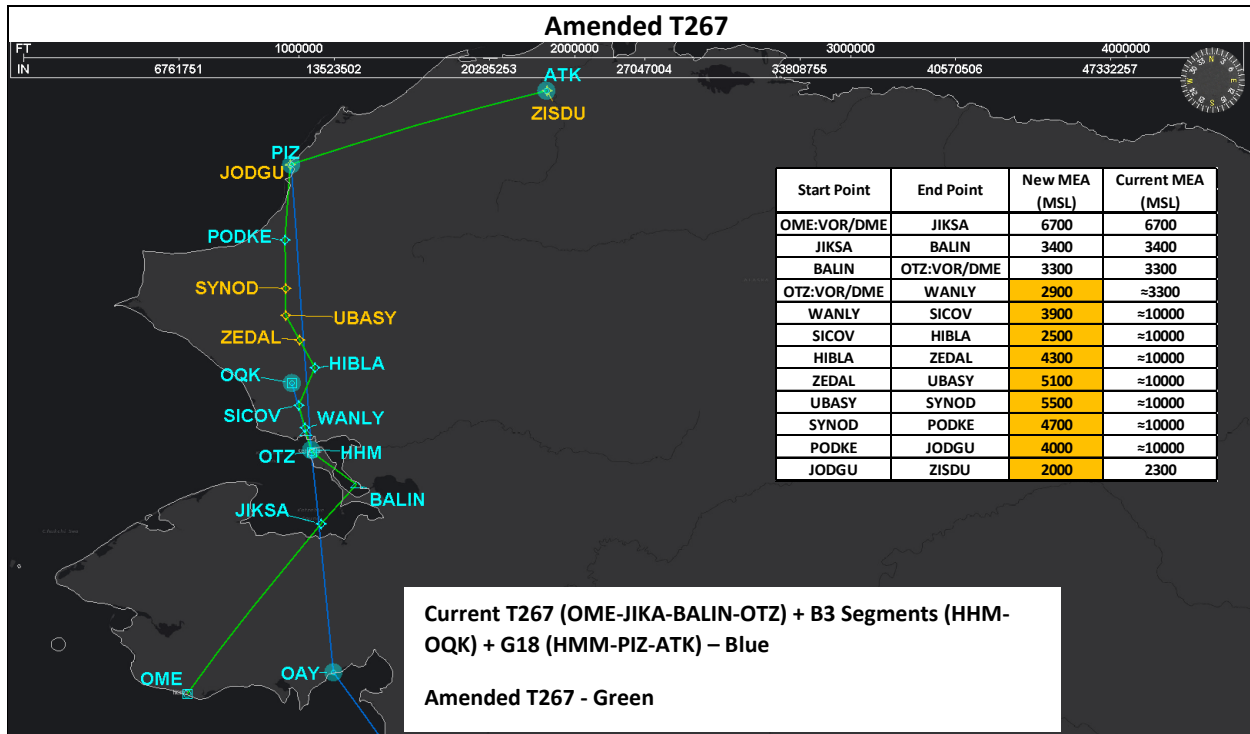
It is anticipated that aircraft would not be introduced to areas that are currently not exposed to air traffic.

The following figure depicts the overview of amended segments of T266 (yellow) and the other T routes (green) that are proposed to modernize Alaska's ATS route structure.

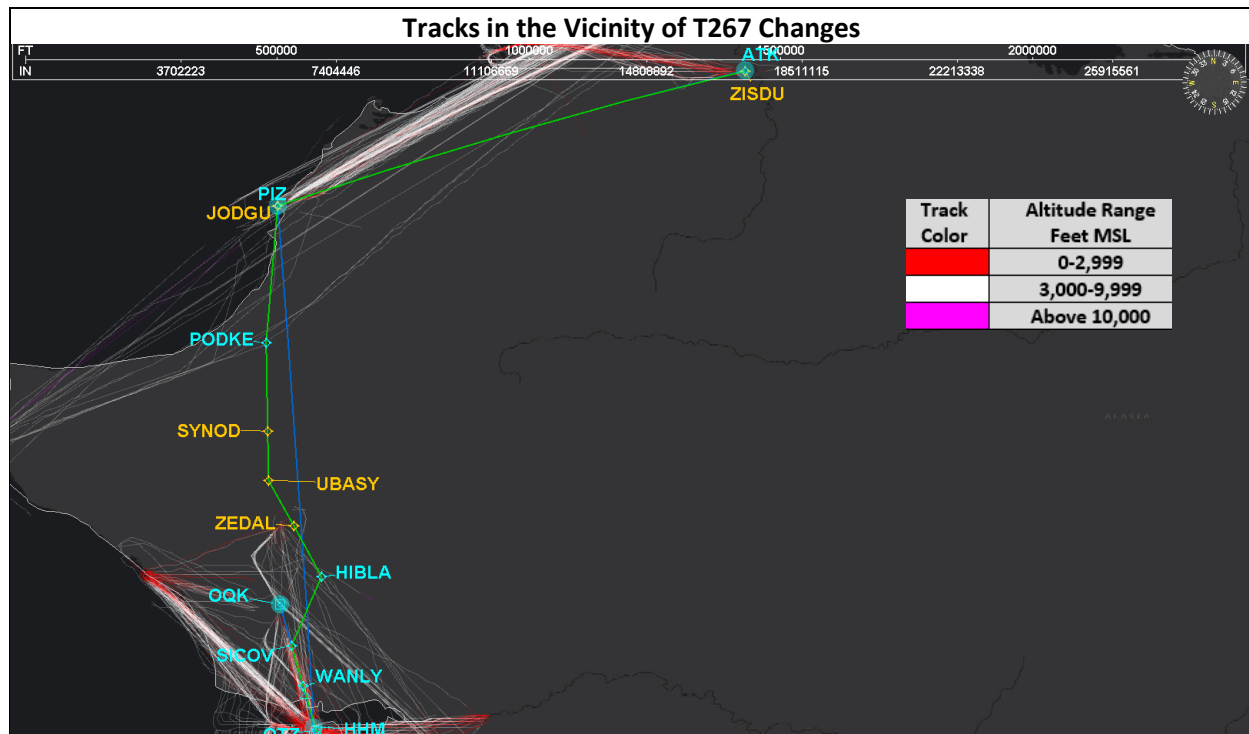


Proposed T267

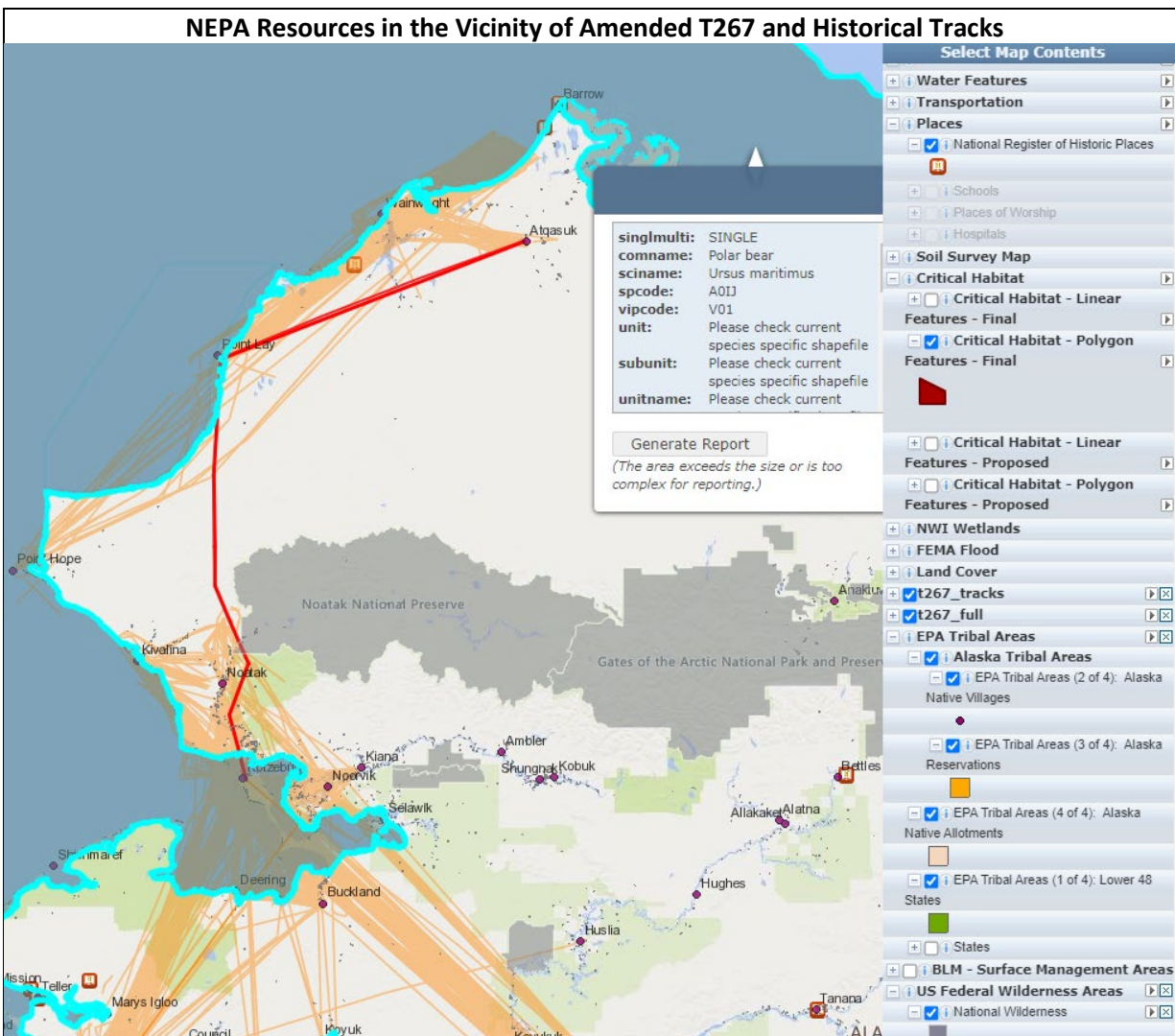
The following figure depicts the overview of the proposed amendments to T267.



The following figure depicts historical tracks in the vicinity of T267, which would have lateral changes resulting in new, lower MEAs. The tracks shown are not limited to T route usage.

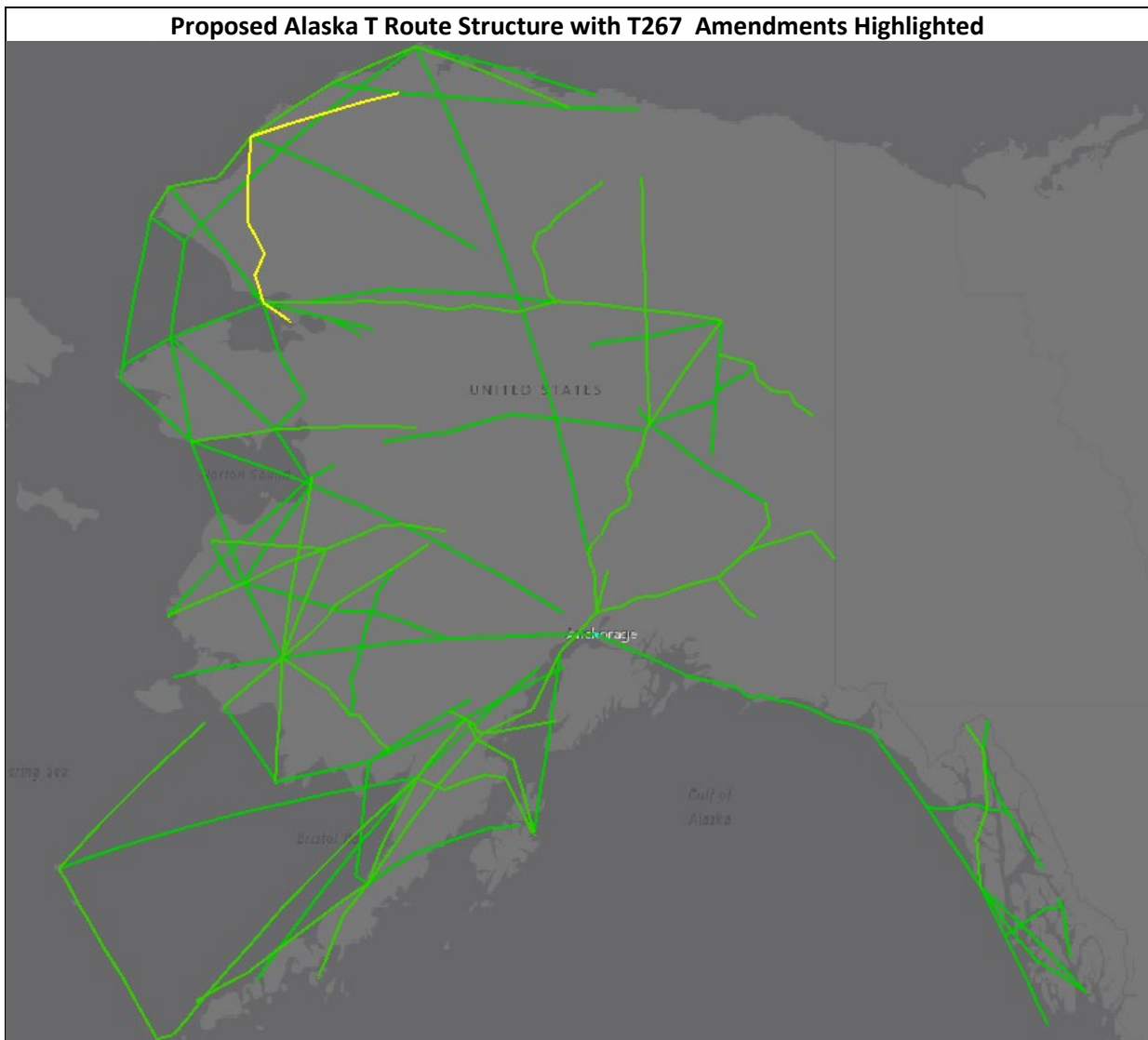


The following figure identifies the location of the historical properties (brown icons), tribal areas (red dots), polar bear critical habitat (slate blue), and wilderness areas (grey) in the vicinity of the amended T route (thick orange), and historical flight tracks (light orange) from 2019.



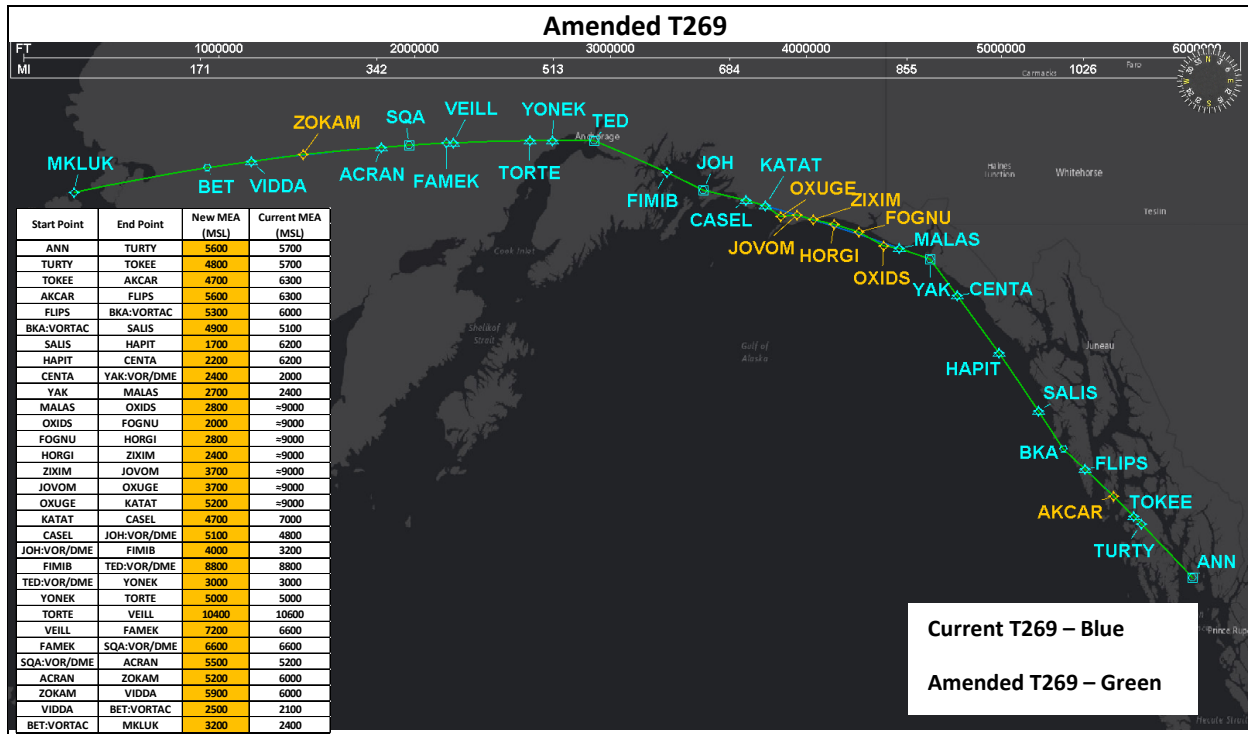
It is anticipated that aircraft would not be introduced to areas that are currently not exposed to air traffic.

The following figure depicts the overview of amended segments of T267 (yellow) and the other T routes (green) that are proposed to modernize Alaska's ATS route structure.

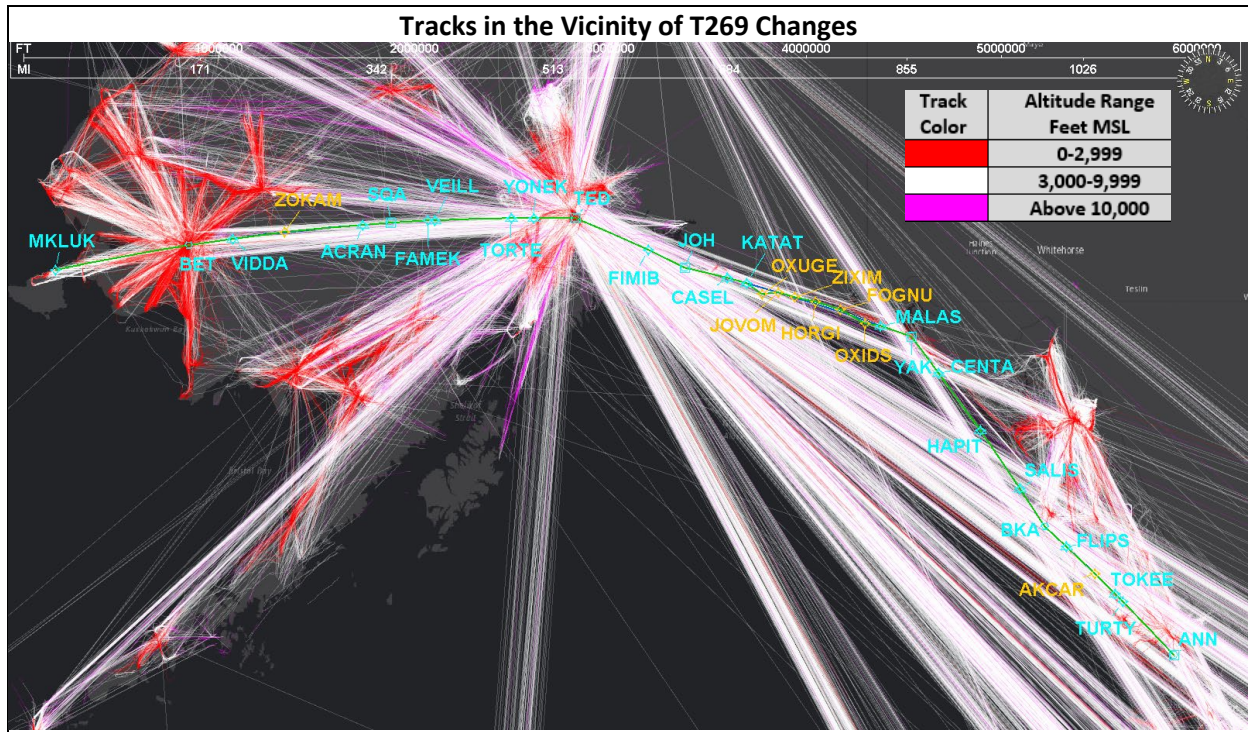


Proposed T269

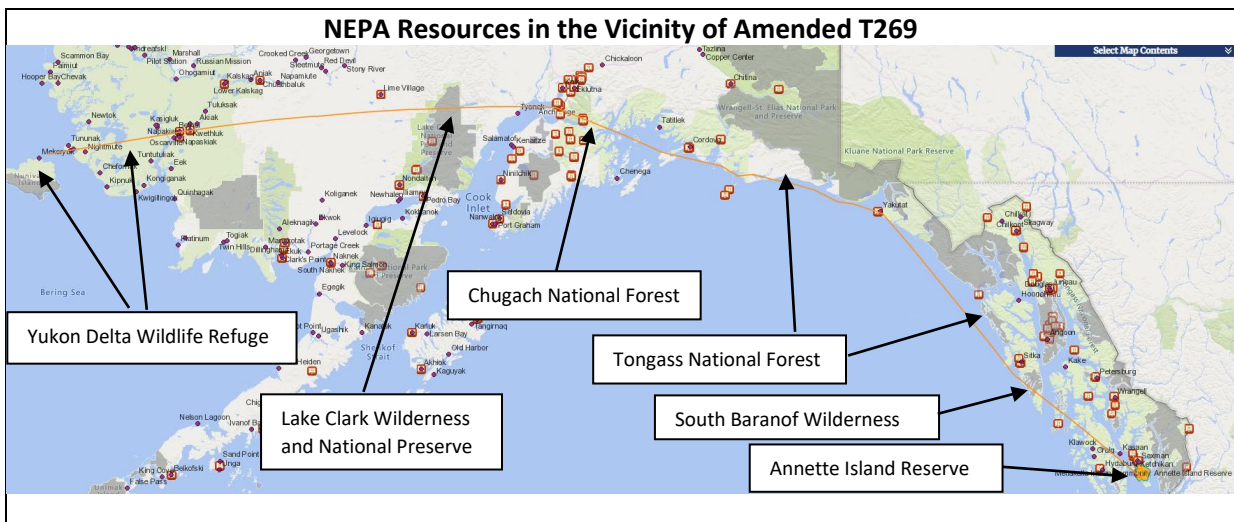
The following figure depicts the overview of the proposed amendments to T269.



The following figure depicts historical tracks in the vicinity of T269, which would have changes resulting in new, lower MEAs. The tracks shown are not limited to T route usage.

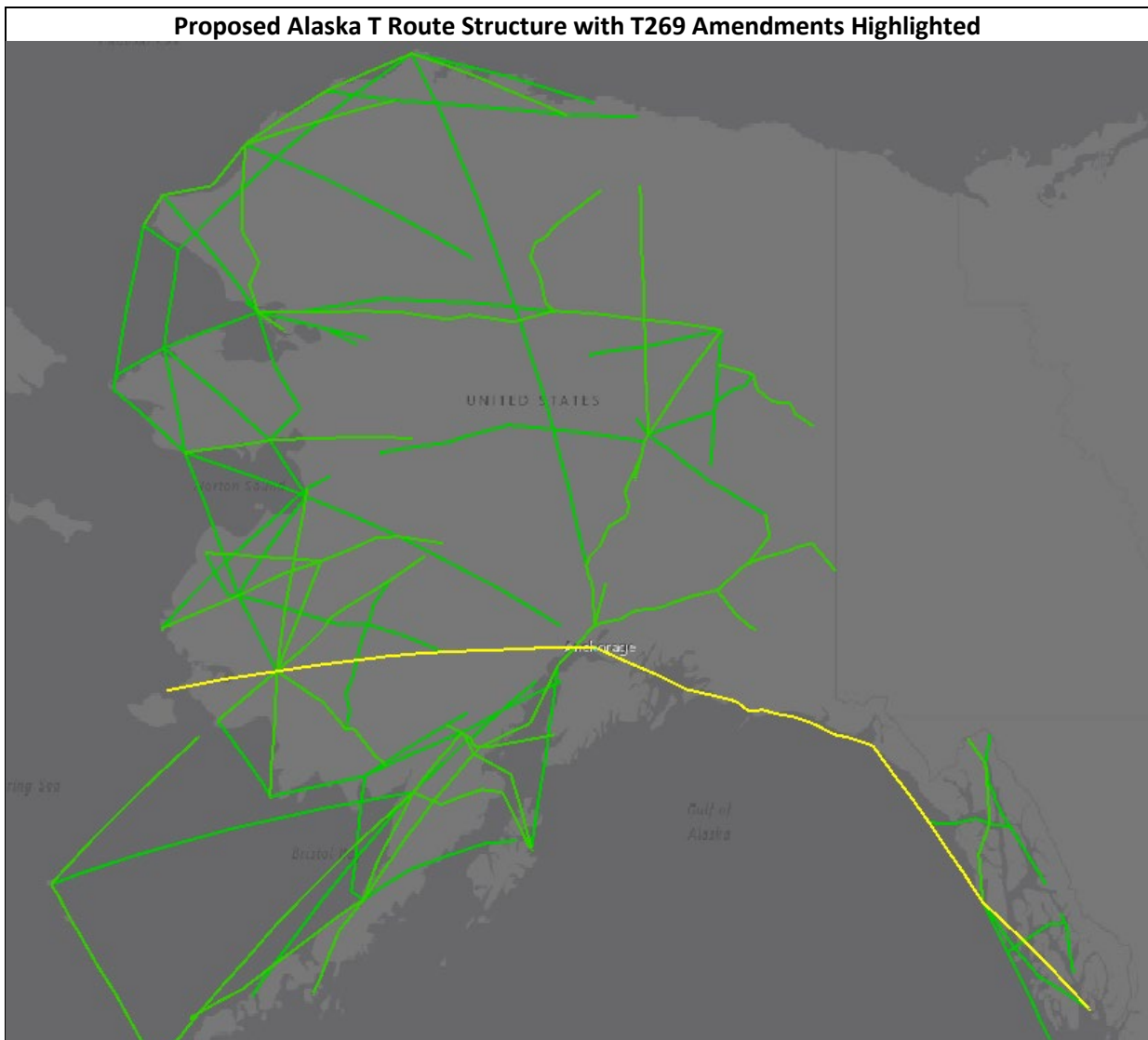


The following figure identifies the location of the historical properties (brown icons), tribal areas (red dots), national forests (green), and wilderness areas (grey) in the vicinity of the amended T route (orange).



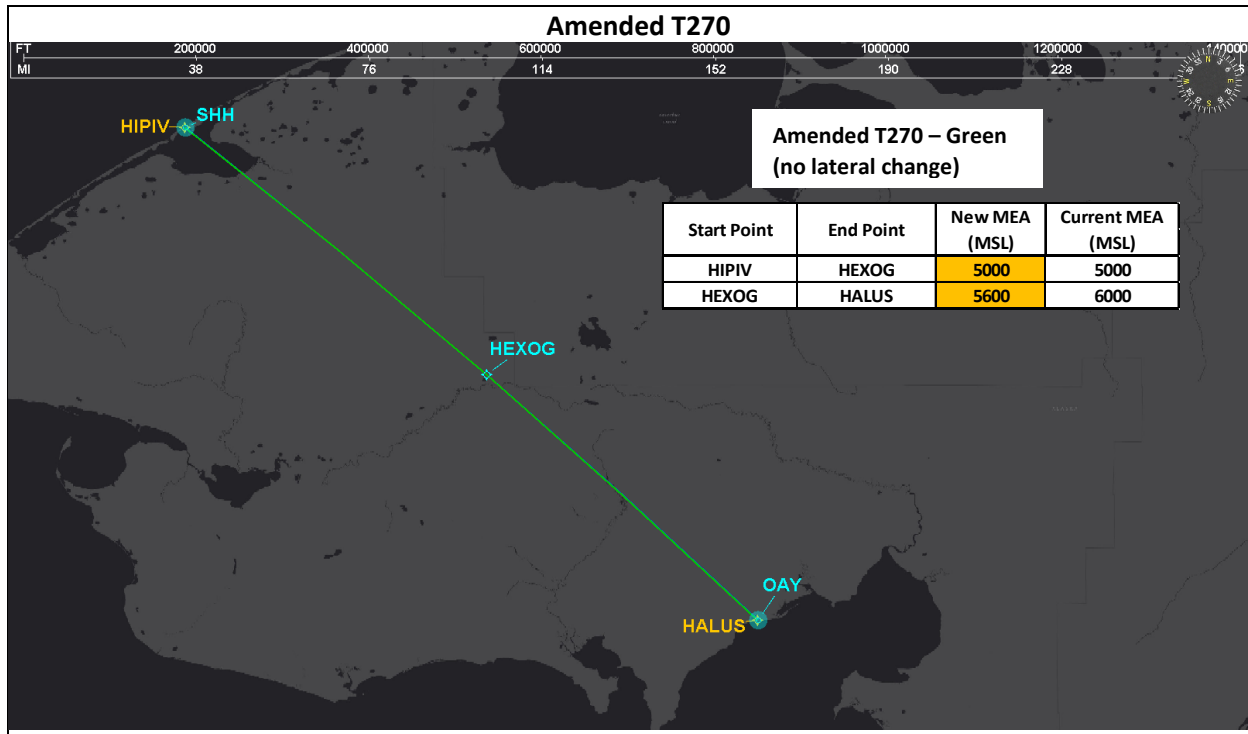
It is anticipated that aircraft would not be introduced to areas that are currently not exposed to air traffic.

The following figure depicts the overview of amended segments of T269 (yellow) and the other T routes (green) that are proposed to modernize Alaska's ATS route structure.

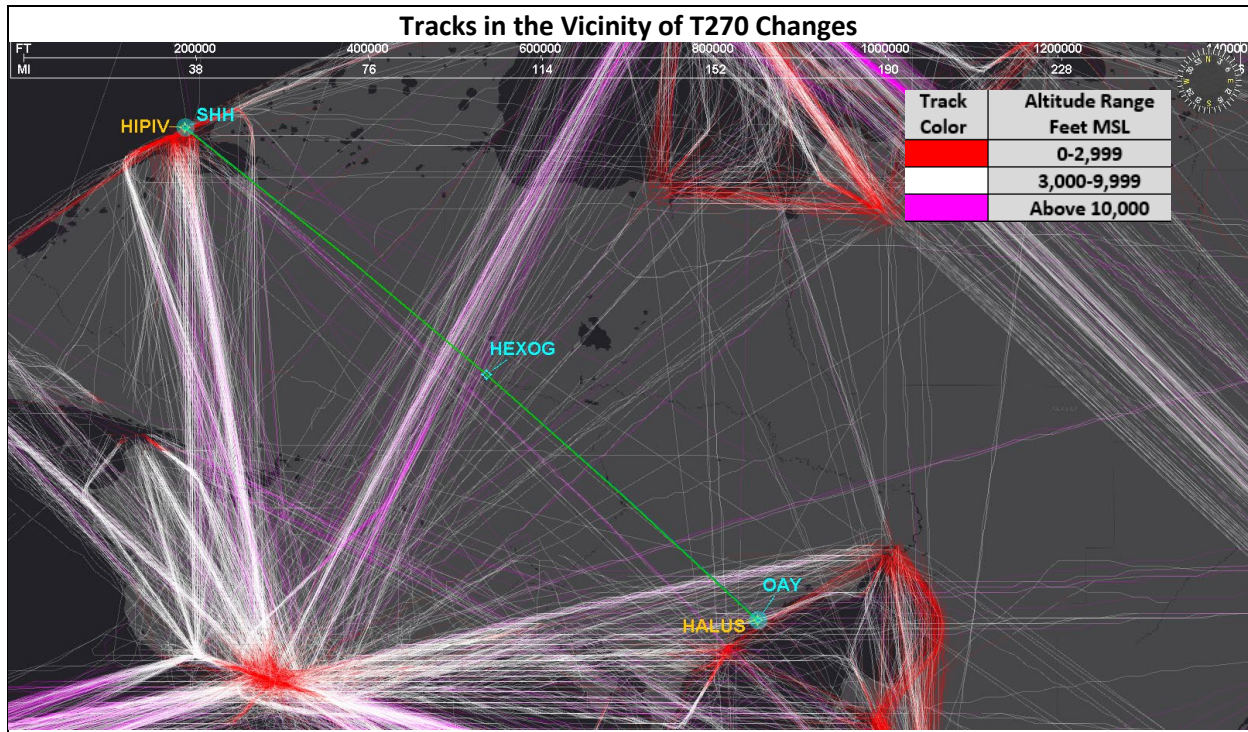


Proposed T270

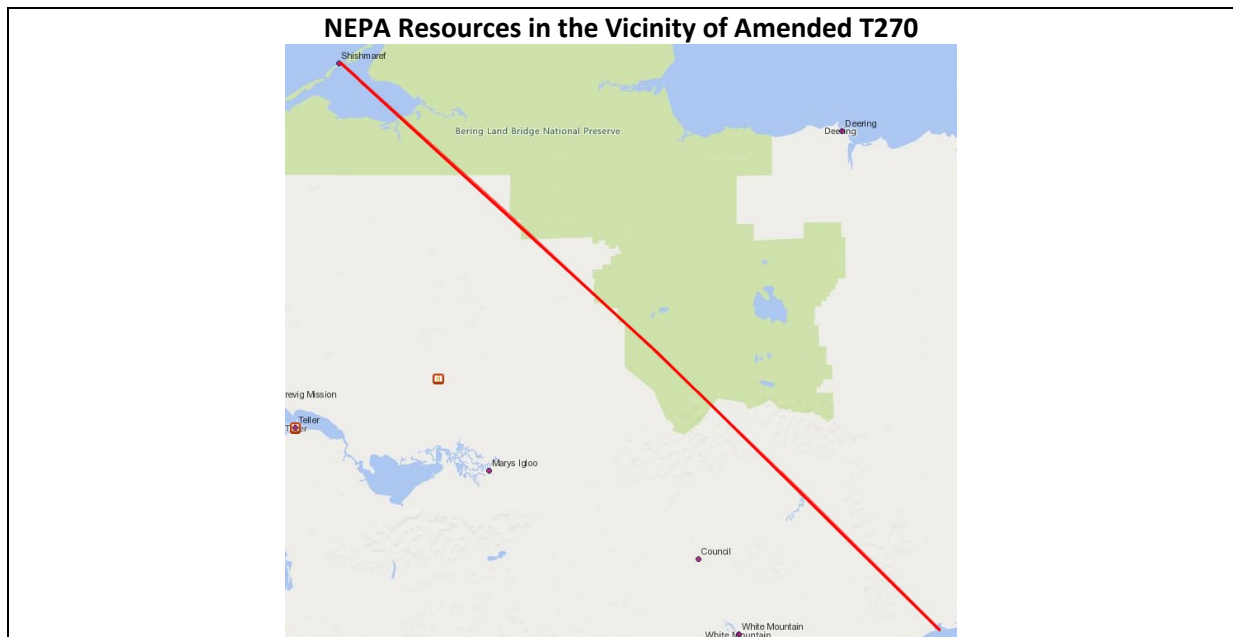
The following figure depicts the overview of the proposed amendments to T270.



The following figure depicts historical tracks in the vicinity of T270, which would have changes resulting in new, lower MEAs. The tracks shown are not limited to T route usage.

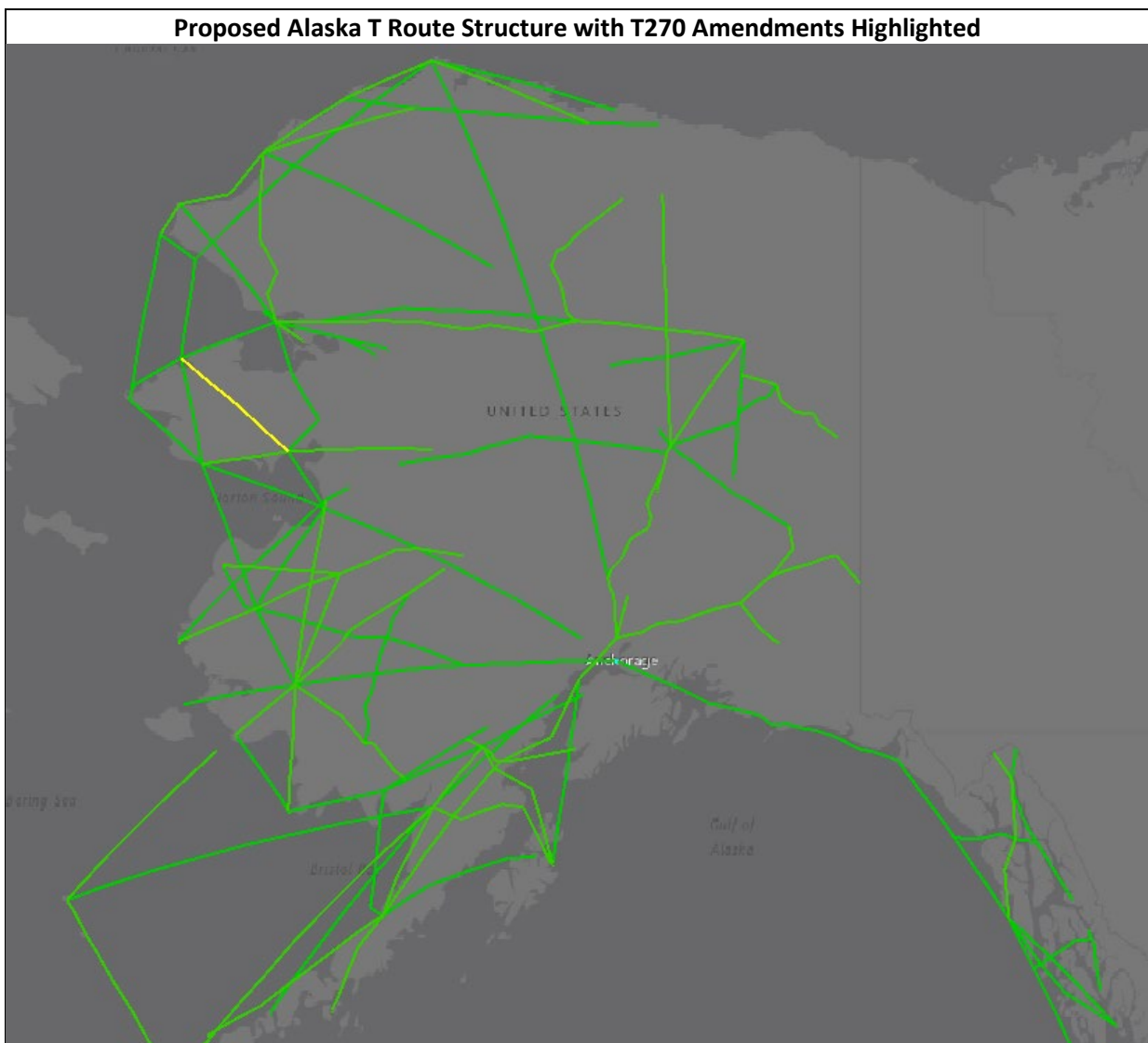


The following figure identifies the location of the Bering Land Bridge National Preserve (green) and tribal villages (red dots) in the vicinity of the amended T route (orange).



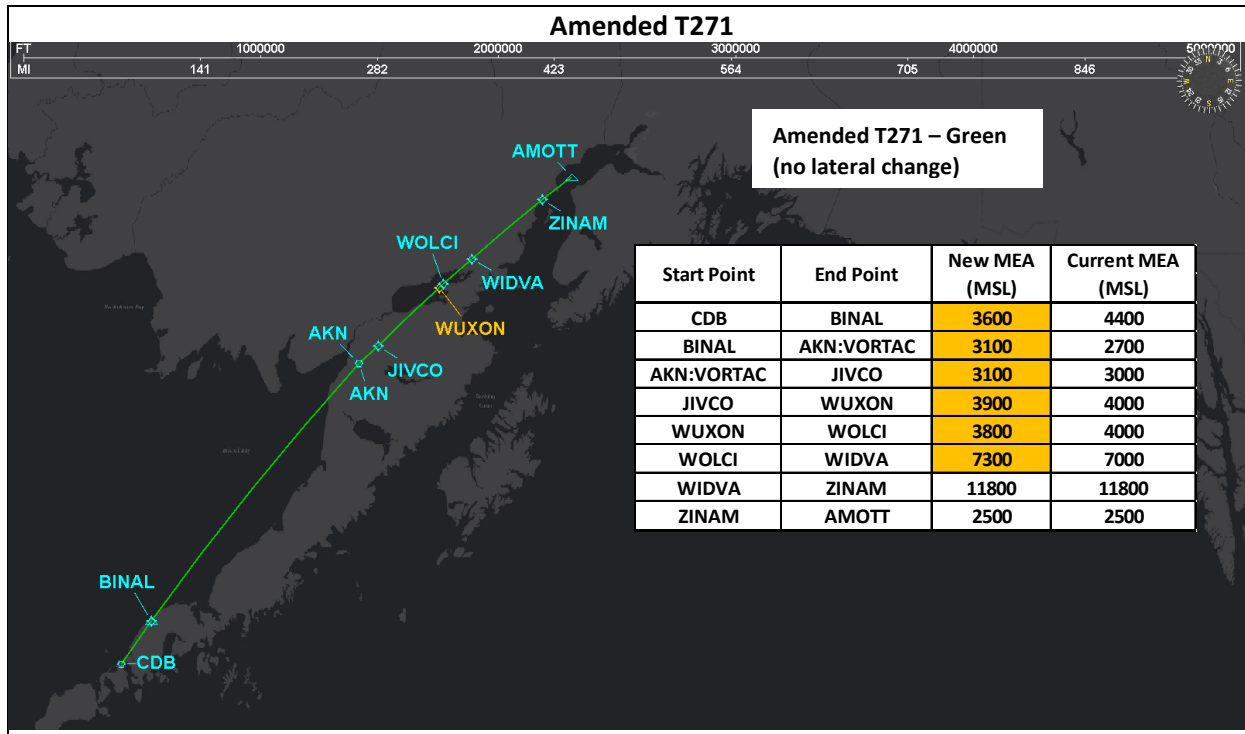
It is anticipated that aircraft would not be introduced to areas that are currently not exposed to air traffic

The following figure depicts the overview of amended segments of T270 (yellow) and the other T routes (green) that are proposed to modernize Alaska's ATS route structure.

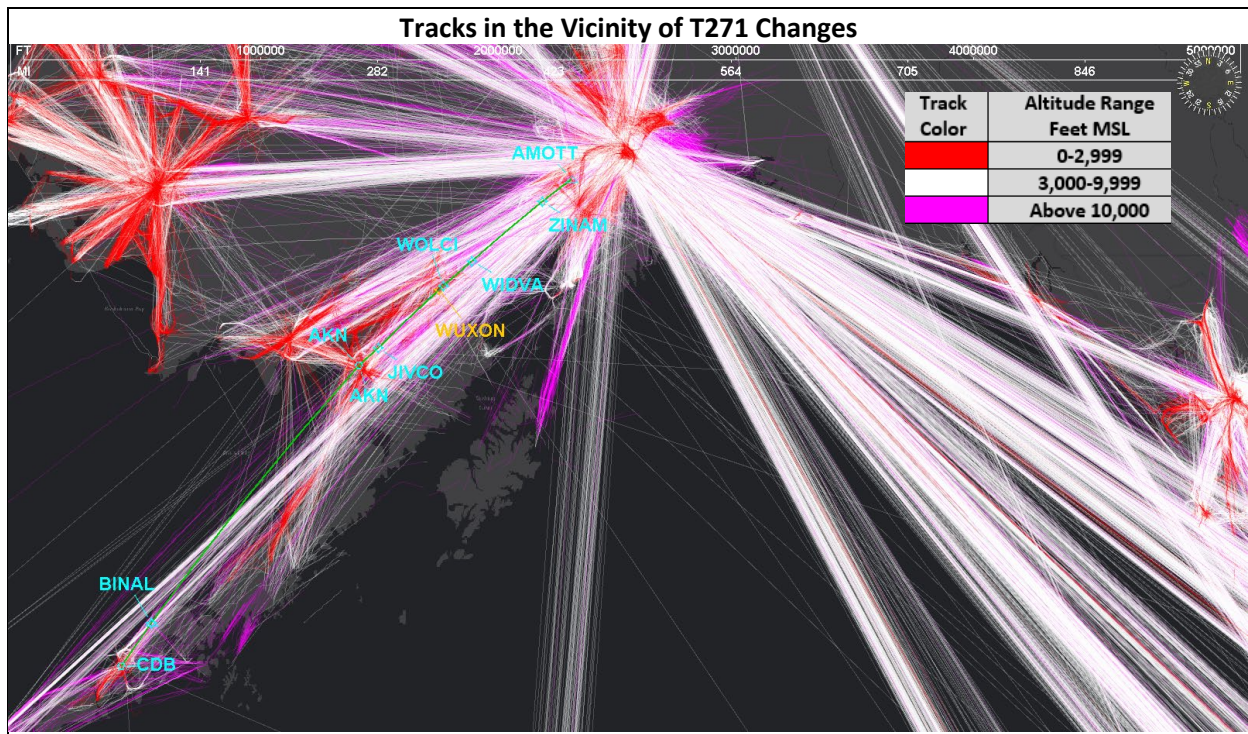


Proposed T271

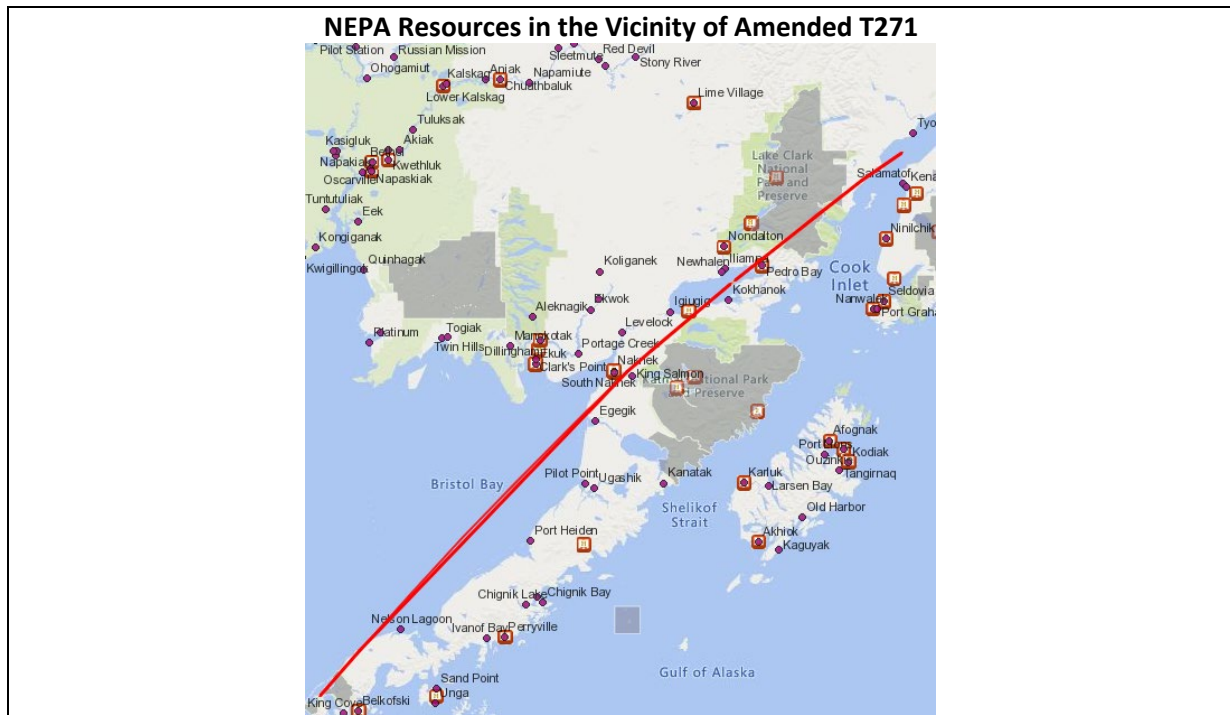
The following figure depicts the overview of the proposed amendments to T271.



The following figure depicts historical tracks in the vicinity of T271, which would have changes resulting in new, lower MEAs. The tracks shown are not limited to T route usage.

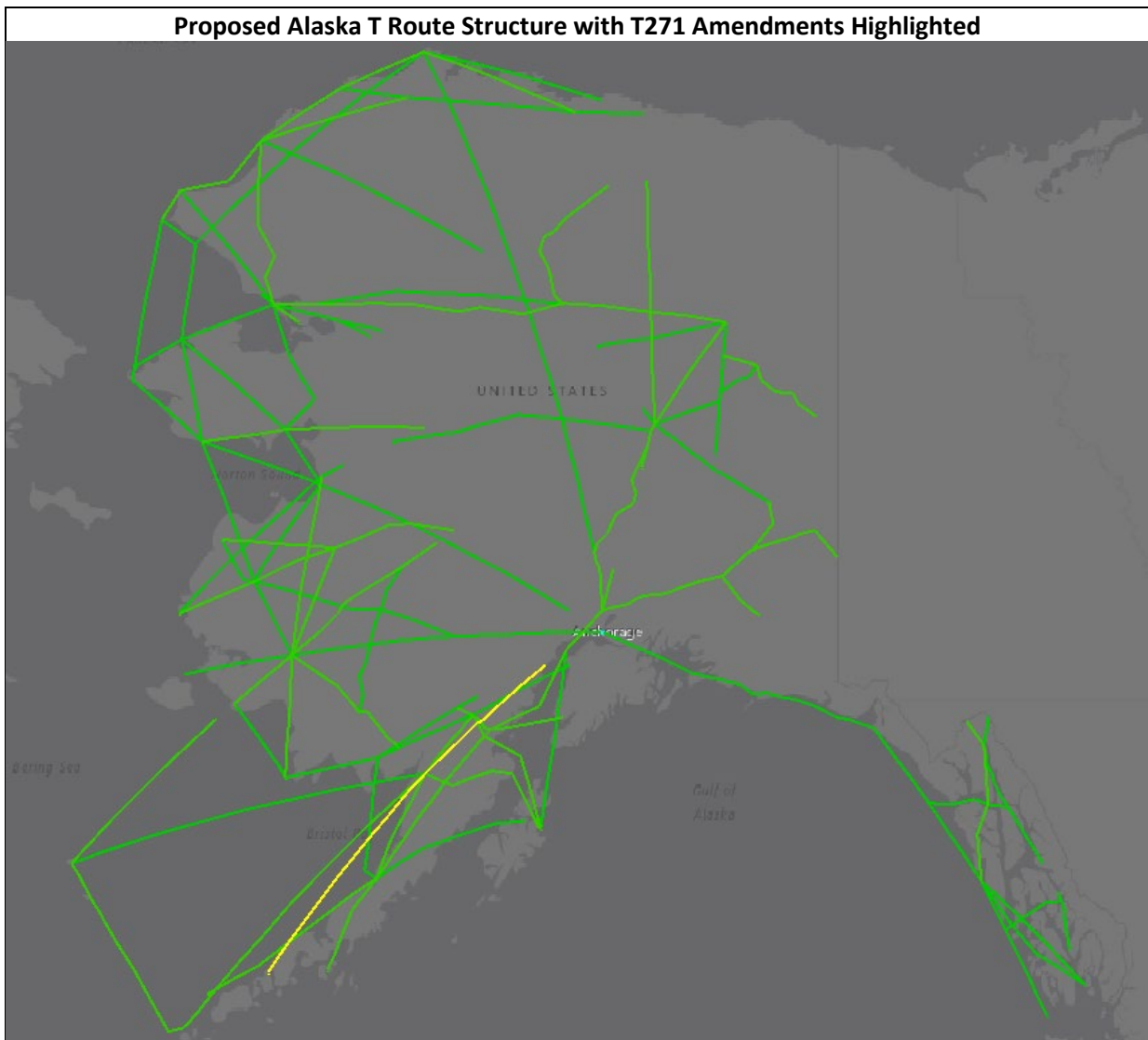


The following figure identifies the location of national preserves (green), historical properties (brown icons), wilderness areas (grey), and tribal villages (red dots) in the vicinity of the amended T route (orange).



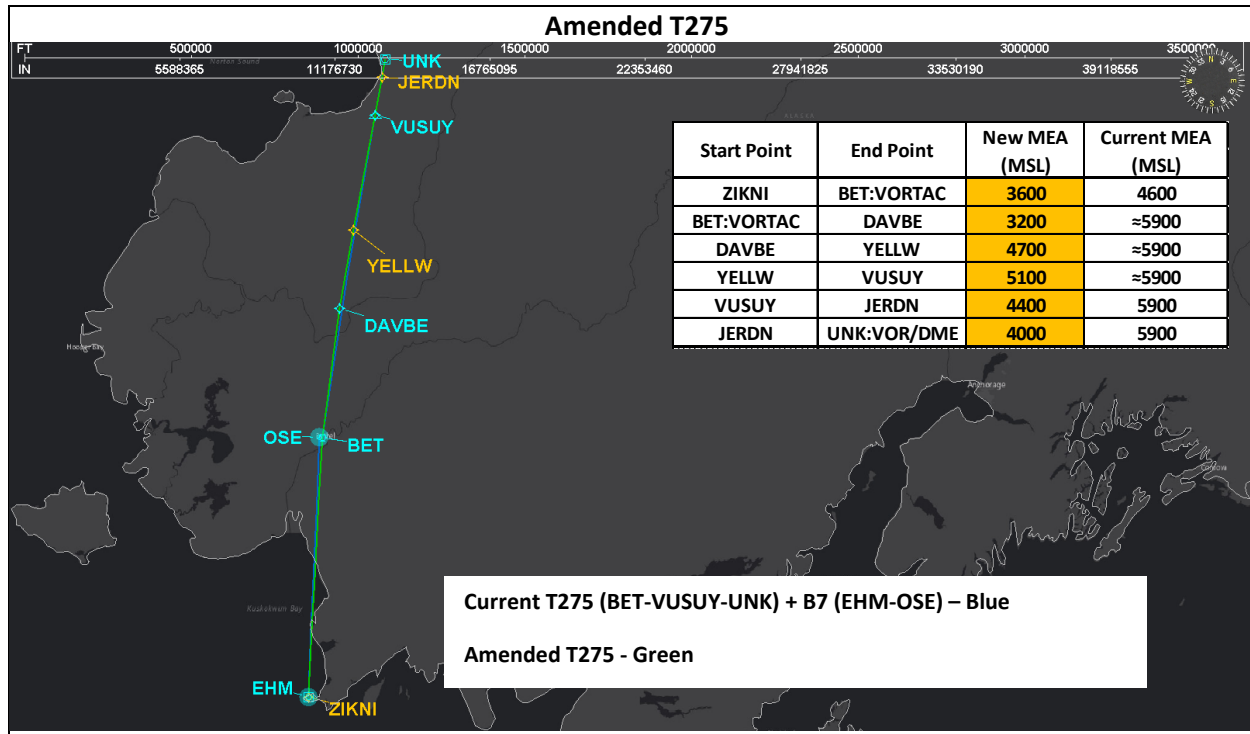
It is anticipated that aircraft would not be introduced to areas that are currently not exposed to air traffic.

The following figure depicts the overview of amended segments of T271 (yellow) and the other T routes (green) that are proposed to modernize Alaska's ATS route structure.

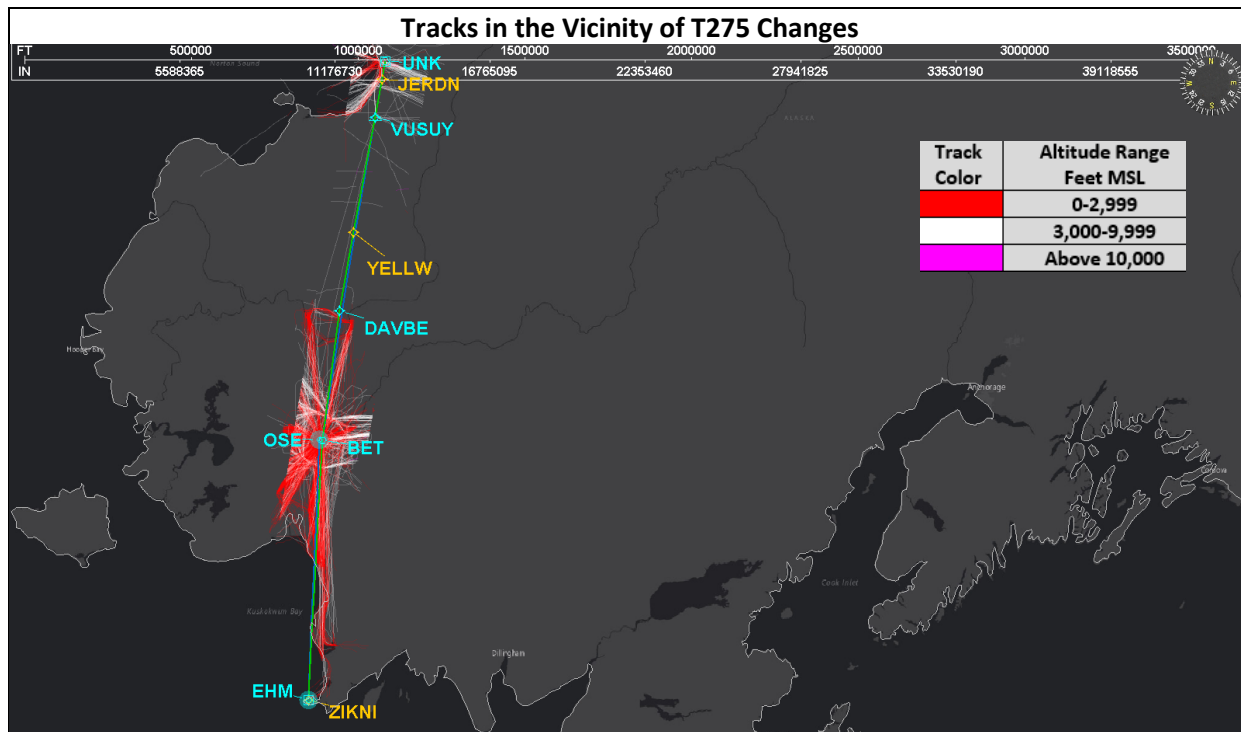


Proposed T275

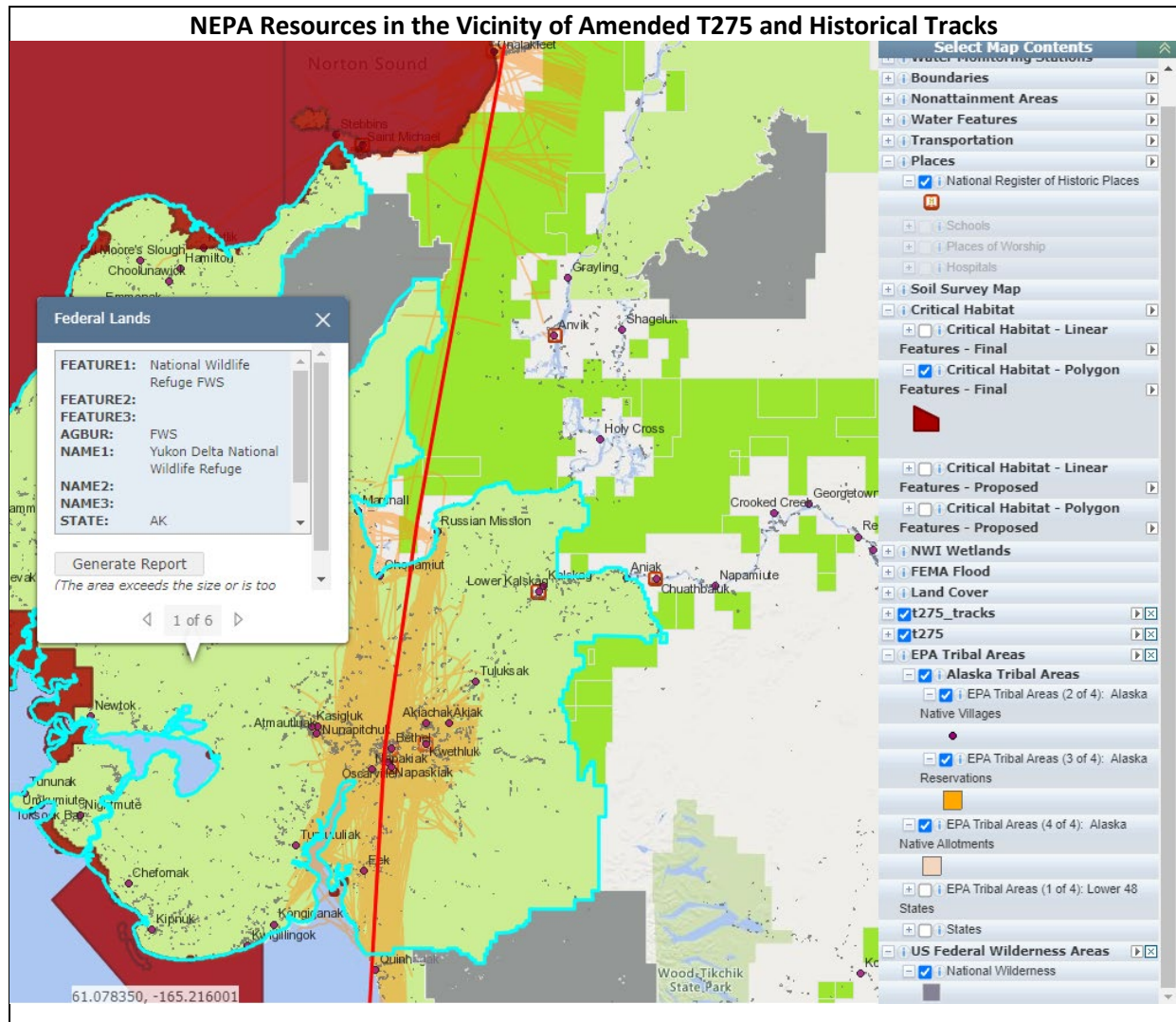
The following figure depicts the overview of the proposed amendments to T275.



The following figure depicts historical tracks in the vicinity of T275, which would have lateral changes resulting in new, lower MEAs. The tracks shown are not limited to T route usage.

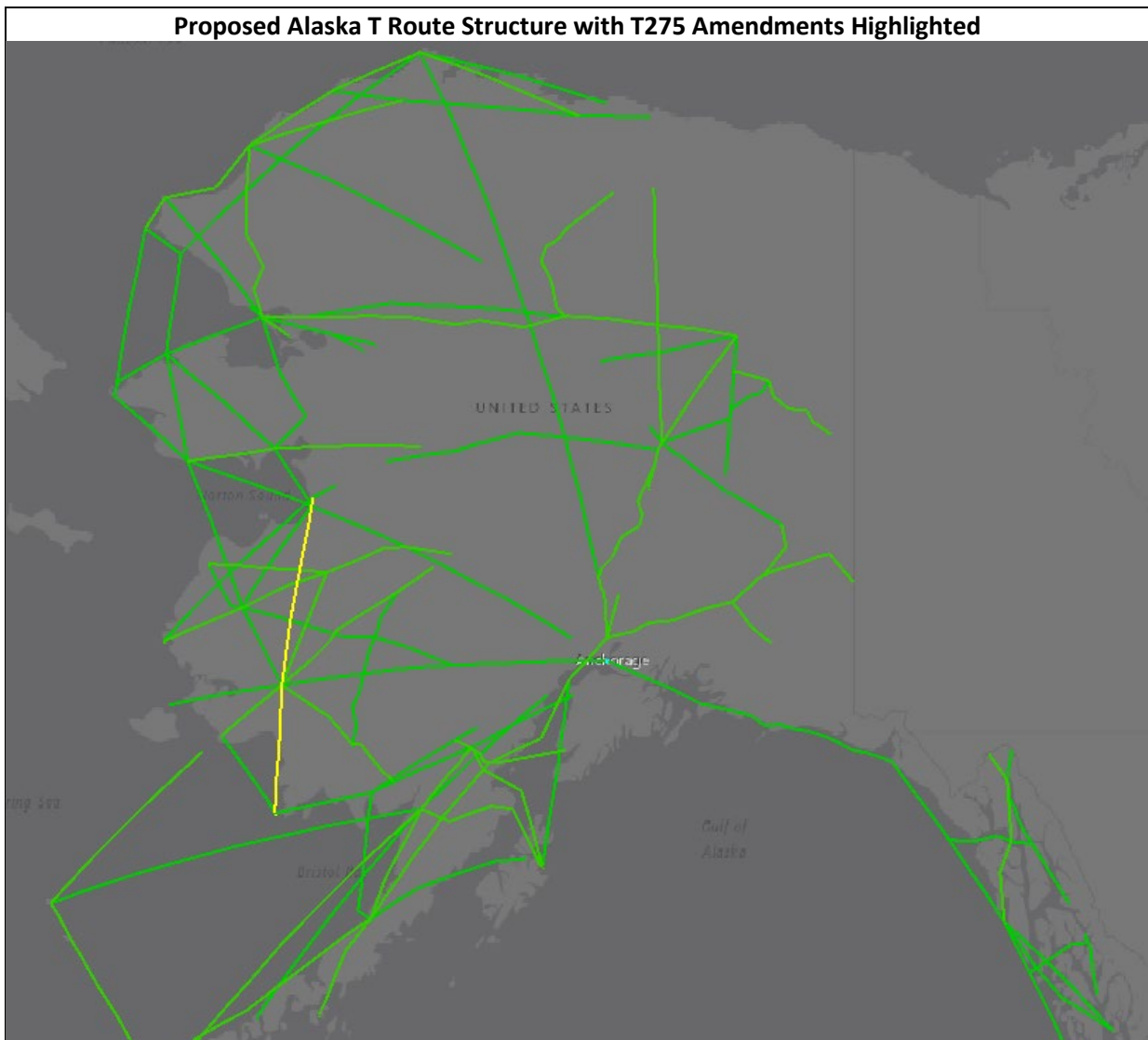


The following figure identifies the location of the historical properties (brown icons), tribal areas (red dots), Yukon Delta National Wildlife Refuge, and wilderness areas (grey) in the vicinity of the amended T route (thick orange), and historical flight tracks (light orange) from 2019.



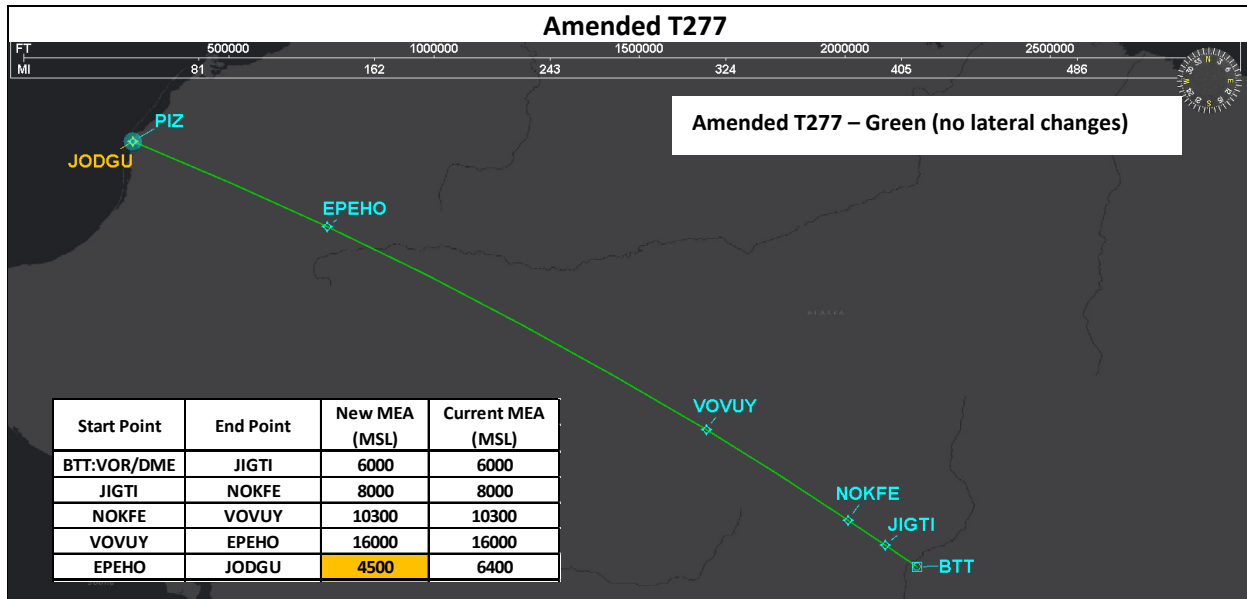
It is anticipated that aircraft would not be introduced to areas that are currently not exposed to air traffic.

The following figure depicts the overview of amended segments of T275 (yellow) and the other T routes (green) that are proposed to modernize Alaska's ATS route structure.

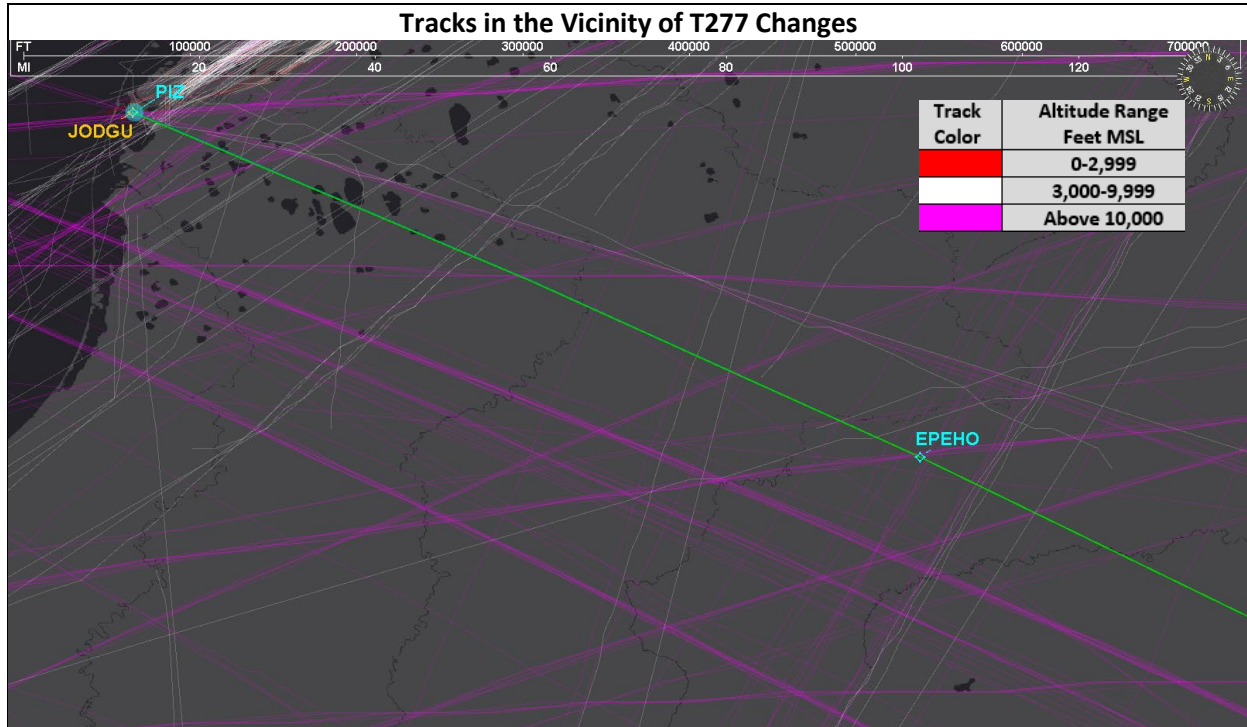


Proposed T277

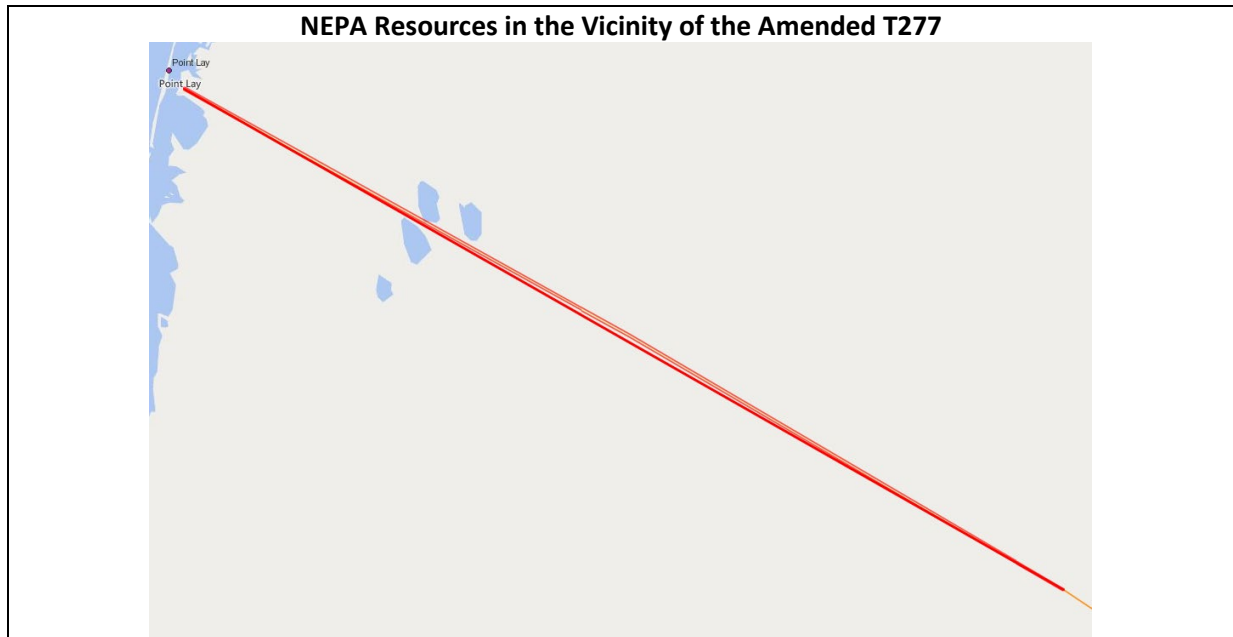
The following figure depicts the overview of the proposed amendments to T277.



The following figure depicts historical tracks in the vicinity of T277, which would have changes resulting in new MEAs. The tracks shown are not limited to T route usage.

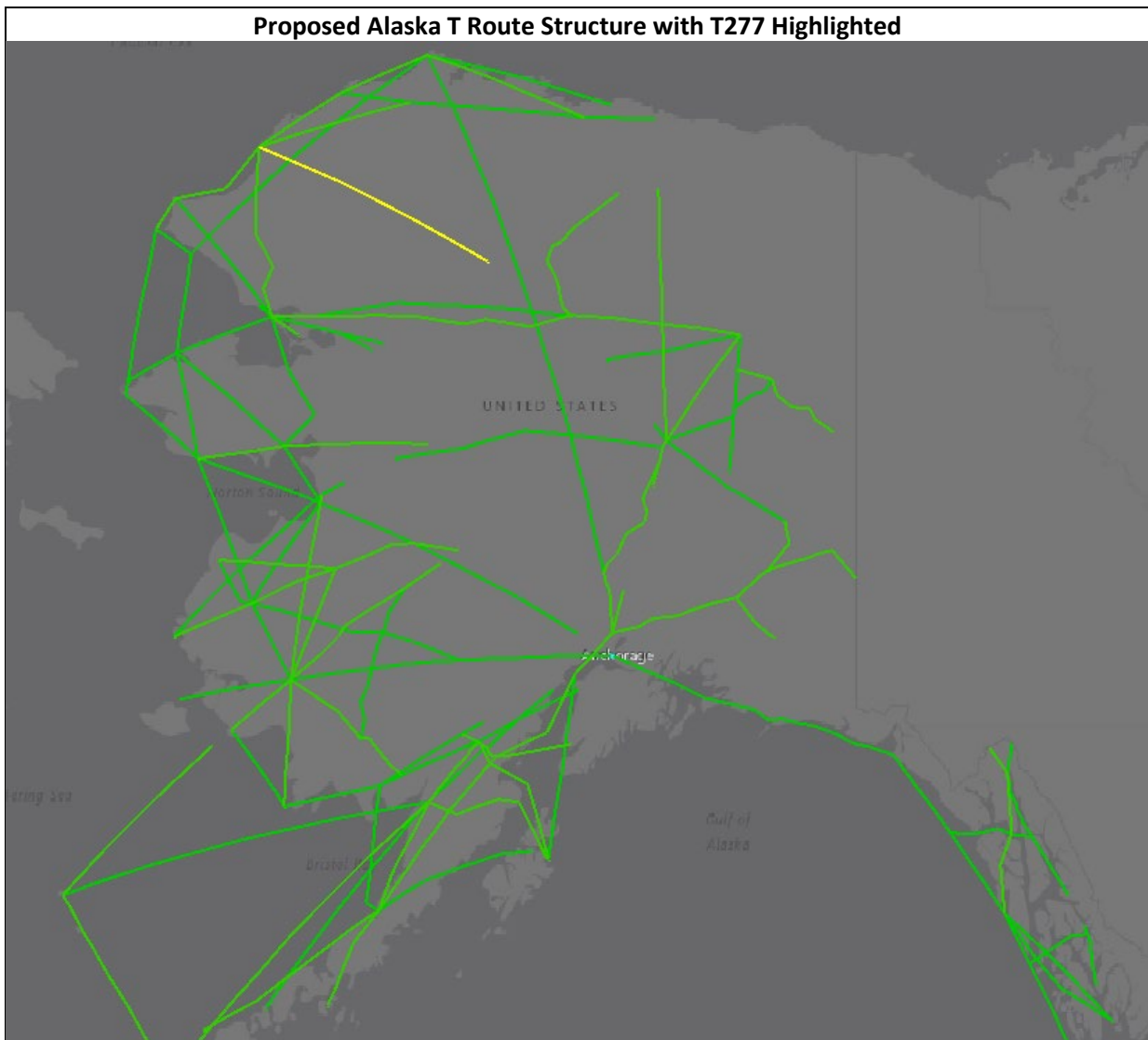


The following figure identifies the location of a tribal village (red dot) in the vicinity of the amended T route (thick orange).



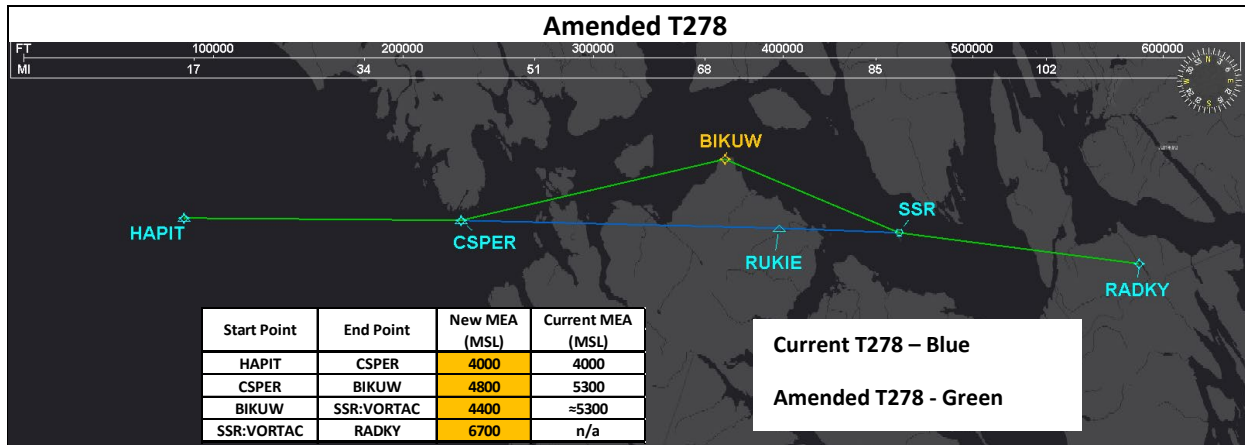
It is anticipated that aircraft would not be introduced to areas that are currently not exposed to air traffic.

The following figure depicts the overview of amended segments of T277 (yellow) and the other T routes (green) that are proposed to modernize Alaska's ATS route structure.

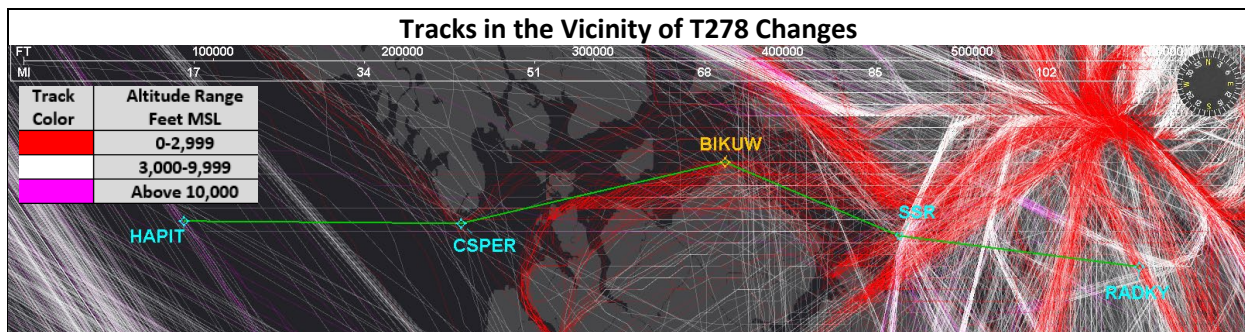


Proposed T278

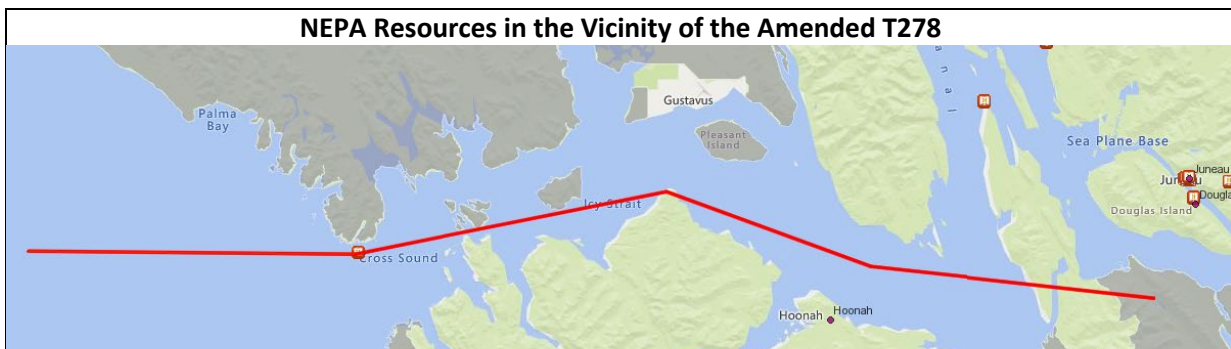
The following figure depicts the overview of the proposed amendments to T278.



The following figure depicts historical tracks in the vicinity of T278, which would have changes resulting in new, lower MEAs. The tracks shown are not limited to T route usage.

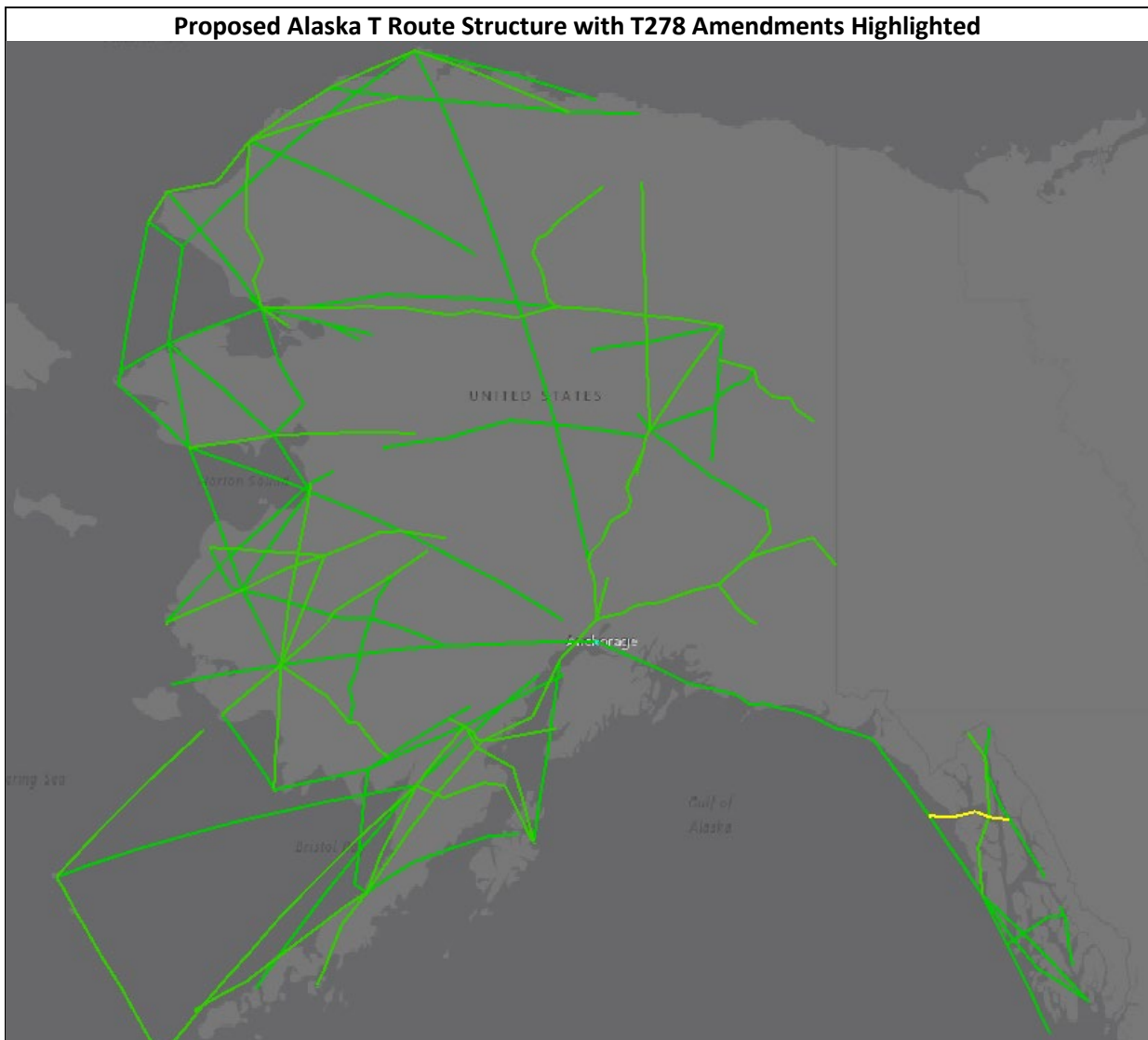


The following figure identifies the location of the historical properties (brown icons), tribal areas (red dots), Tongass National Forest (green), and wilderness areas (grey) in the vicinity of the amended T route (thick orange).



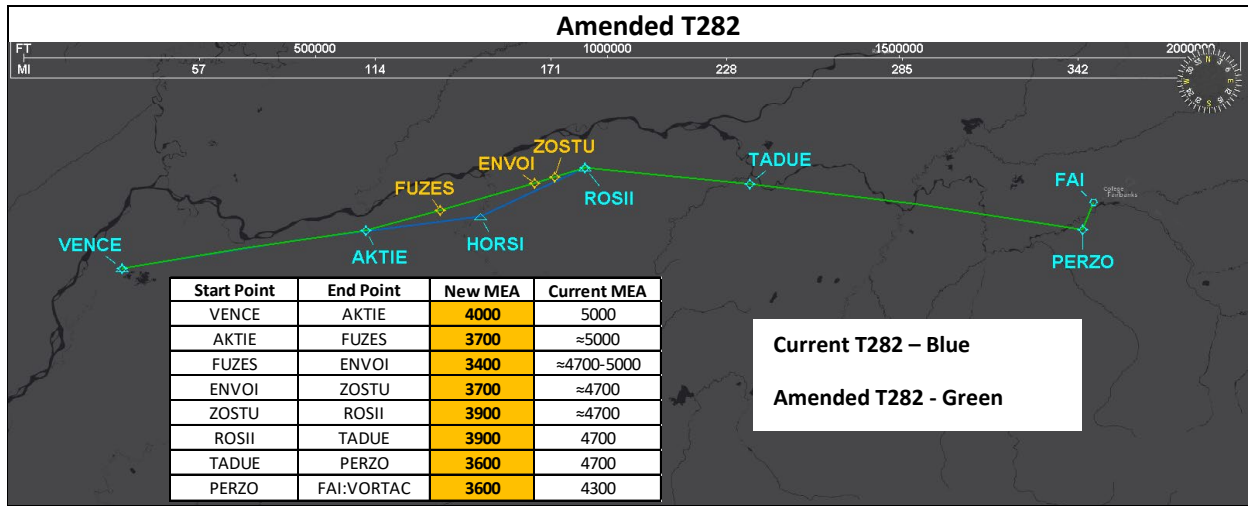
It is anticipated that aircraft would not be introduced to areas that are currently not exposed to air traffic.

The following figure depicts the overview of amended segments of T278 (yellow) and the other T routes (green) that are proposed to modernize Alaska's ATS route structure.

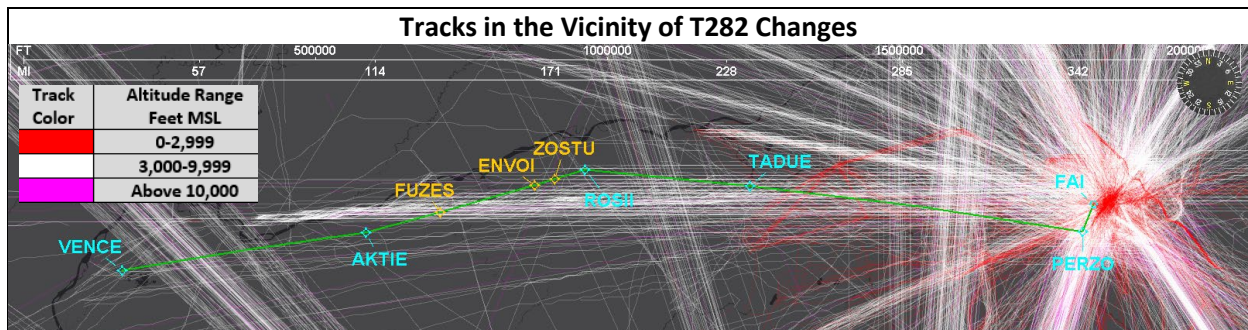


Proposed T282

The following figure depicts the overview of the proposed amendments to T282.



The following figure depicts historical tracks in the vicinity of T282, which would have changes resulting in new, lower MEAs. The tracks shown are not limited to T route usage.



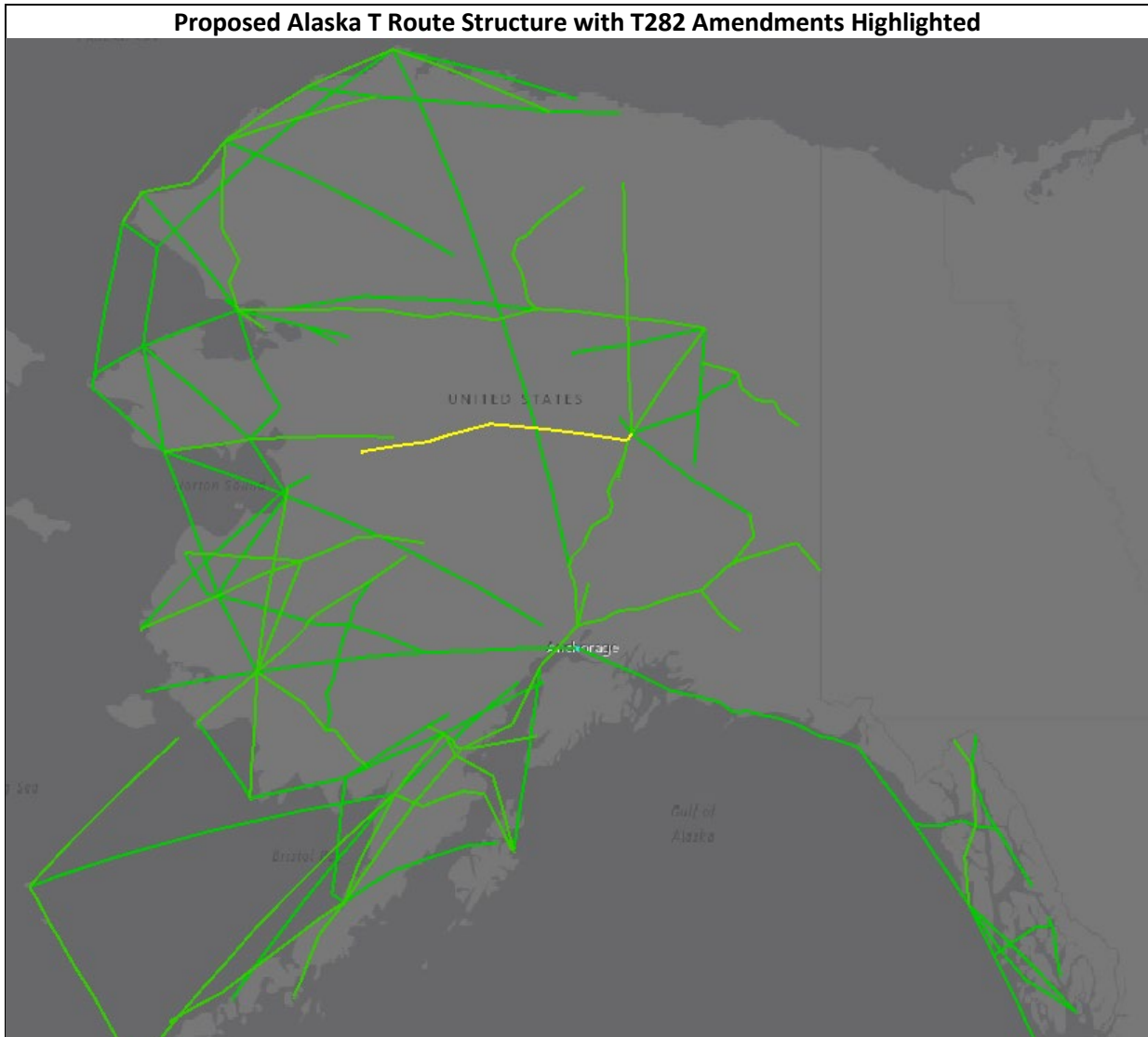
The following figure identifies the location of national wildlife refuges (green), tribal villages (red dots), and historical properties (brown icons) in the vicinity of the amended T route (thick orange).



It is anticipated that aircraft would not be introduced to areas that are currently not exposed to air

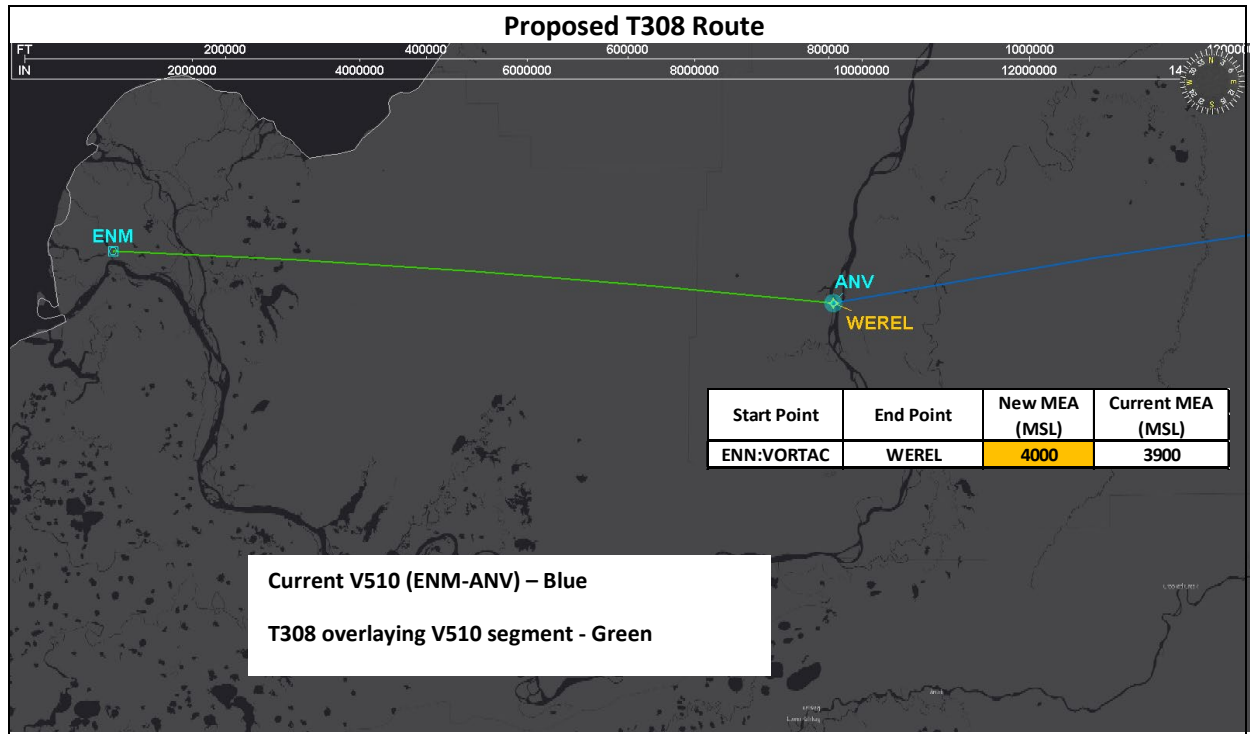
traffic.

The following figure depicts the overview of amended segments of T282 (yellow) and the other T routes (green) that are proposed to modernize Alaska's ATS route structure.

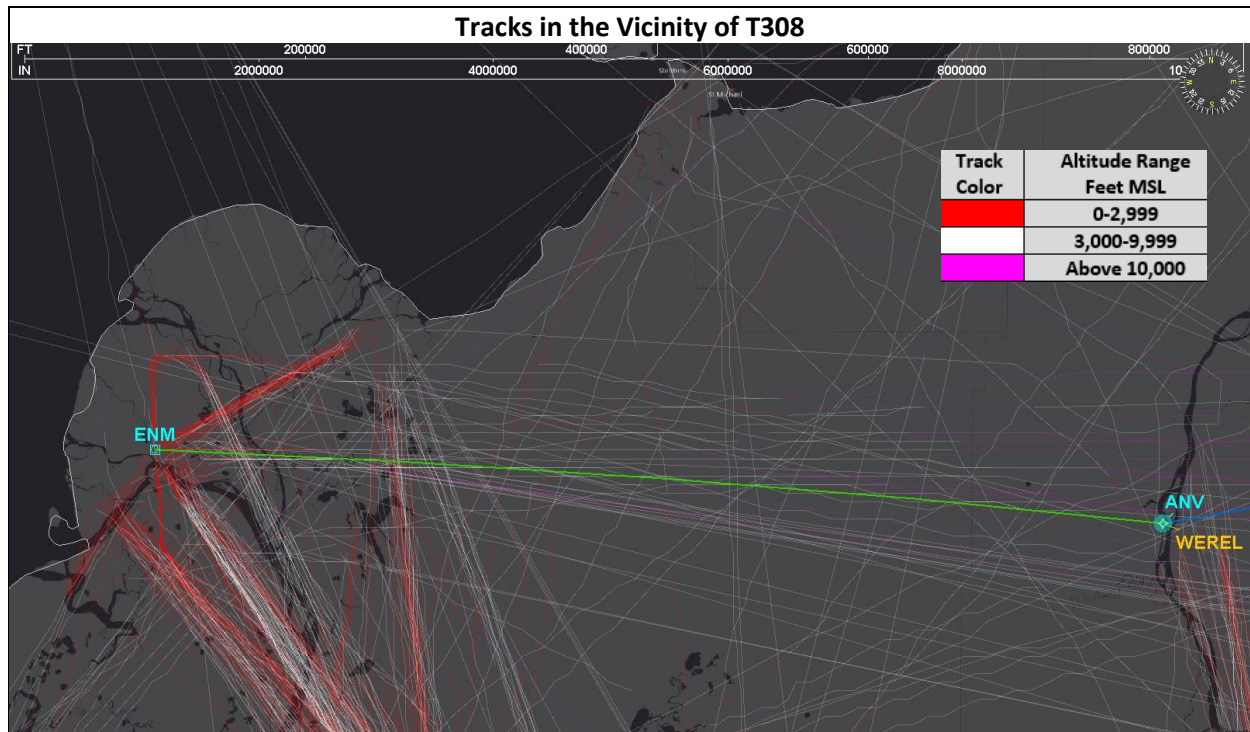


Proposed T308

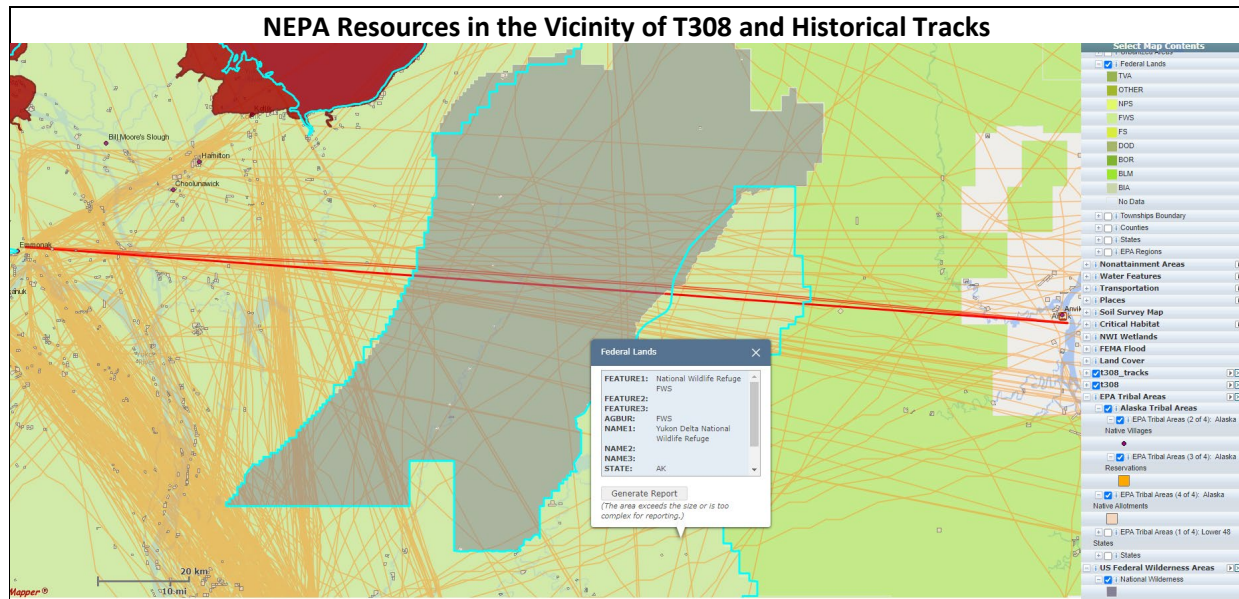
The following figure depicts the overview of the proposed T308 route.



The following figure depicts historical tracks in the vicinity of the new T308.

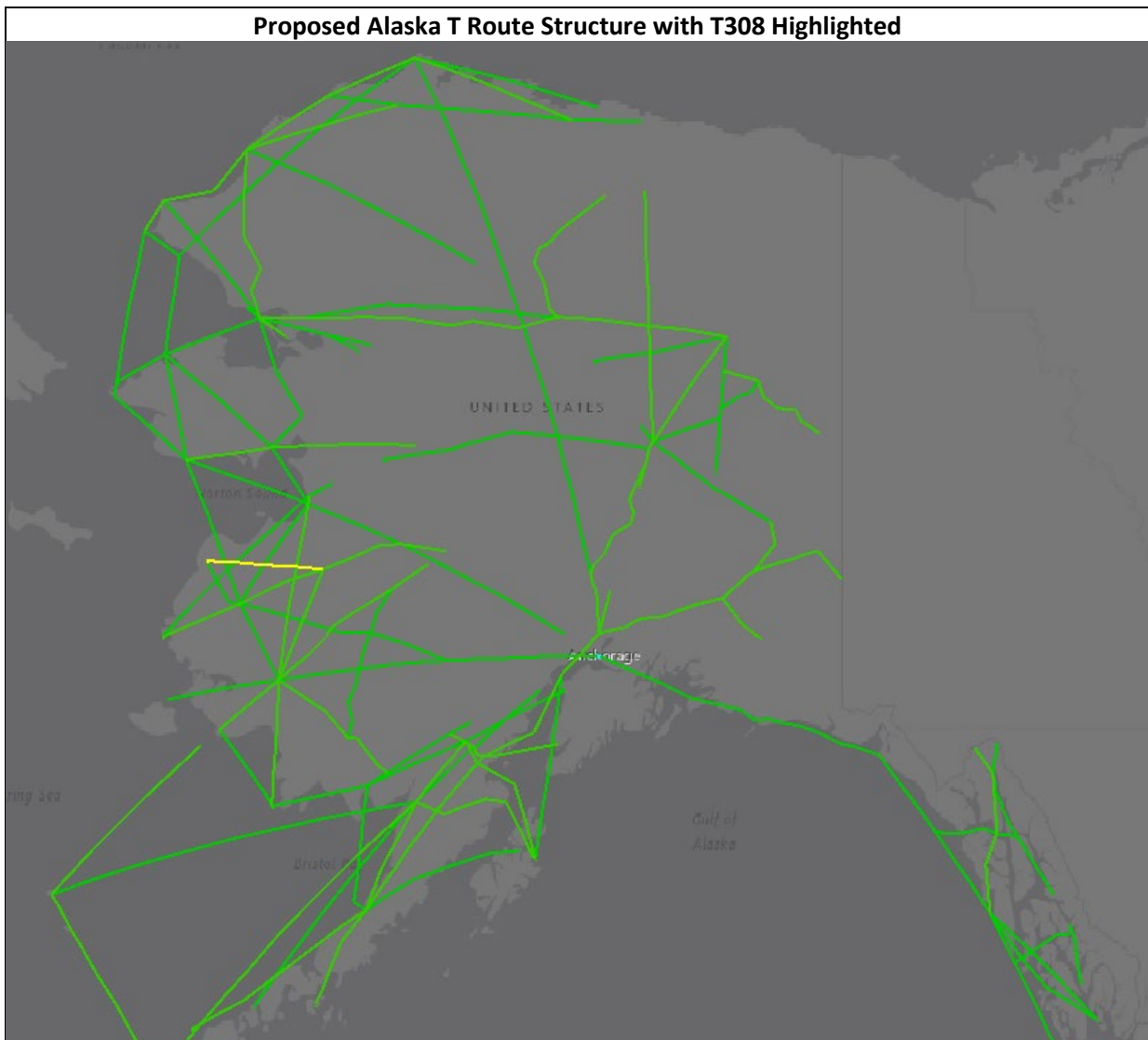


The following figure identifies the location of the tribal areas (red dots), Yukon Delta National Wildlife Refuge, and wilderness areas (grey) in the vicinity of the T route (thick orange), and historical flight tracks (light orange) from 2019.



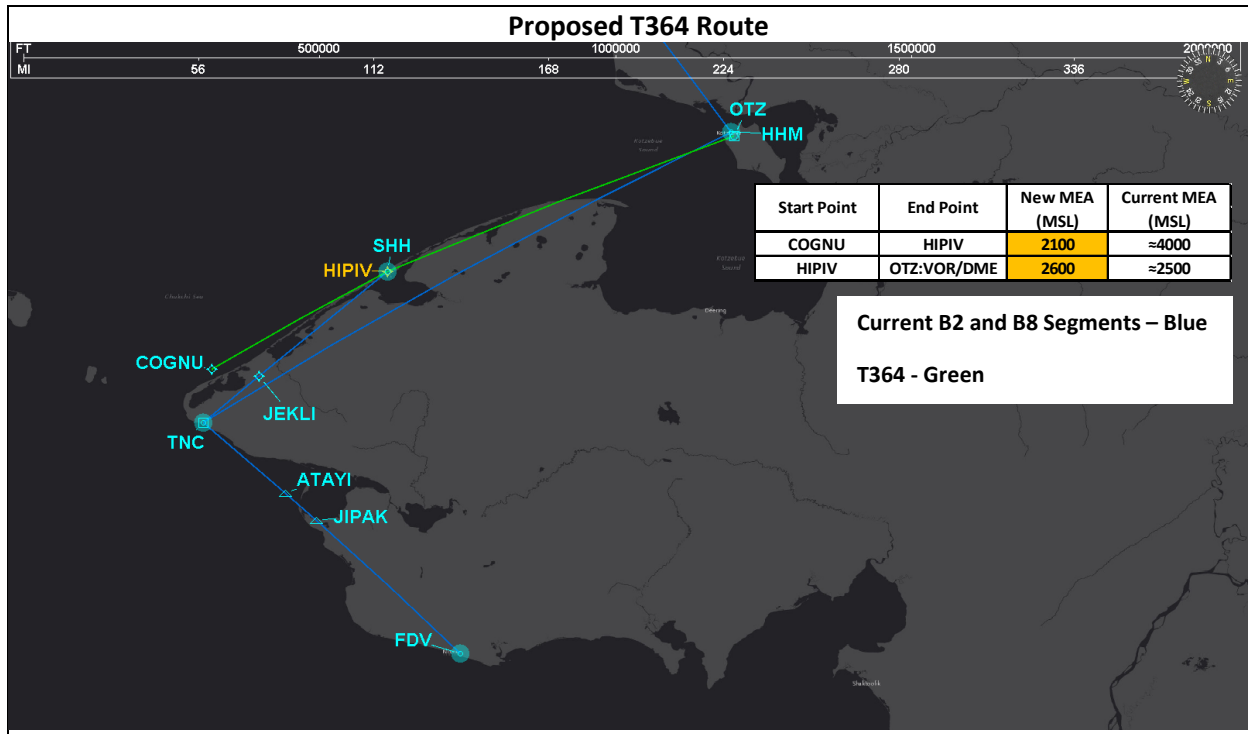
It is anticipated that aircraft would not be introduced to areas that are currently not exposed to air traffic.

The following figure depicts the overview of T308 (yellow) and the other T routes (green) that are proposed to modernize Alaska's ATS route structure.

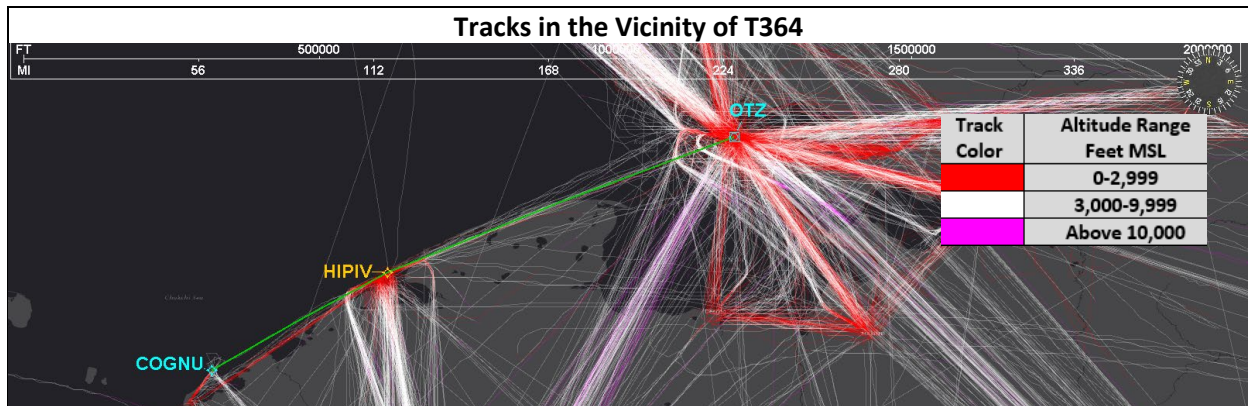


Proposed T364

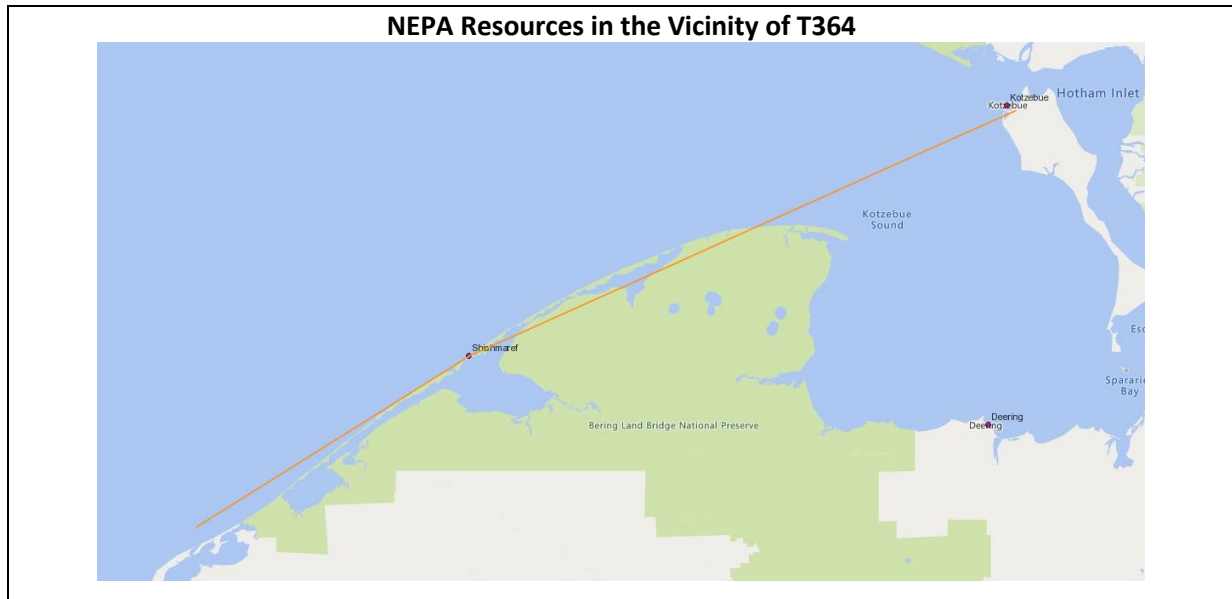
The following figure depicts the overview of the proposed T364 route.



The following figure depicts historical tracks in the vicinity of the new T364.

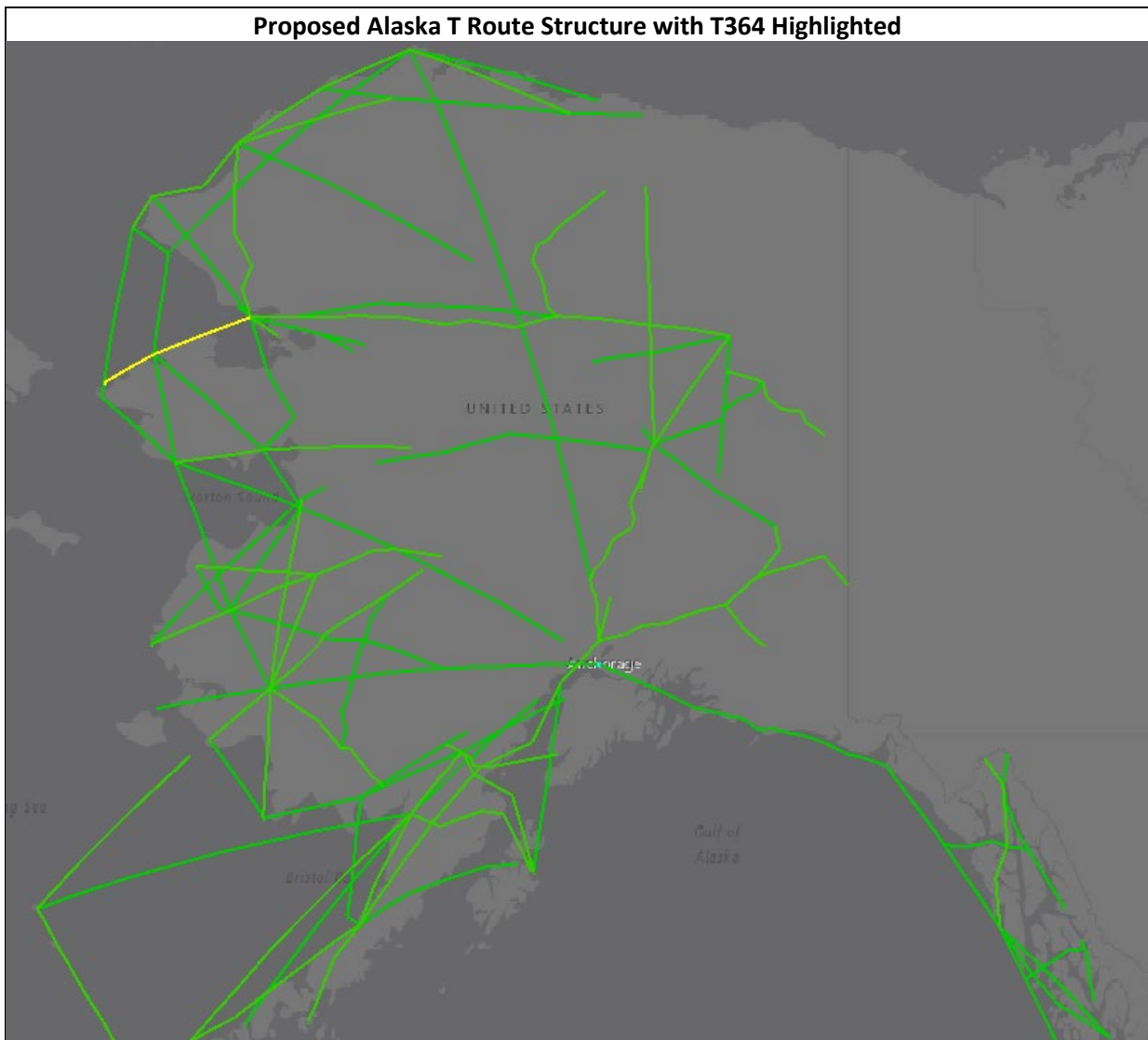


The following figure identifies the location of the Bering Land Bridge National Preserve (green) and tribal areas (red dots) in the vicinity of the T route (orange).



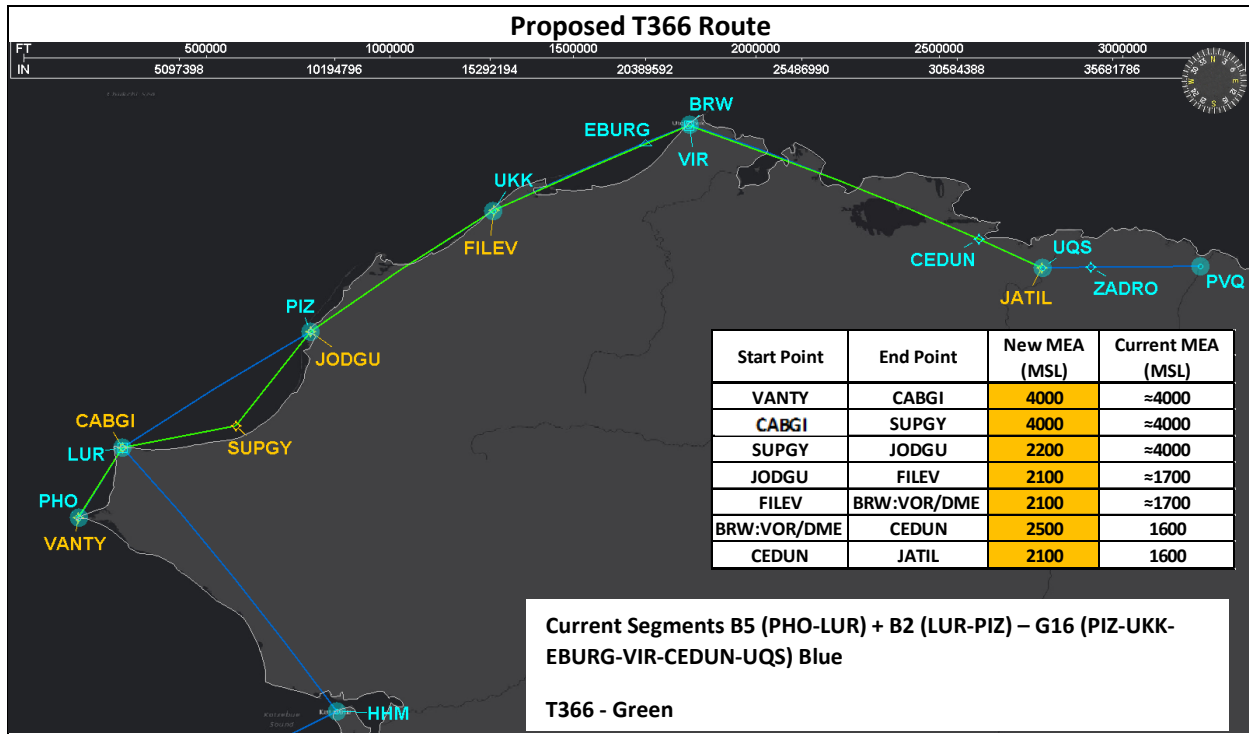
It is anticipated that aircraft would not be introduced to areas that are currently not exposed to air traffic.

The following figure depicts the overview of T364 (yellow) and the other T routes (green) that are proposed to modernize Alaska's ATS route structure.

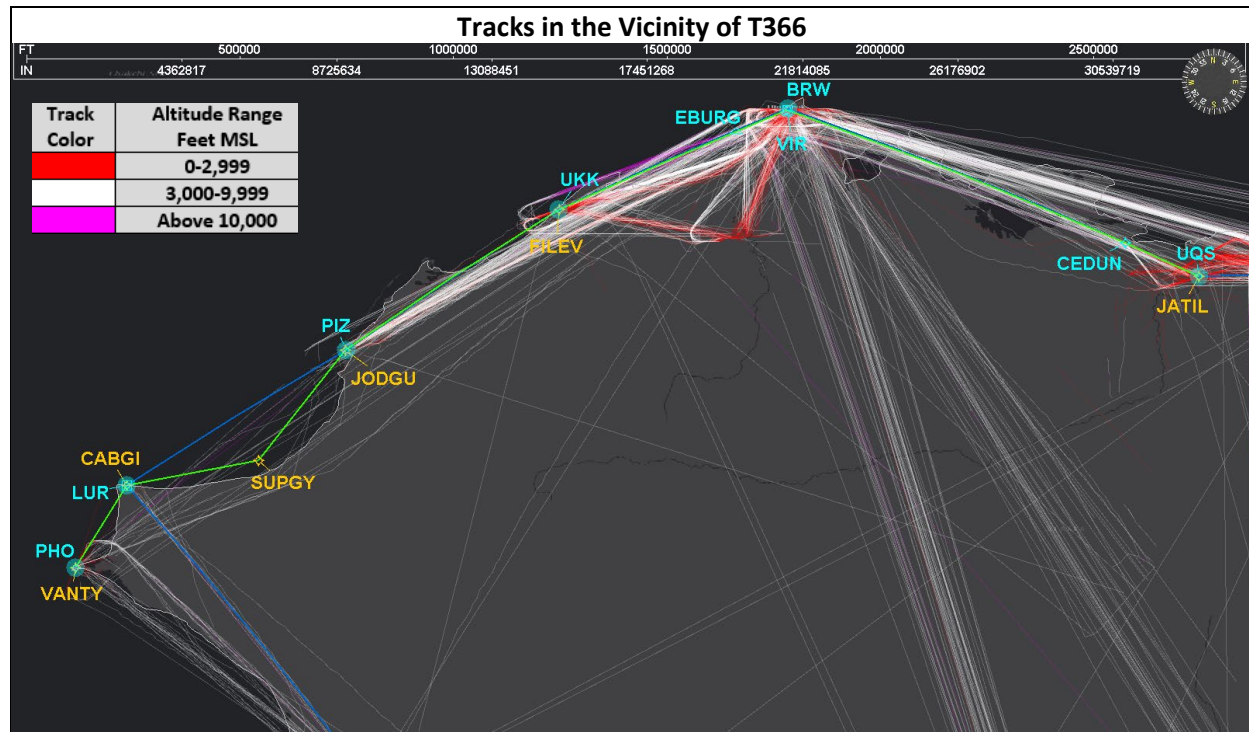


Proposed T366

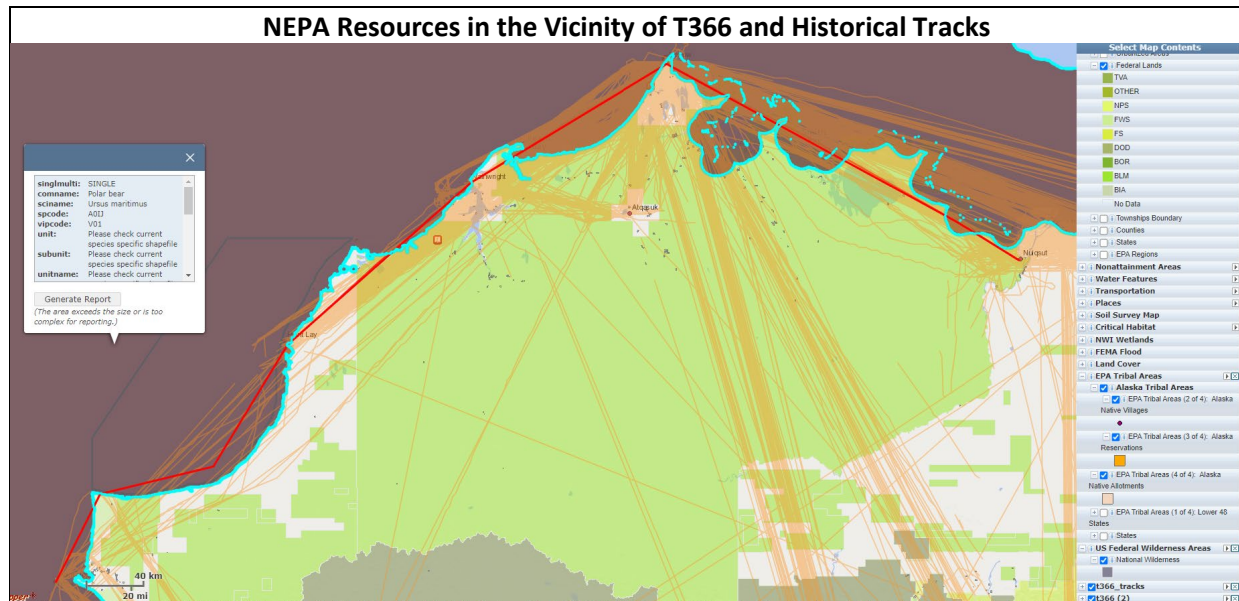
The following figure depicts the overview of the proposed T366 route.



The following figure depicts historical tracks in the vicinity of the new T366.

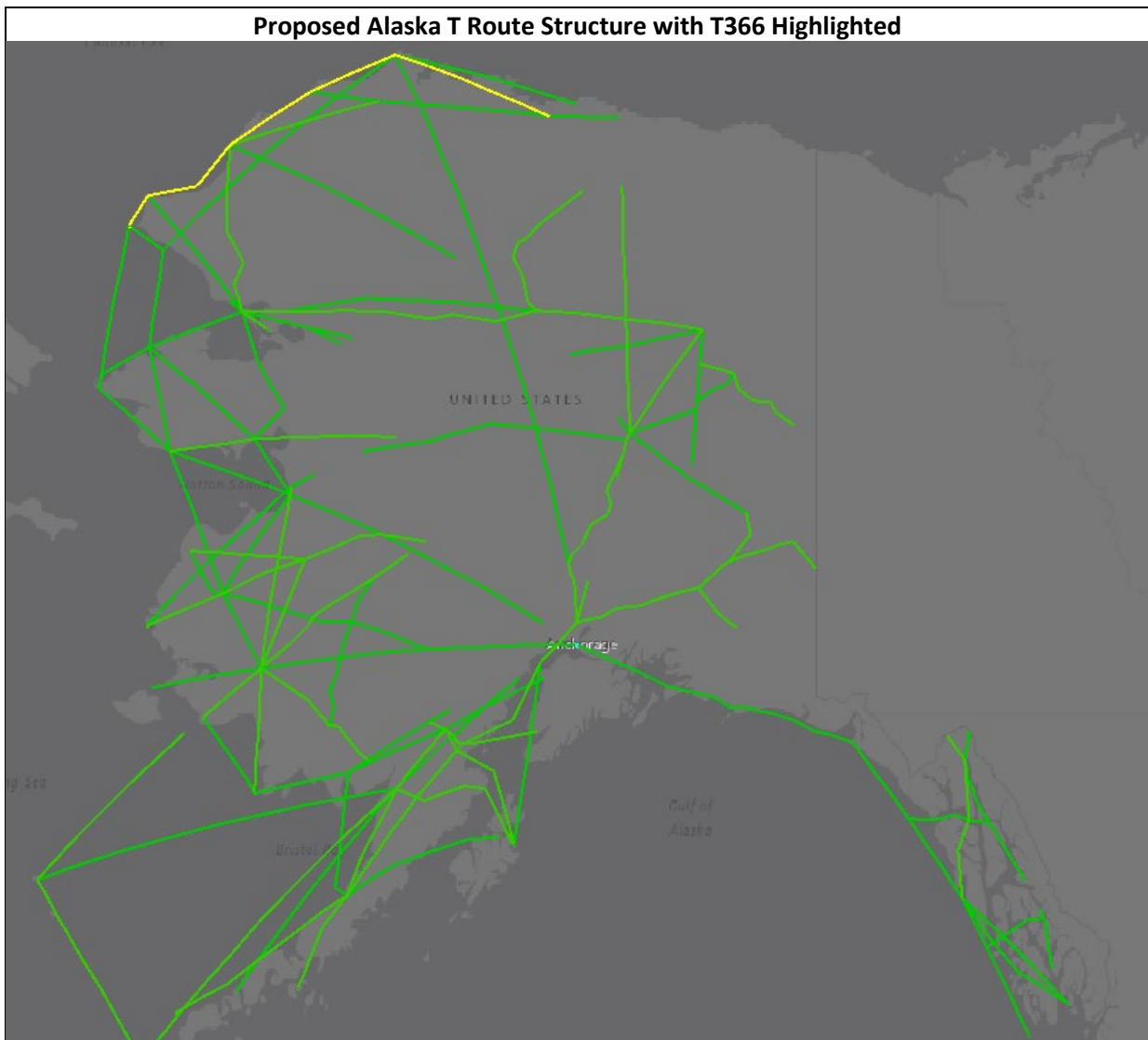


The following figure identifies the location of historical properties (brown icons), tribal areas (red dots), polar bear critical habitat, and public domain lands (green) in the vicinity of the T route (thick orange), and historical flight tracks (light orange) from 2019.



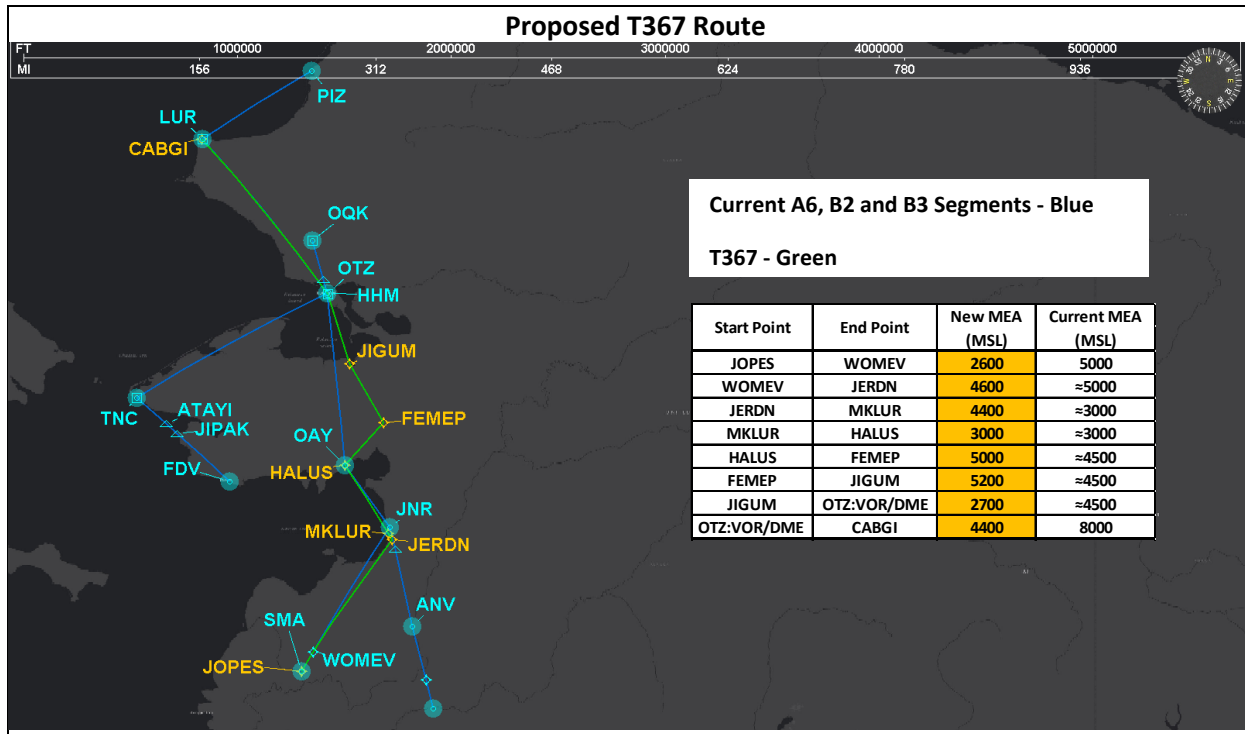
It is anticipated that aircraft would not be introduced to areas that are currently not exposed to air traffic.

The following figure depicts the overview of T366 (yellow) and the other T routes (green) that are proposed to modernize Alaska's ATS route structure.

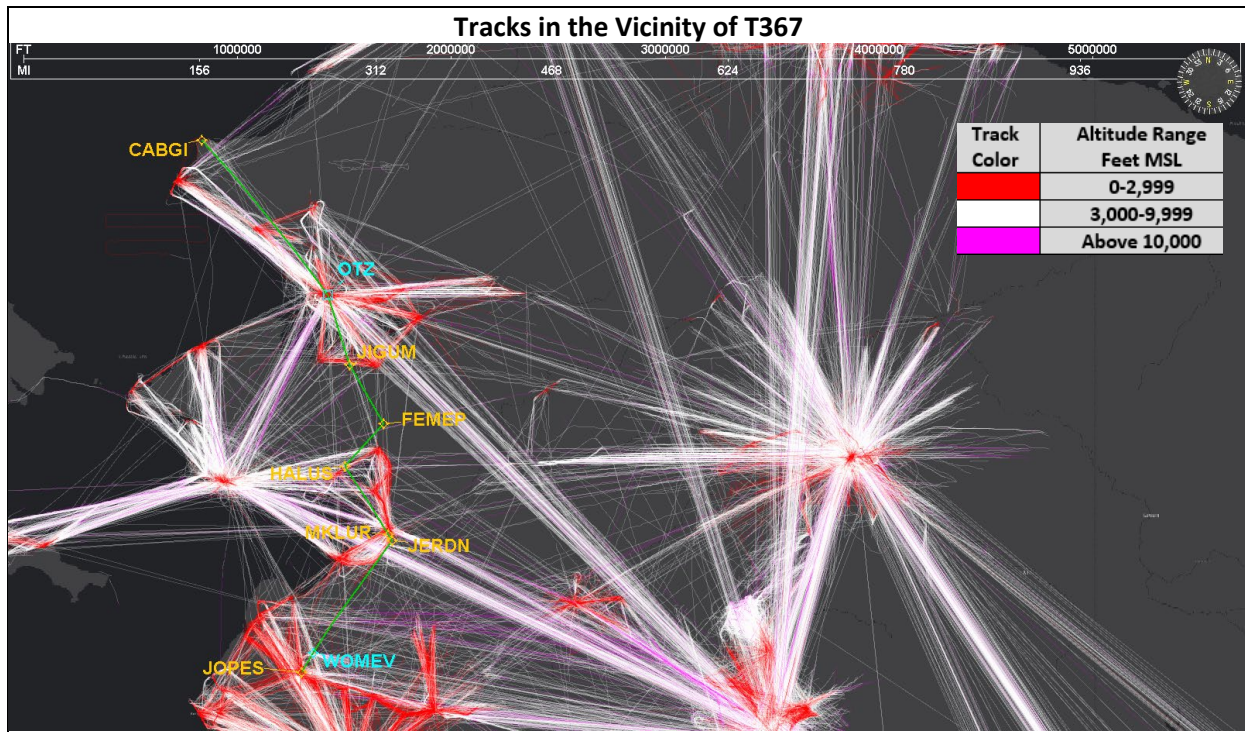


Proposed T367

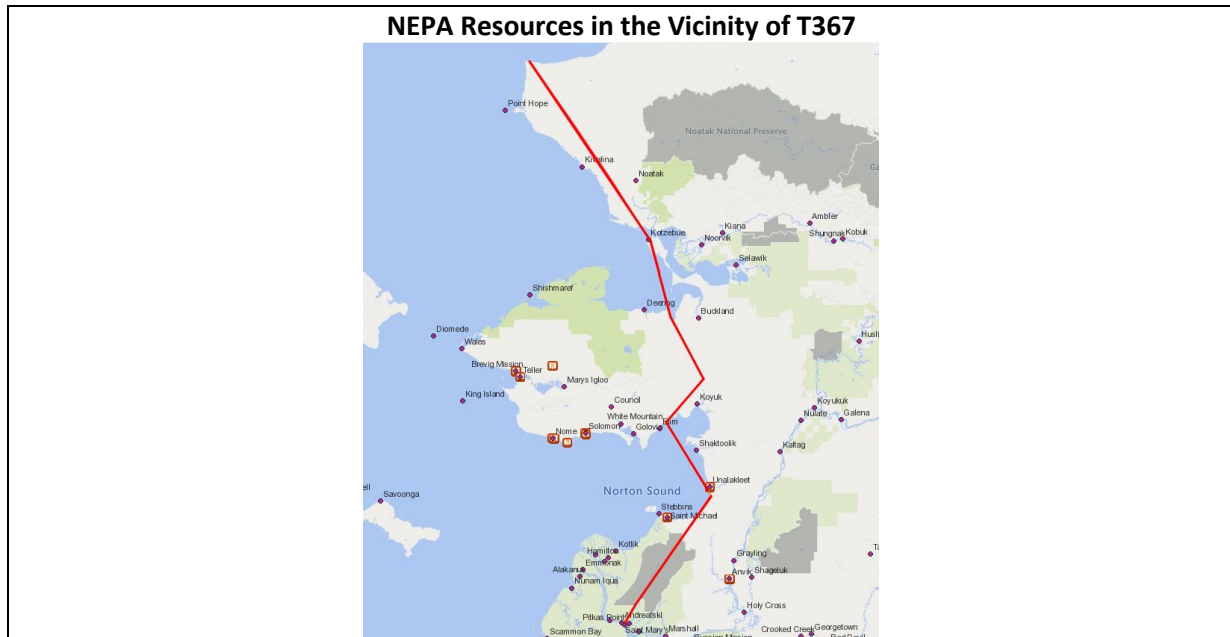
The following figure depicts the overview of the proposed T367 route.



The following figure depicts historical tracks in the vicinity of the new T367.

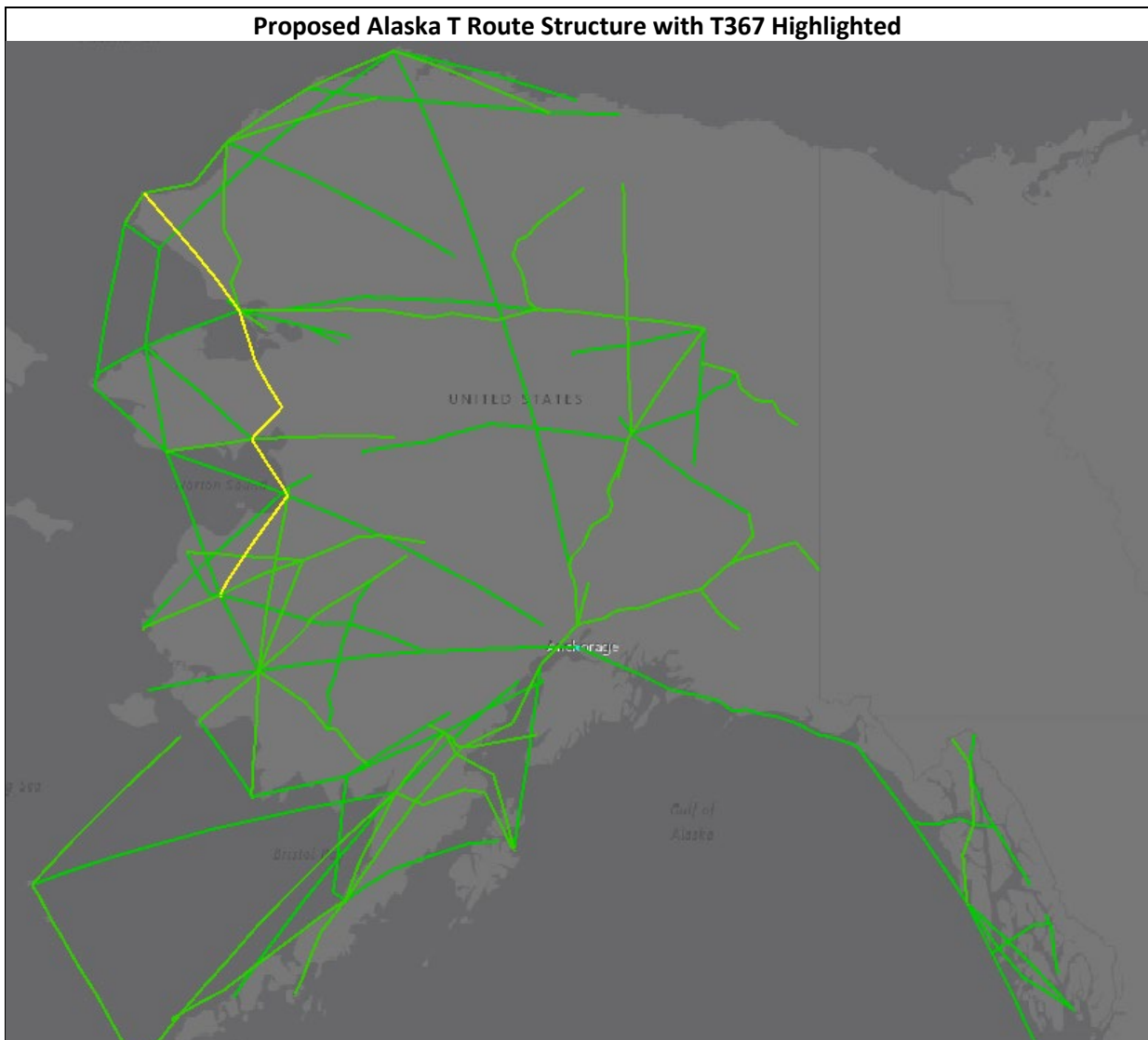


The following figure identifies the location of historical properties (brown icons), tribal areas (red dots), and wilderness areas (grey) in the vicinity of the T route (thick orange).



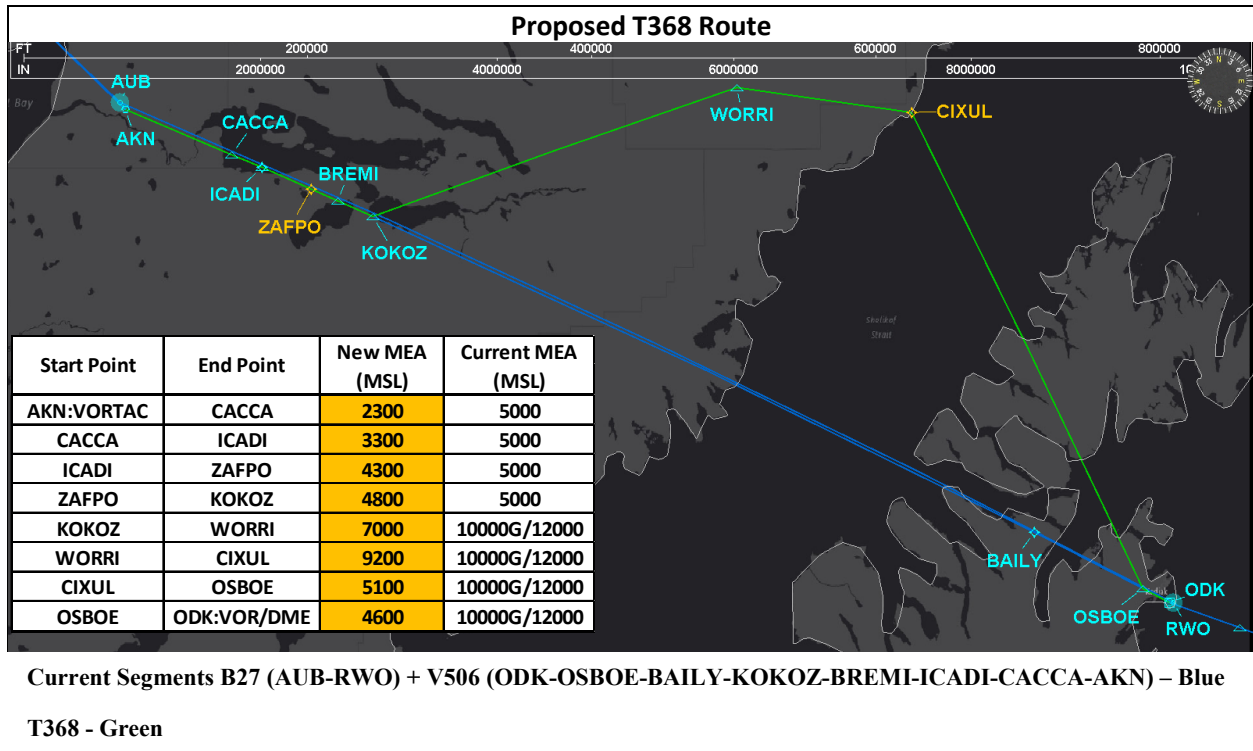
It is anticipated that aircraft would not be introduced to areas that are currently not exposed to air traffic.

The following figure depicts the overview of T367 (yellow) and the other T routes (green) that are proposed to modernize Alaska's ATS route structure.

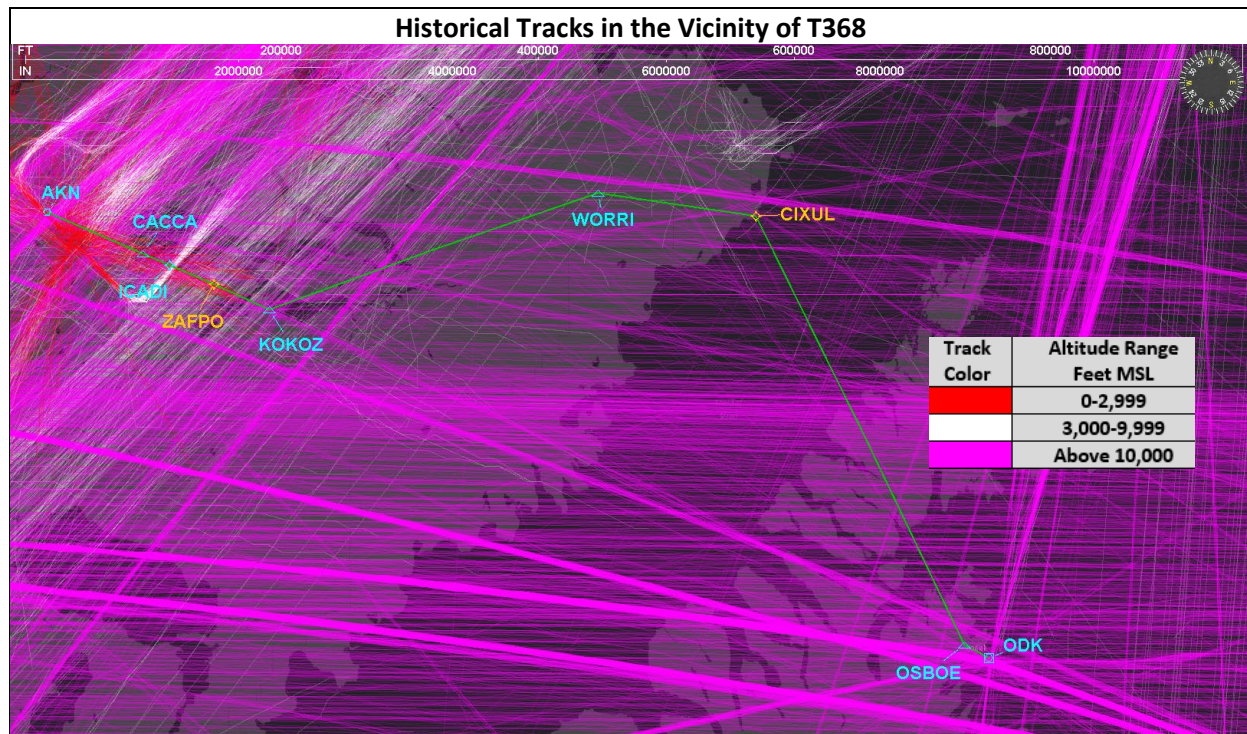


Proposed T368

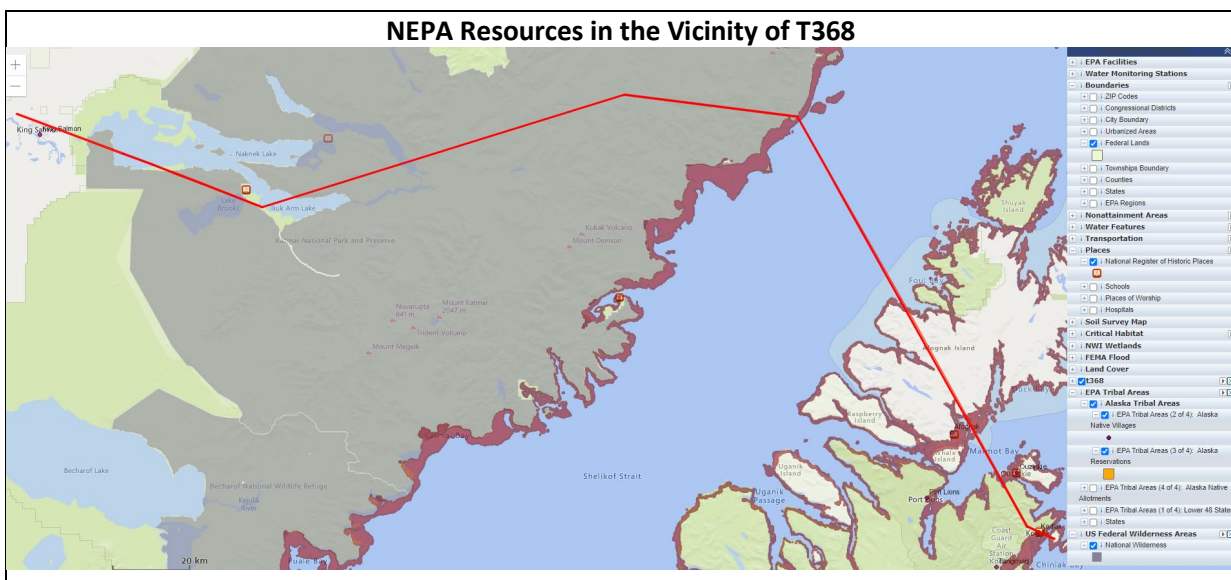
The following figure depicts the overview of the proposed T368 route.



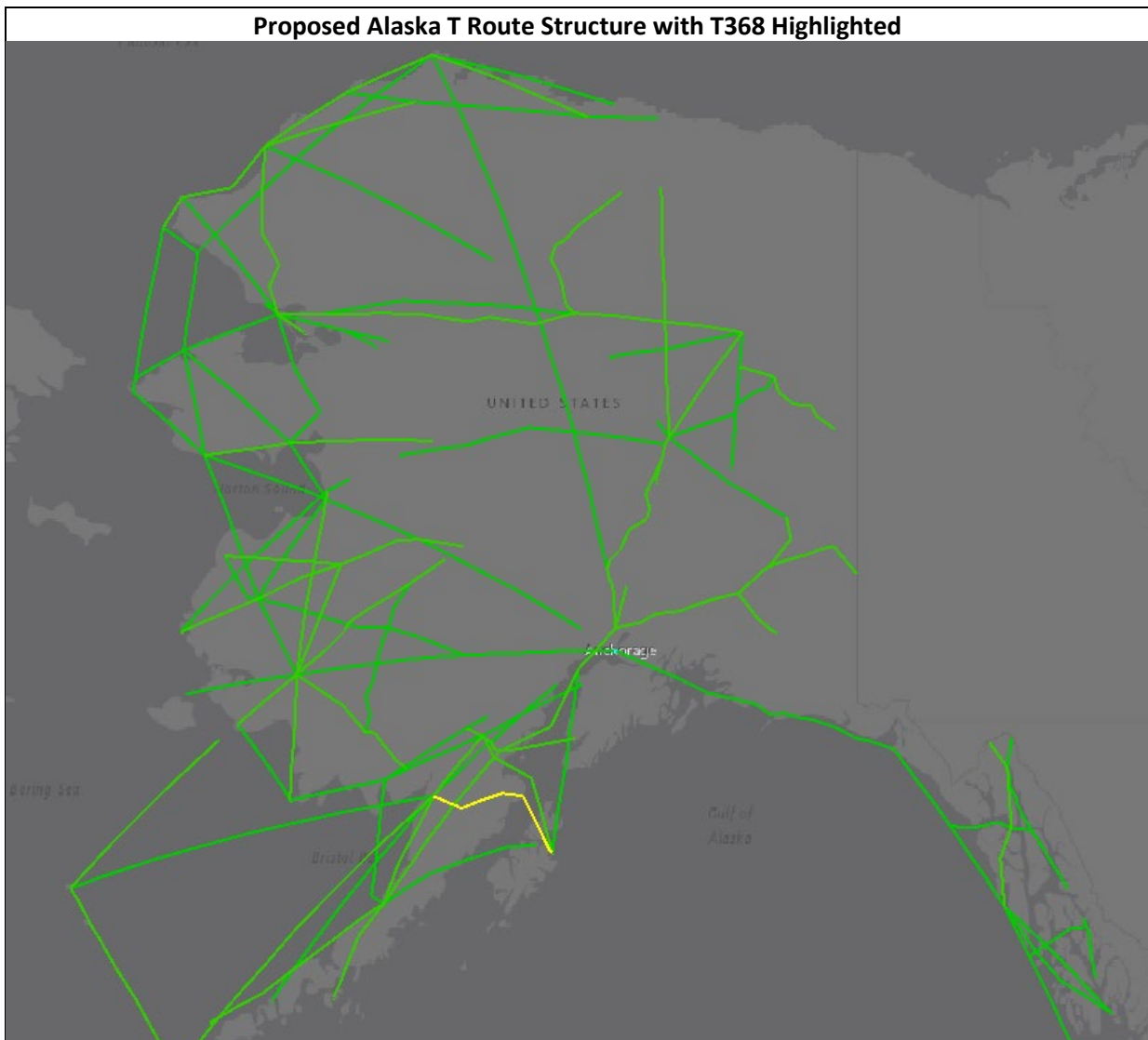
The following figure depicts the historical tracks (with MSL altitudes) in the vicinity of the new T368.



The following figure identifies the location of the historical properties (brown icons), tribal areas (red dots), Northern Sea Otter critical habitat (brown), wilderness areas (grey), and other federal lands (green) in the vicinity of the T route (thick orange).

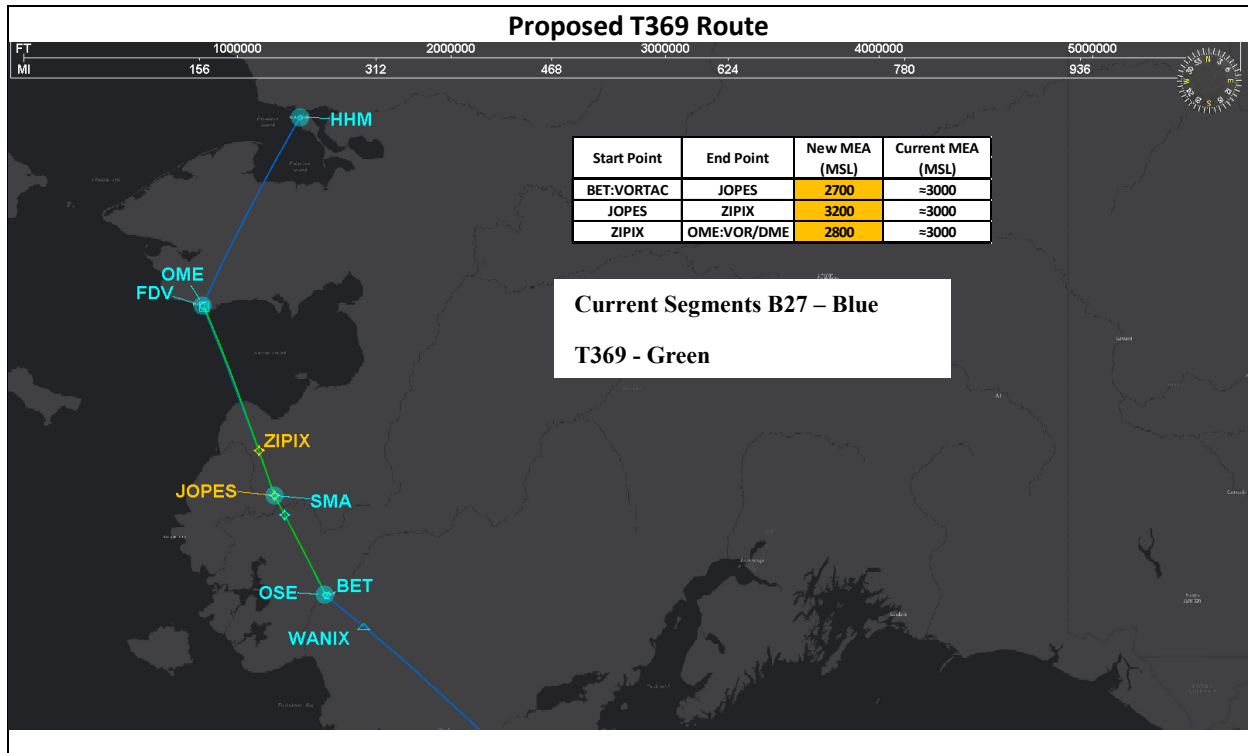


The following figure depicts the overview of T368 (yellow) and the other T routes (green) that are proposed to modernize Alaska's ATS route structure.

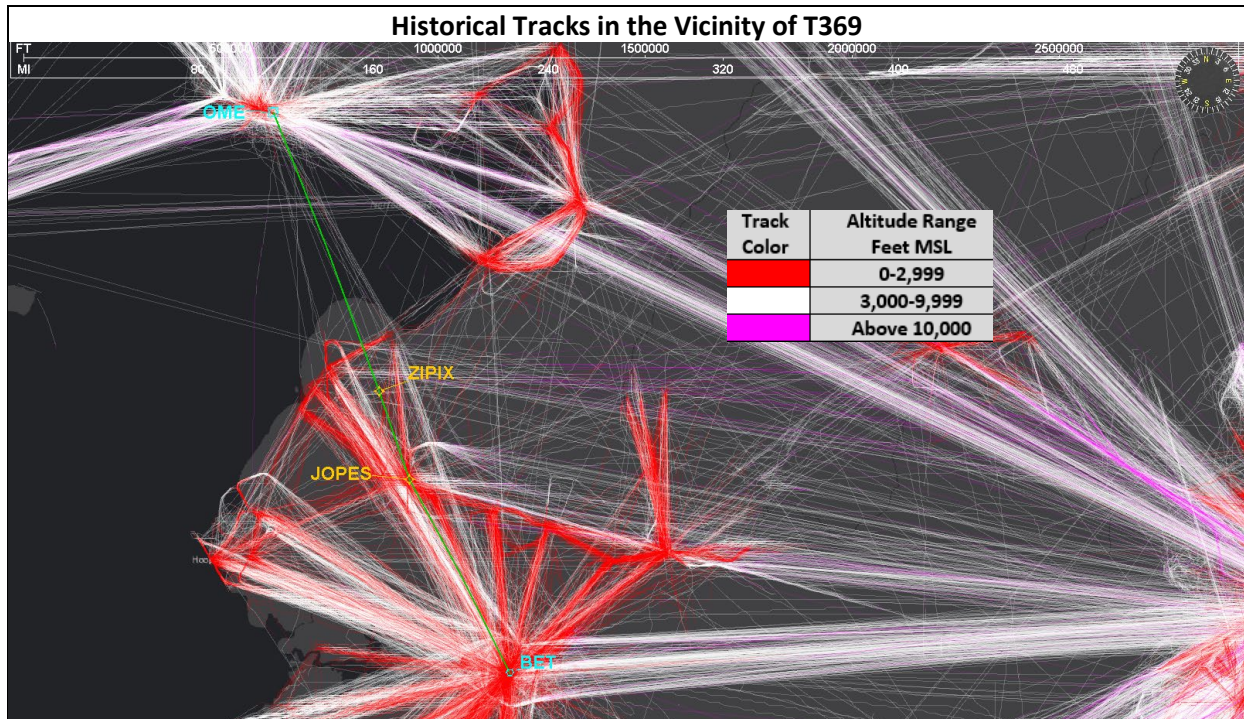


Proposed T369

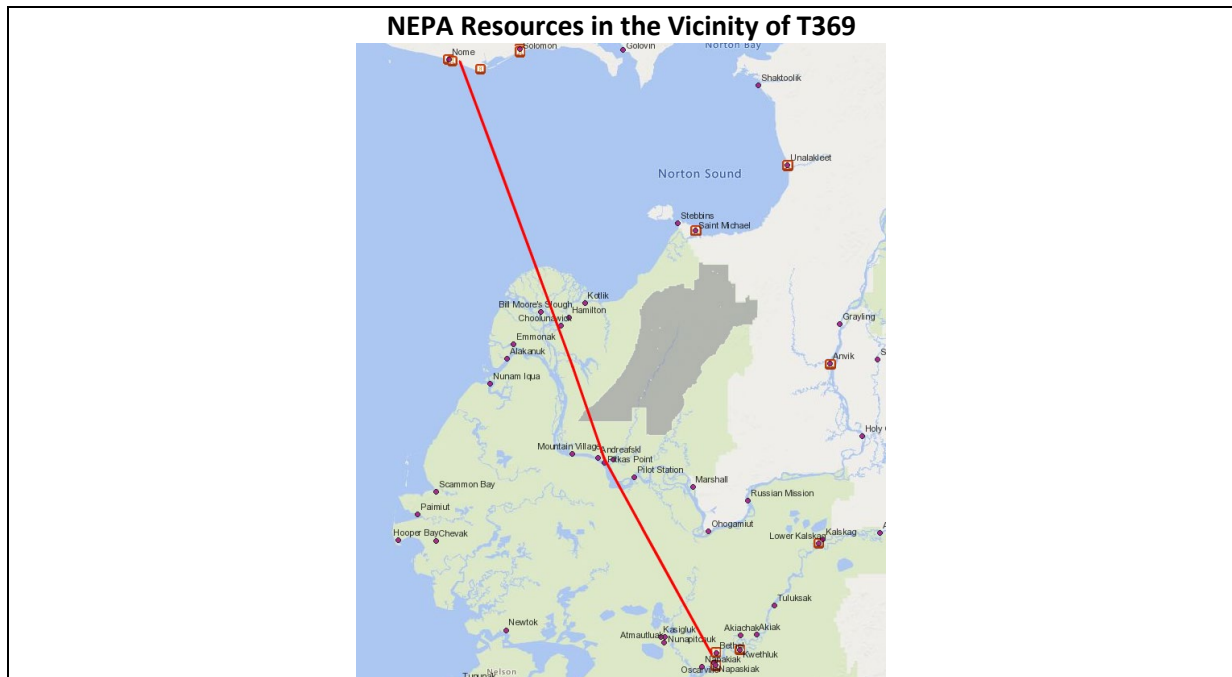
The following figure depicts the overview of the proposed T369 route.



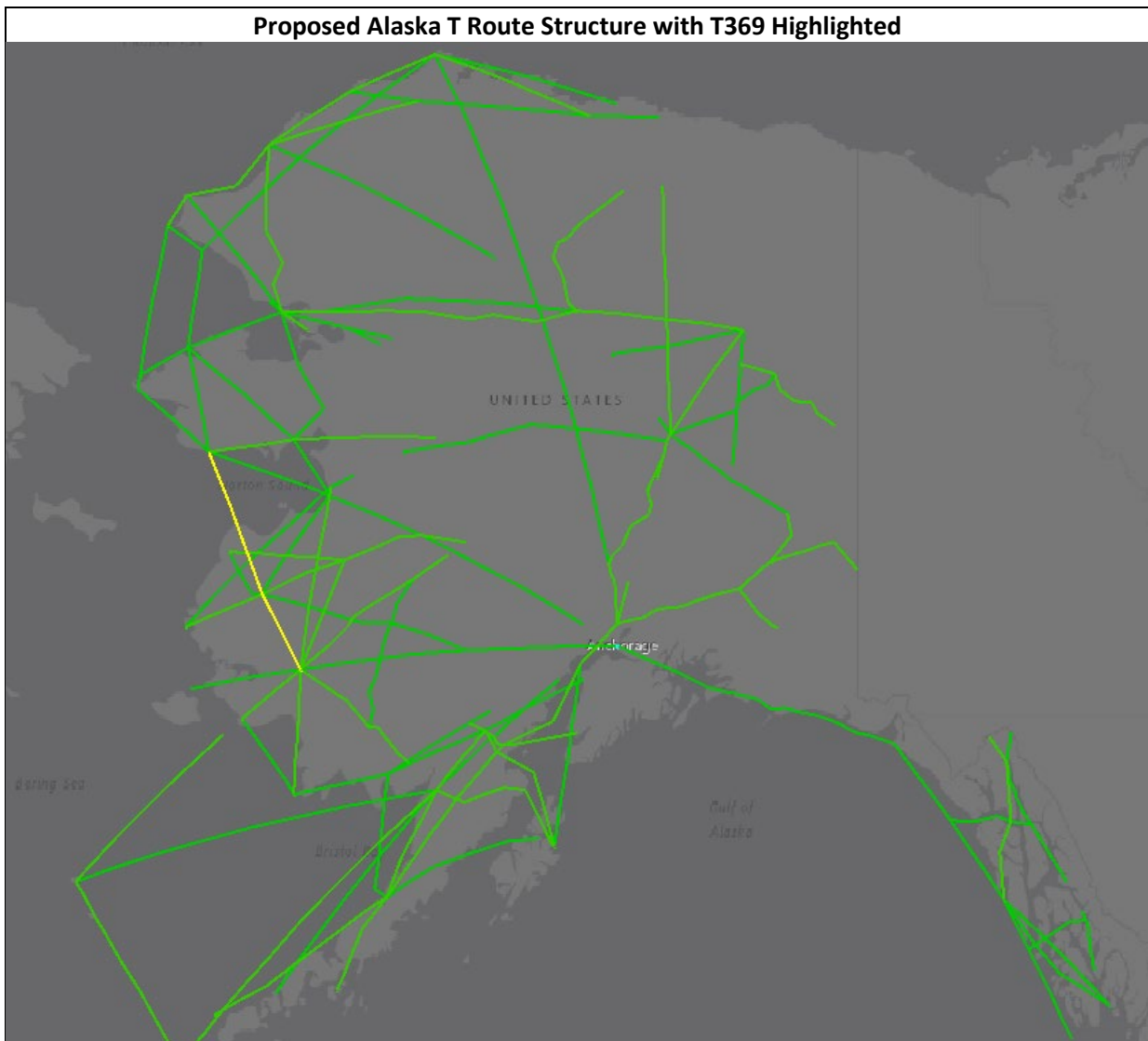
The following figure depicts the historical tracks (with MSL altitudes) in the vicinity of the new T369.



The following figure identifies the location of the historical properties (brown icons), tribal areas (red dots), wilderness areas (grey), and Yukon Delta National Wildlife Refuge (green) in the vicinity of the T route (thick orange).

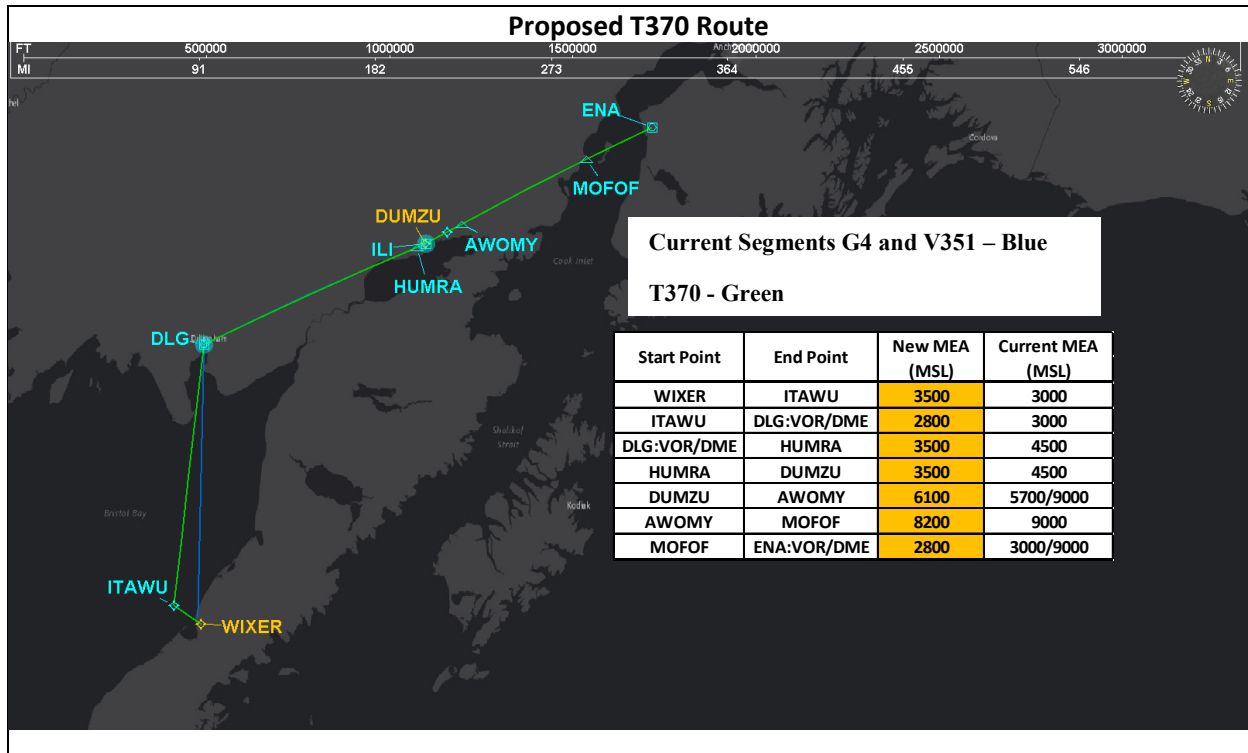


The following figure depicts the overview of T369 (yellow) and the other T routes (green) that are proposed to modernize Alaska's ATS route structure.

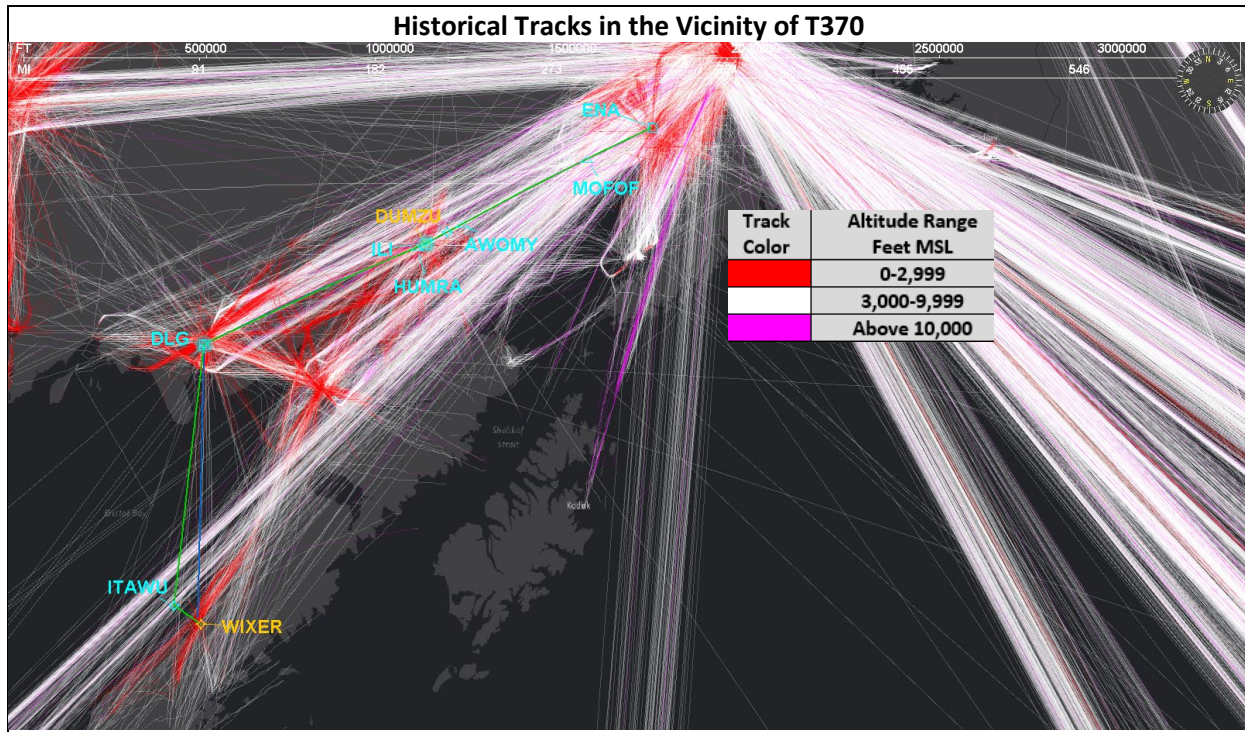


Proposed T370

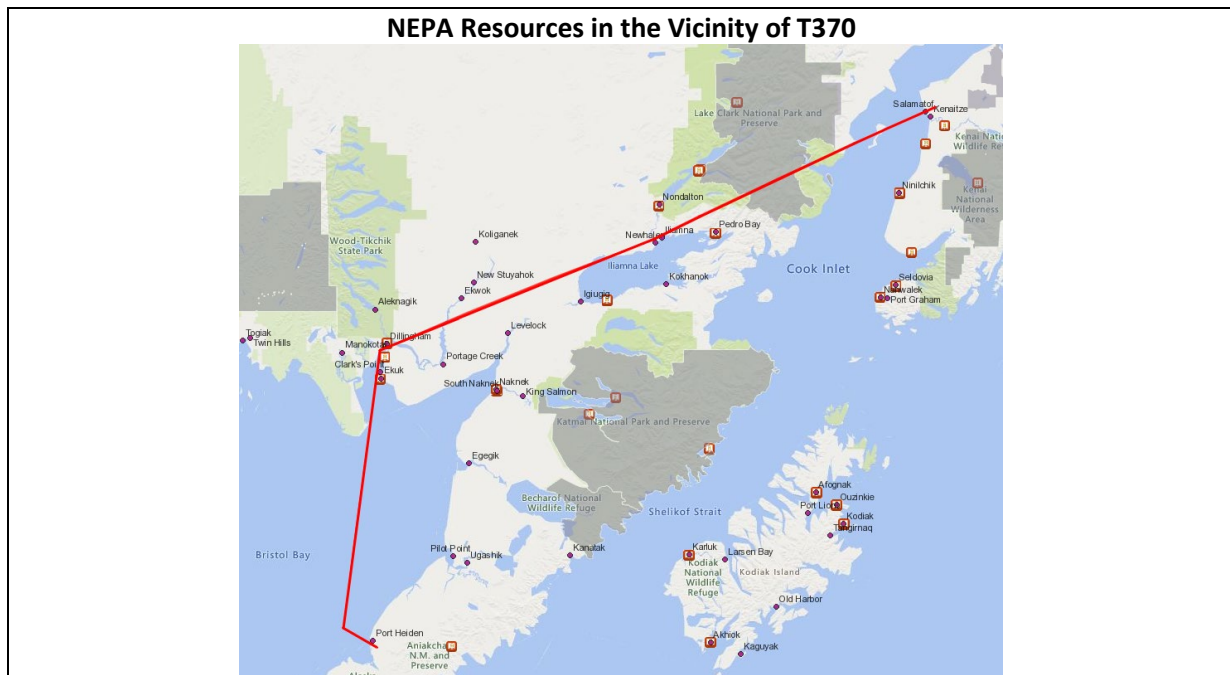
The following figure depicts the overview of the proposed T370 route.



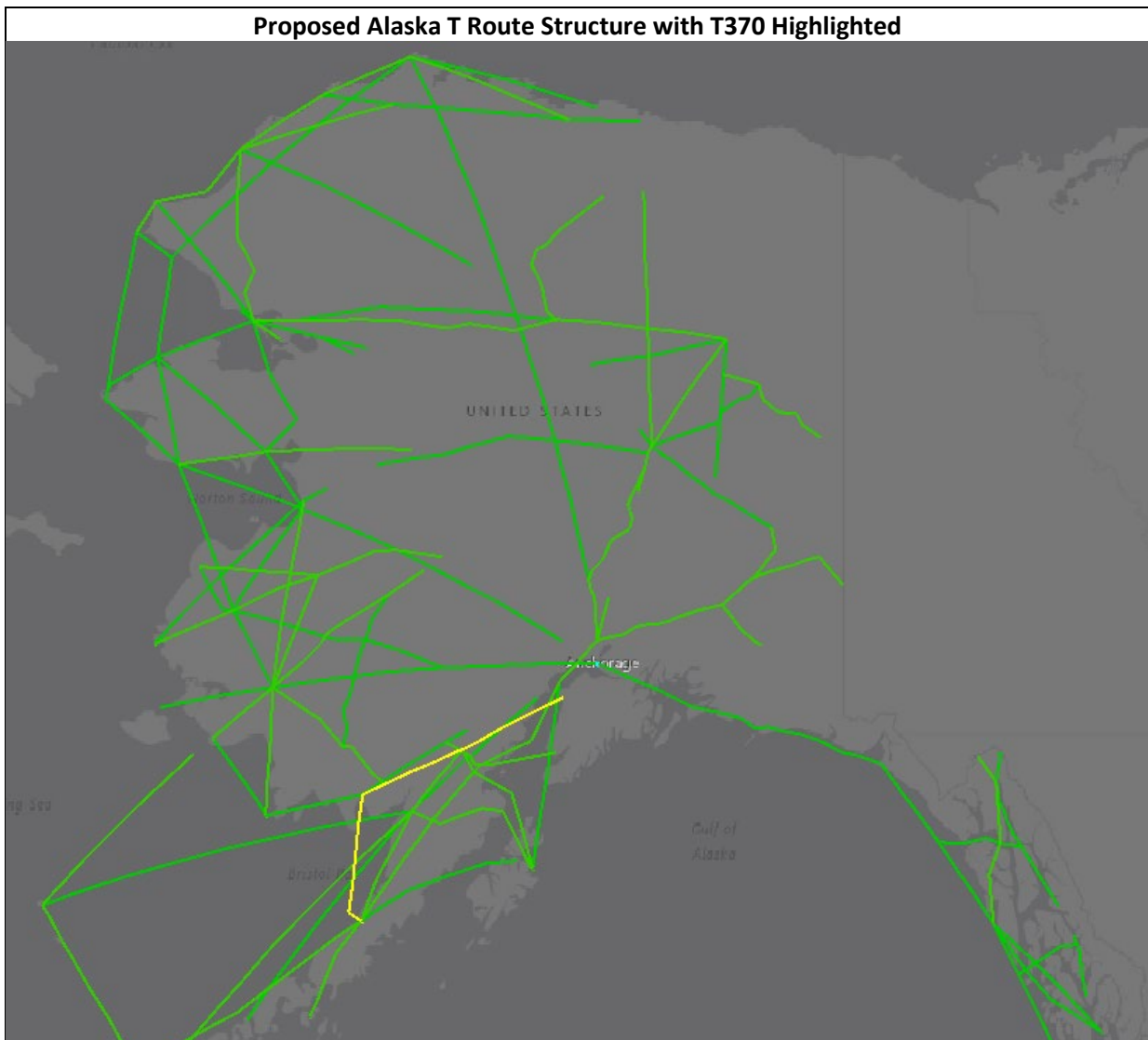
The following figure depicts the historical tracks (with MSL altitudes) in the vicinity of the new T370.



The following figure identifies the location of historical properties (brown icons), tribal areas (red dots), and wilderness areas (grey) in the vicinity of the T route (thick orange).

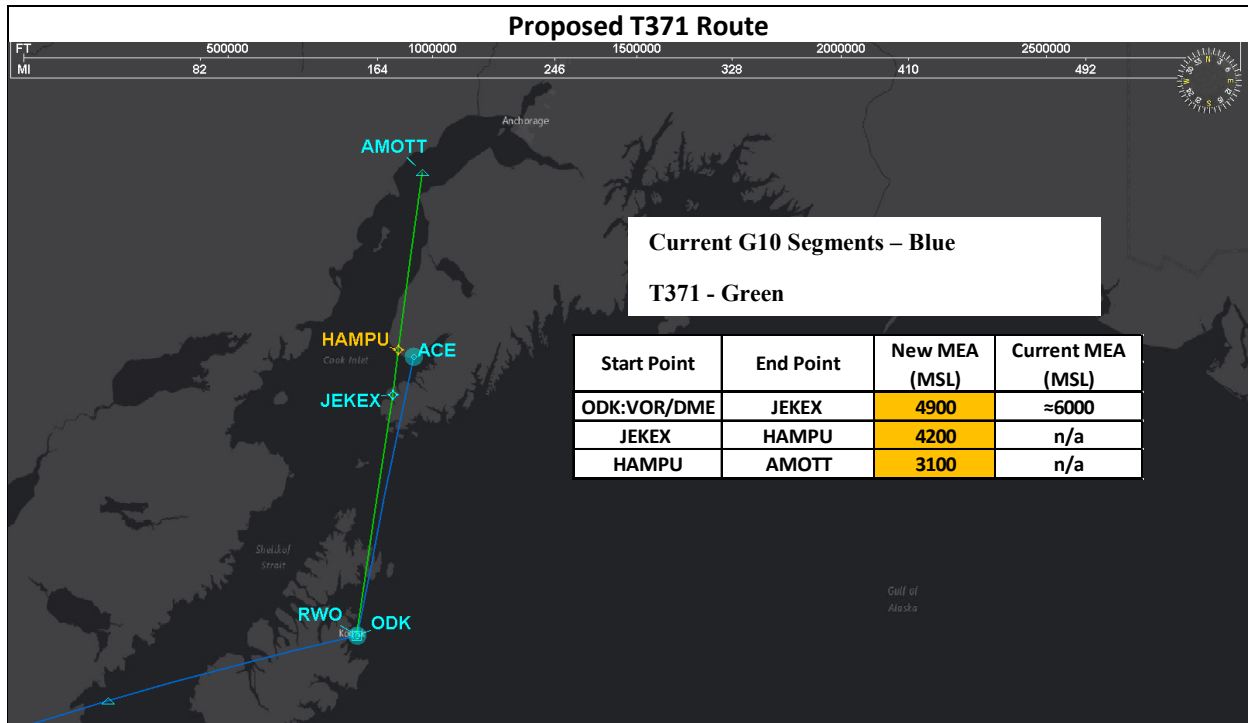


The following figure depicts the overview of T370 (yellow) and the other T routes (green) that are proposed to modernize Alaska's ATS route structure.

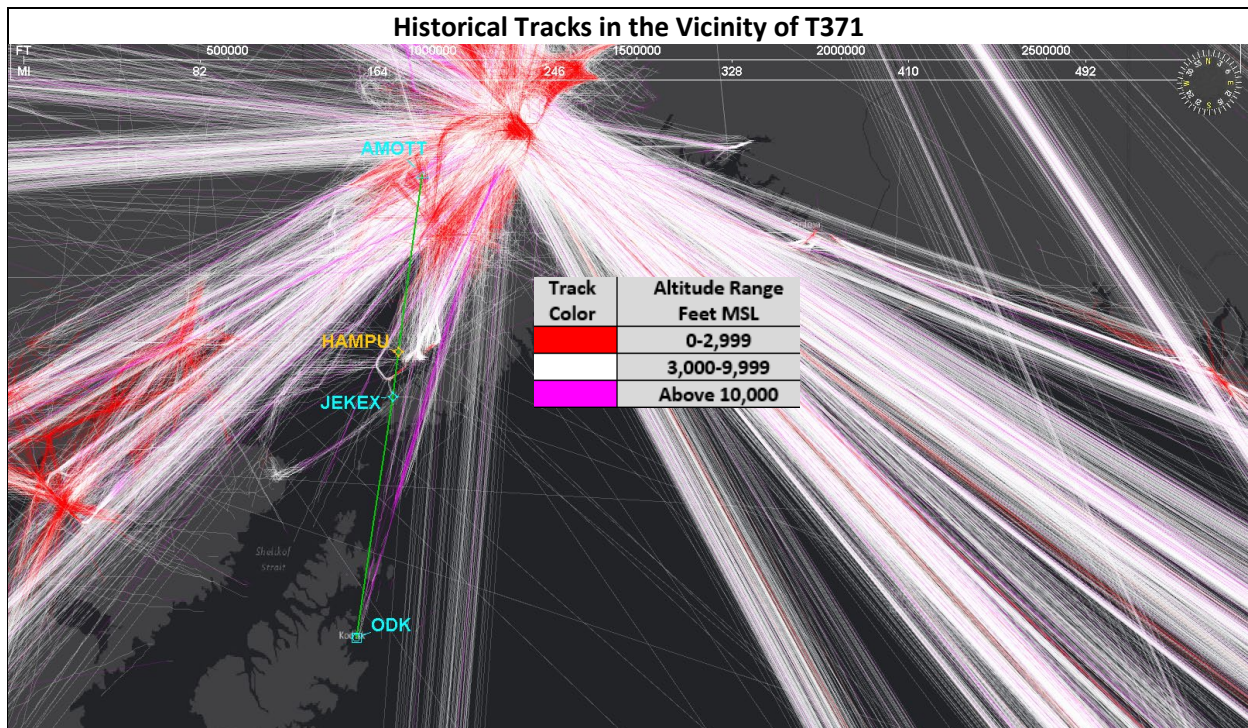


Proposed T371

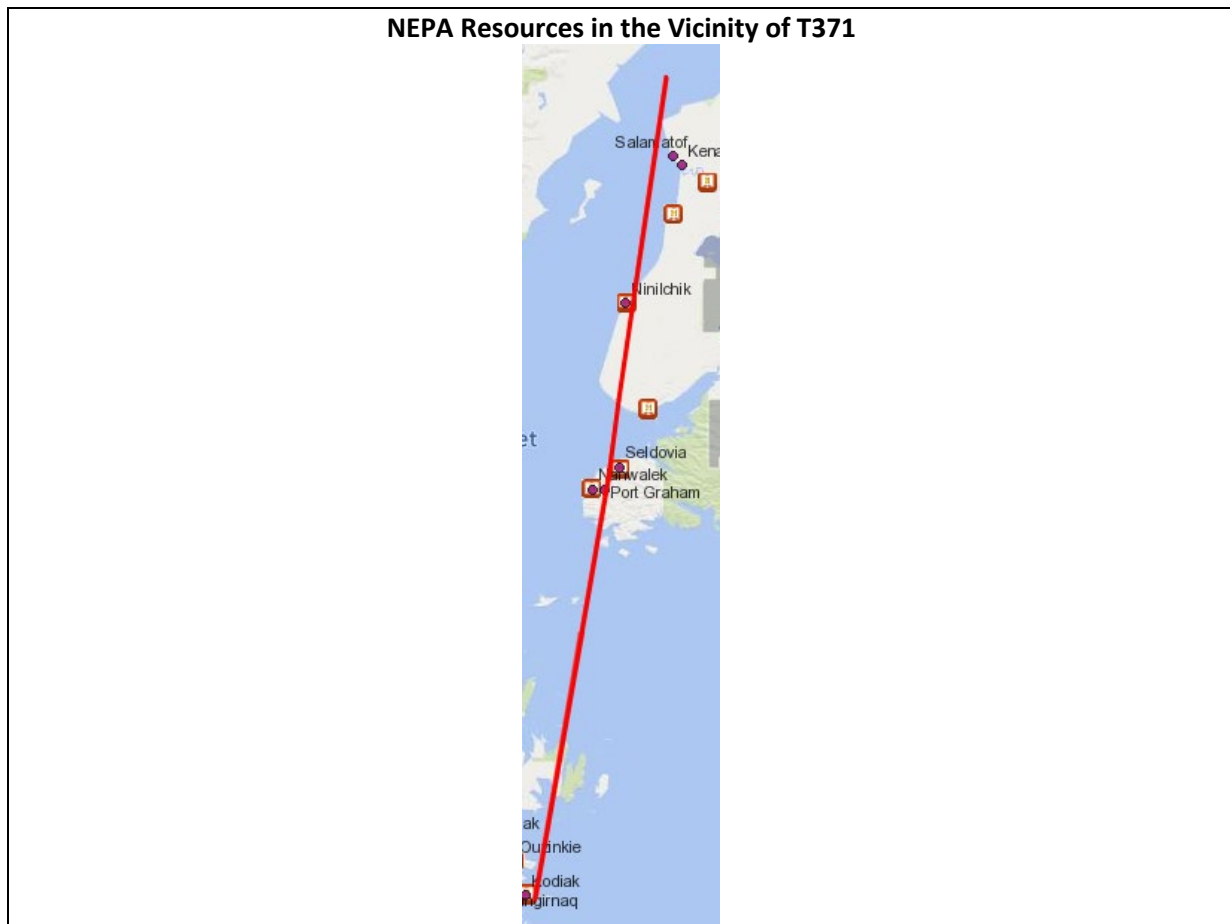
The following figure depicts the overview of the proposed T371 route.



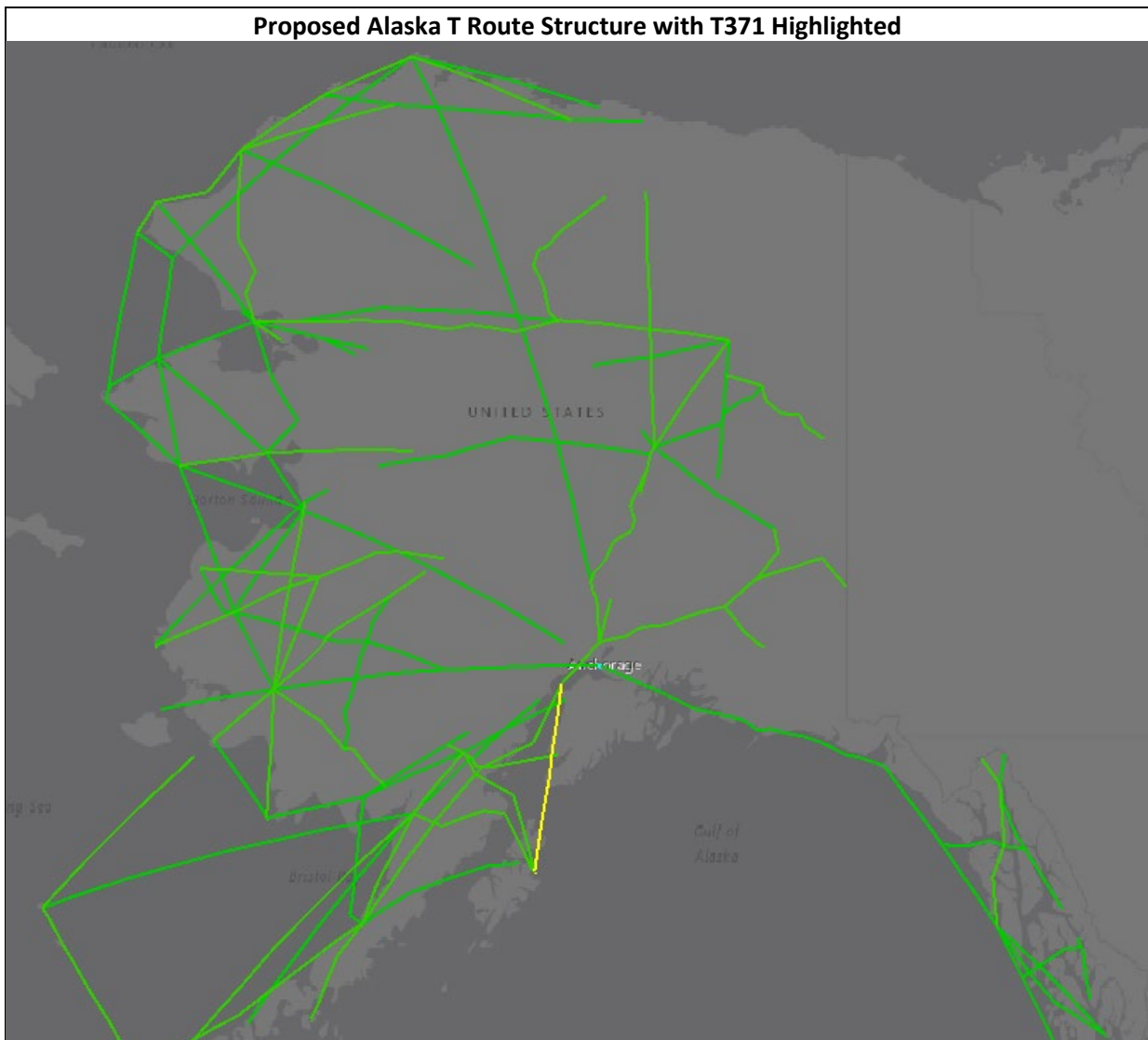
The following figure depicts the historical tracks (with MSL altitudes) in the vicinity of the new T371.



The following figure identifies the location of historical properties (brown icons), tribal areas (red dots), and wildlife refuges (green) in the vicinity of the T route (thick orange).

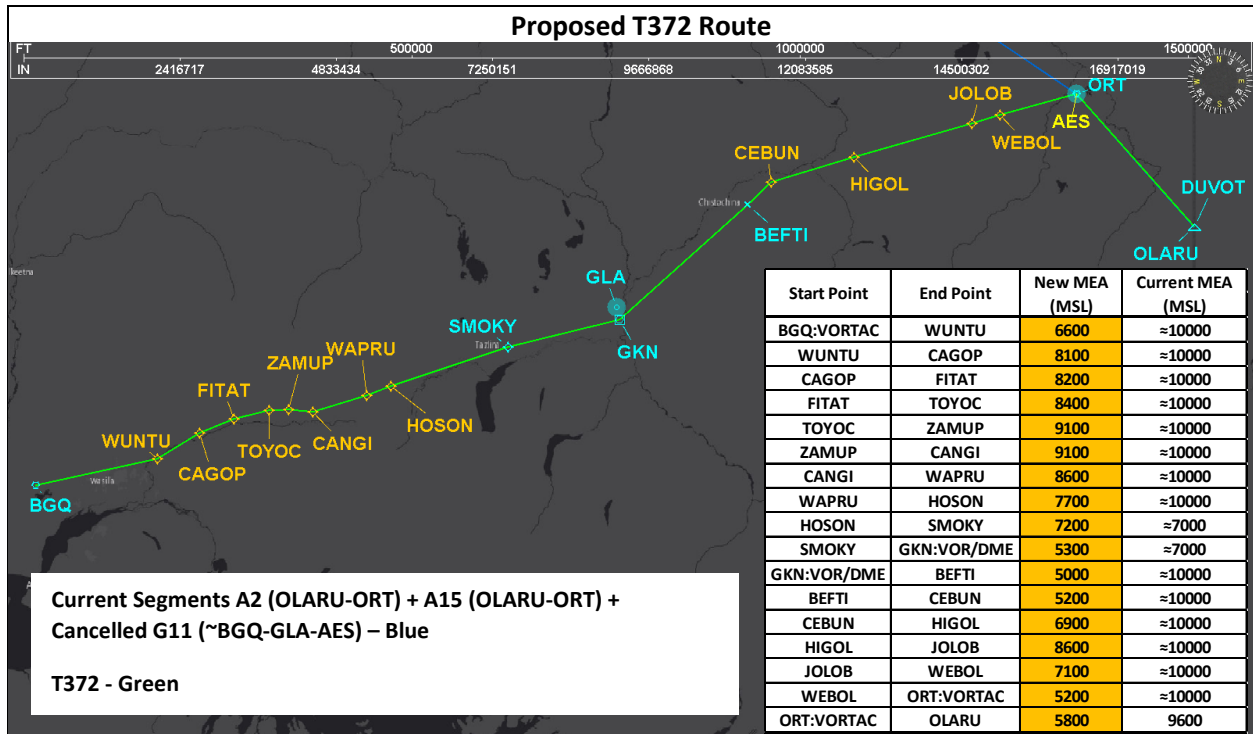


The following figure depicts the overview of T371 (yellow) and the other T routes (green) that are proposed to modernize Alaska's ATS route structure.

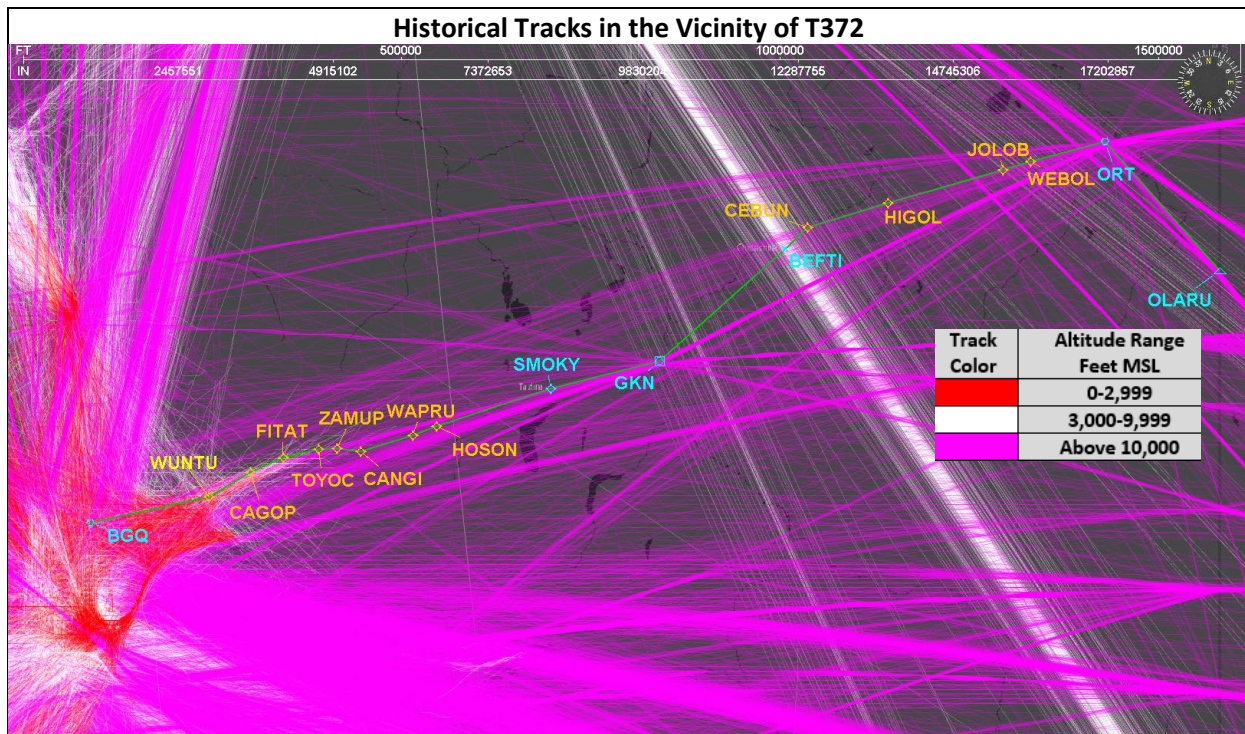


Proposed T372

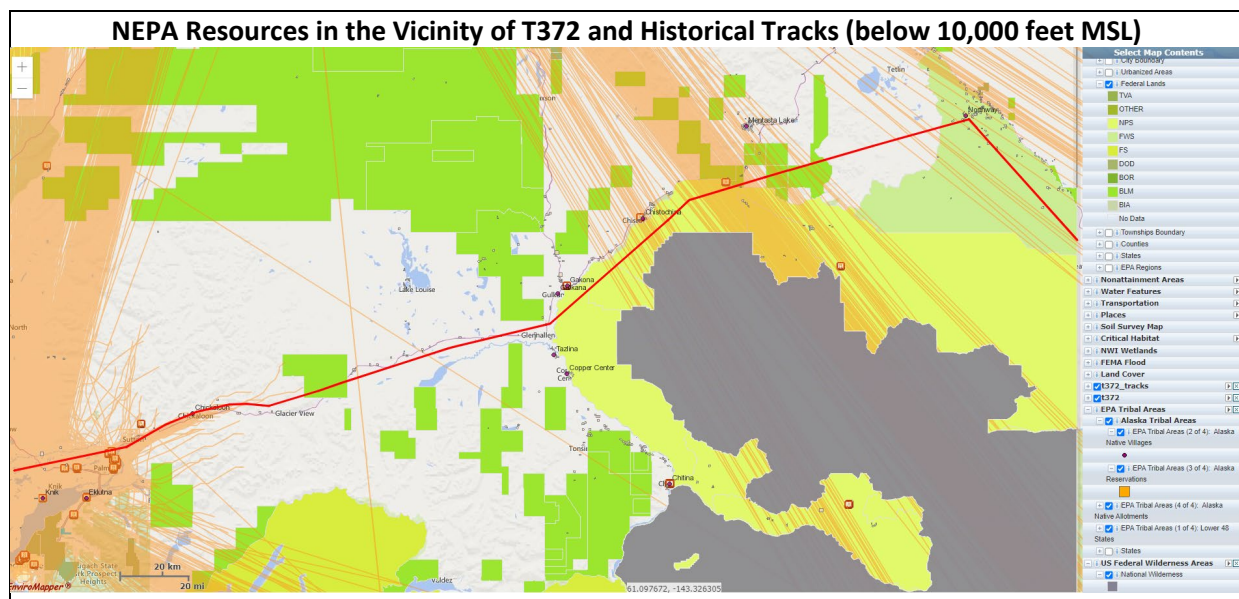
The following figure depicts the overview of the proposed T372 route.



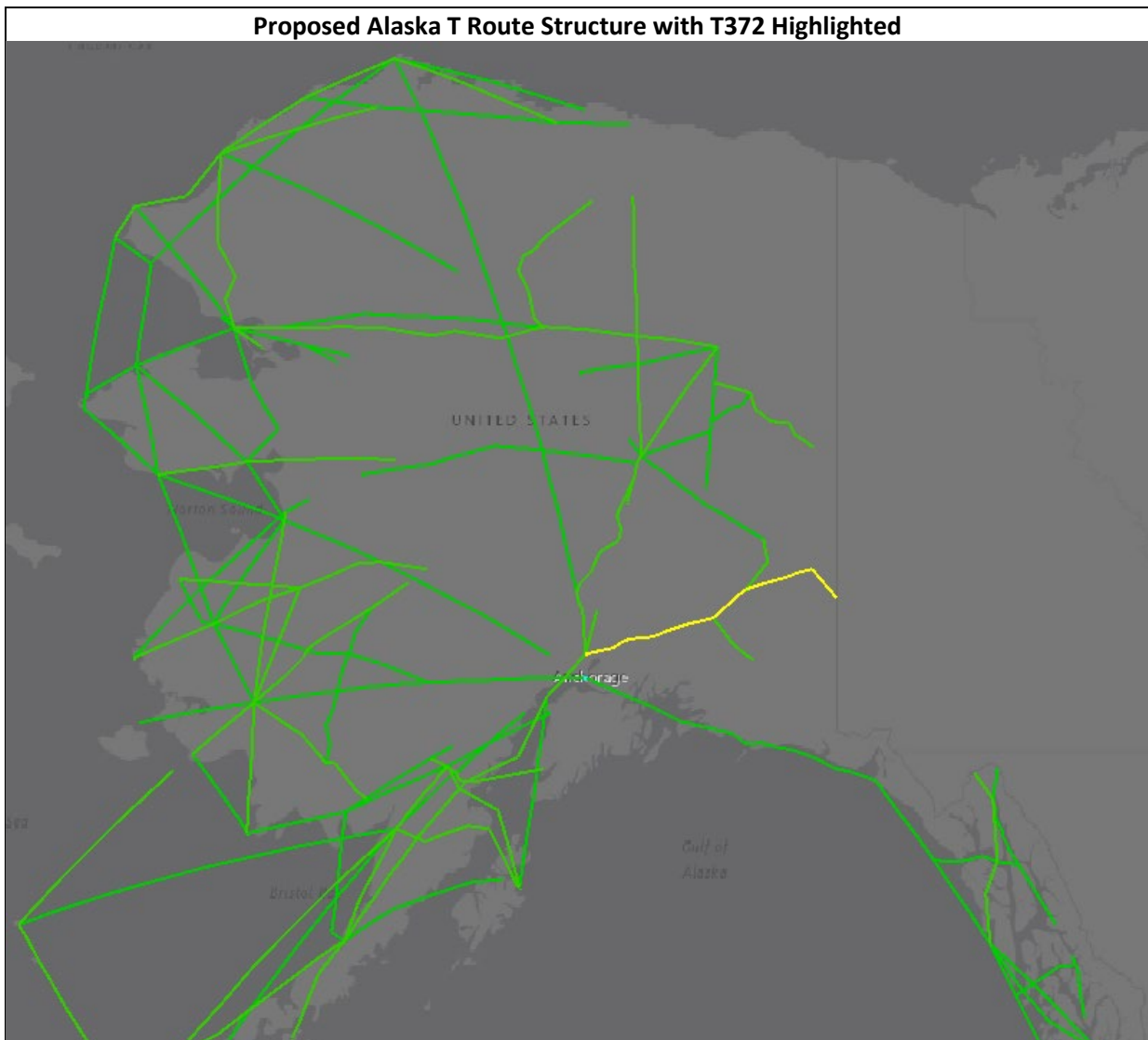
The following figure depicts the historical tracks (with MSL altitudes) in the vicinity of the new T372.



The following figure identifies the location of historical properties (brown icons), tribal areas (red dots), wilderness areas (grey), and federal lands (color coded in legend) in the vicinity of the T route (thick orange), and historical flight tracks (light orange) from 2019.

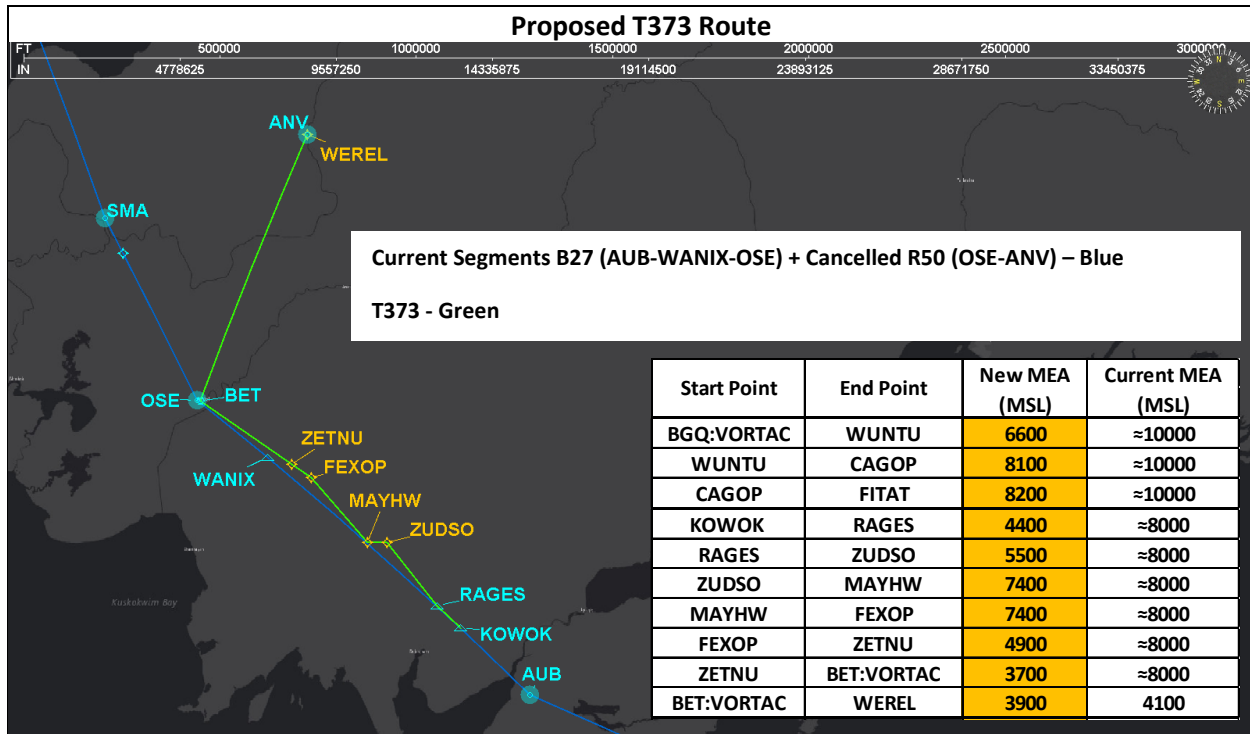


The following figure depicts the overview of T372 (yellow) and the other T routes (green) that are proposed to modernize Alaska's ATS route structure.

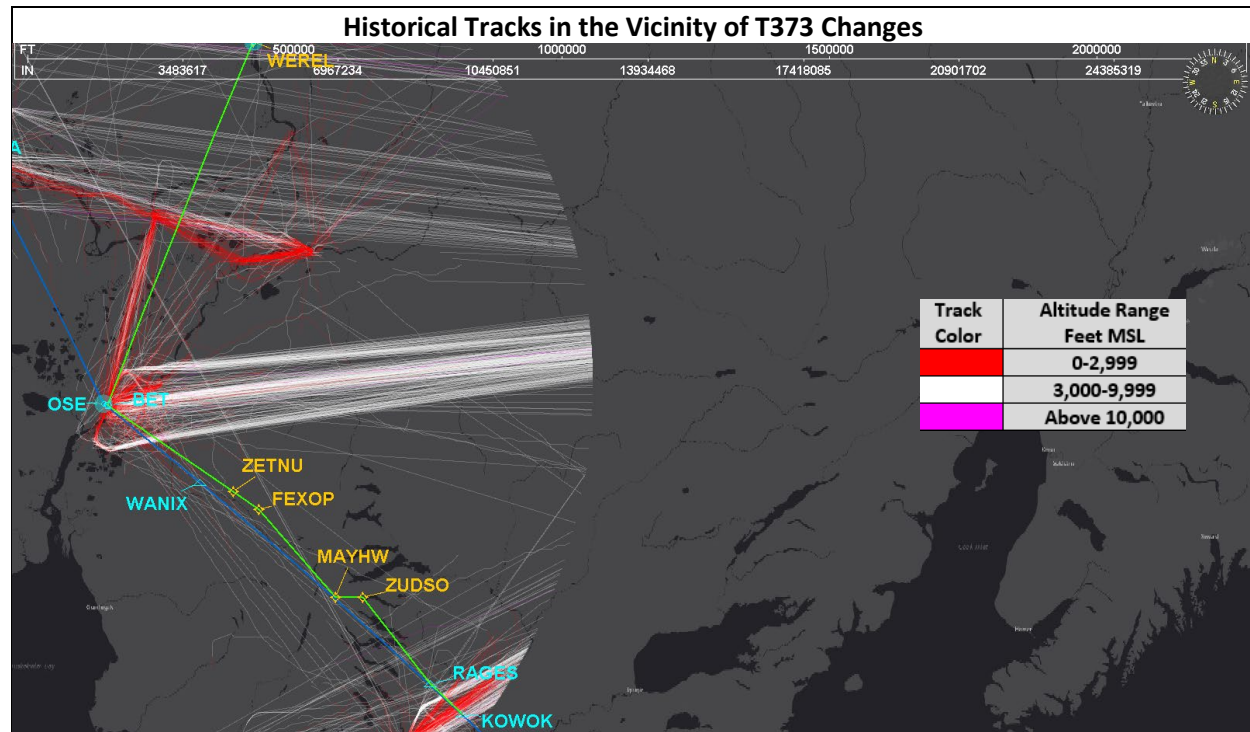


Proposed T373

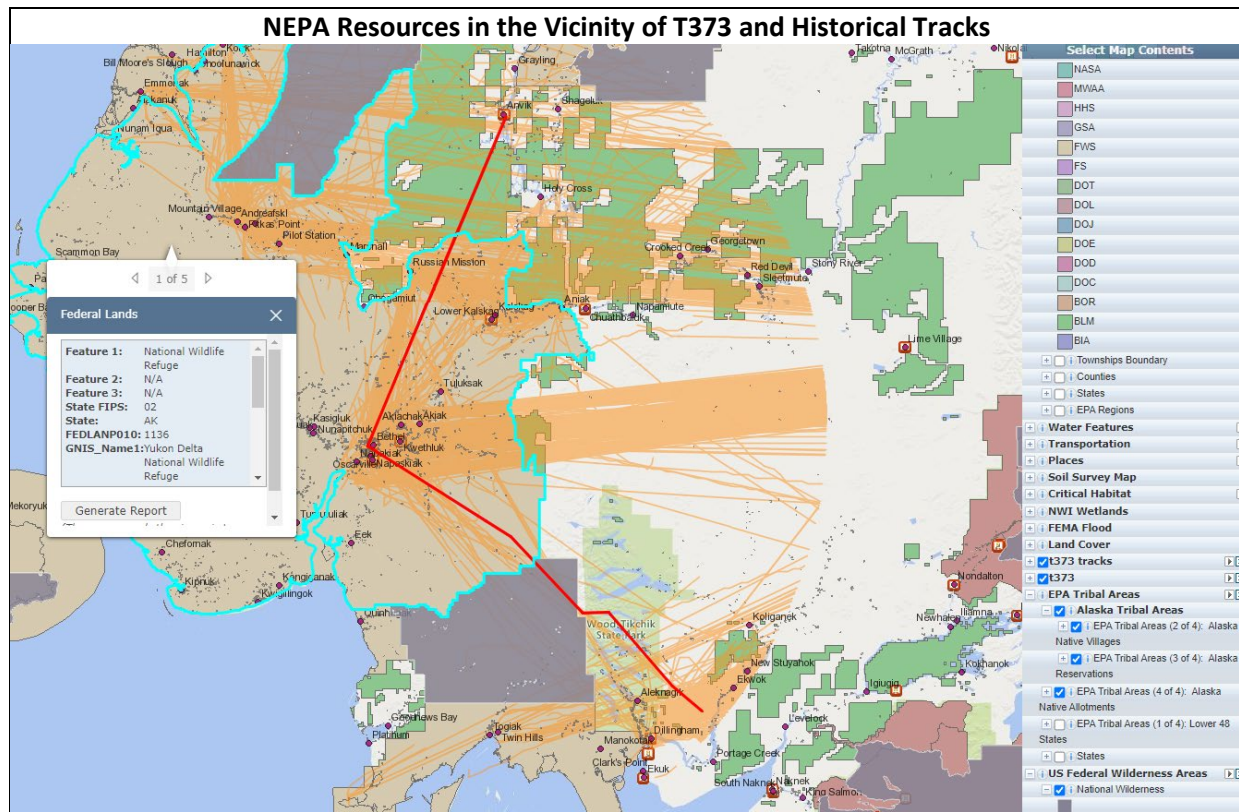
The following figure depicts the overview of the proposed T373 route.



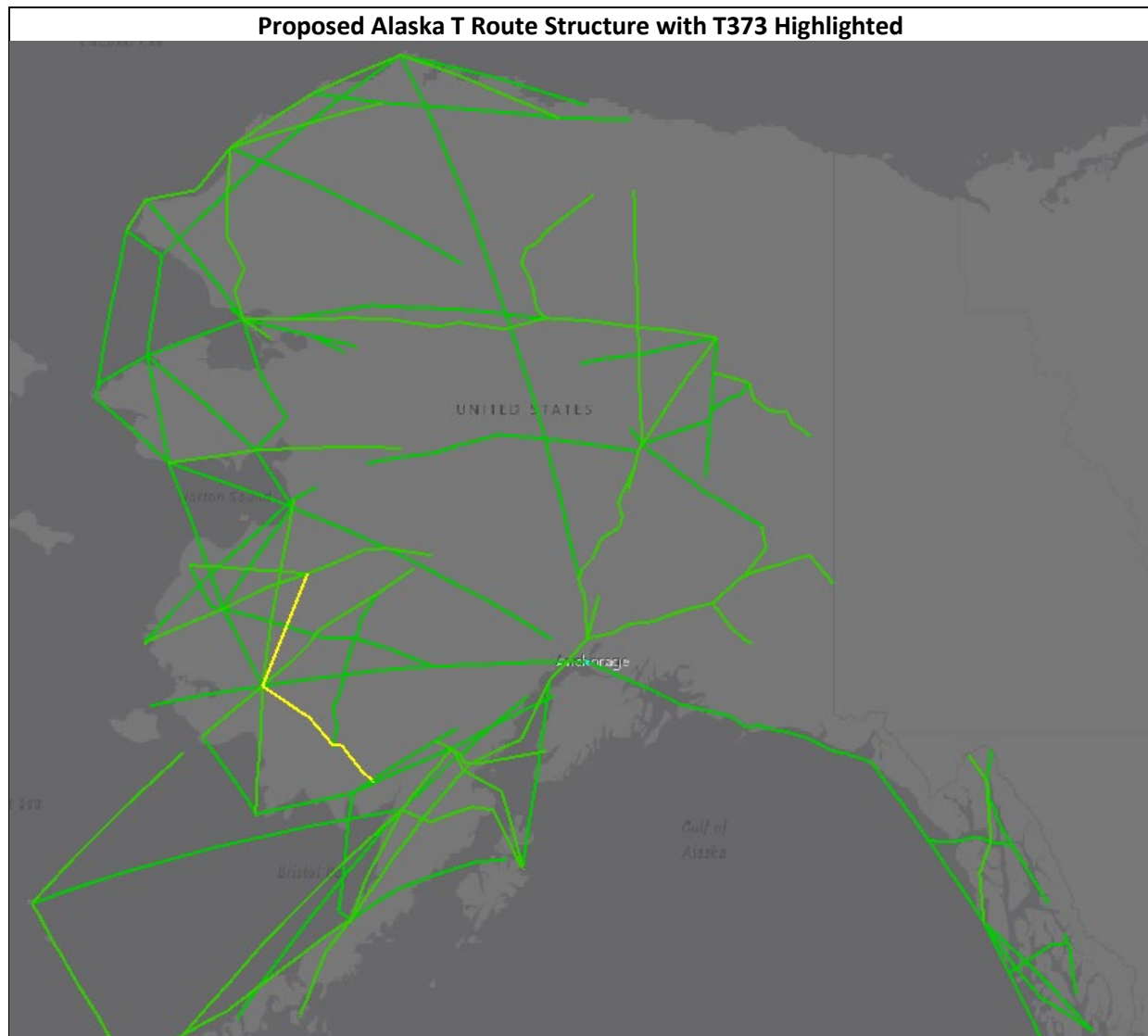
The following figure depicts historical tracks in the vicinity of the new T373.



The following figure identifies the location of the historical properties (brown icons), tribal areas (red dots), wilderness areas (grey), Yukon Delta National Wildlife Refuge, and other federal lands (color coded in legend) in the vicinity of the T route (thick orange), and historical flight tracks (light orange) from 2019.

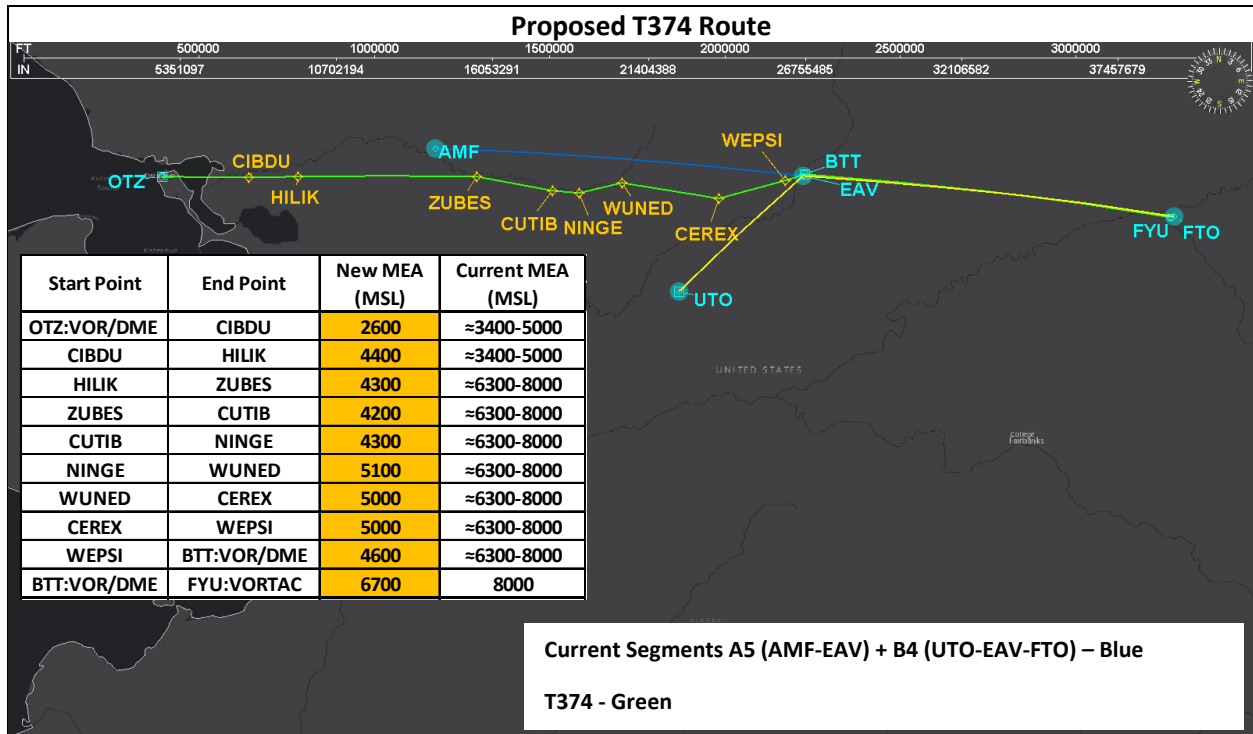


The following figure depicts the overview of T373 (yellow) and the other T routes (green) that are proposed to modernize Alaska's ATS route structure.

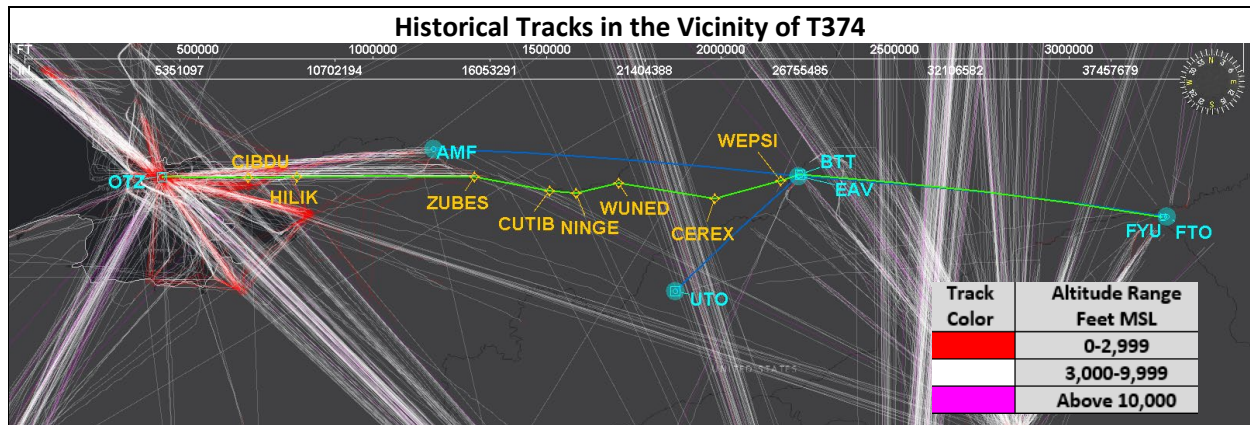


Proposed T374

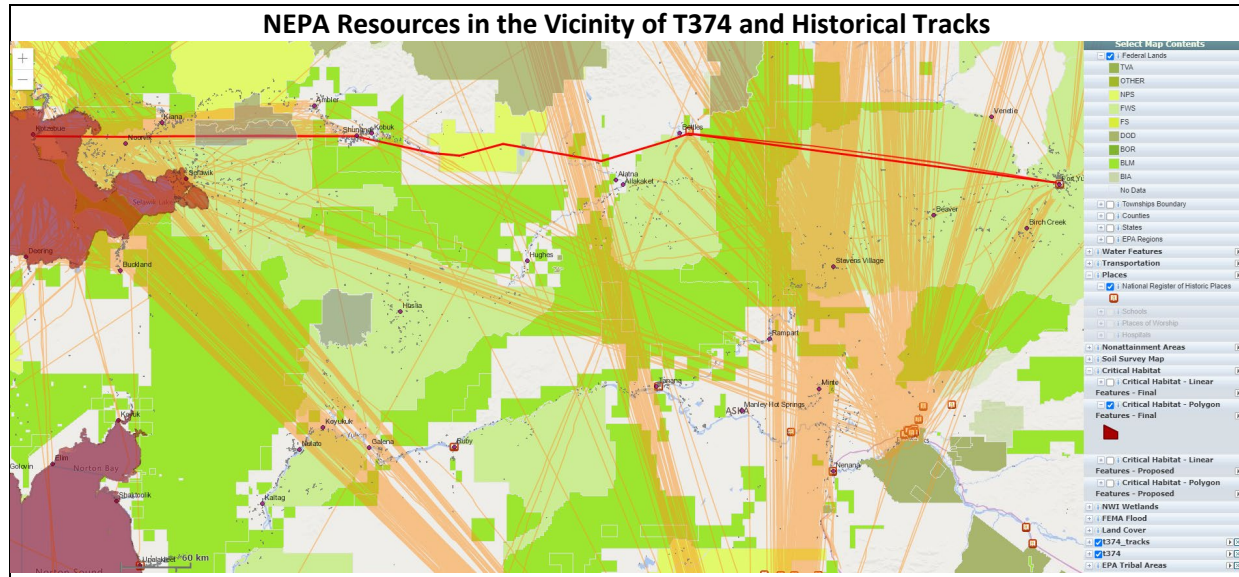
The following figure depicts the overview of the proposed T374 route.



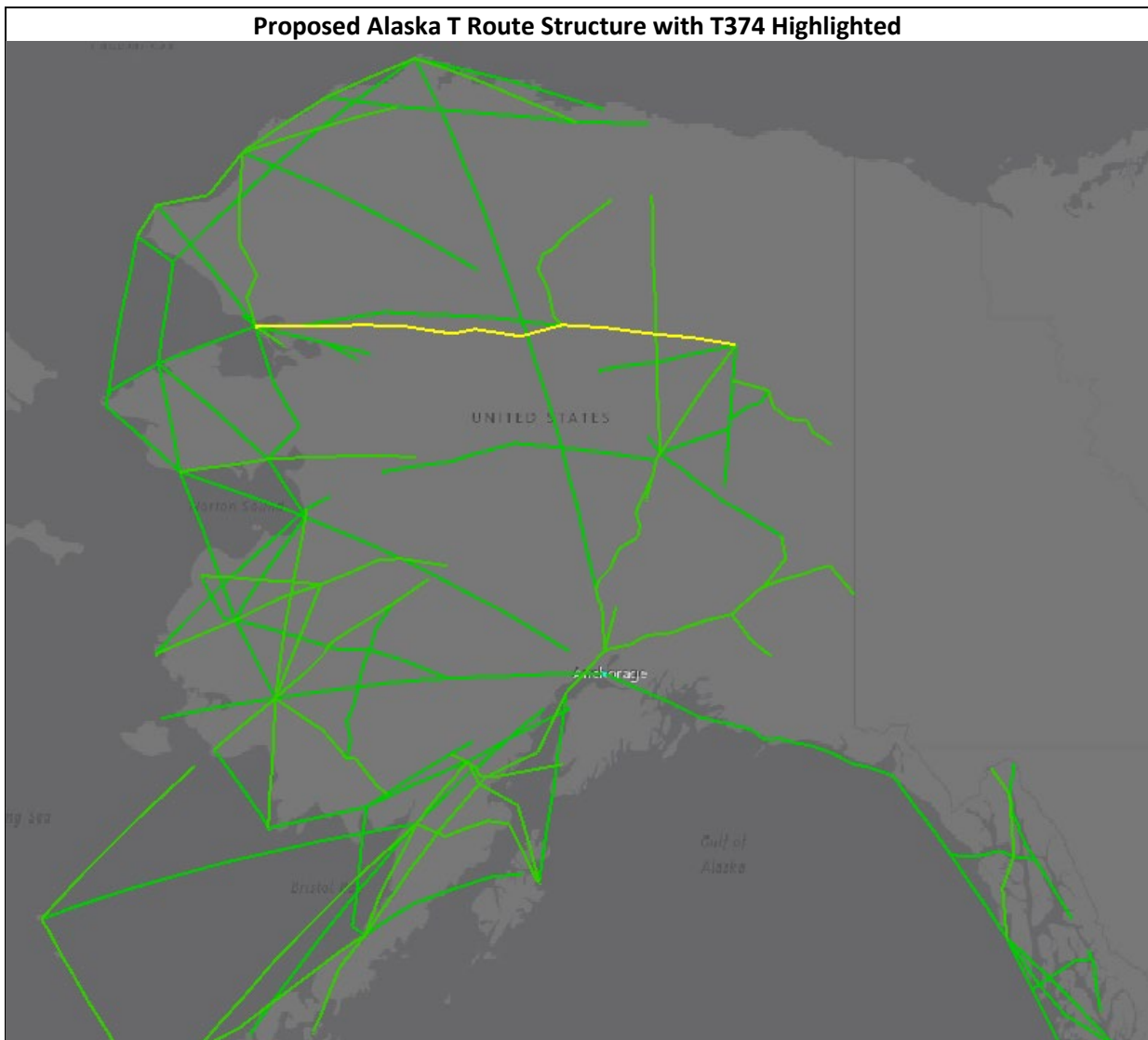
The following figure depicts historical tracks in the vicinity of the new T374.



The following figure identifies the location of historical properties (brown icons), tribal areas (red dots), polar bear habitat (brown areas), national wildlife refuges (light green), national preserves (yellow), and other federal lands (color coded in legend) in the vicinity of the T route (thick orange), and historical flight tracks (light orange) from 2019.

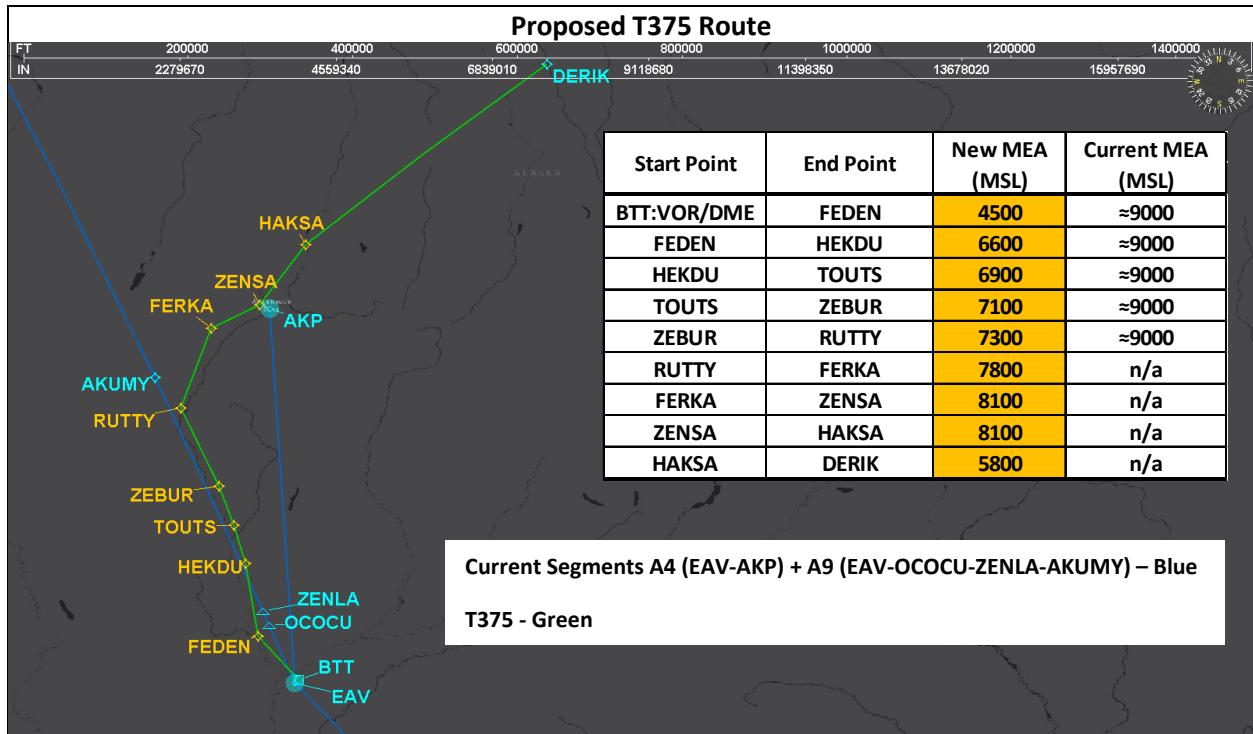


The following figure depicts the overview of T374 (yellow) and the other T routes (green) that are proposed to modernize Alaska's ATS route structure.

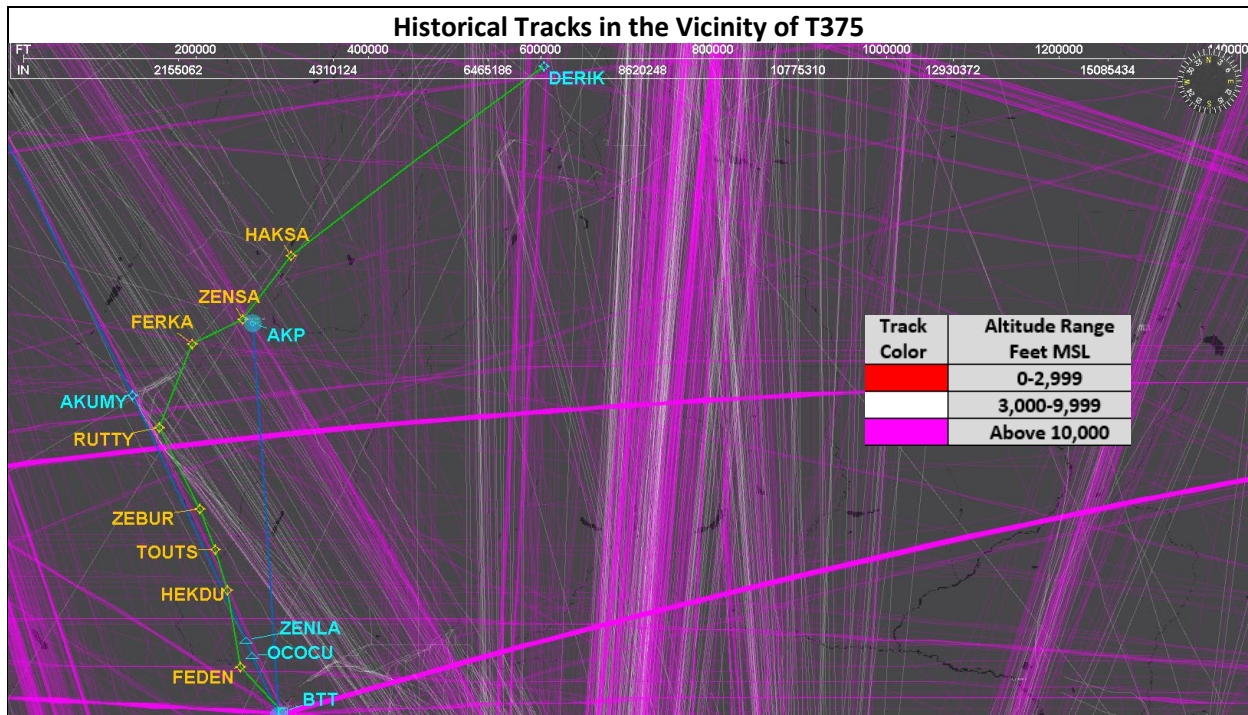


Proposed T375

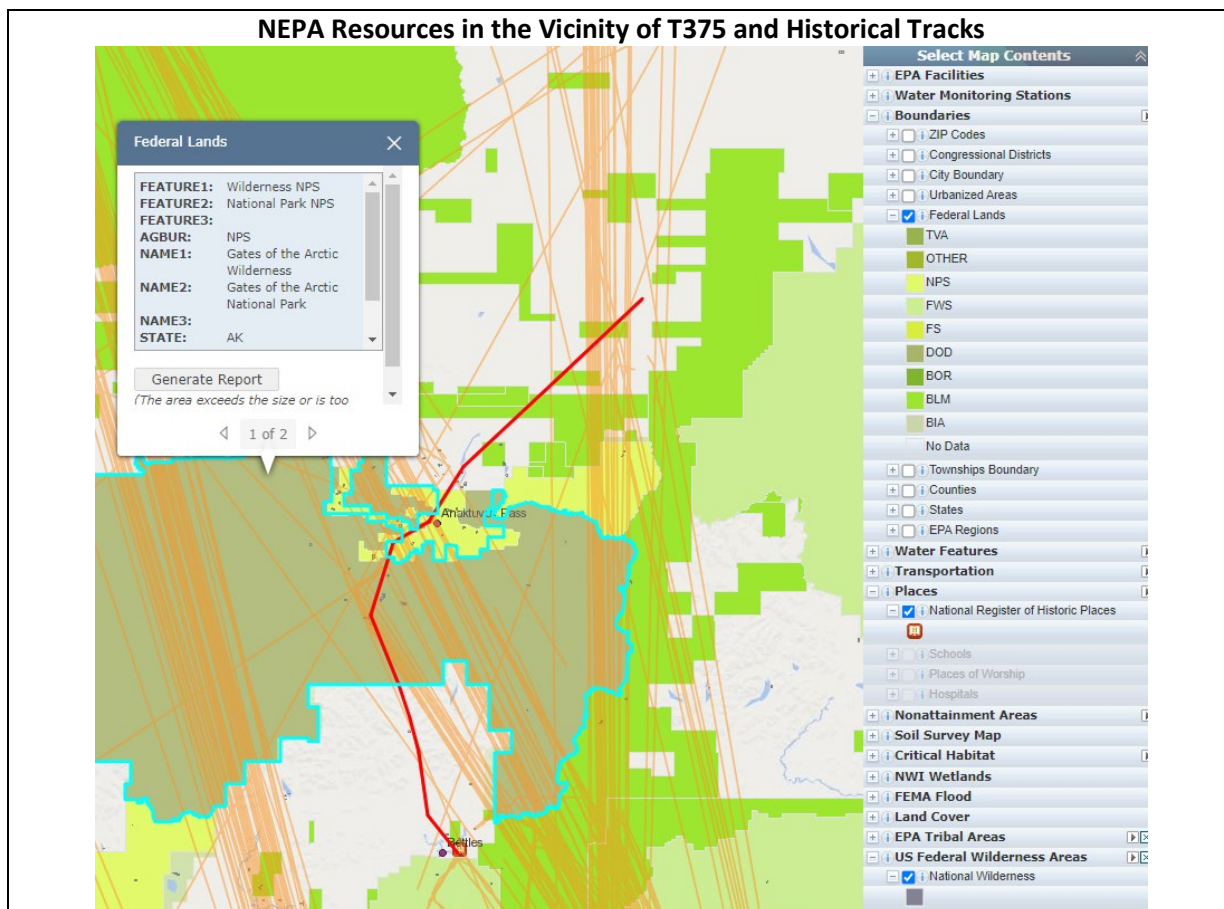
The following figure depicts the overview of the proposed T375 route.



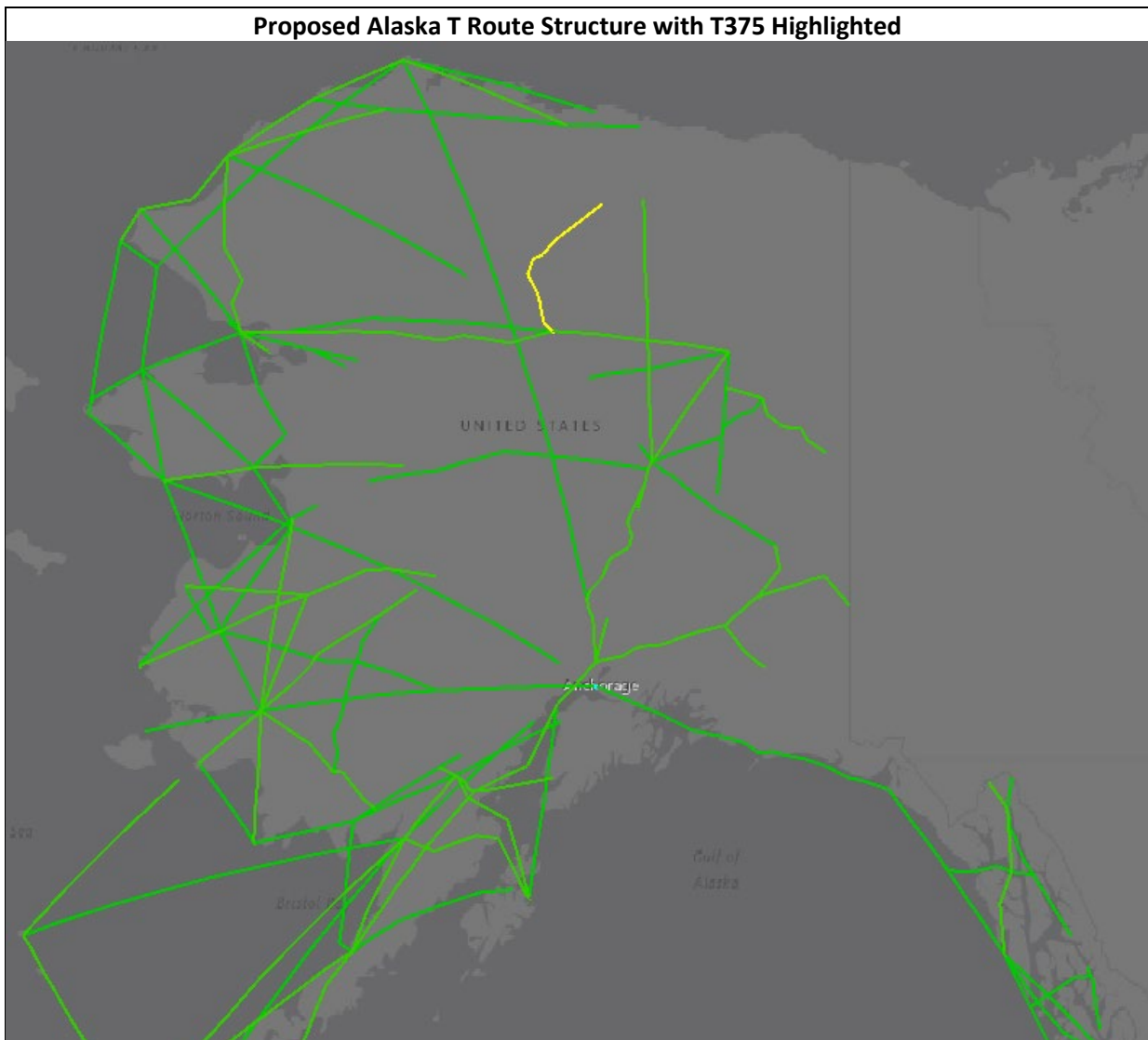
The following figure depicts historical tracks in the vicinity of the new T375.



The following figure identifies the location of the historical properties (brown icons), tribal areas (red dots), Gates of Arctic Wilderness, Gates of Arctic National Preserve (yellow), and other federal lands (color coded in legend) in the vicinity of the T route (thick orange), and historical flight tracks (light orange) from 2019.

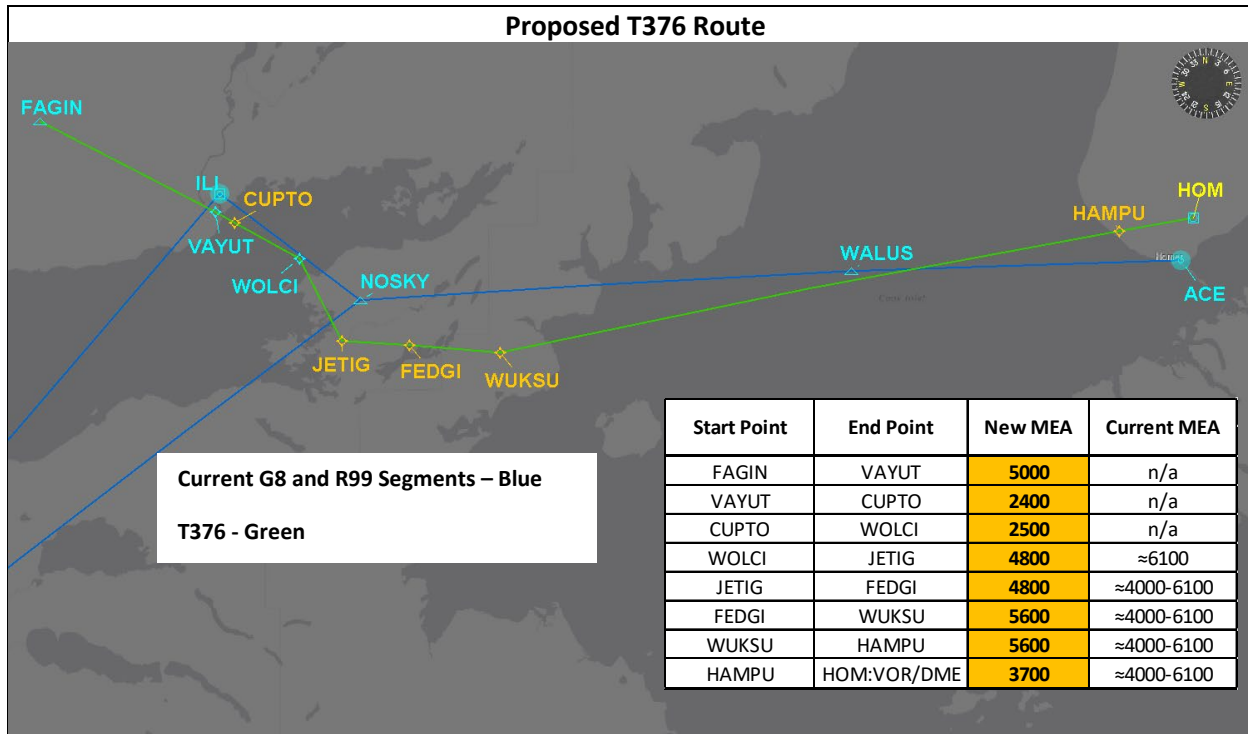


The following figure depicts the overview of T375 (yellow) and the other T routes (green) that are proposed to modernize Alaska's ATS route structure.

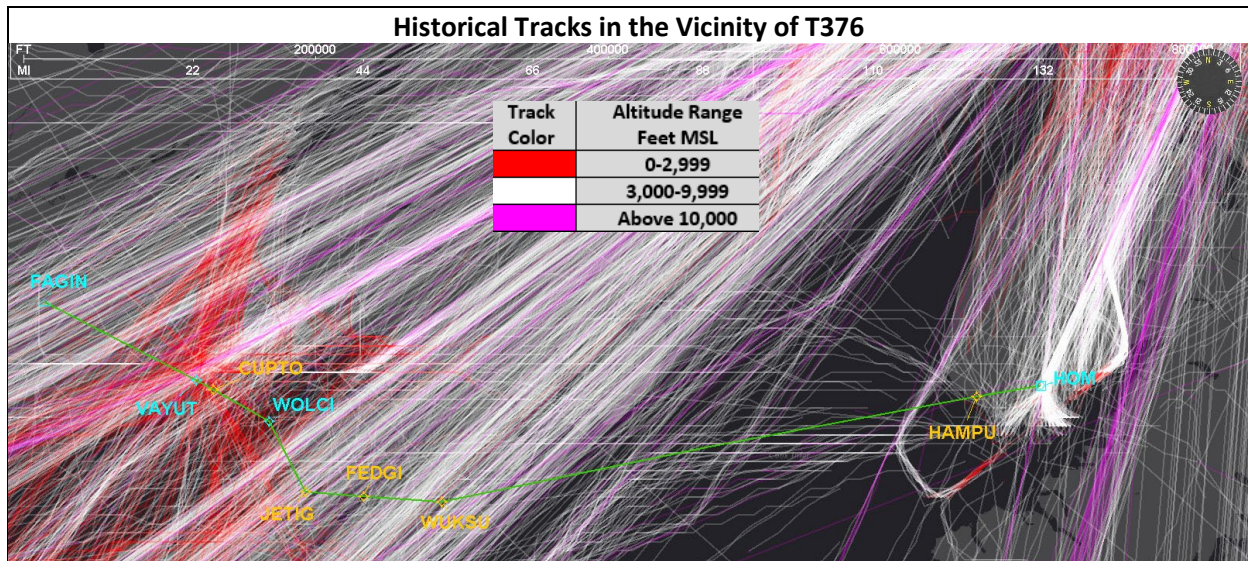


Proposed T376

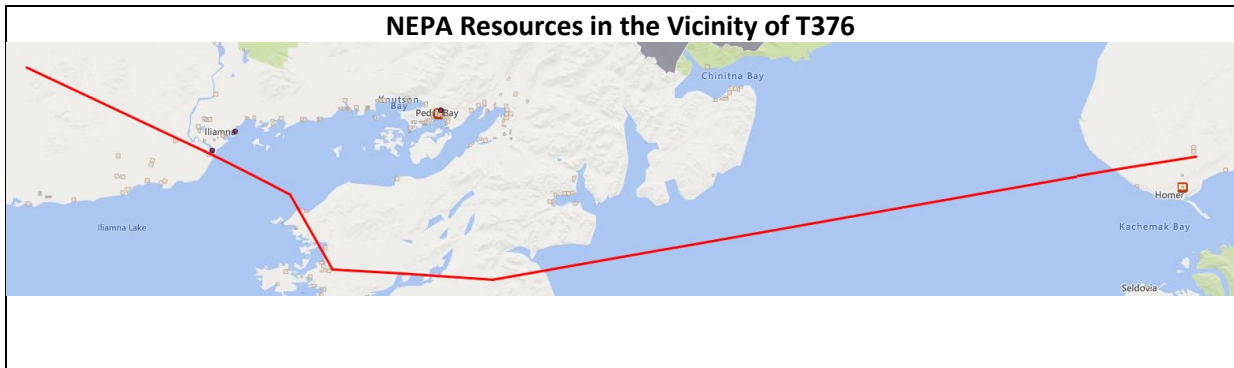
The following figure depicts the overview of the proposed T376 route.



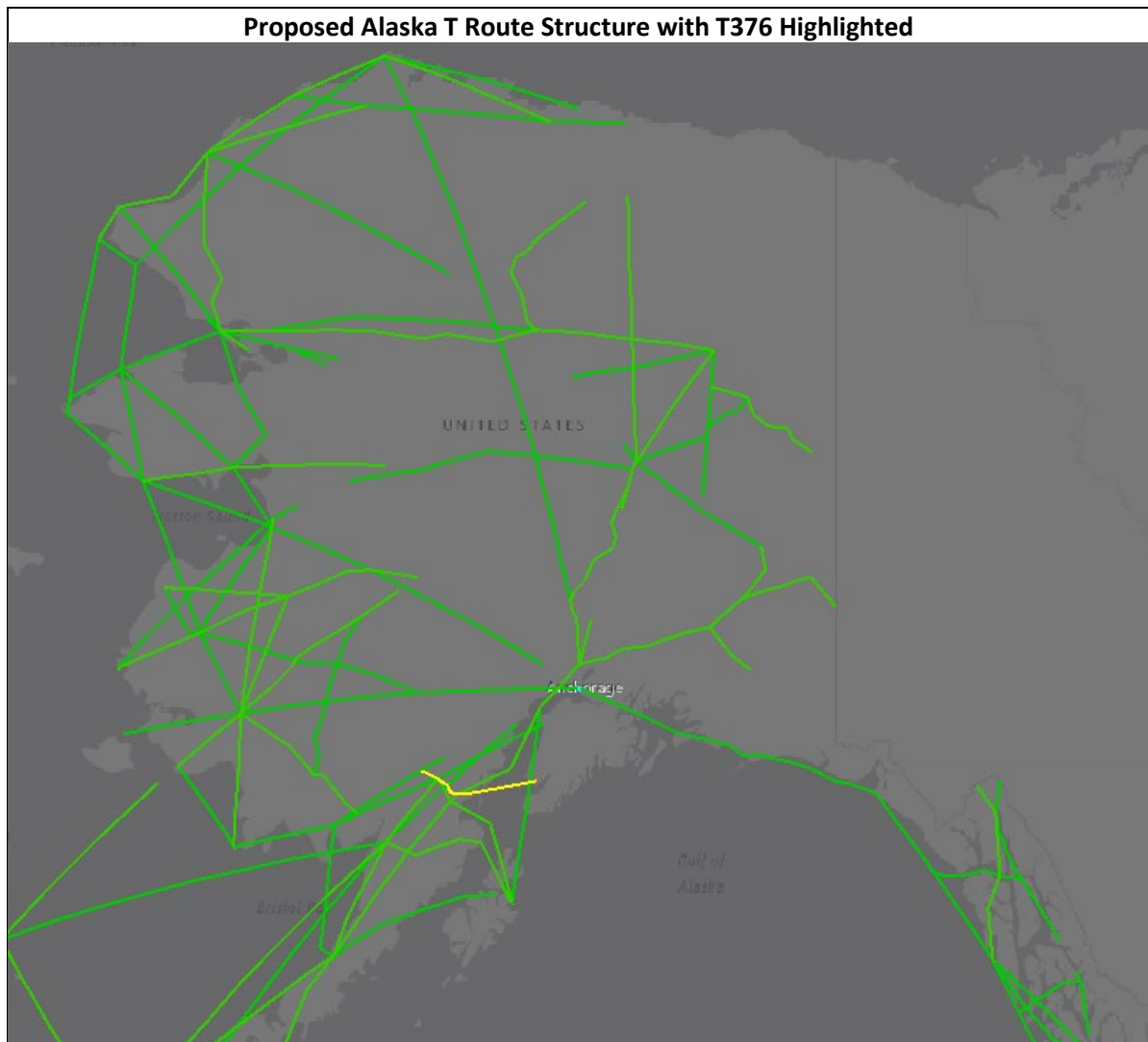
The following figure depicts historical tracks in the vicinity of the new T376.



The following figure identifies the location of historical properties (brown icons) and tribal areas (red dots) in the vicinity of the T route (thick orange).

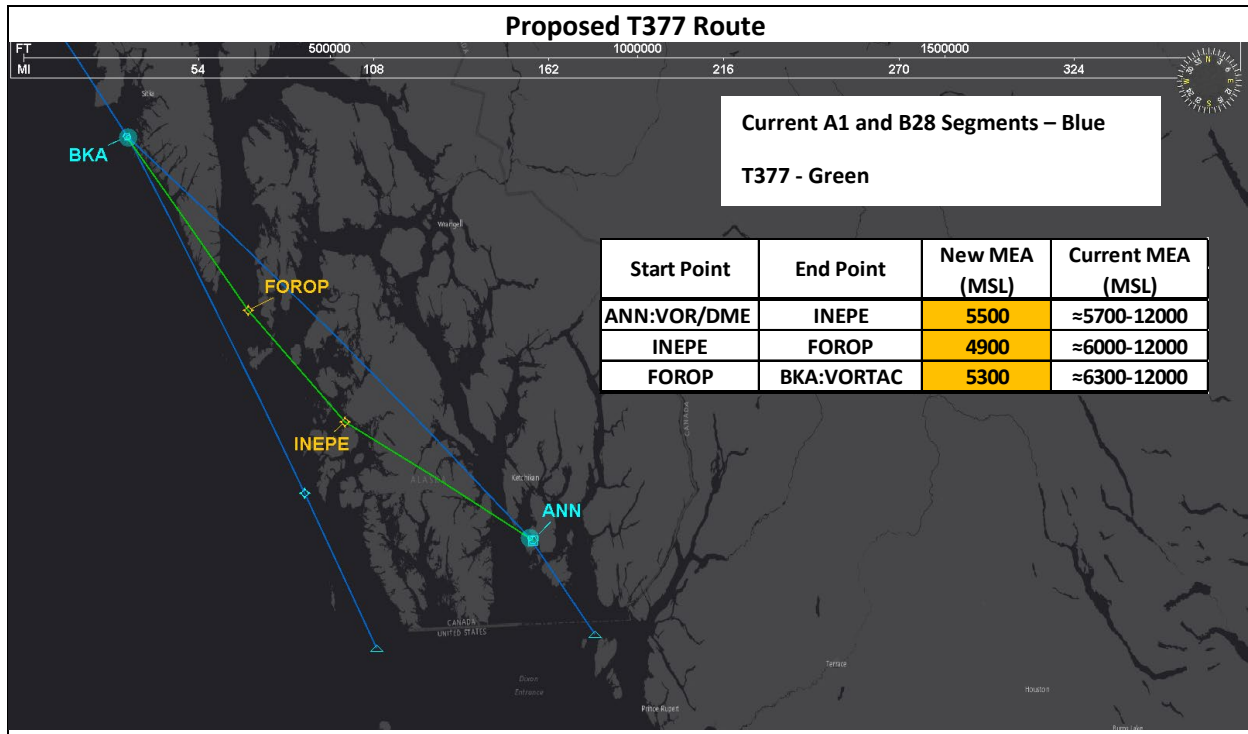


The following figure depicts the overview of T376 (yellow) and the other T routes (green) that are proposed to modernize Alaska's ATS route structure.

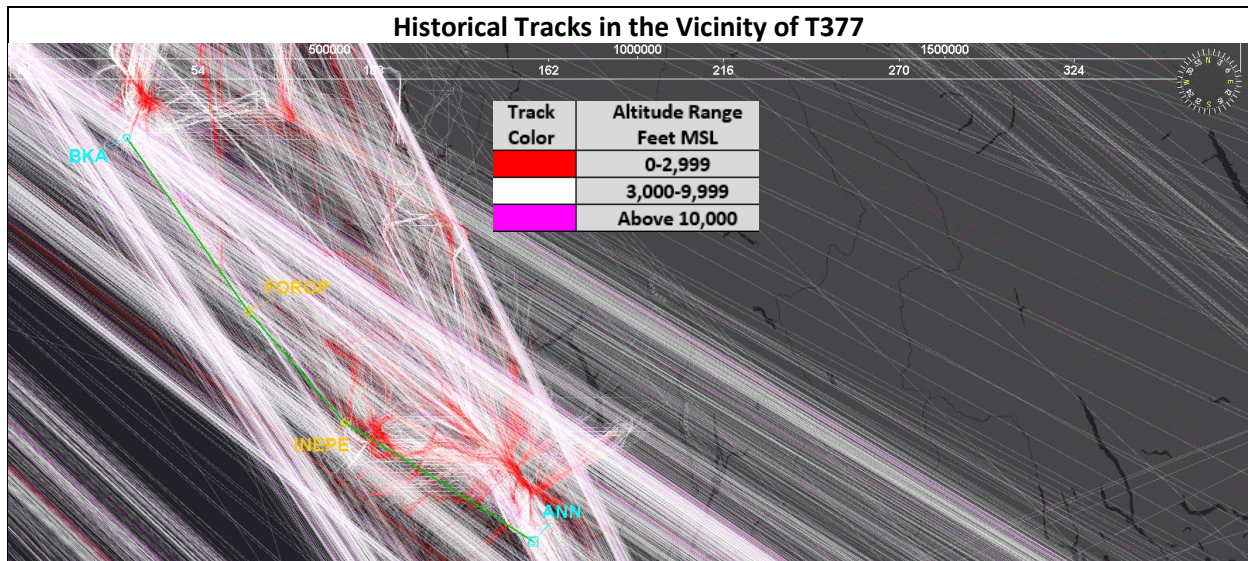


Proposed T377

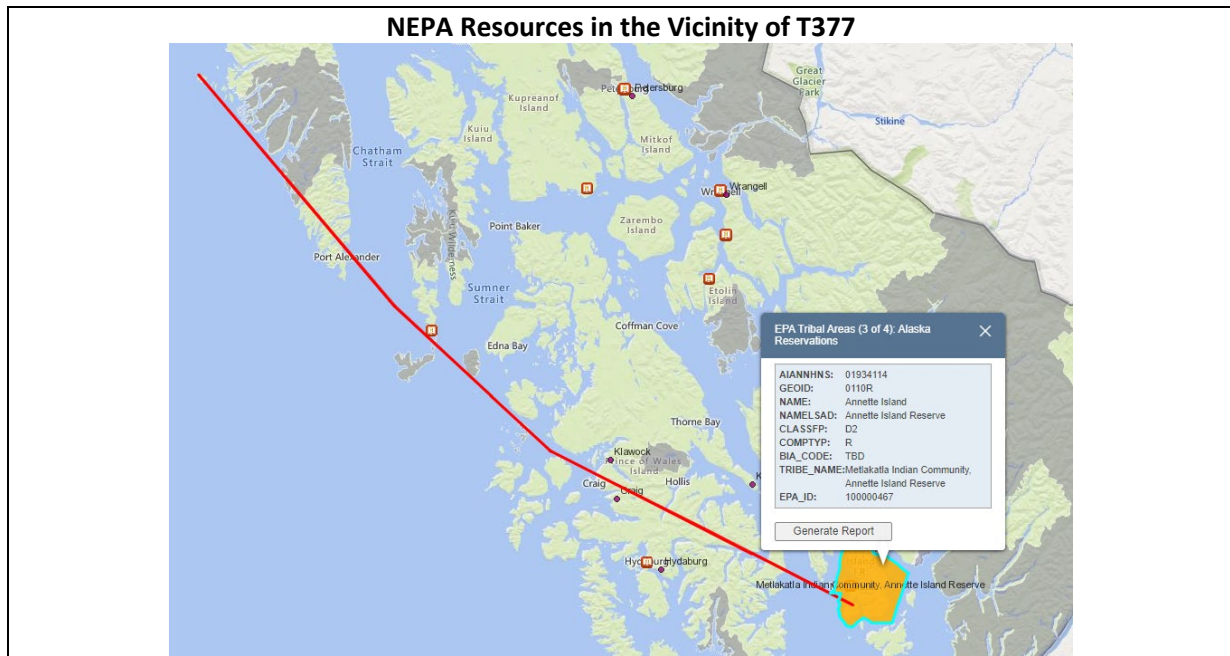
The following figure depicts the overview of the proposed T377 route.



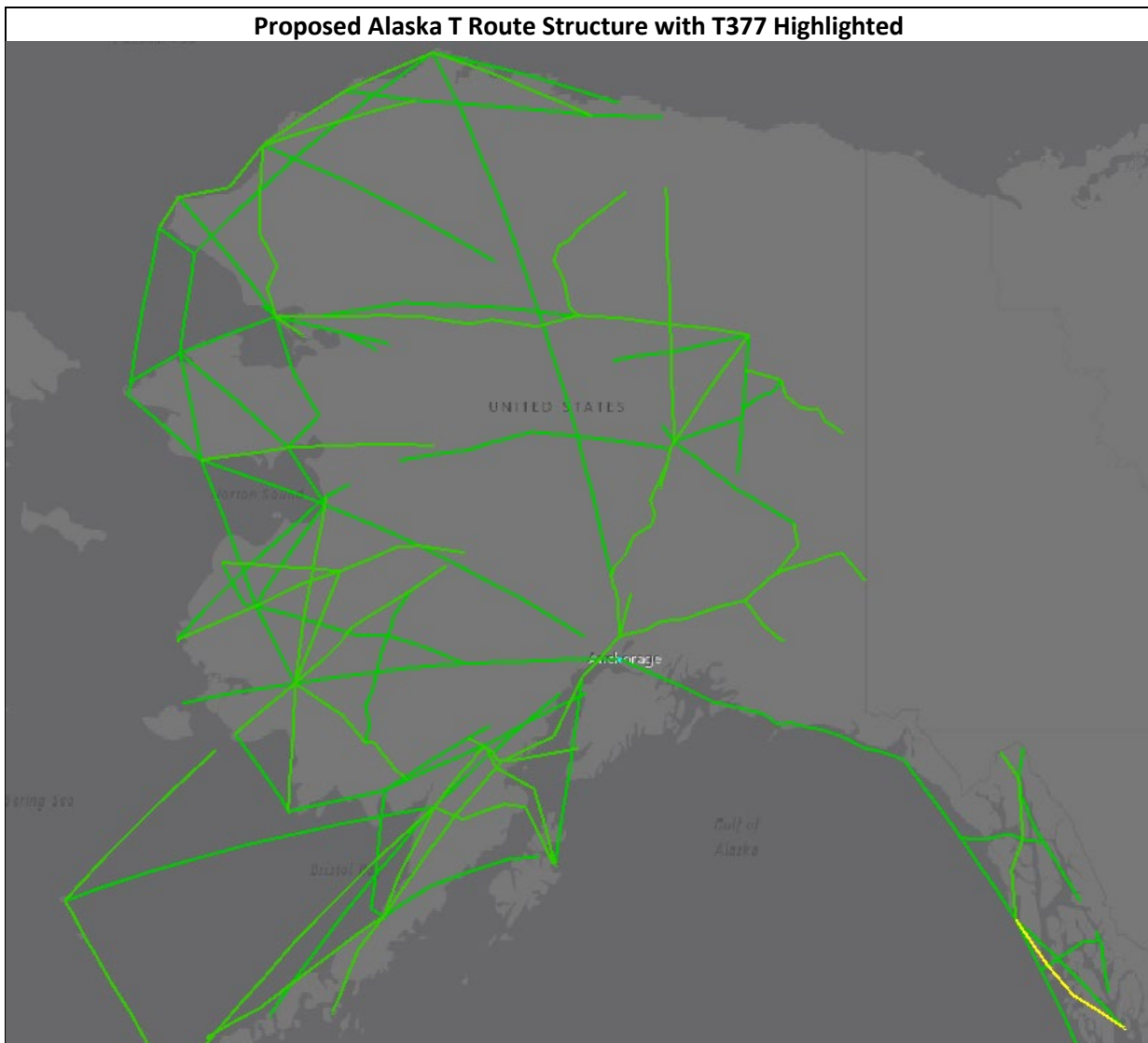
The following figure depicts historical tracks in the vicinity of the new T377.



The following figure identifies the location of the Tongass National Forest (green), historical properties (brown icons), tribal villages (red dots), wilderness areas (grey) in the vicinity of the T route (thick orange), and the Annette Island Reserve tribal area (orange).

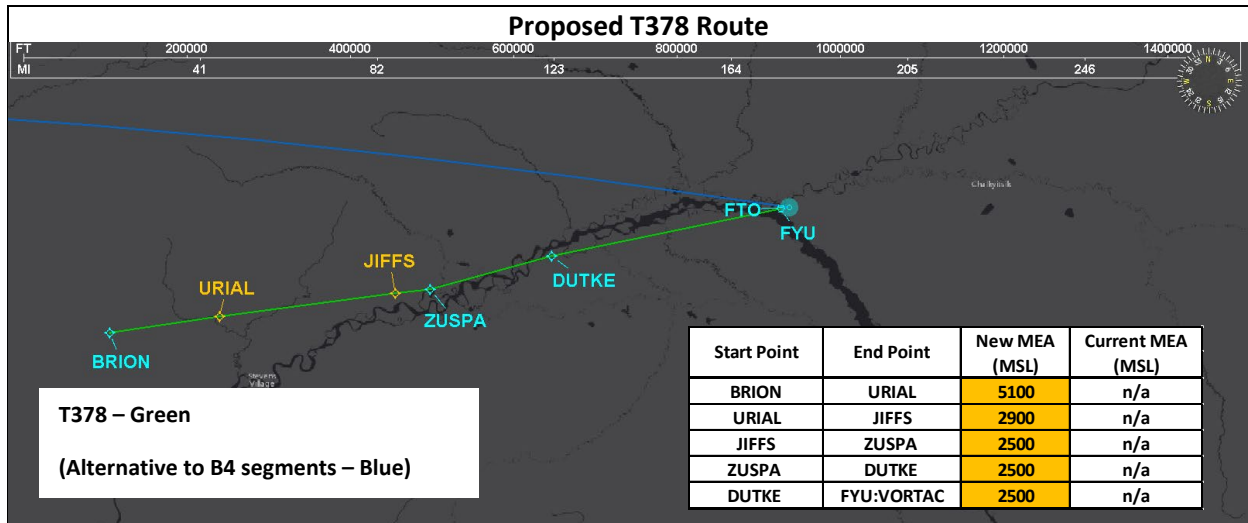


The following figure depicts the overview of T377 (yellow) and the other T routes (green) that are proposed to modernize Alaska's ATS route structure.

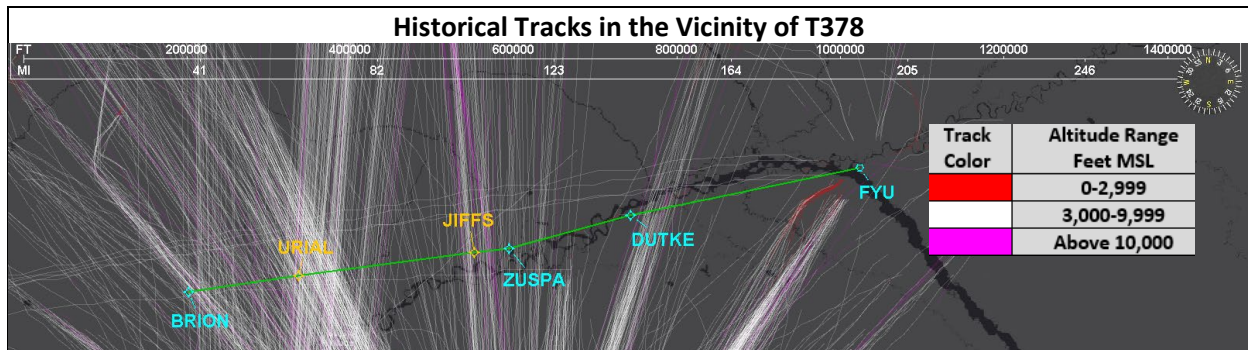


Proposed T378

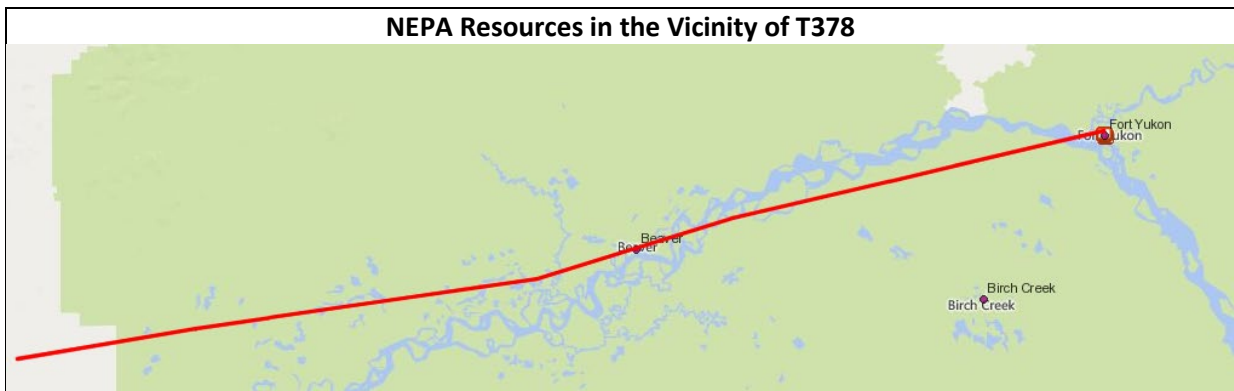
The following figure depicts the overview of the proposed T378 route.



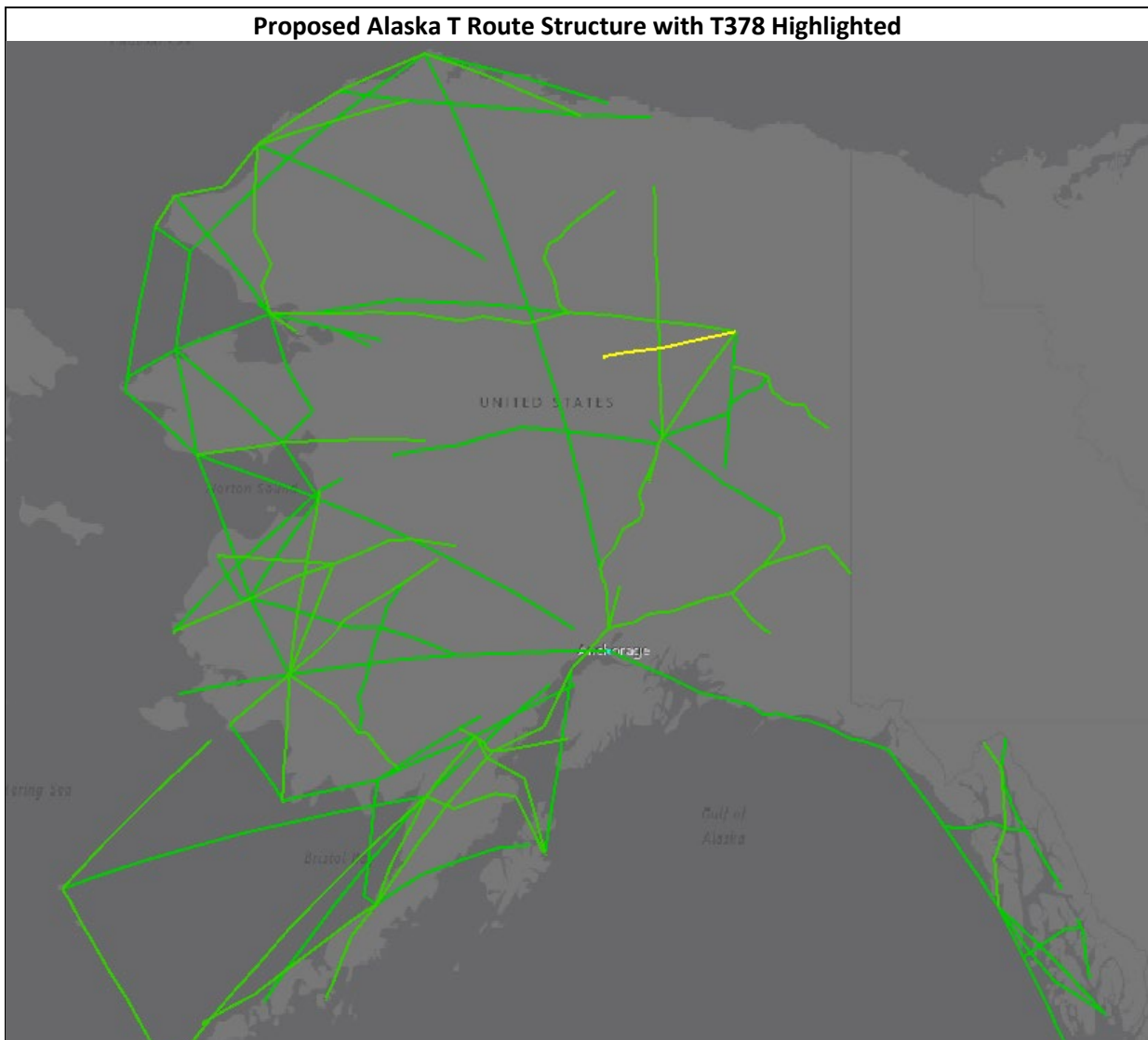
The following figure depicts historical tracks in the vicinity of the new T378.



The following figure identifies the location of the Yukon Flats National Wildlife Refuge (green), historical properties (brown icons), and tribal villages (red dots) in the vicinity of the T route (thick orange).

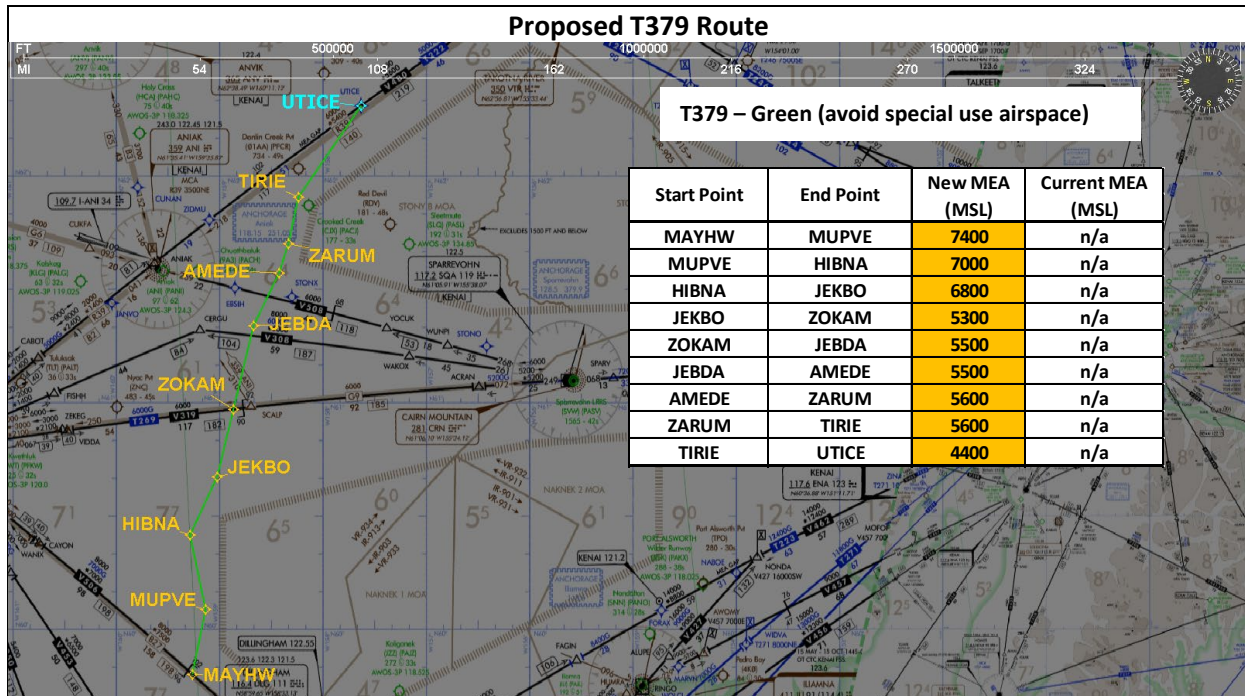


The following figure depicts the overview of T378 (yellow) and the other T routes (green) that are proposed to modernize Alaska's ATS route structure.

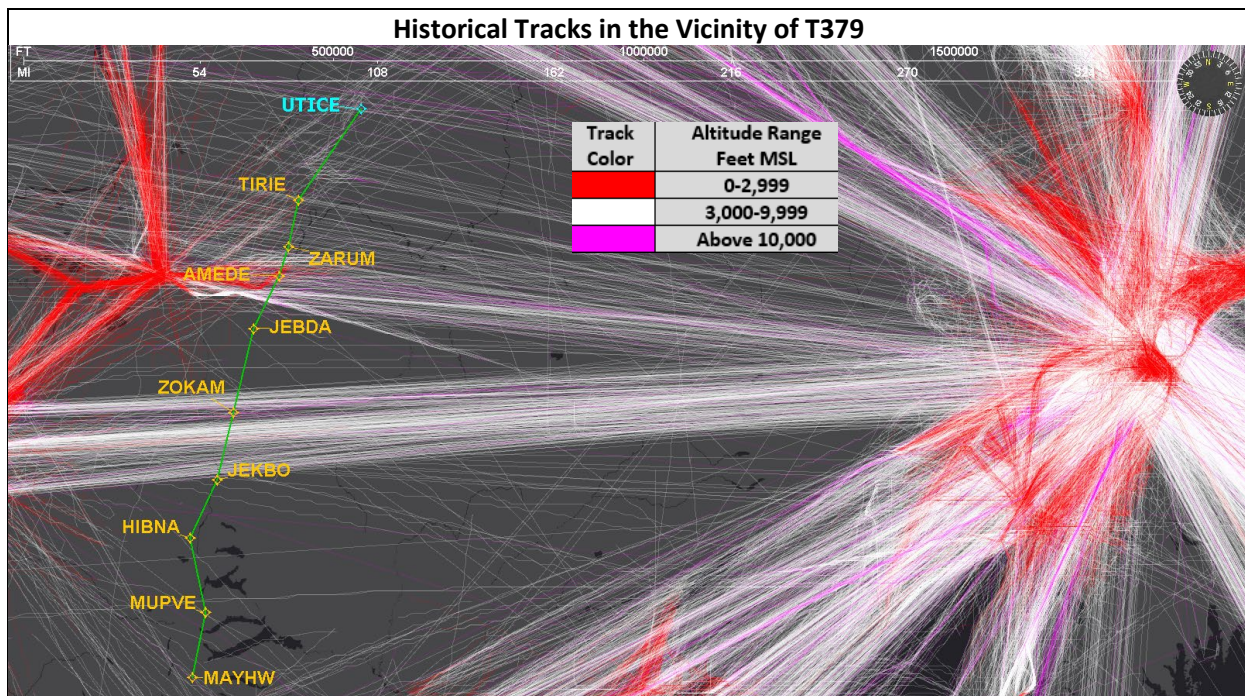


Proposed T379

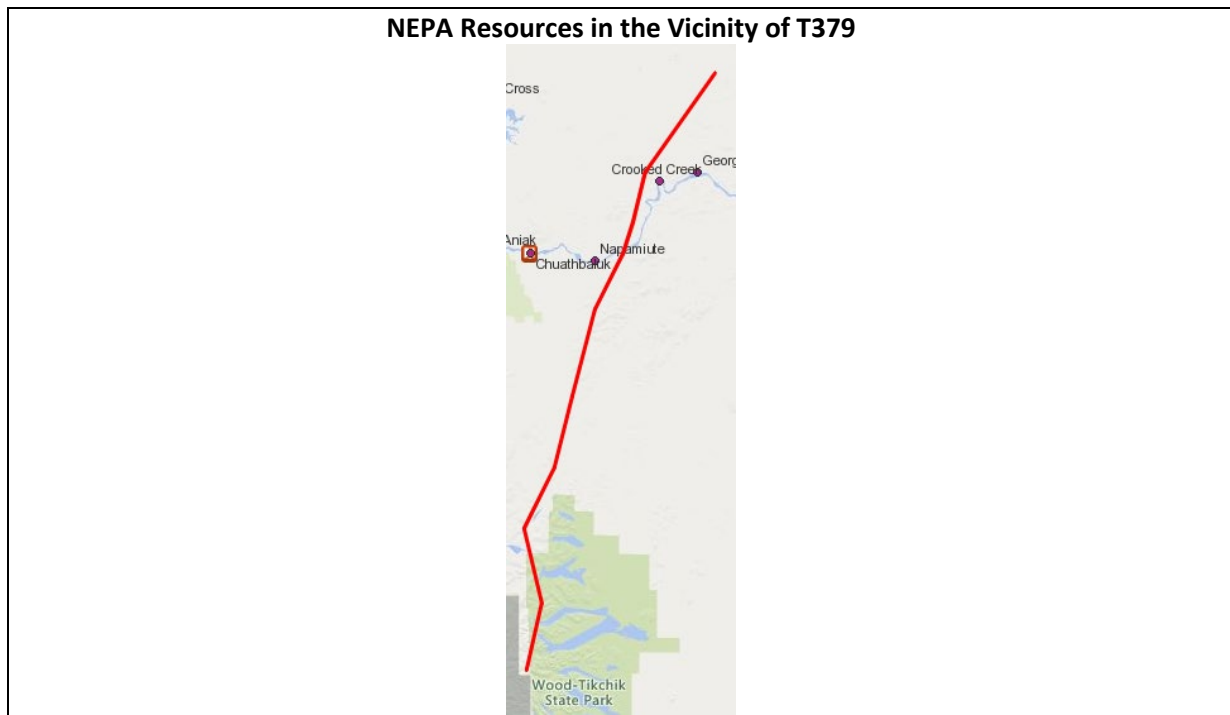
The following figure depicts the overview of the proposed T379 route.



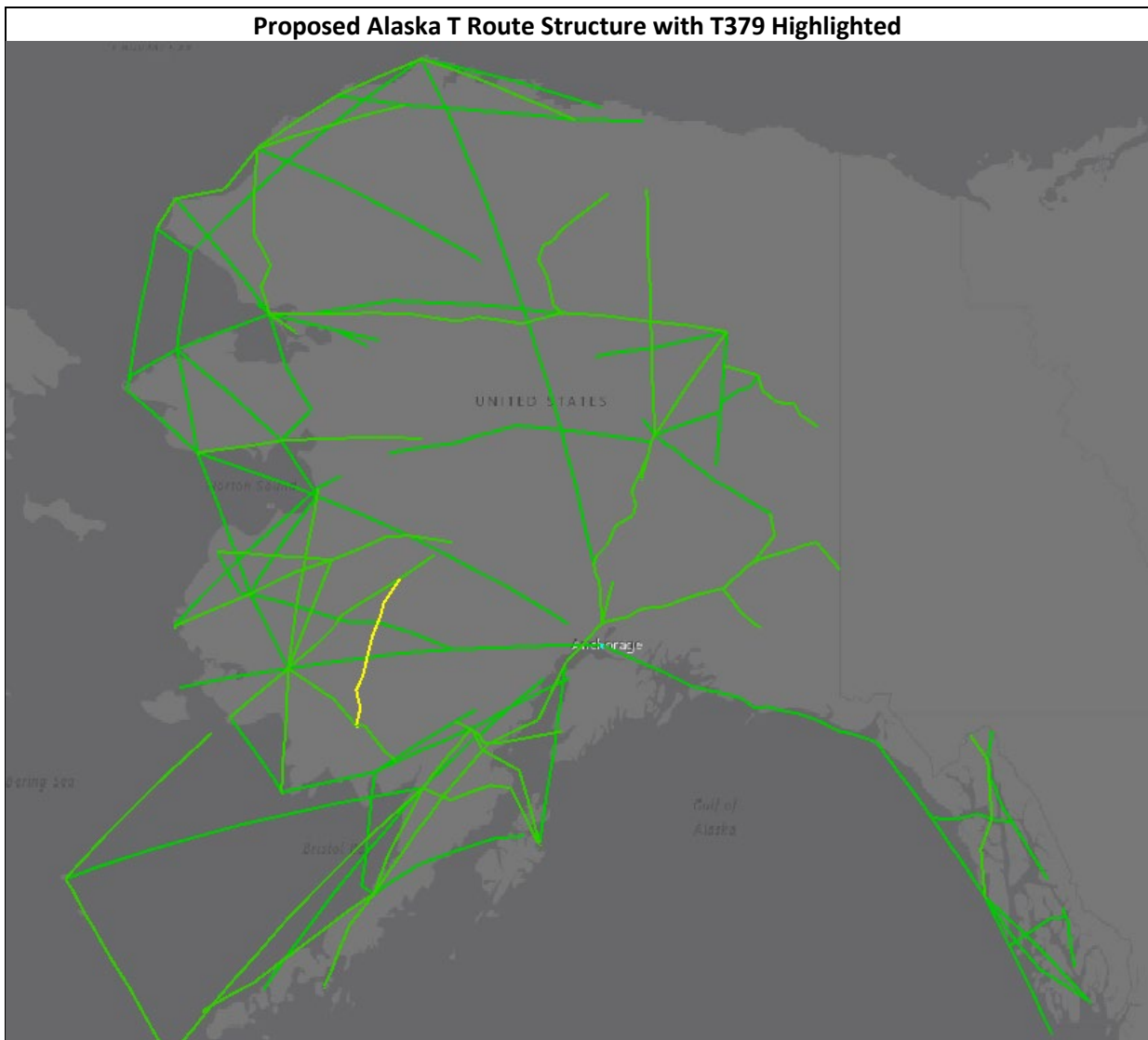
The following figure depicts historical tracks in the vicinity of the new T379.



The following figure identifies the location of a state park (green), historical properties (brown icons), and tribal villages (red dots) in the vicinity of the T route (thick orange).

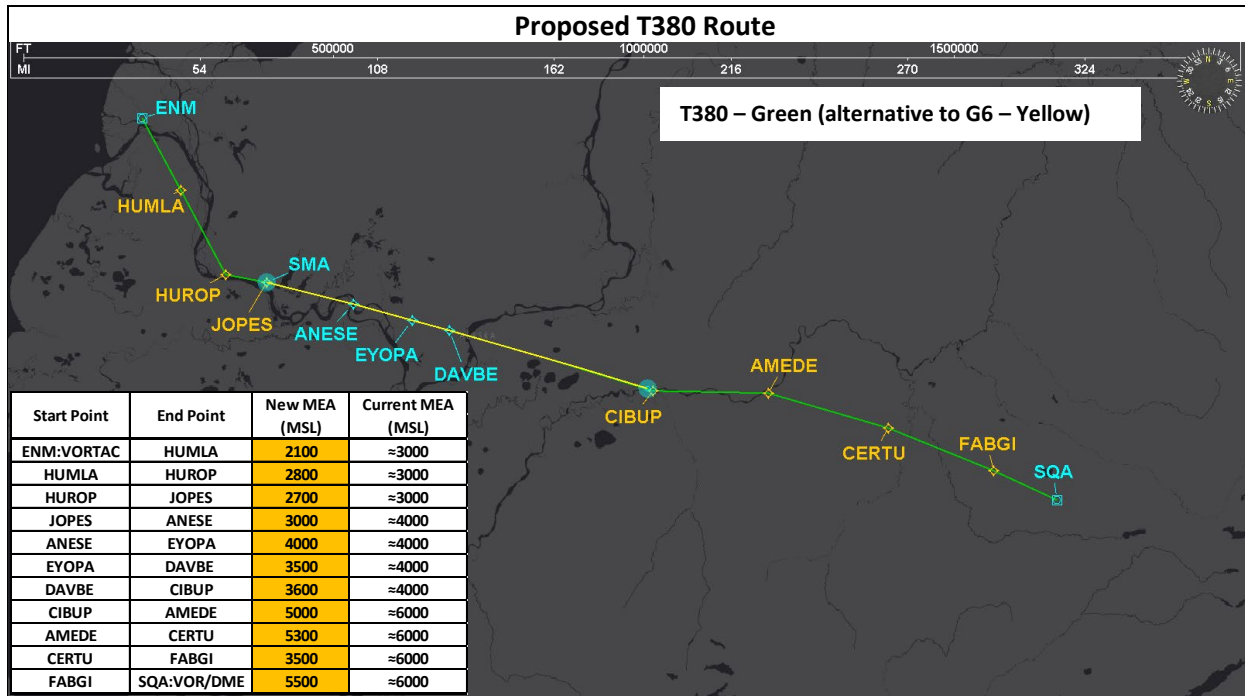


The following figure depicts the overview of T379 (yellow) and the other T routes (green) that are proposed to modernize Alaska's ATS route structure.

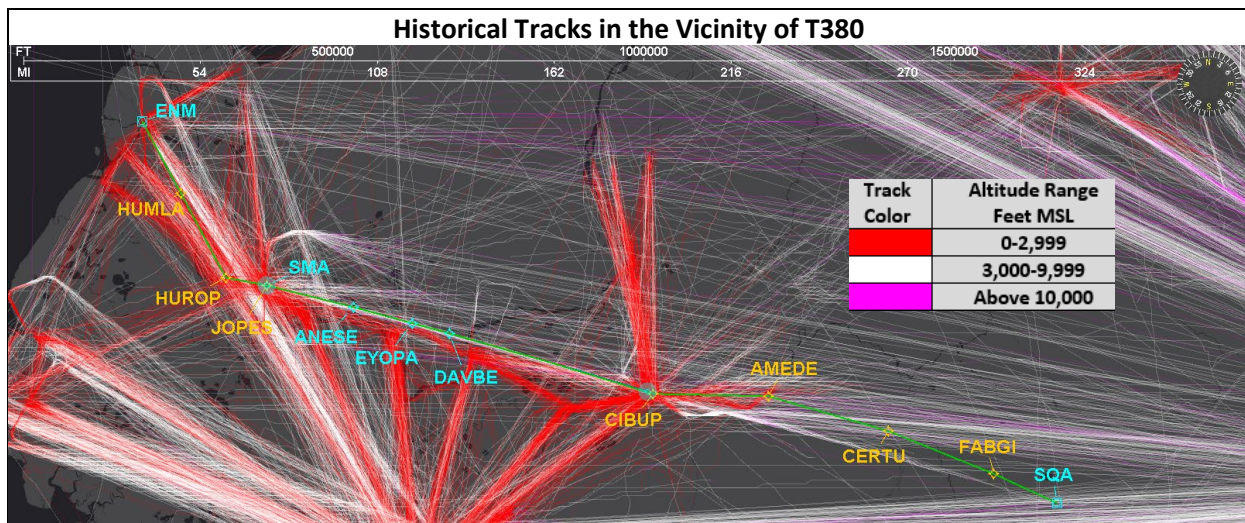


Proposed T380

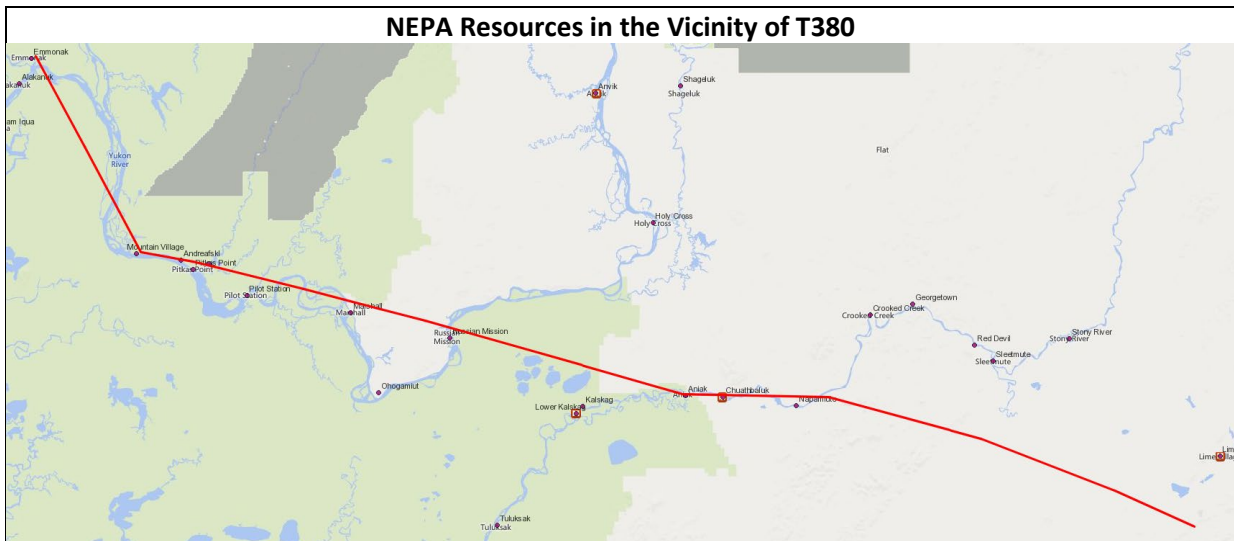
The following figure depicts the overview of the proposed T380 route.



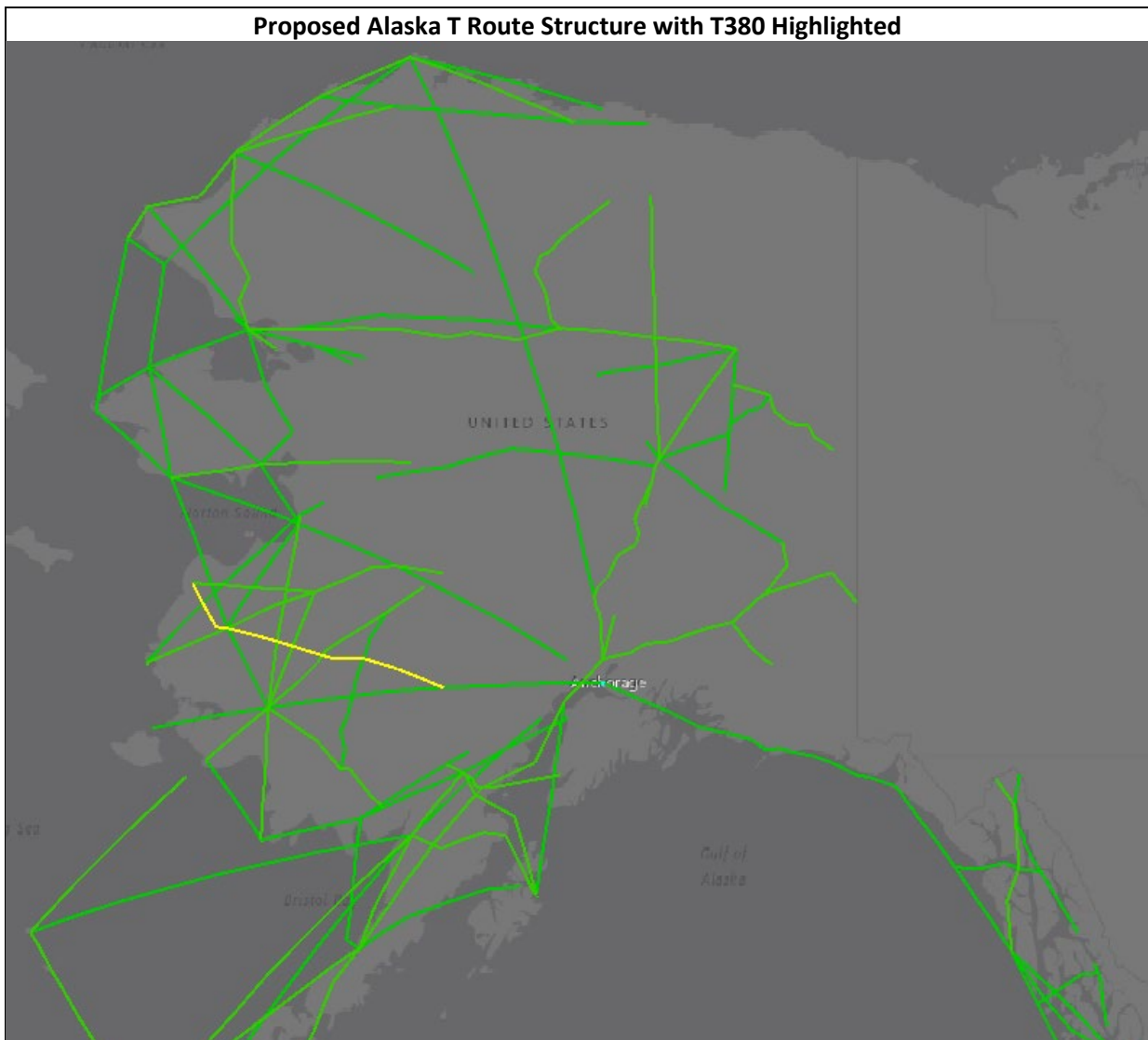
The following figure depicts historical tracks in the vicinity of the new T380.



The following figure identifies the location of the Yukon Delta National Wildlife Refuge (green), historical properties (brown icons), and tribal villages (red dots) in the vicinity of the T route (thick orange).

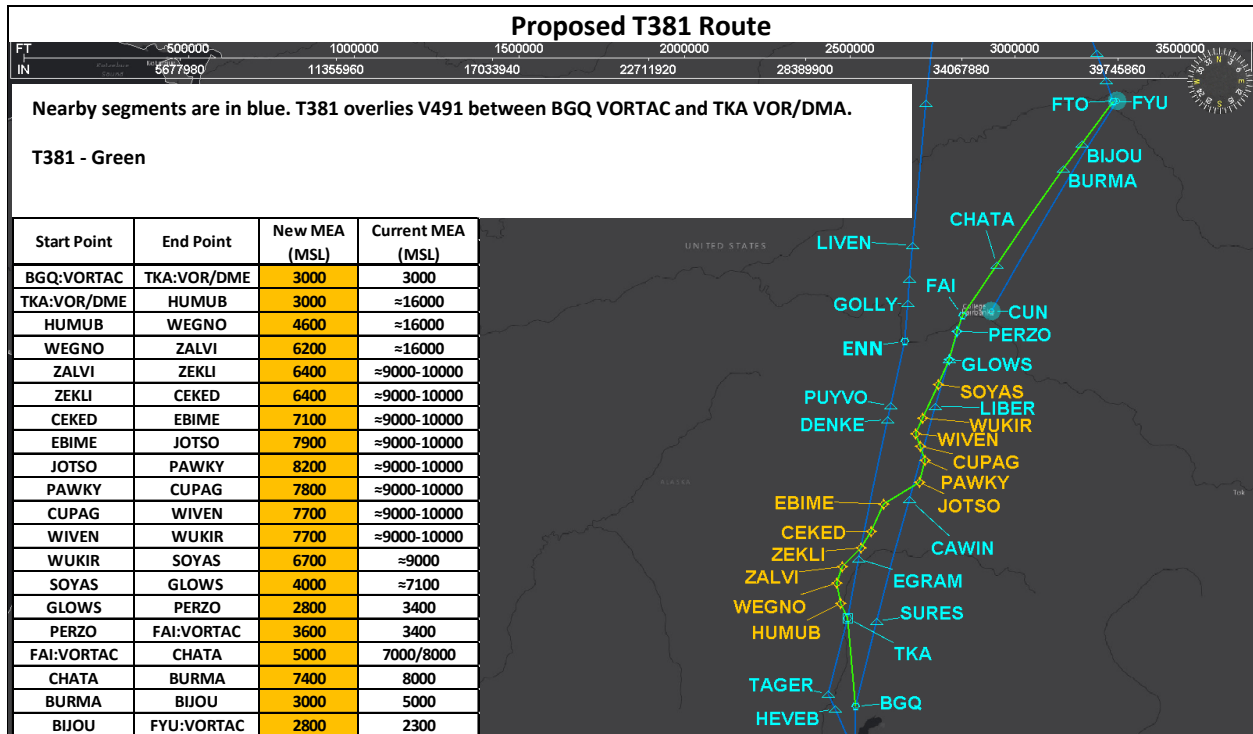


The following figure depicts the overview of T380 (yellow) and the other T routes (green) that are proposed to modernize Alaska's ATS route structure.

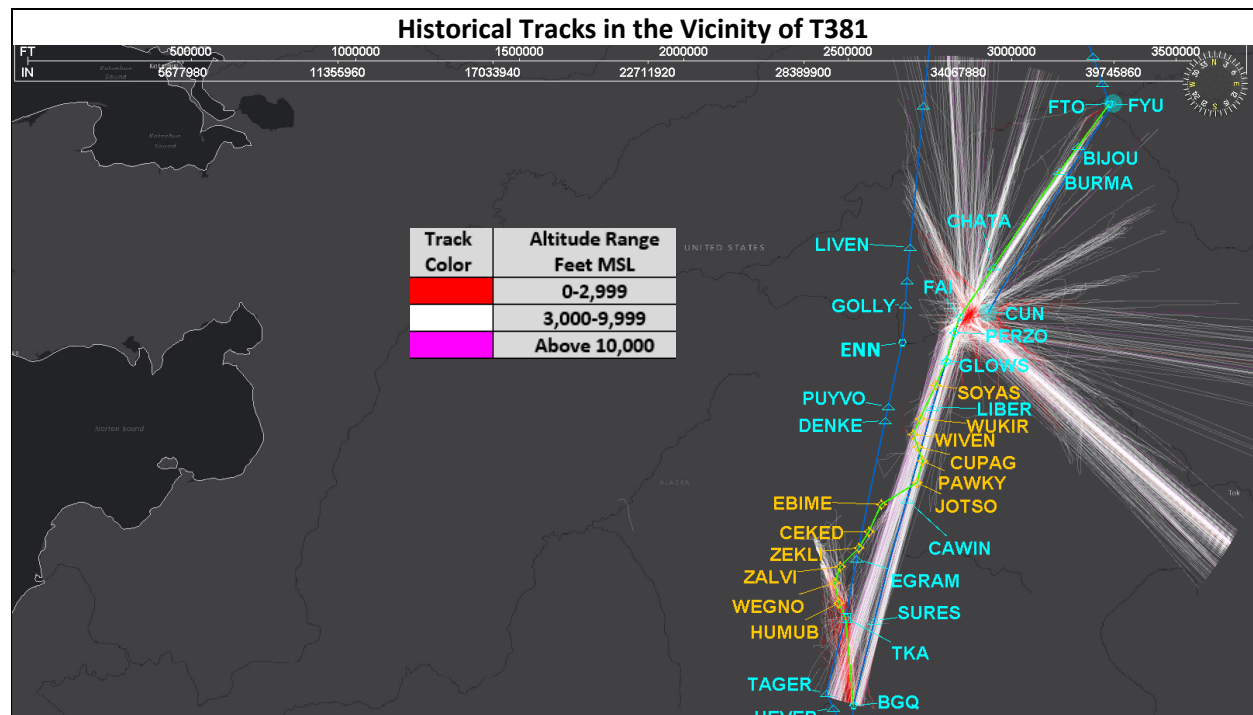


Proposed T381

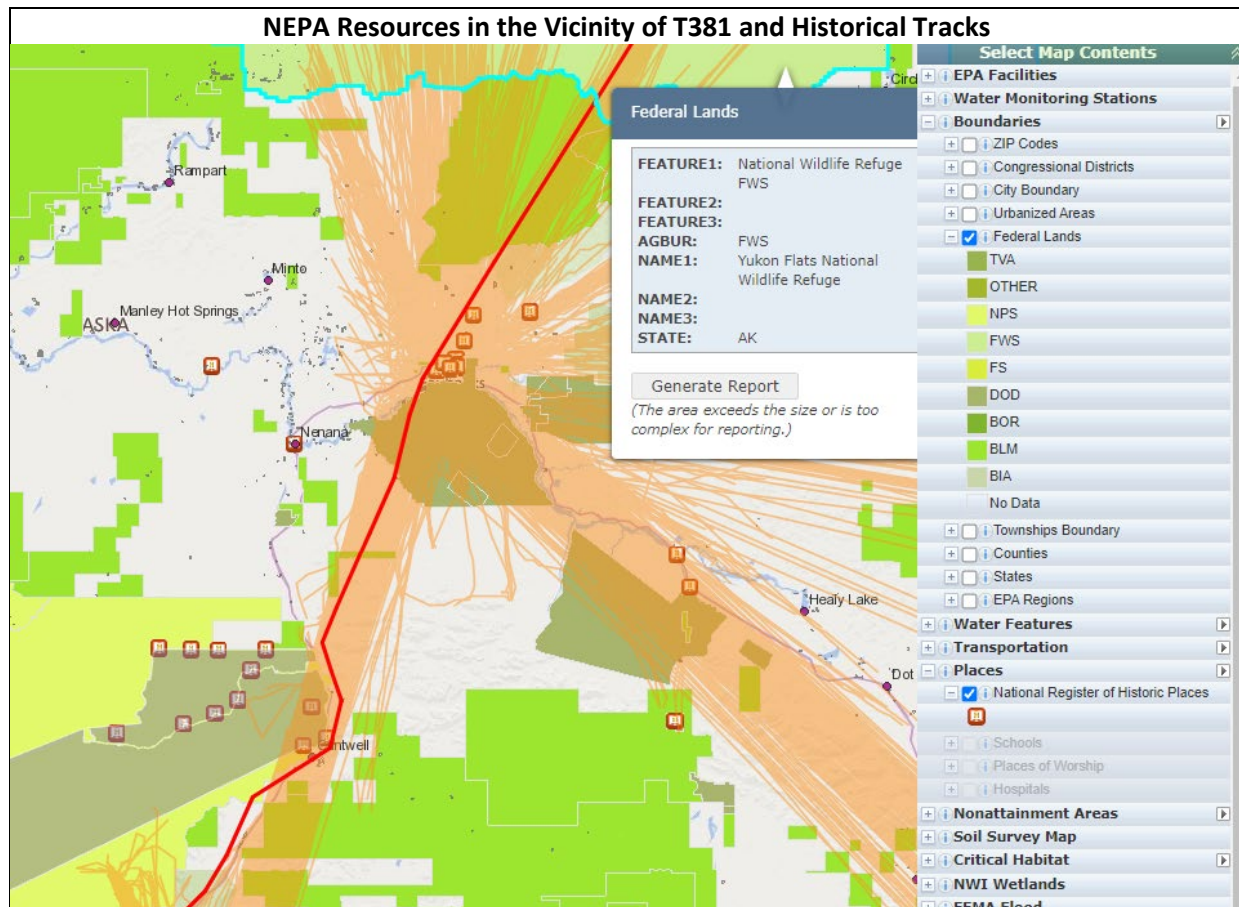
The following figure depicts the overview of the proposed T381 route.



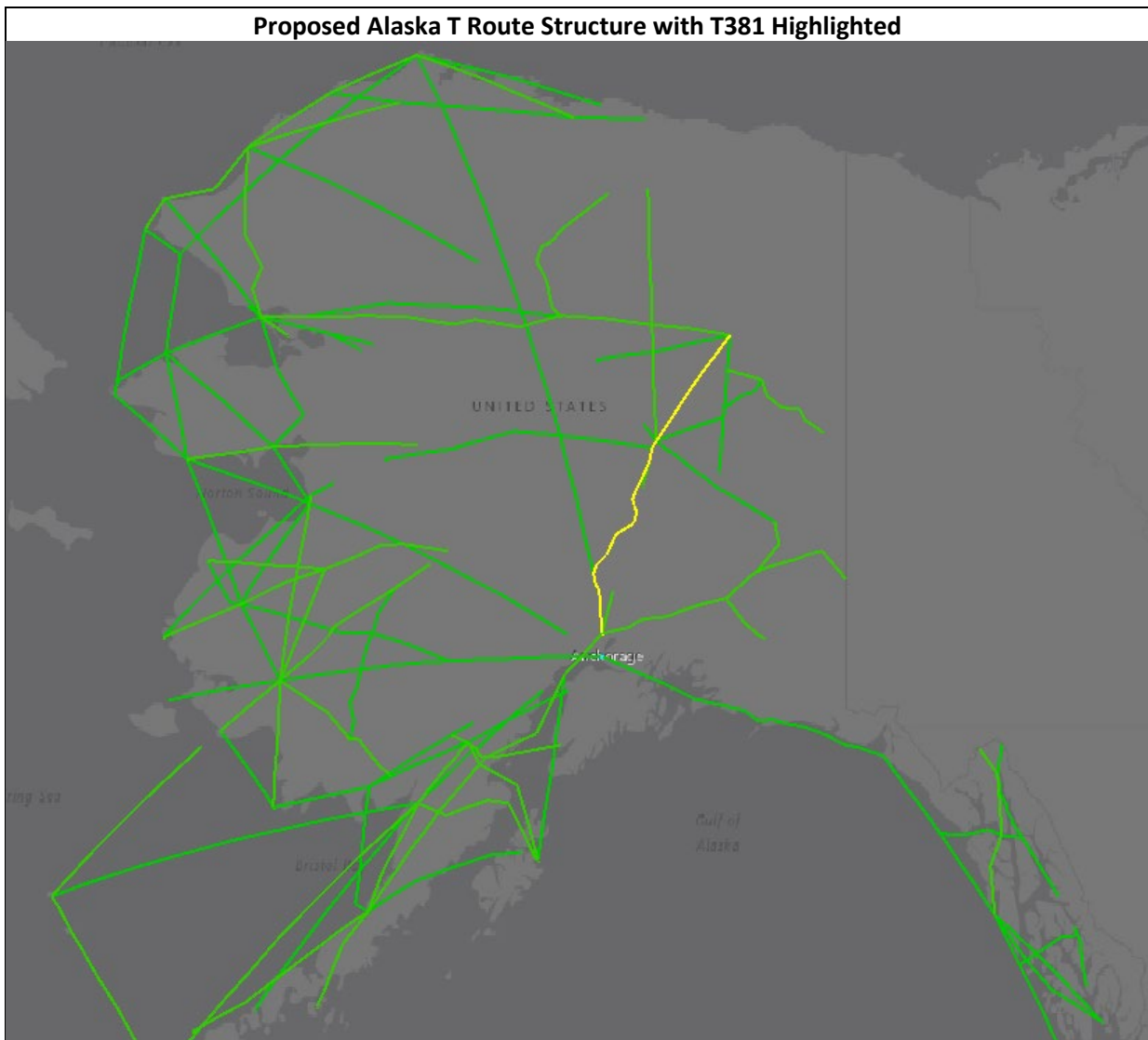
The following figure depicts historical tracks in the vicinity of the new T381.



The following figure identifies the location of the historical properties (brown icons), tribal areas (red dots), Yukon Flats National Wildlife Refuge (outlined in light blue), and Bureau of Land Management areas (green) in the vicinity of the T route (thick orange), and historical flight tracks (light orange) from 2019.

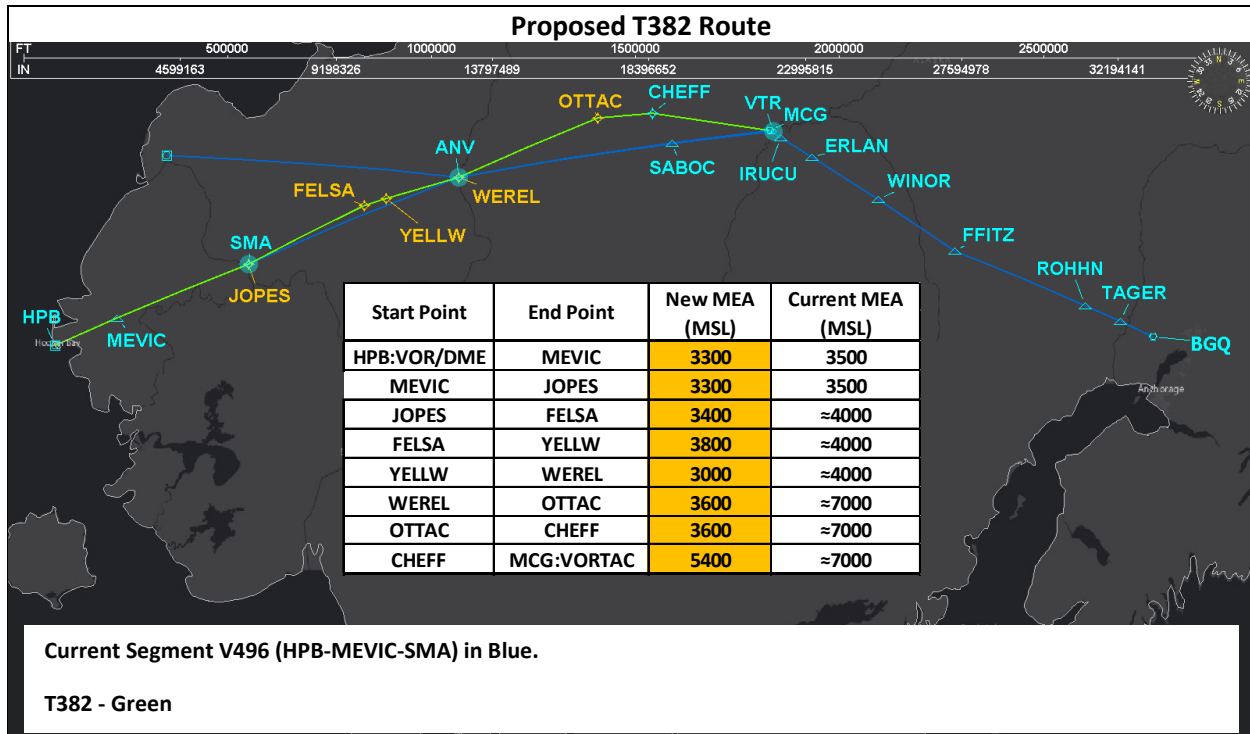


The following figure depicts the overview of T381 (yellow) and the other T routes (green) that are proposed to modernize Alaska's ATS route structure.

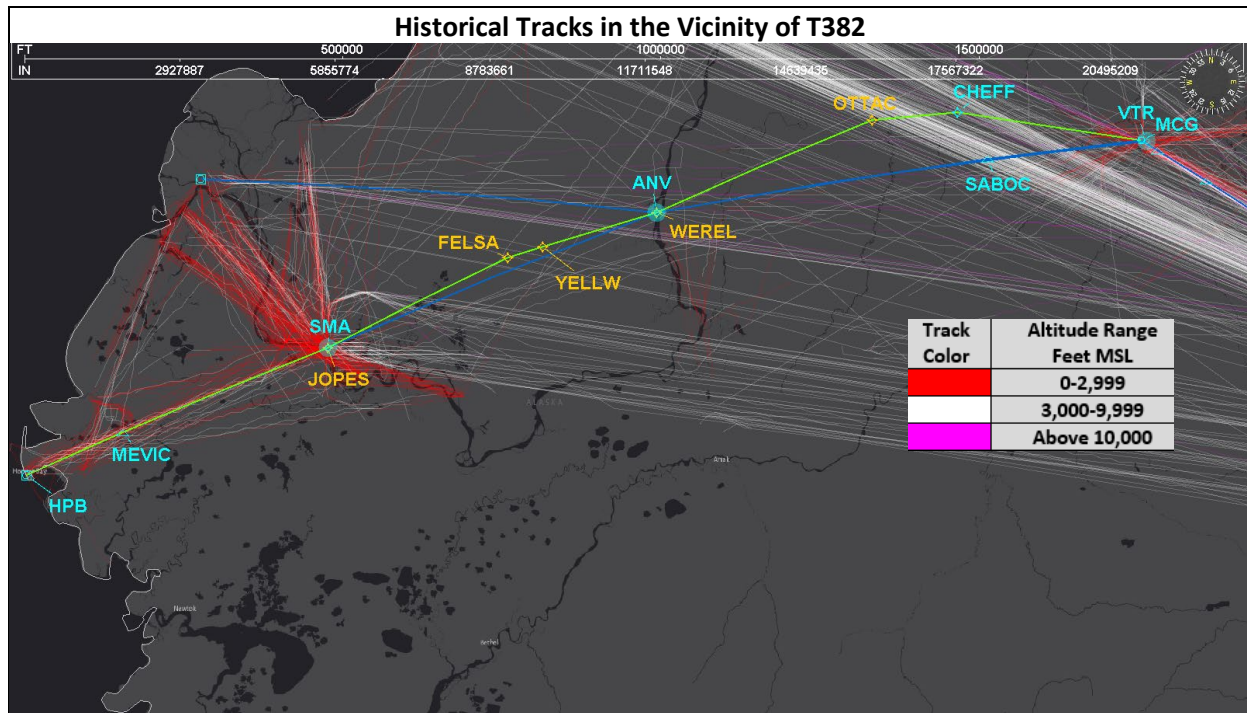


Proposed T382

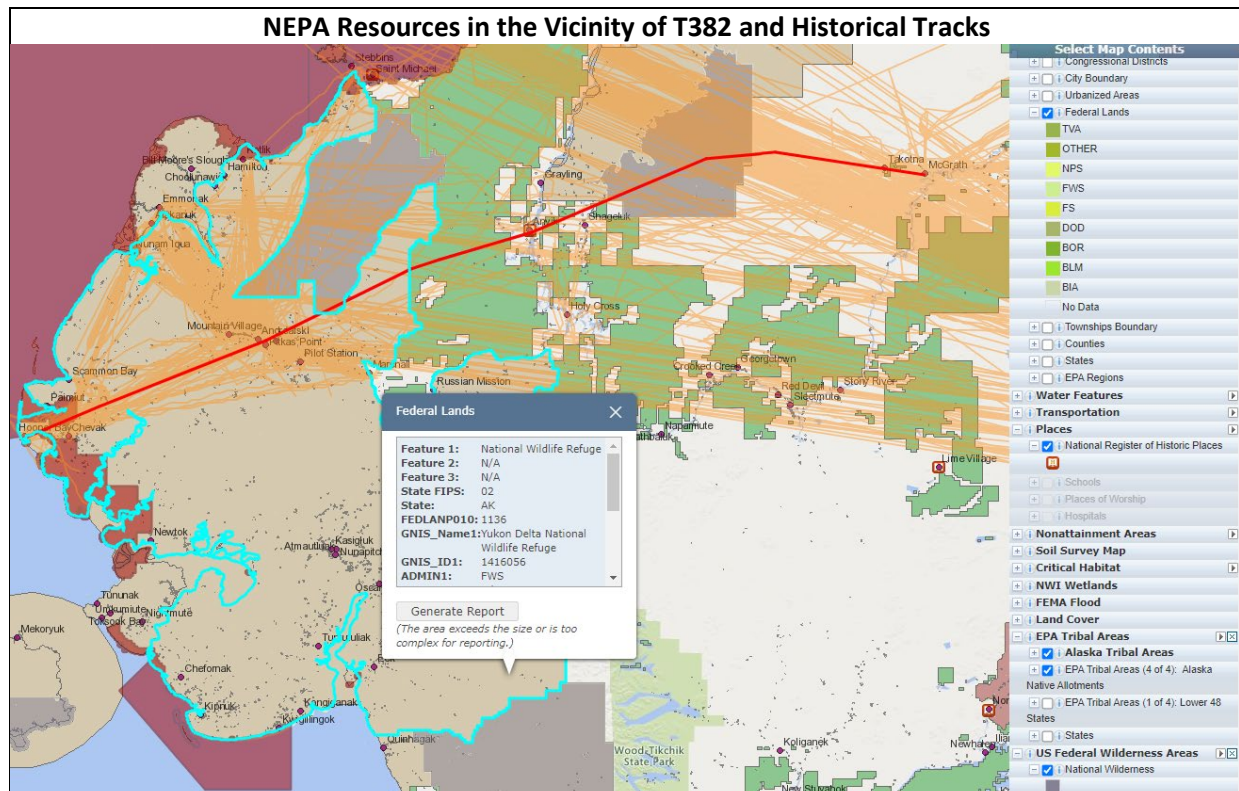
The following figure depicts the overview of the proposed T382 route.



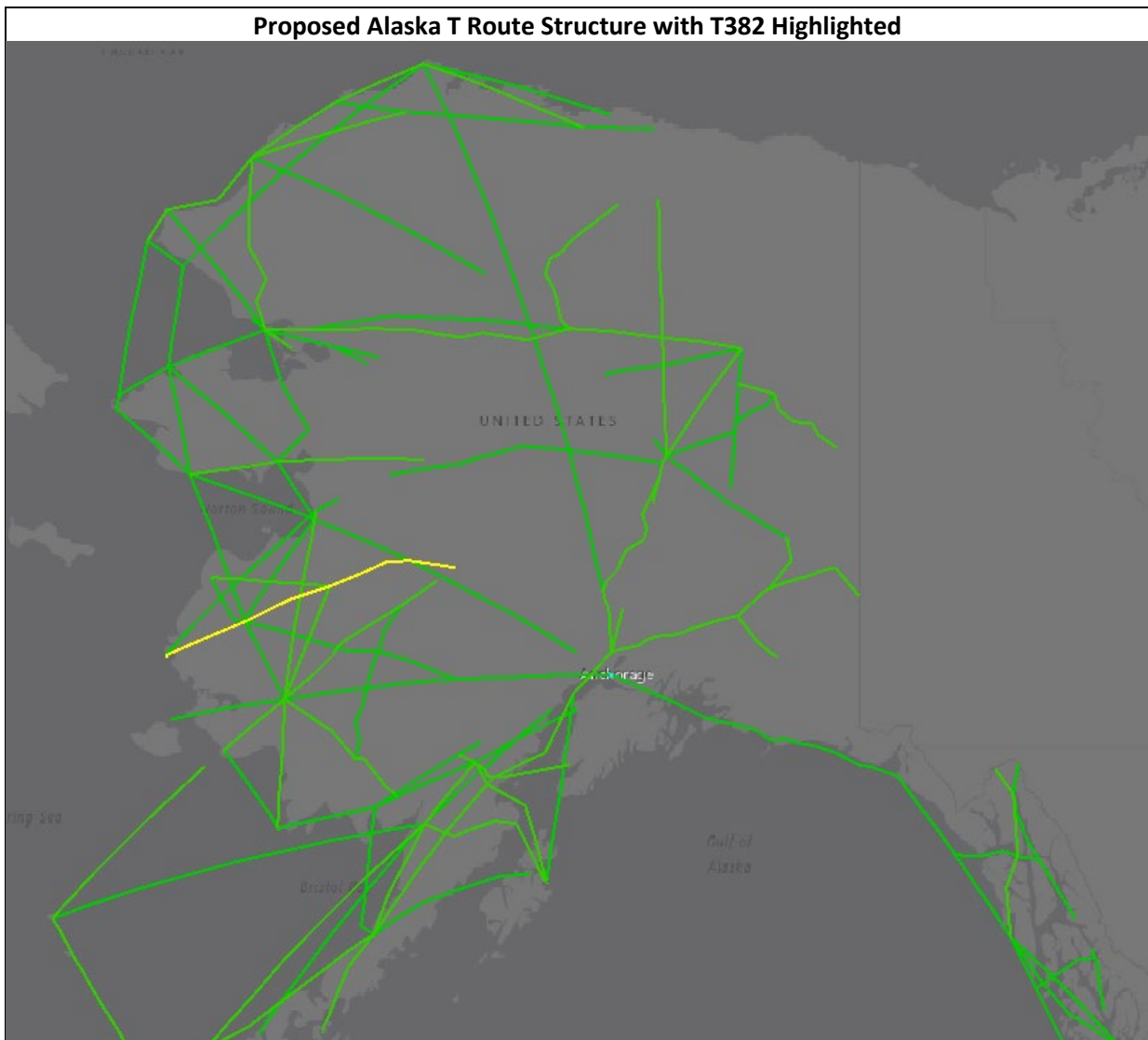
The following figure depicts historical tracks in the vicinity of the new T382.



The following figure identifies the location of the historical properties (brown icons), tribal areas (red dots), Yukon Delta National Wildlife Refuge (outlined in light blue), national wilderness areas (grey), and other federal lands (shown in legend) in the vicinity of the T route (thick orange line), and historical flight tracks (light orange lines) from 2019.

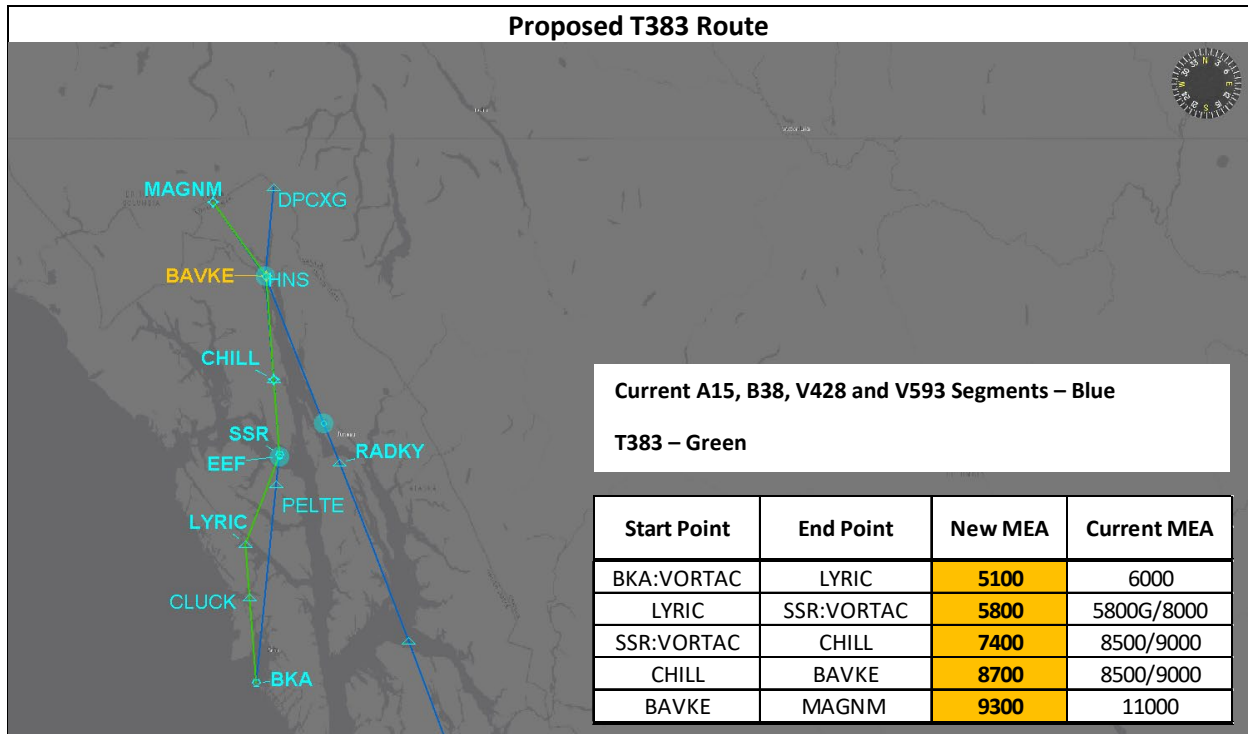


The following figure depicts the overview of T382 (yellow) and the other T routes (green) that are proposed to modernize Alaska's ATS route structure.

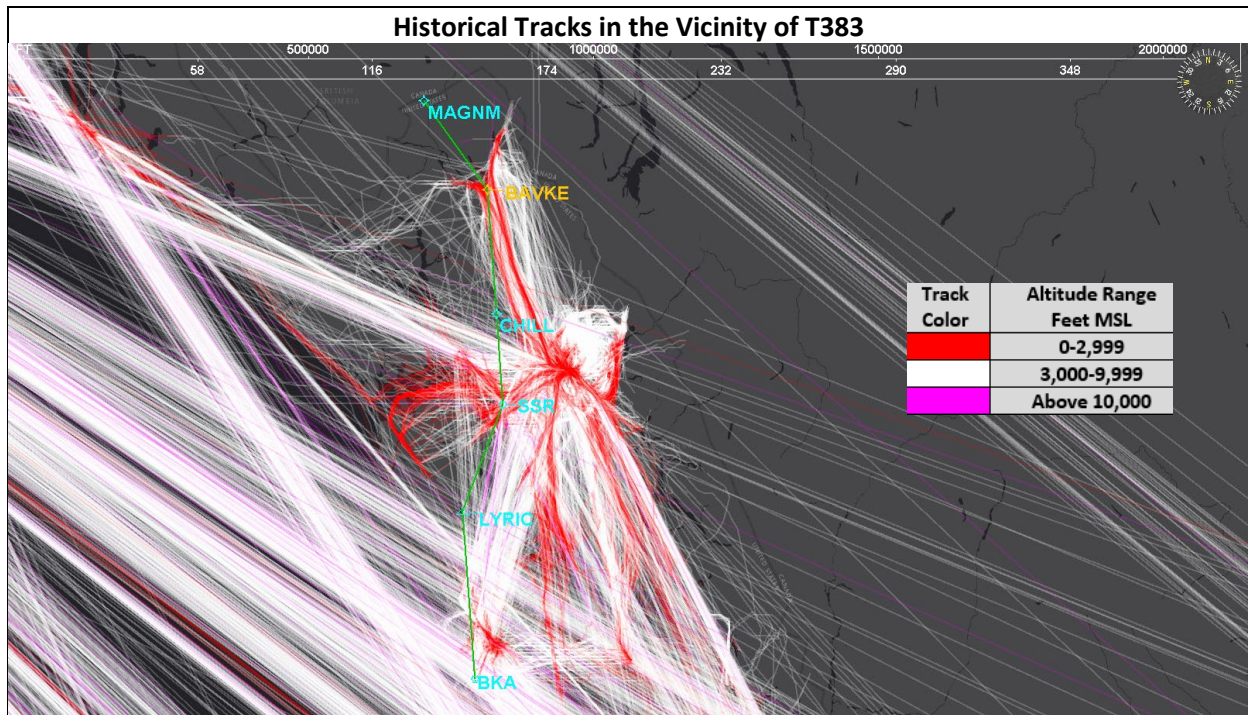


Proposed T383

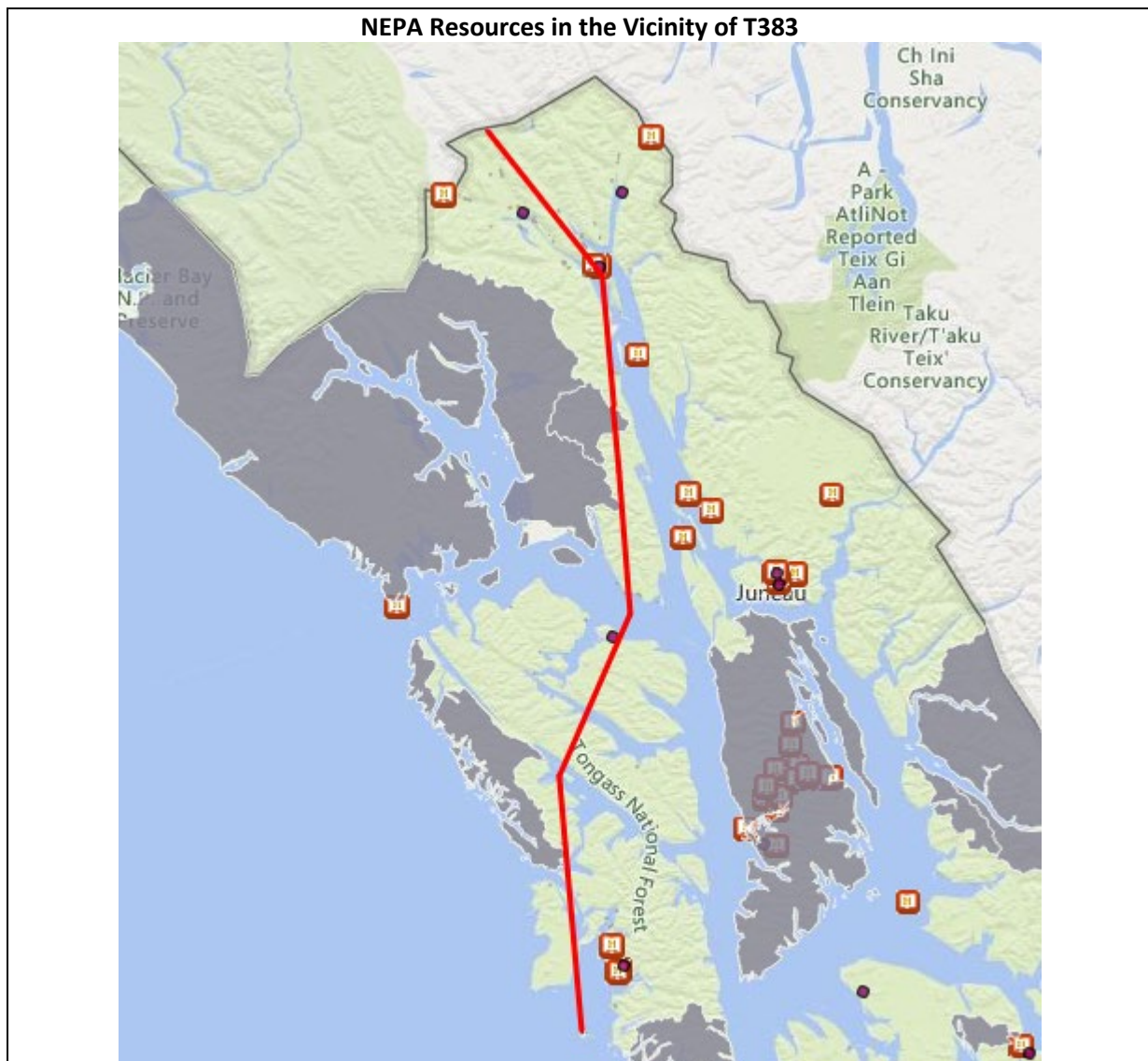
The following figure depicts the overview of the proposed T383 route.



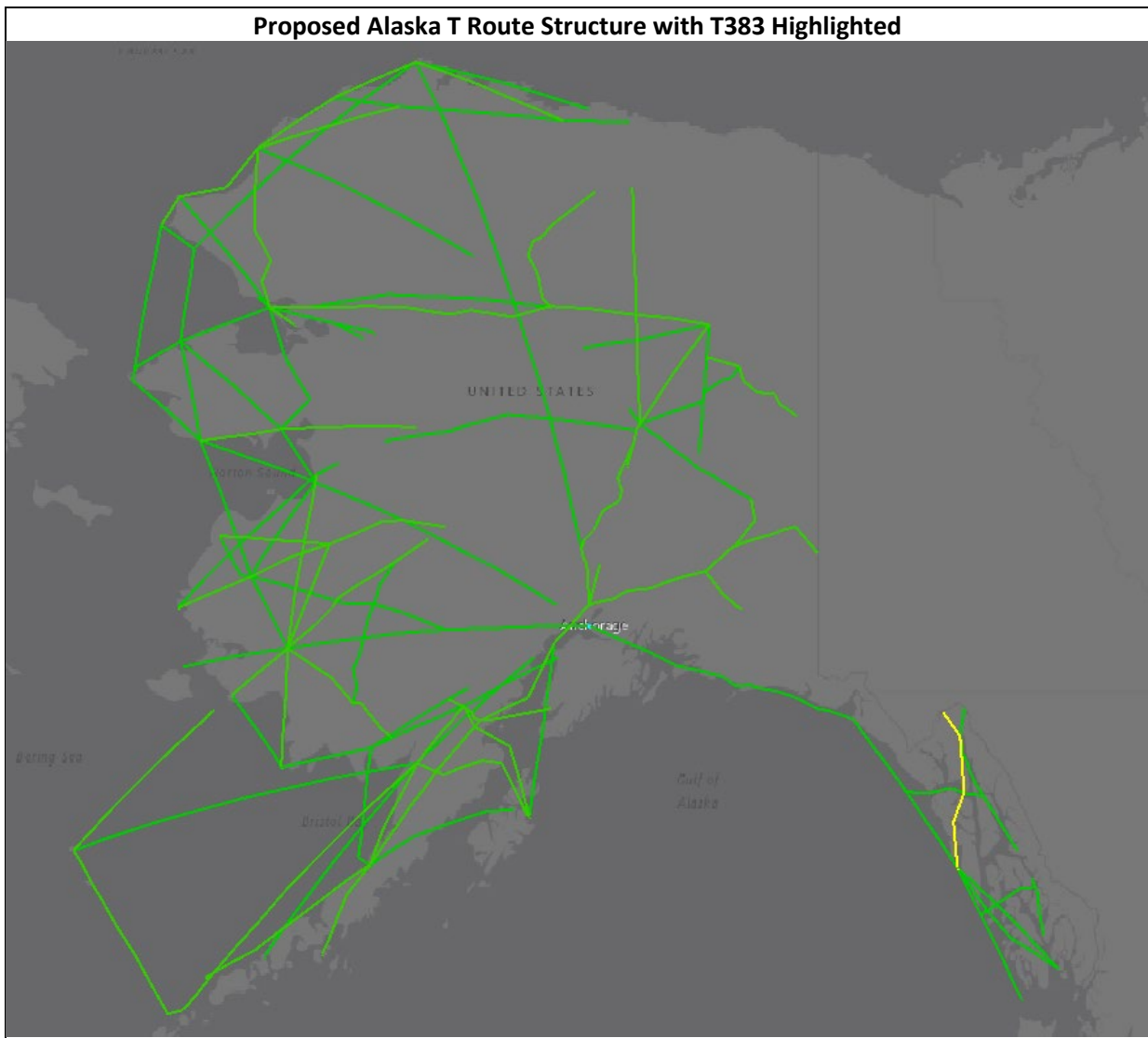
The following figure depicts historical tracks in the vicinity of the new T383.



The following figure identifies the location of historical properties (brown icons), Tongass National Forest (green areas) and tribal villages (red dots) in the vicinity of the T route (thick orange).

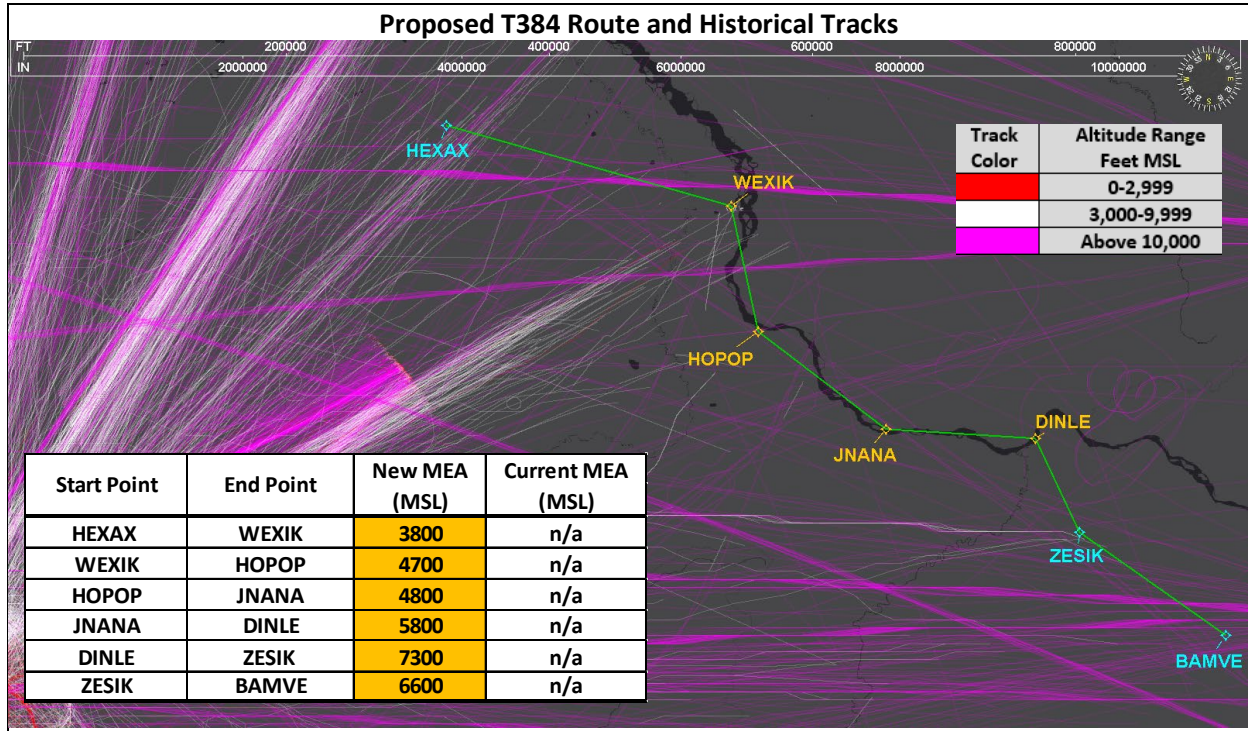


The following figure depicts the overview of T383 (yellow) and the other T routes (green) that are proposed to modernize Alaska's ATS route structure.

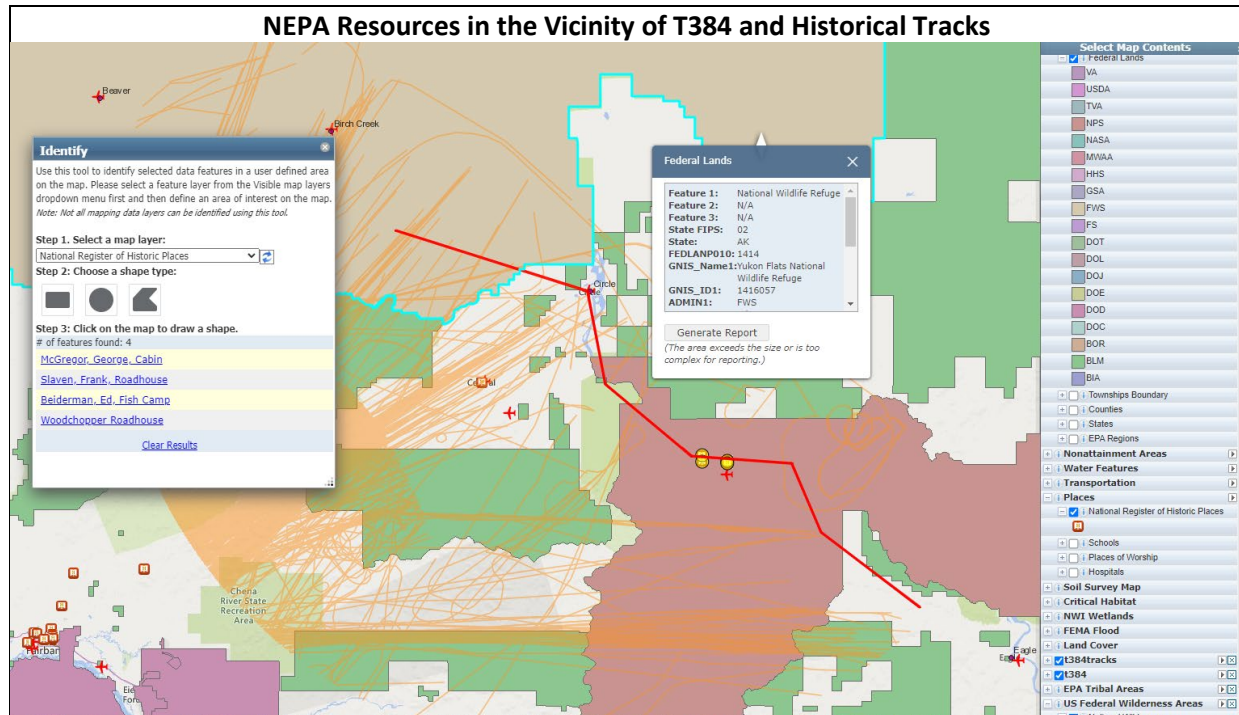


Proposed T384

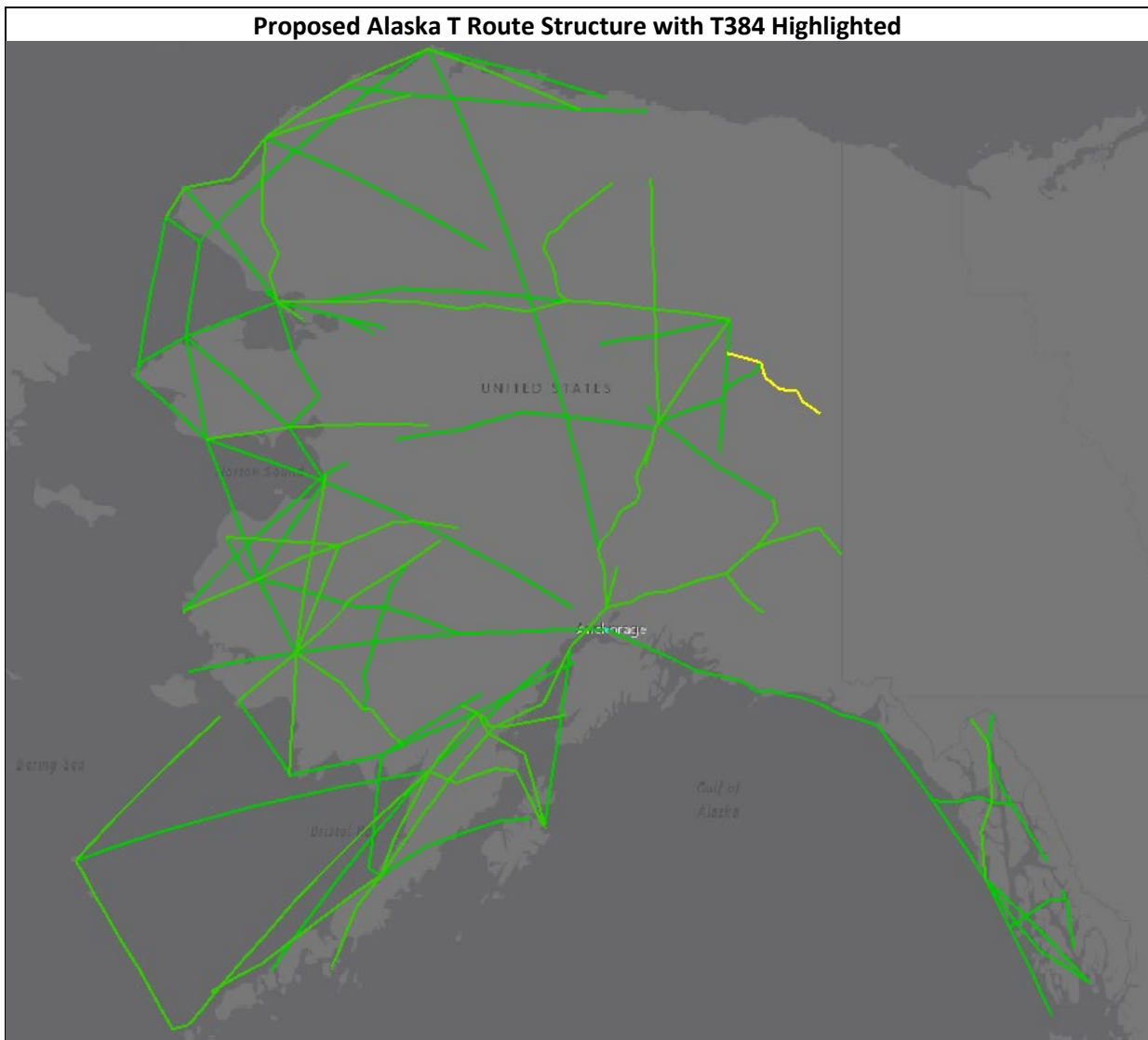
The following figure depicts the overview of the proposed T384 route and historical tracks in the vicinity of T384 from 2019.



The following figure identifies the location of the historical properties (yellow icons), tribal areas (red dots), Yukon-Charley Rivers National Preserve (brown), Yukon Flats National Wildlife Refuge, and other federal lands (shown in legend) in the vicinity of the T route (thick orange), and historical flight tracks (light orange) from 1919. The figure also shows some airports (aircraft icons) along the new T route. The usage of the T route is uncertain at this point and will be determined in the future in conjunction with the pertinent arrival and departure procedures with which it would connect.

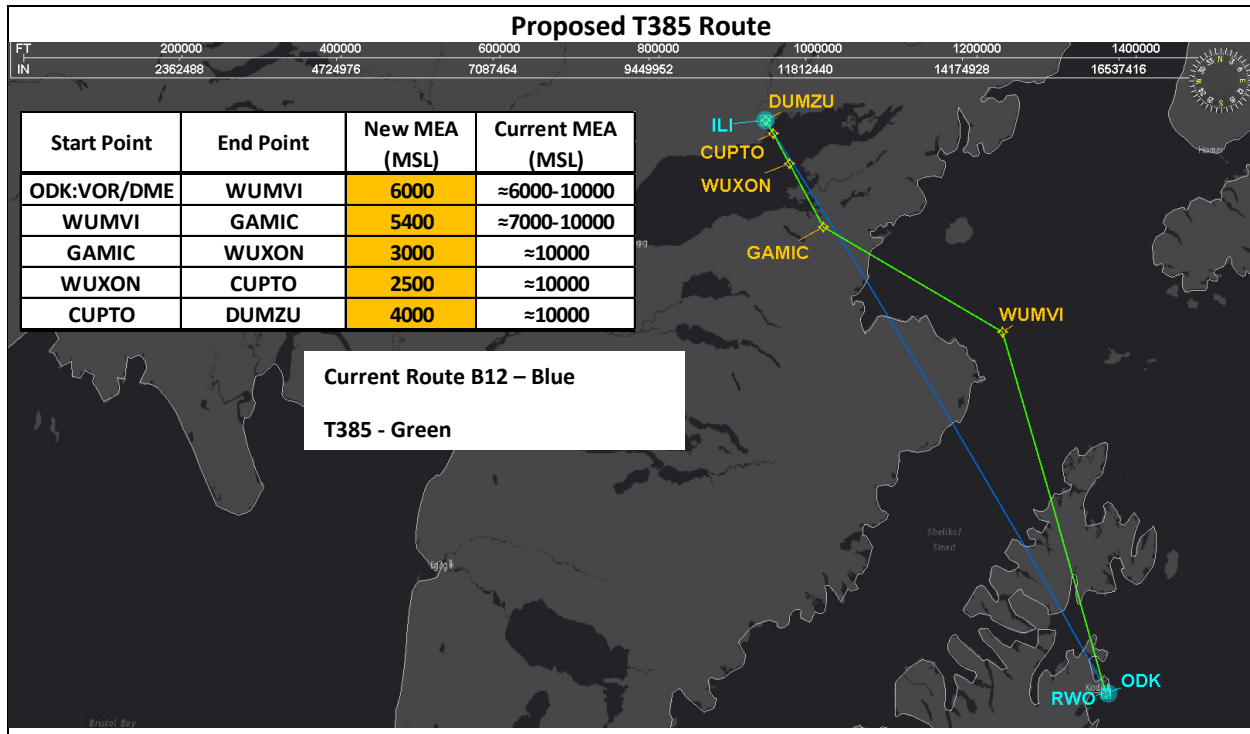


The following figure depicts the overview of T384 (yellow) and the other T routes (green) that are proposed to modernize Alaska's ATS route structure.

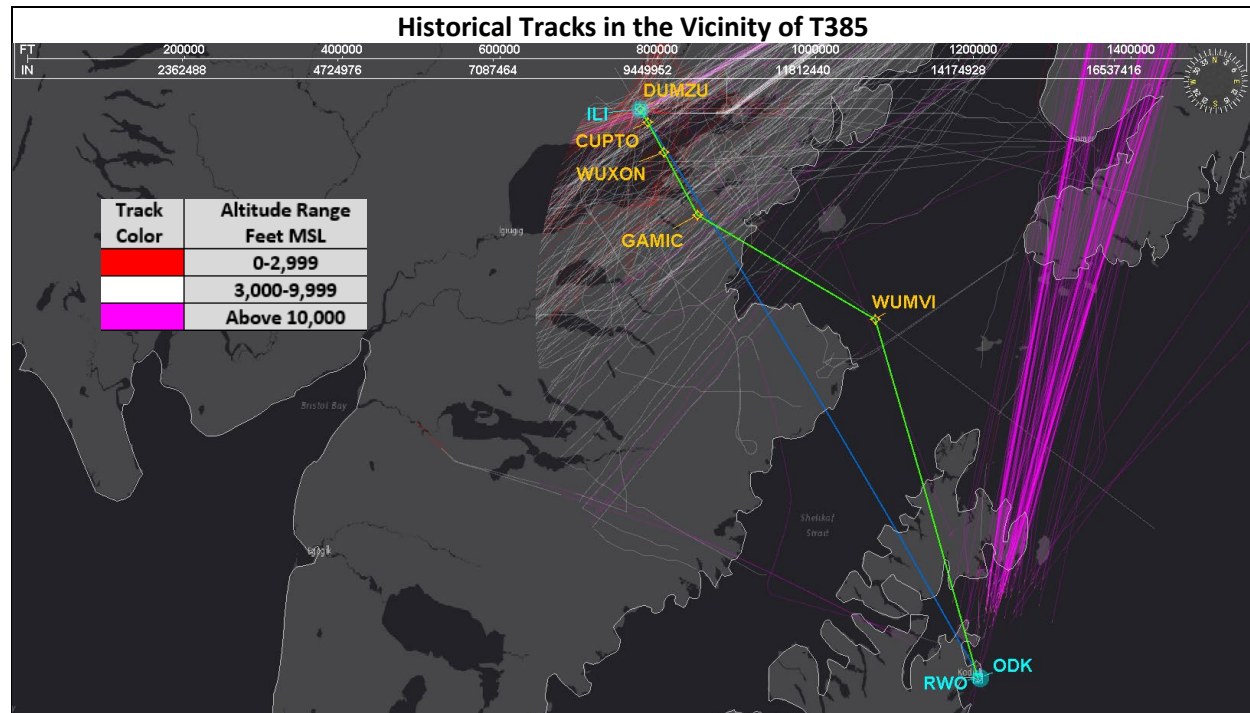


Proposed T385

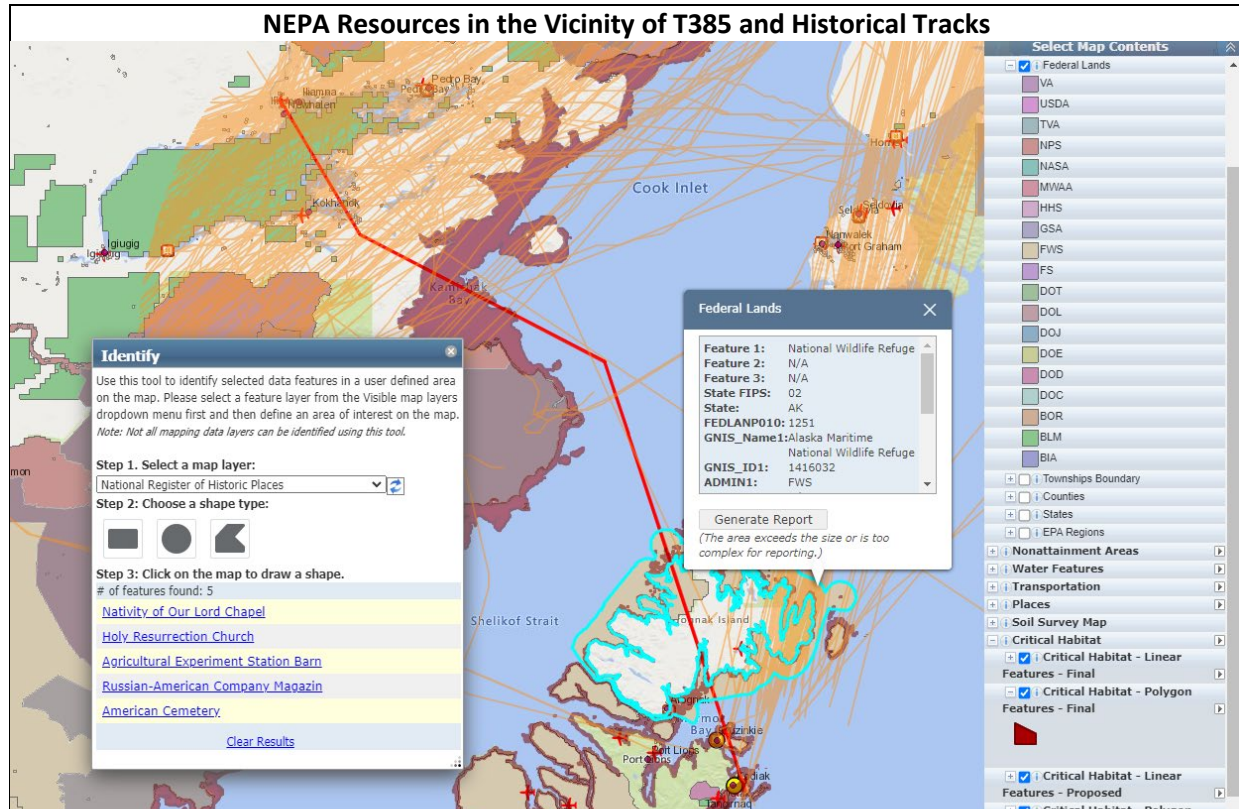
The following figure depicts the overview of the proposed T385 route.



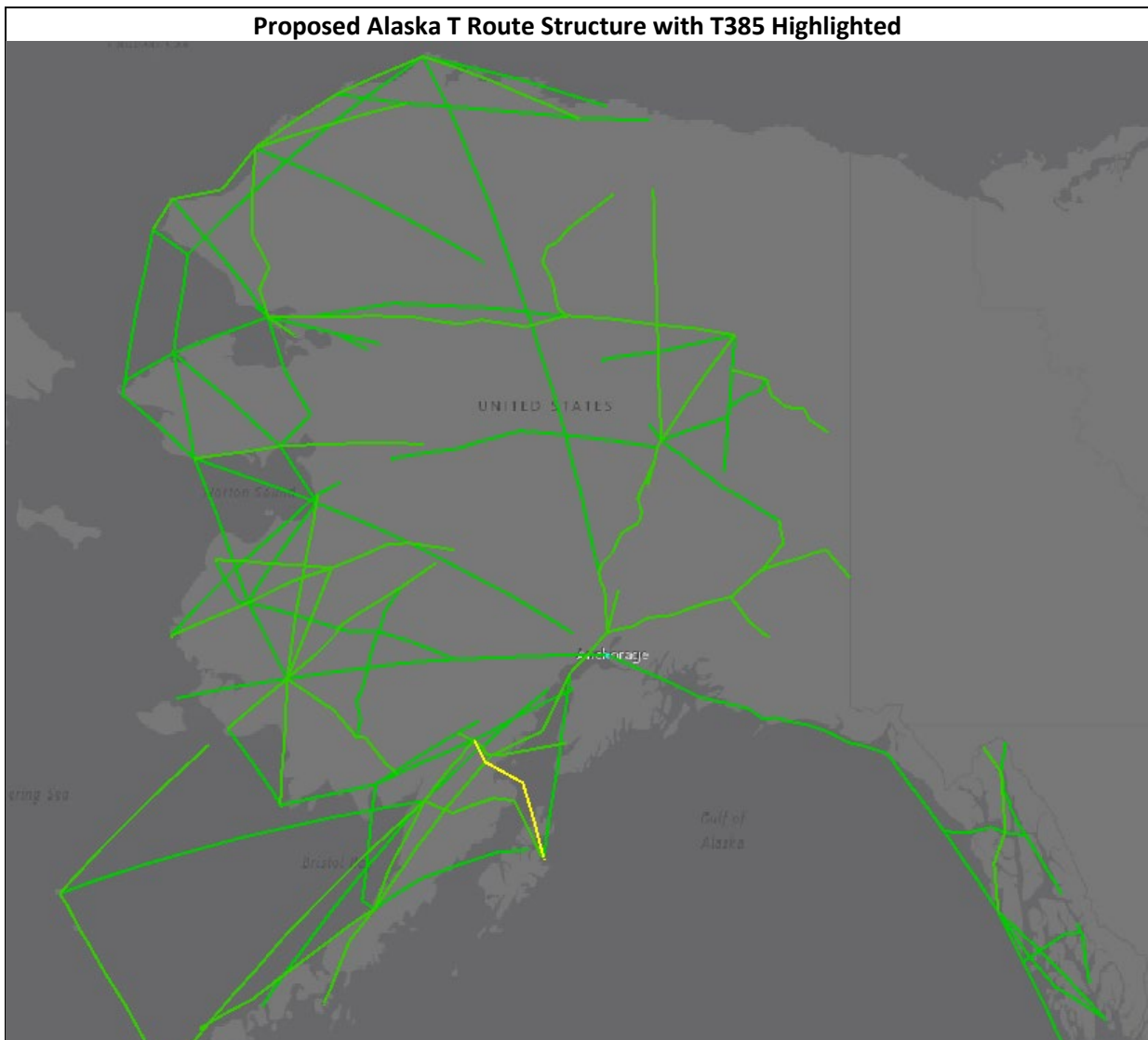
The following figure depicts historical tracks in the vicinity of the new T385.



The following figure identifies the location of the historical properties (yellow circles), tribal areas (red dots), Northern Sea Otter critical habitat (brown), National Wildlife Refuge, and other federal lands (shown in legend) in the vicinity of the T route (thick orange), and historical flight tracks (light orange) from 2019.

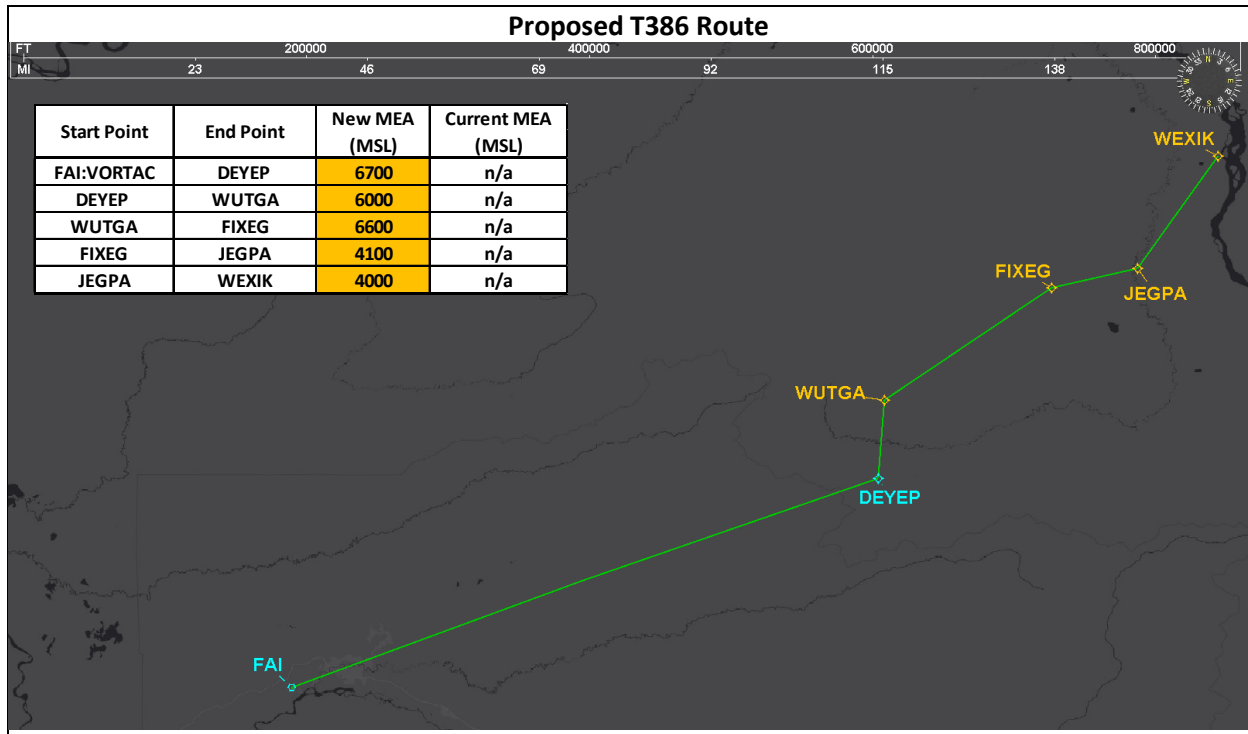


The following figure depicts the overview of T385 (yellow) and the other T routes (green) that are proposed to modernize Alaska's ATS route structure.

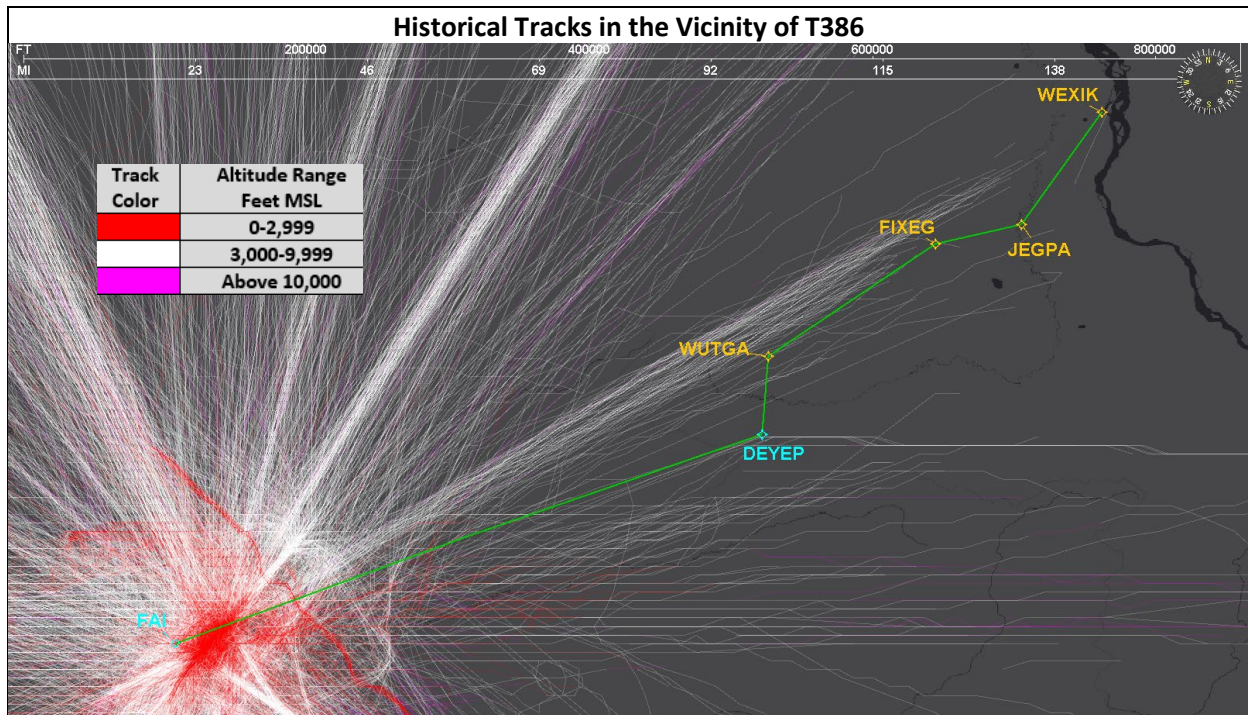


Proposed T386

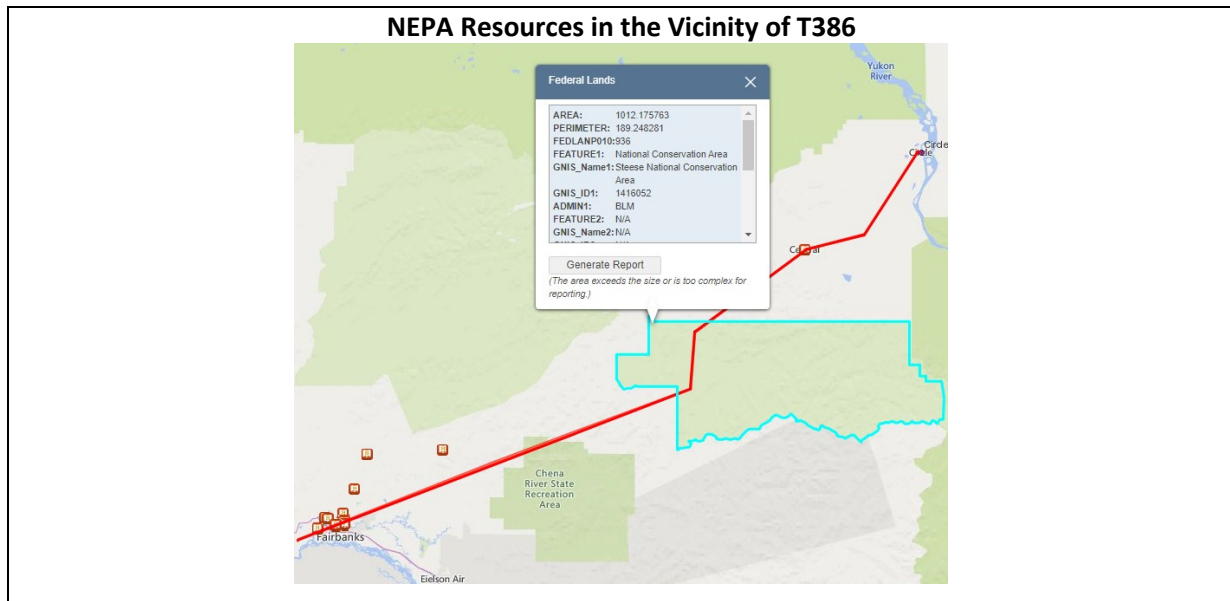
The following figure depicts the overview of the proposed T386 route.



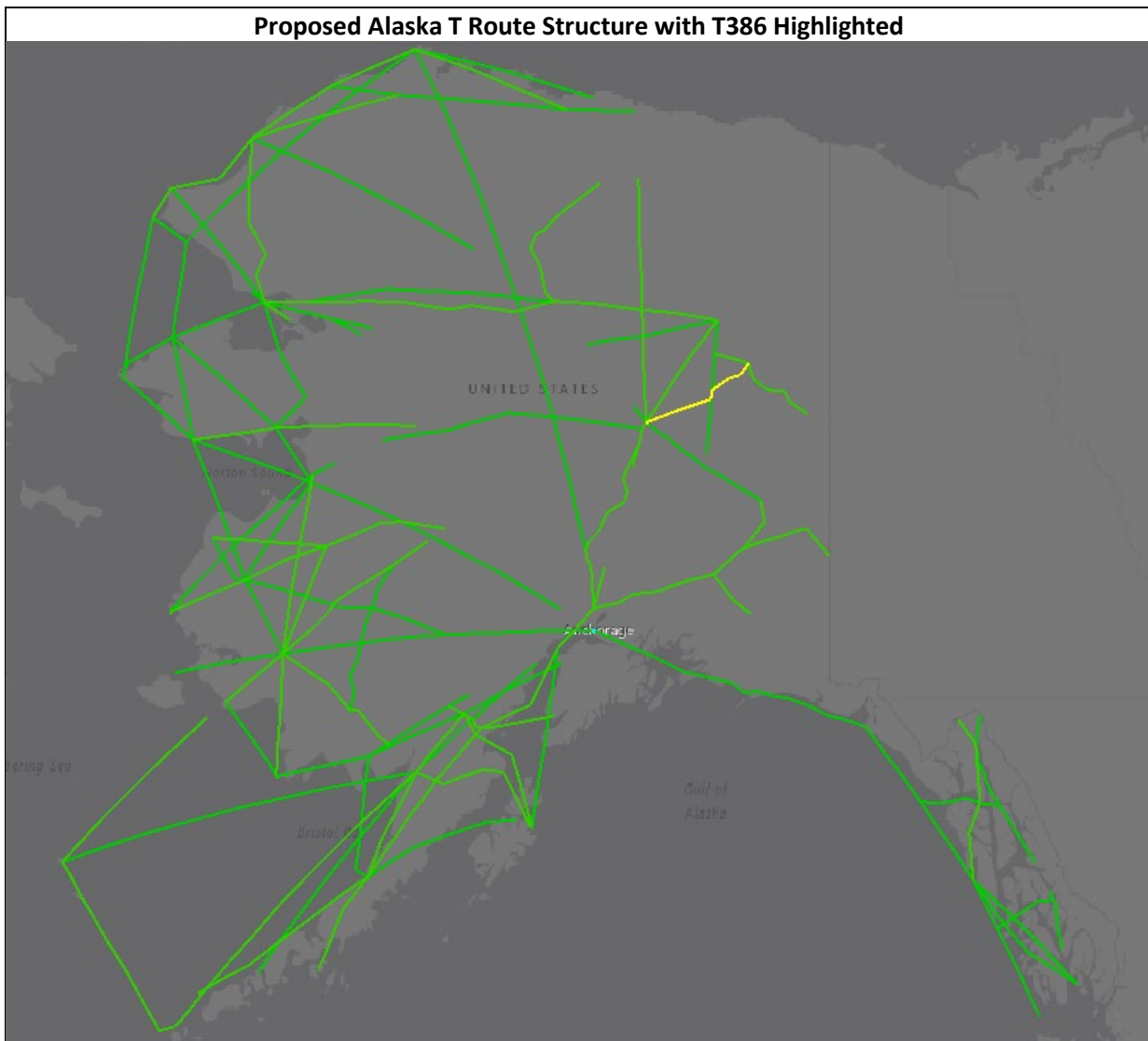
The following figure depicts historical tracks in the vicinity of the new T386.



The following figure identifies the location of the historical properties (brown icons), tribal villages (red dots), and Steese National Conservation Area (light green) in the vicinity of the T route (thick orange).

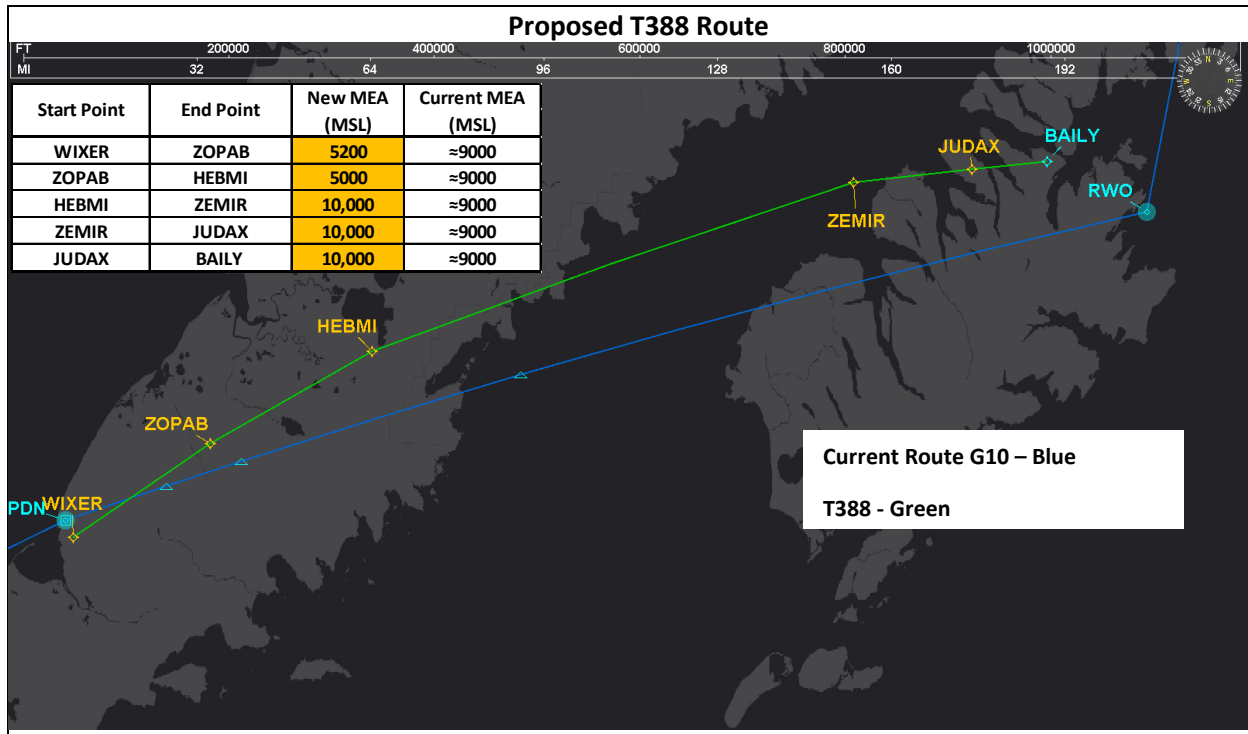


The following figure depicts the overview of T386 (yellow) and the other T routes (green) that are proposed to modernize Alaska's ATS route structure.

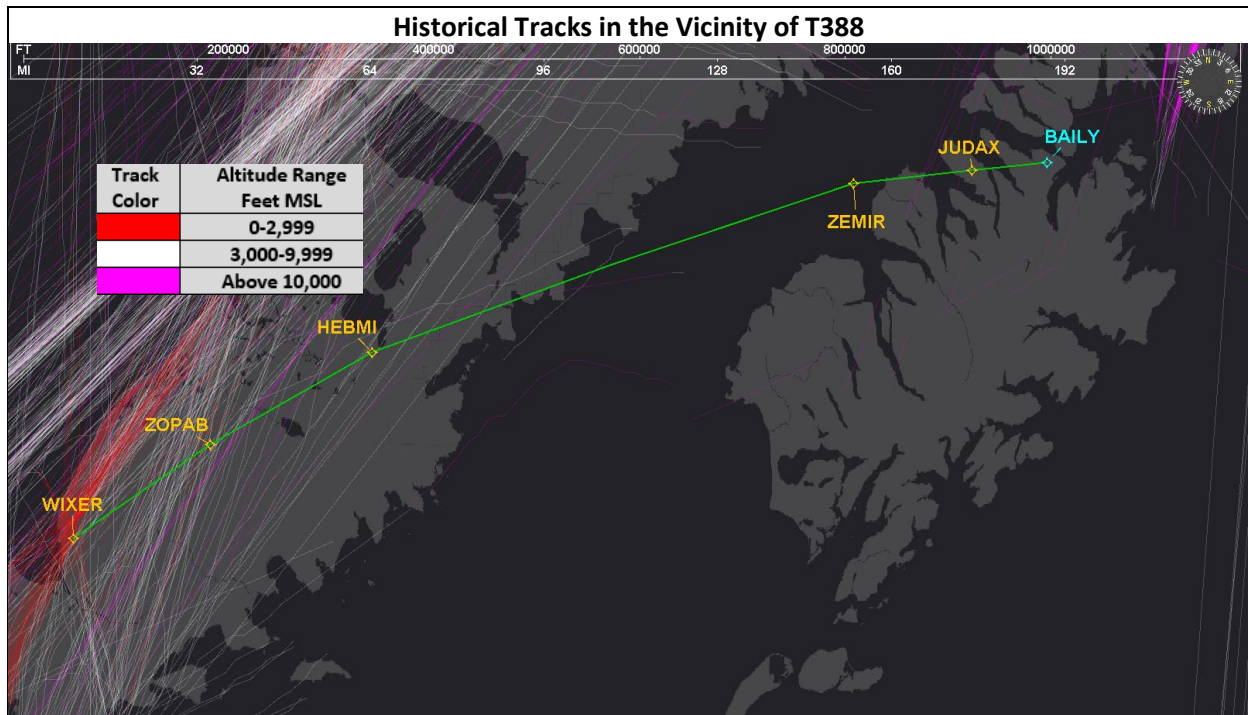


Proposed T388

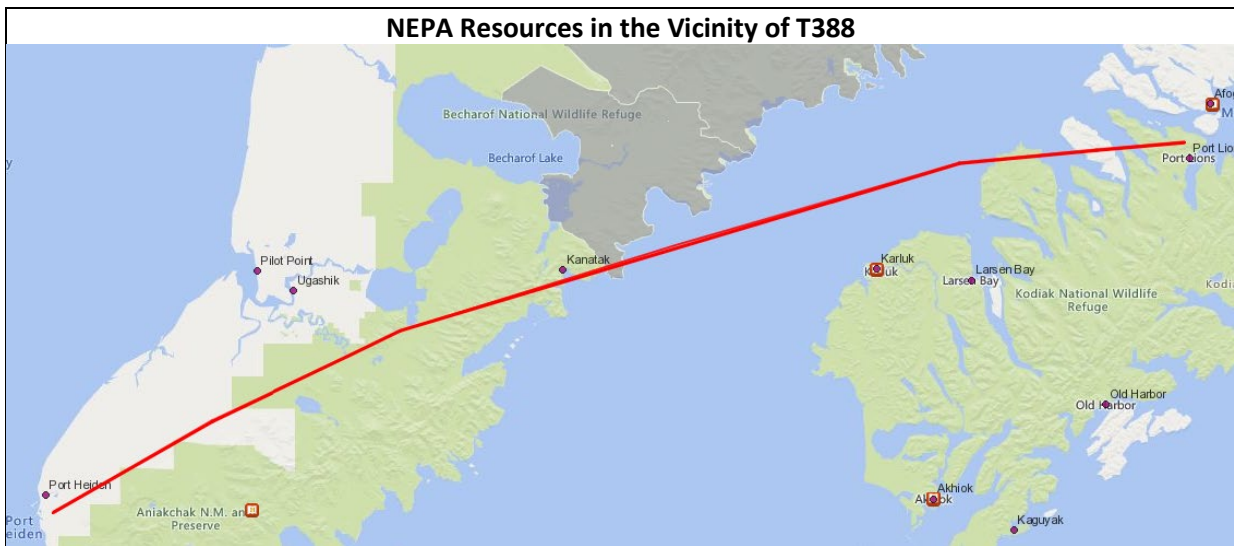
The following figure depicts the overview of the proposed T388 route.



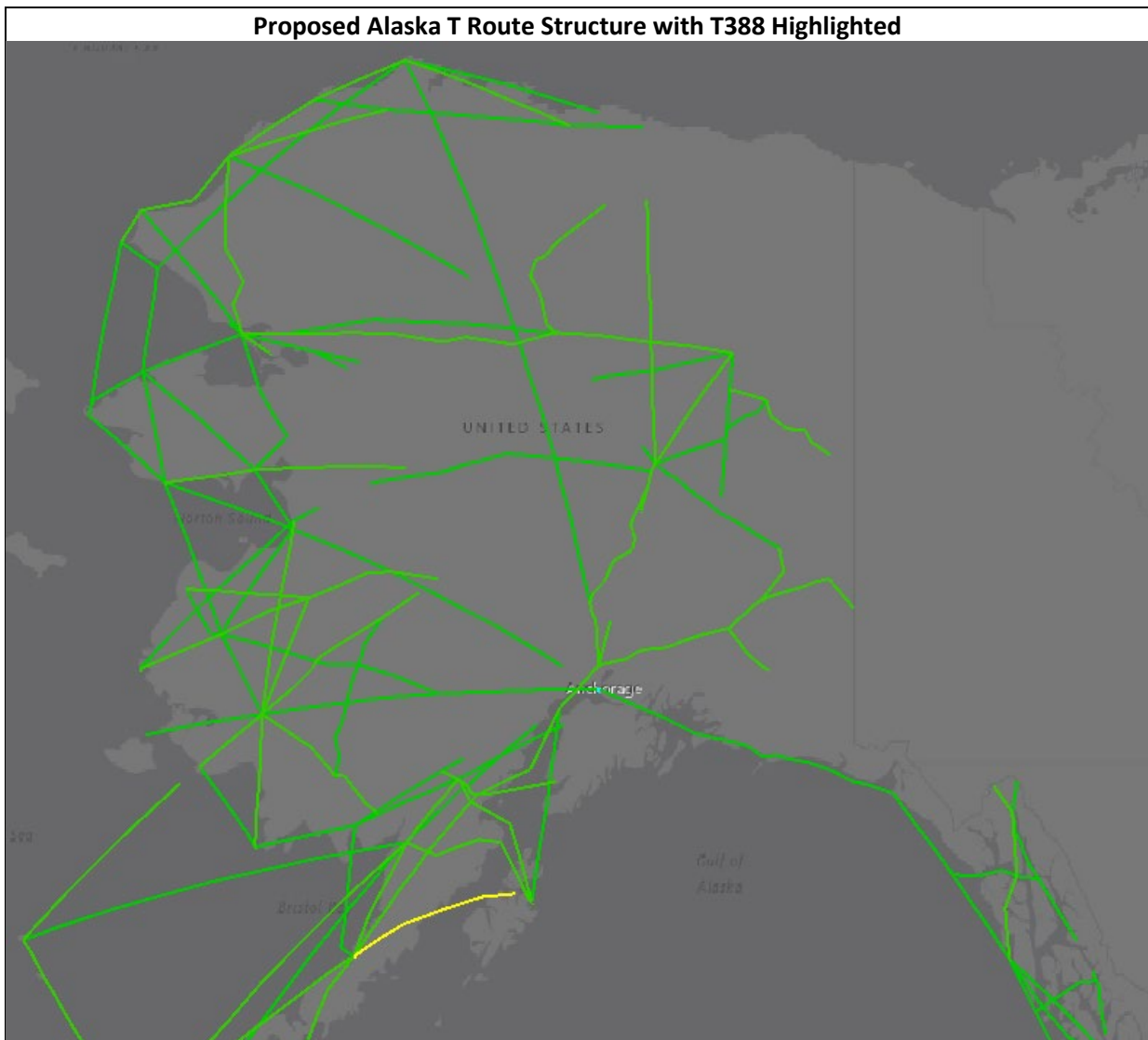
The following figure depicts historical tracks in the vicinity of the new T388.



The following figure identifies the location of tribal villages (red dots), wildlife refuges (green), and wilderness areas (grey) in the vicinity of the T route (thick orange).

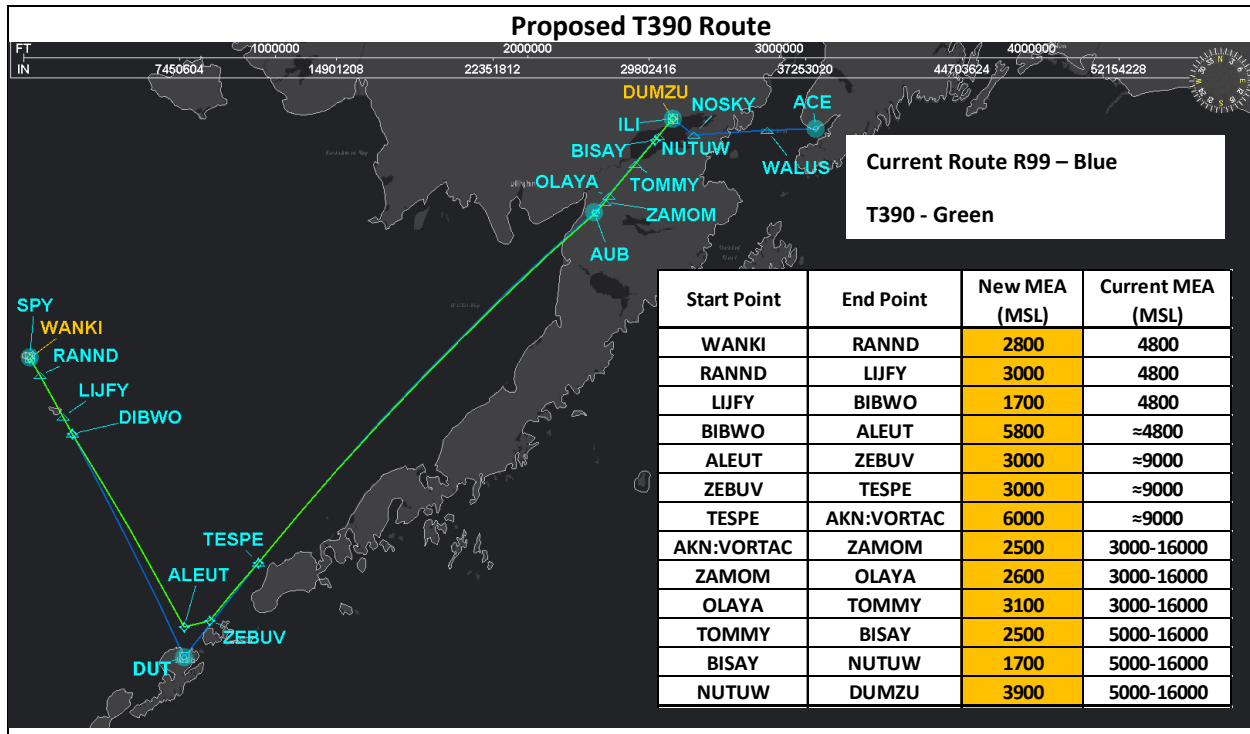


The following figure depicts the overview of T388 (yellow) and the other T routes (green) that are proposed to modernize Alaska's ATS route structure.

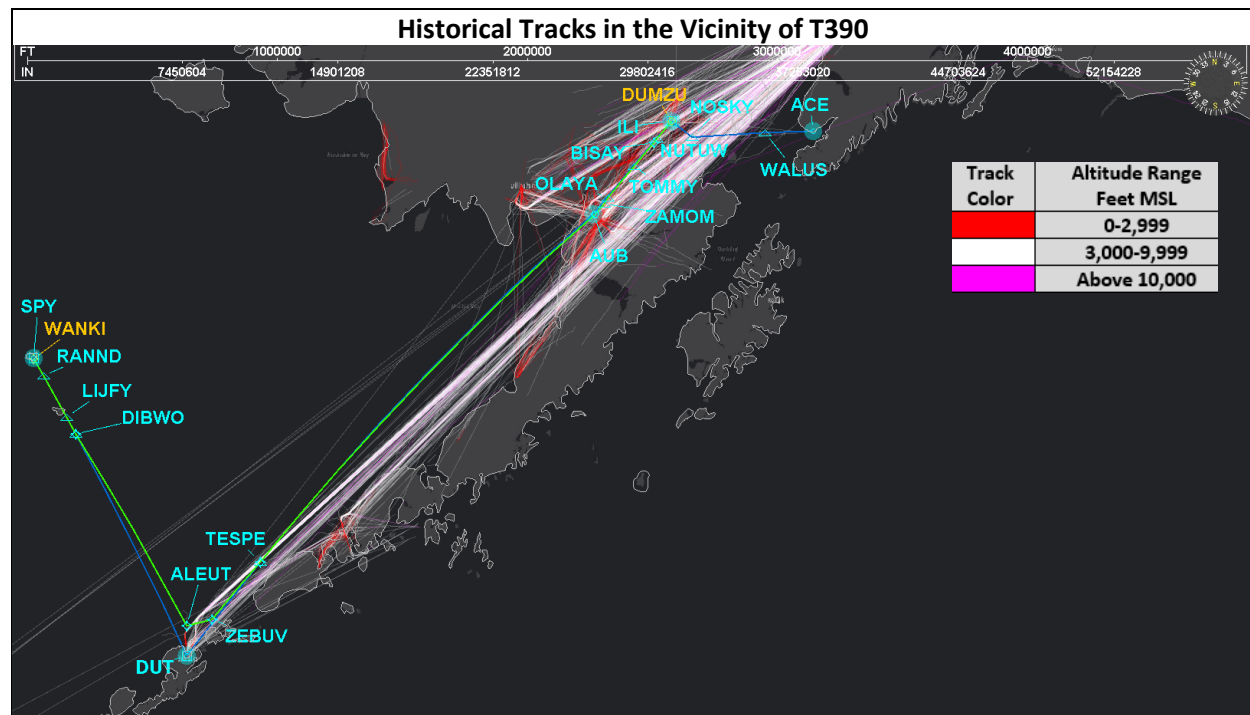


Proposed T390

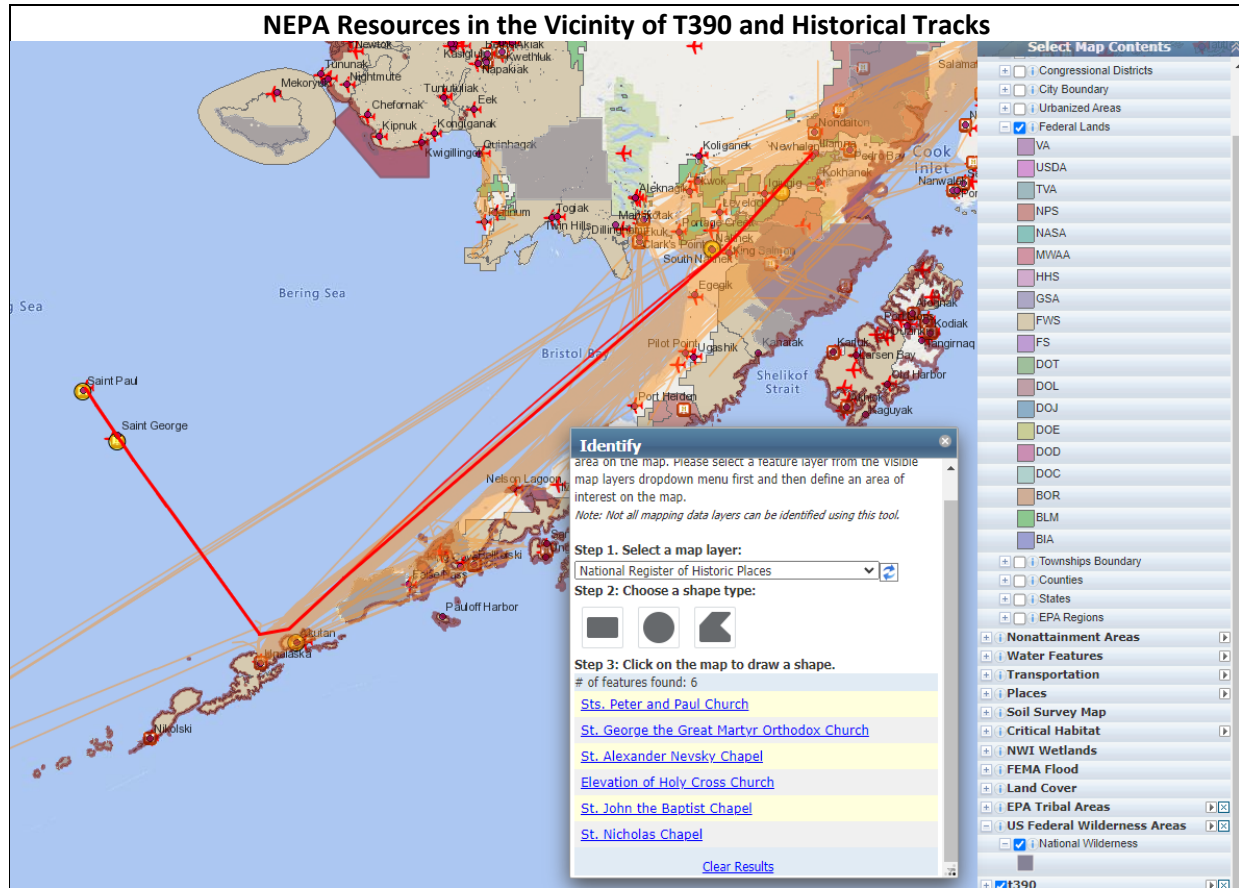
The following figure depicts the overview of the proposed T390 route.



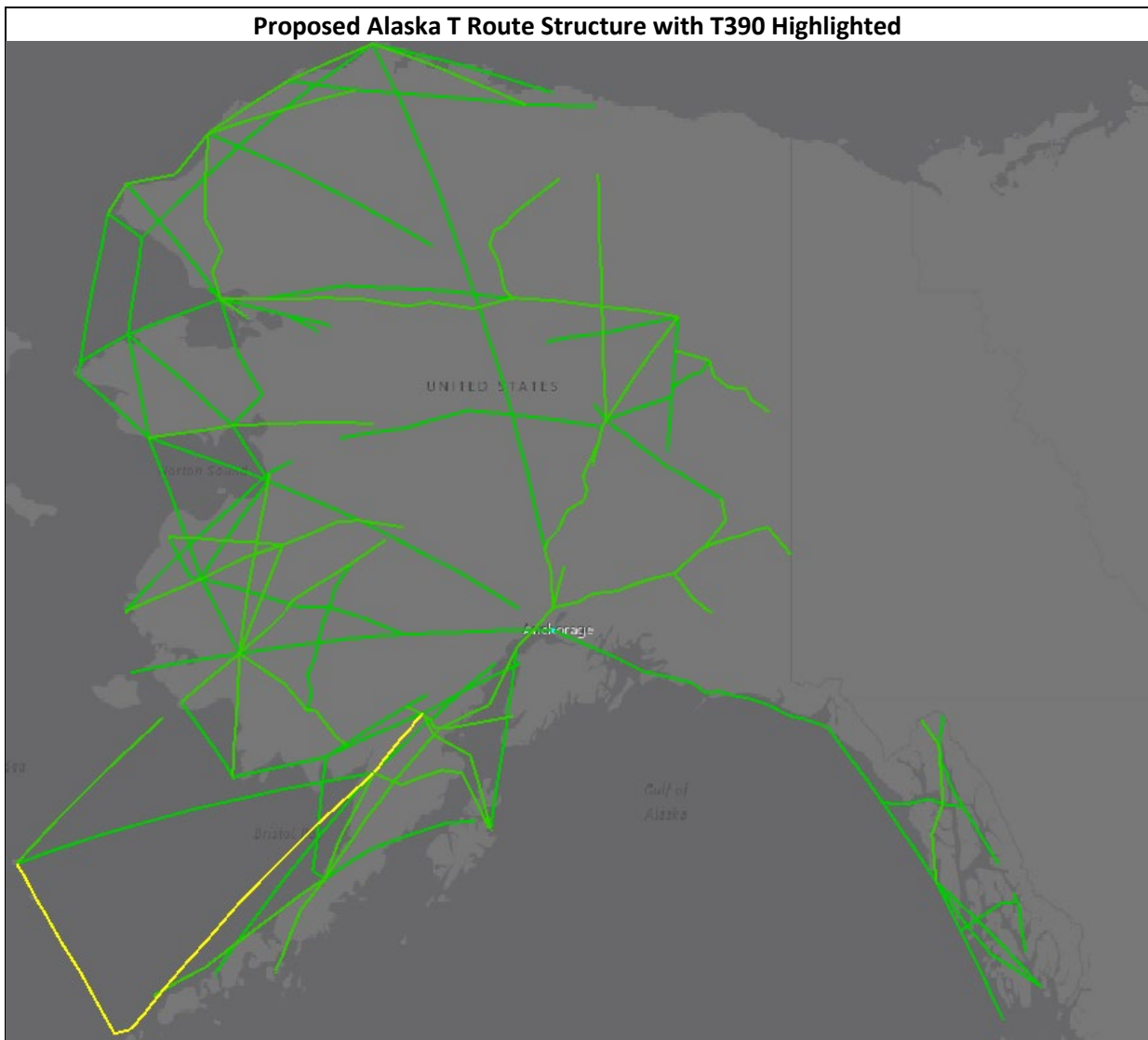
The following figure depicts historical tracks in the vicinity of the new T390.



The following figure identifies the location of the historical properties (yellow circles), tribal areas (red dots), National Wildlife Refuge, and other federal lands (shown in legend) in the vicinity of the T route (thick orange), and historical flight tracks (light orange) from 2019.

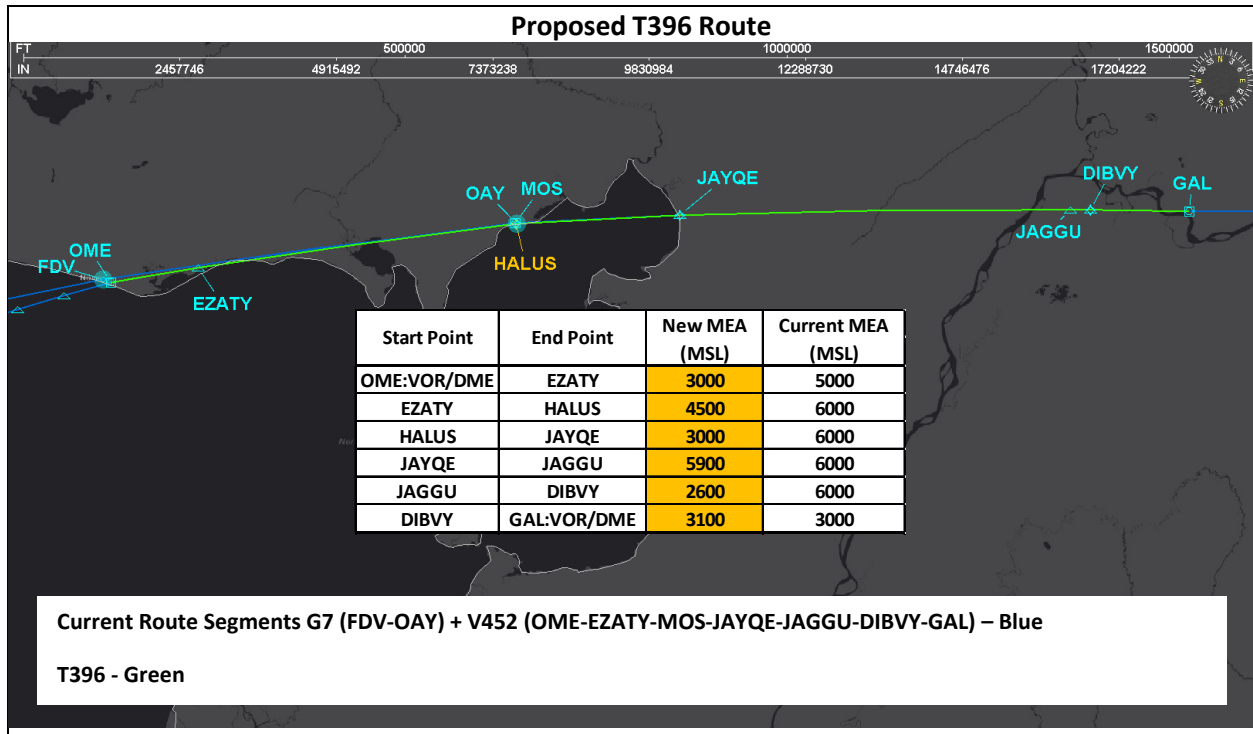


The following figure depicts the overview of T390 (yellow) and the other T routes (green) that are proposed to modernize Alaska's ATS route structure.

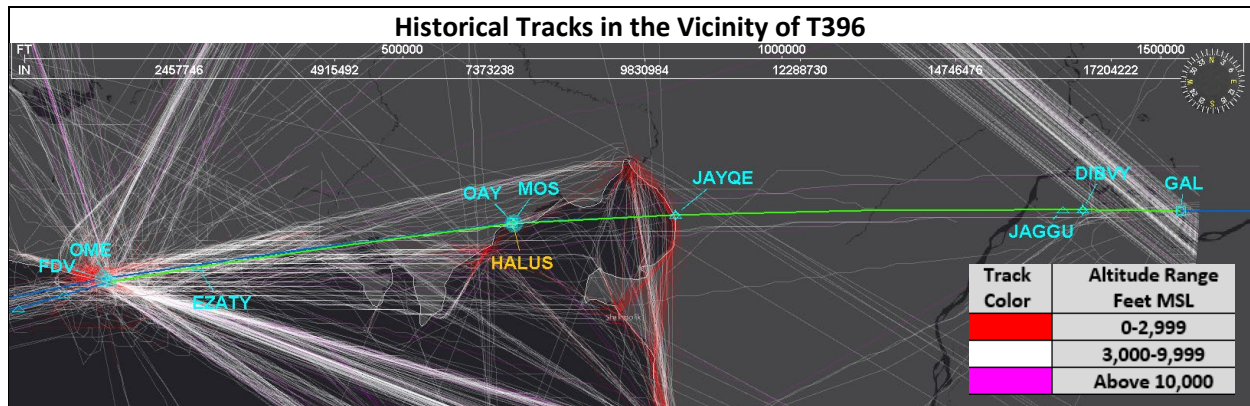


Proposed T396

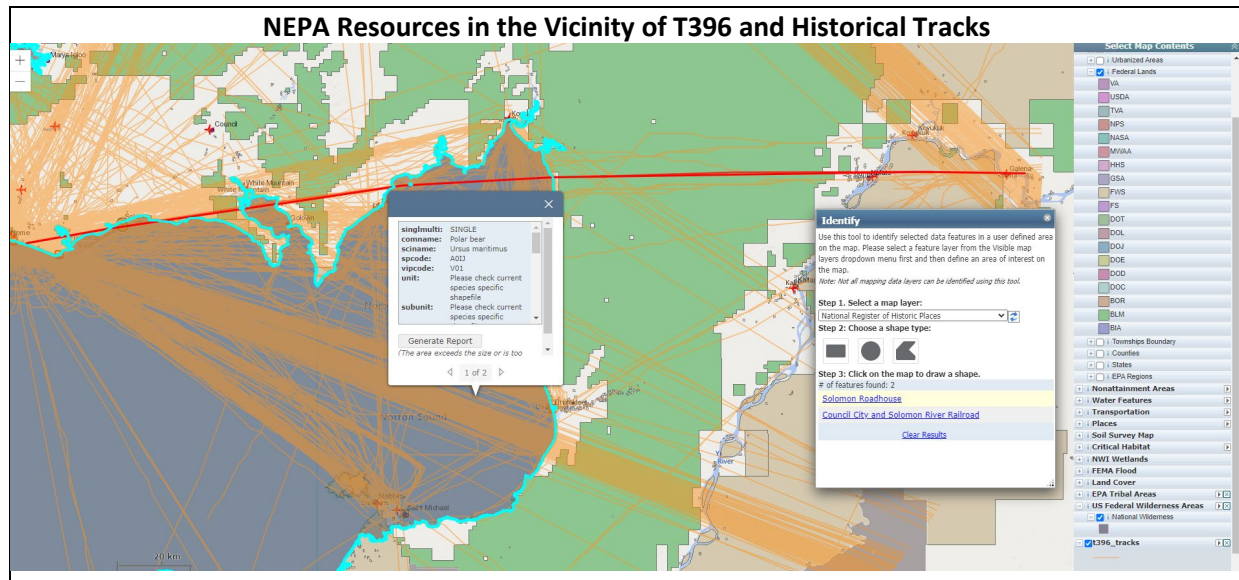
The following figure depicts the overview of the proposed T396 route.



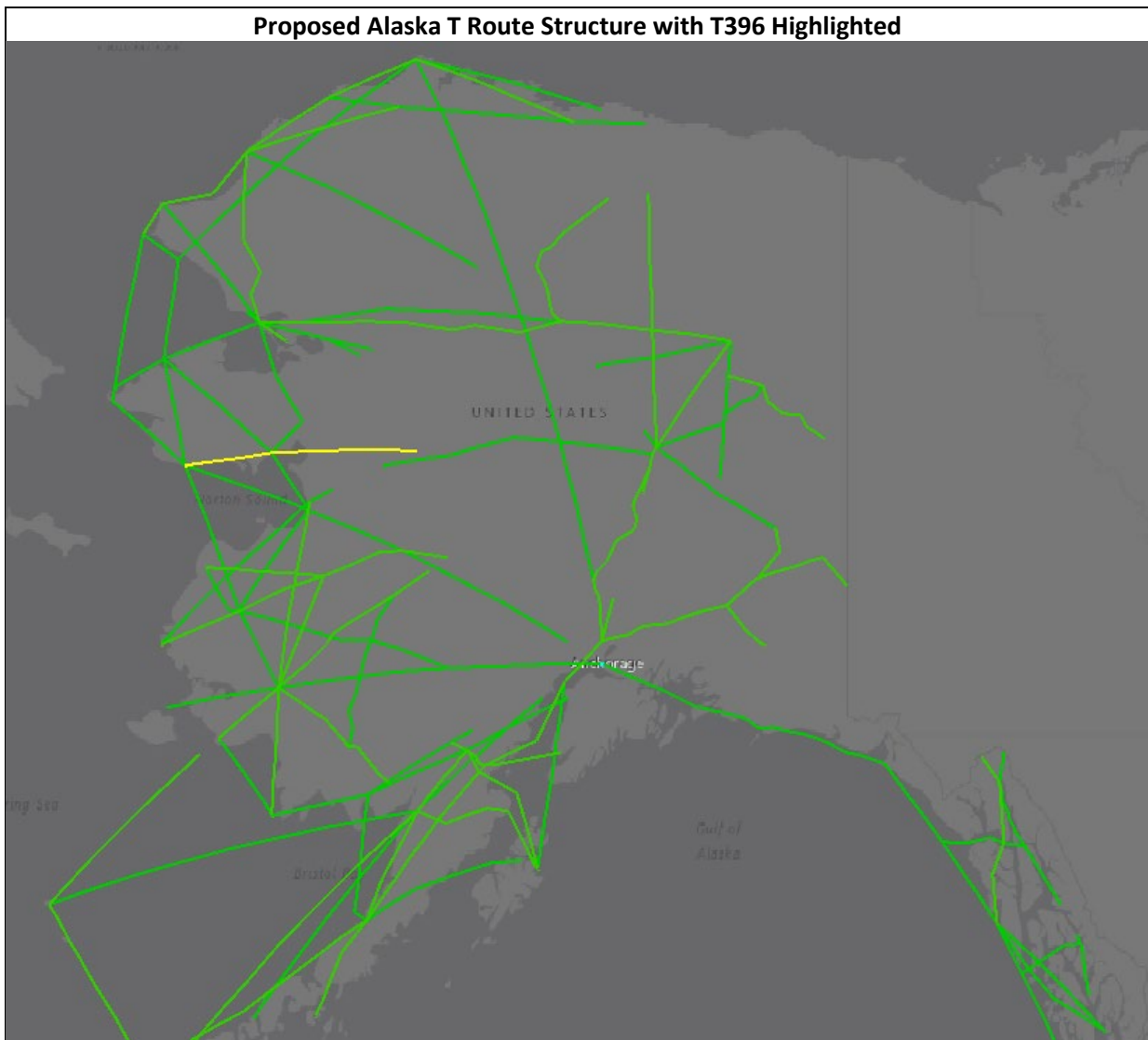
The following figure depicts historical tracks in the vicinity of the new T396.



The following figure identifies the location of historical properties (yellow circles), tribal areas (red dots), polar bear critical habitat (slate blue), and other federal lands (shown in legend) in the vicinity of the T route (thick orange), and historical flight tracks (light orange) from 2019.

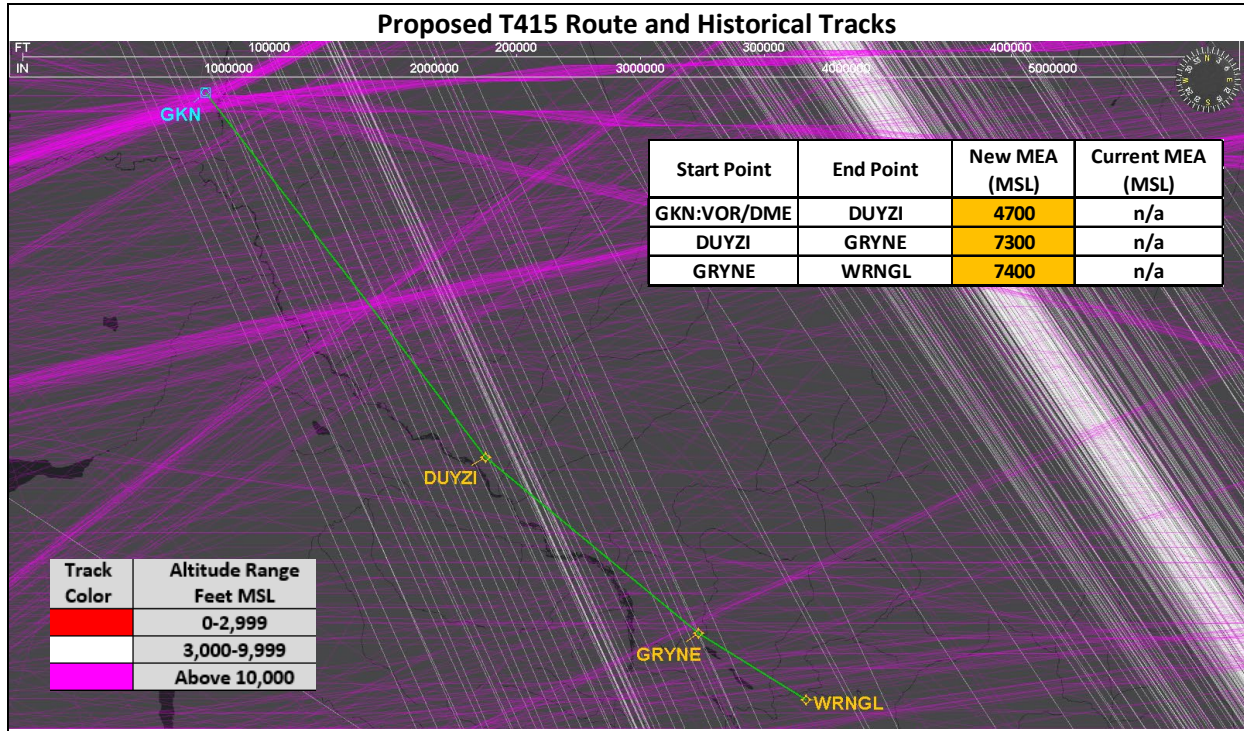


The following figure depicts the overview of T396 (yellow) and the other T routes (green) that are proposed to modernize Alaska's ATS route structure.

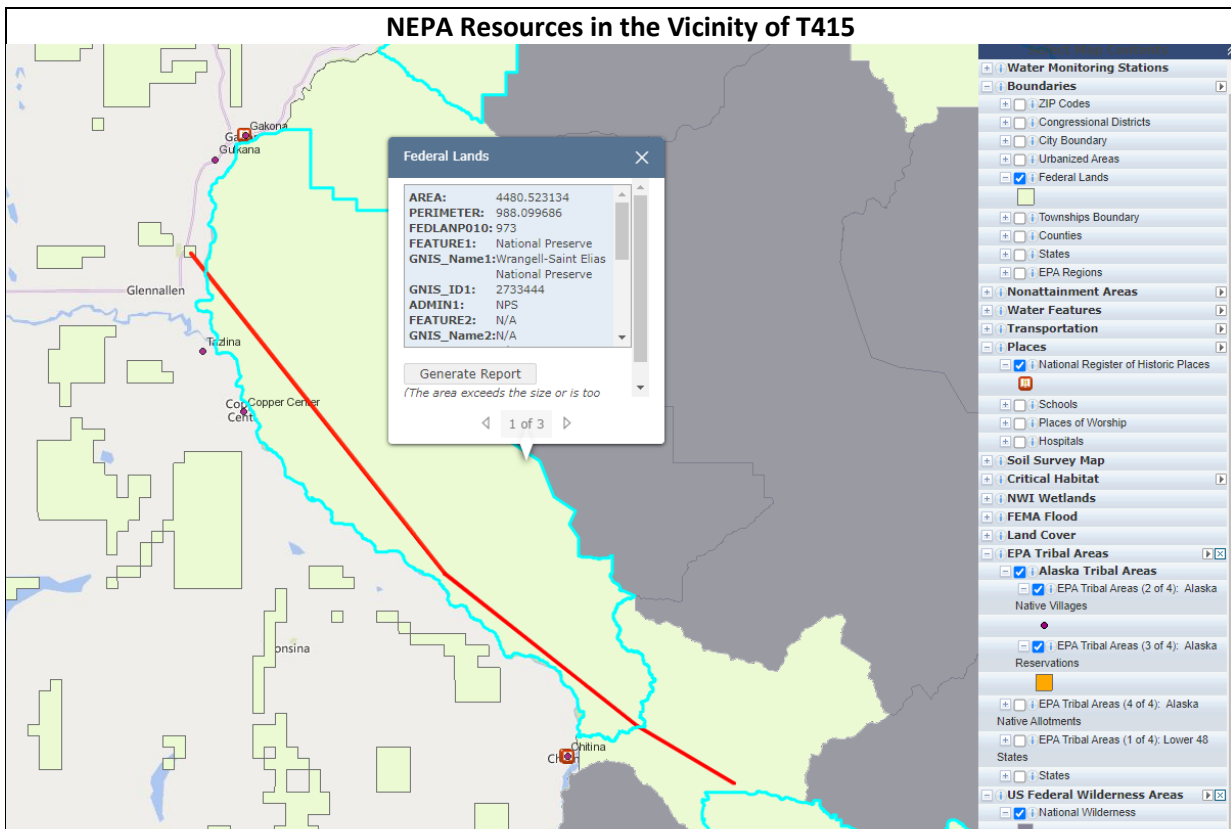


Proposed T415

The following figure depicts the overview of the proposed T415 route and historical tracks in the vicinity of T415 from 2019.

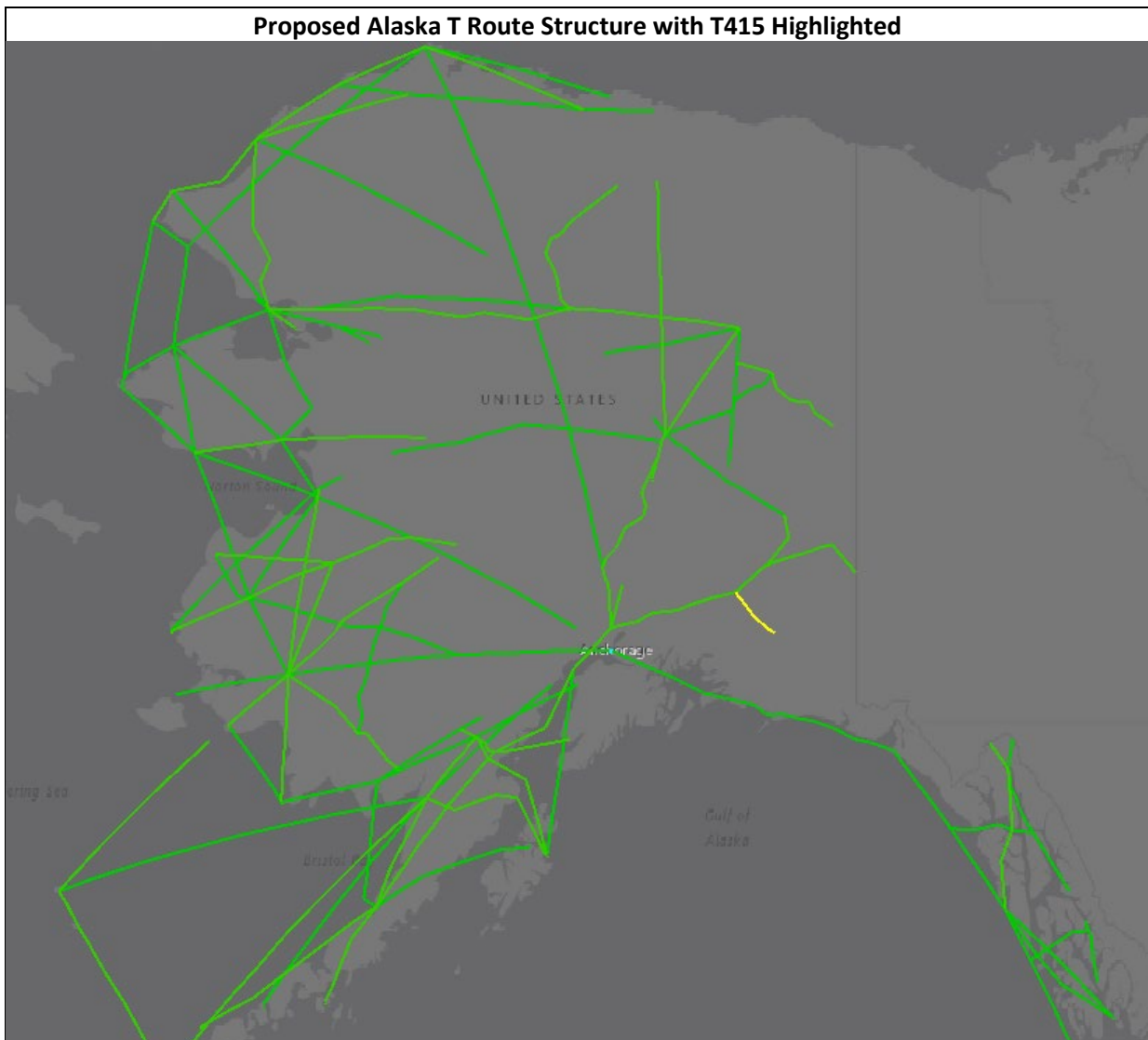


The following figure identifies the location of the tribal areas (red dots), Wrangell-Saint Elias National Preserve, and other federal lands in the vicinity of the T415 route (thick orange). The usage of the T415 route is uncertain at this point and will be determined in the future in conjunction with the pertinent arrival and departure procedures with which it would connect.



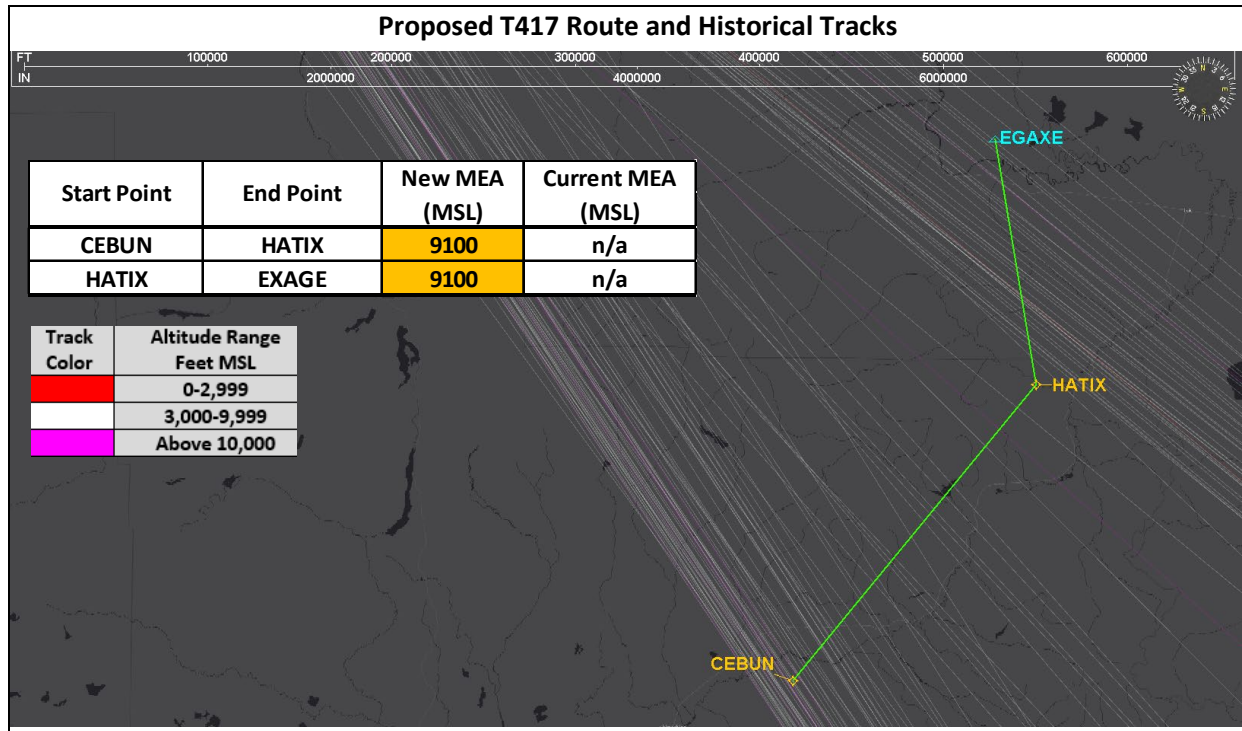
The proposed route is mostly over remote and sparsely populated areas along the Copper River.

The following figure depicts the overview of T415 (yellow) and the other T routes (green) that are proposed to modernize Alaska's ATS route structure.

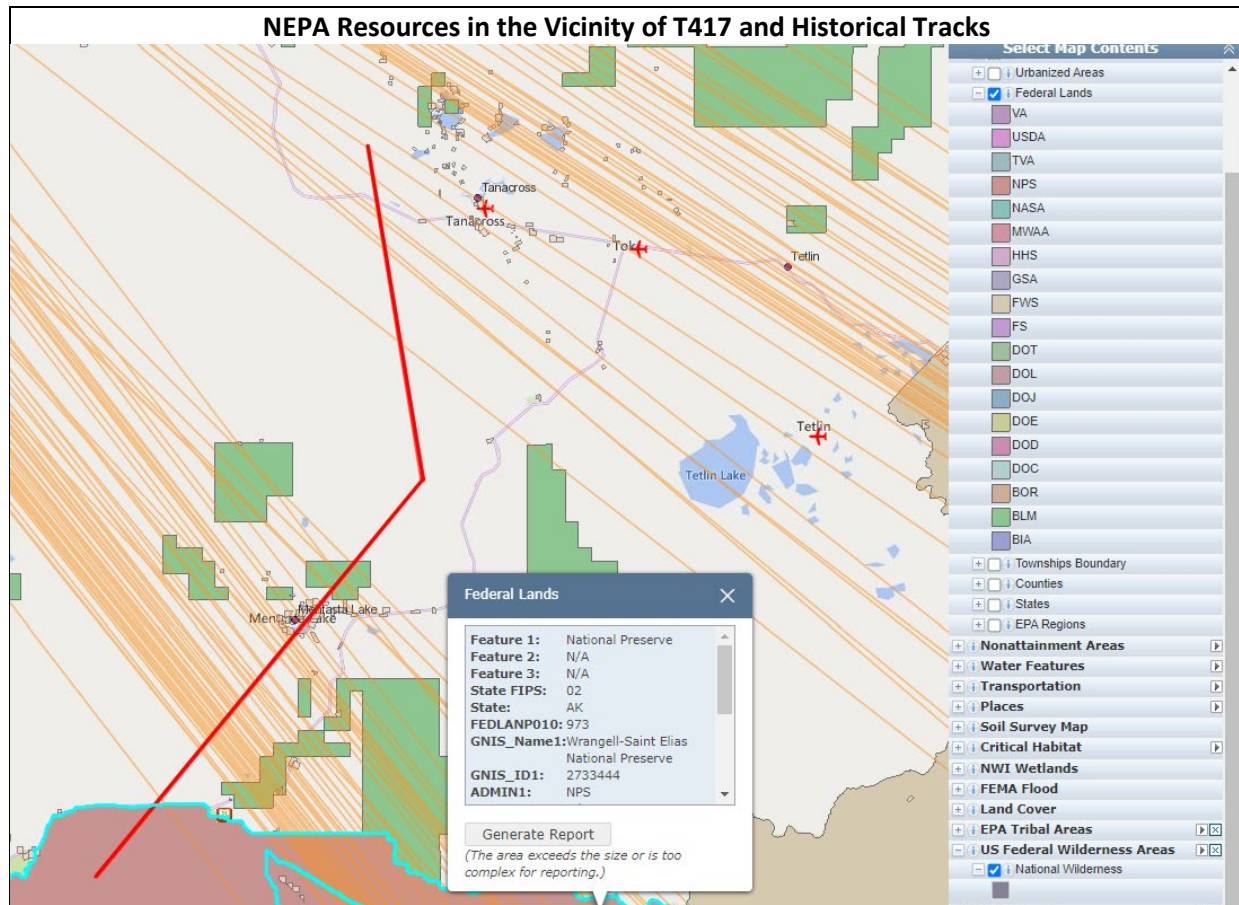


Proposed T417

The following figure depicts the overview of the proposed T417 route and historical tracks in the vicinity of T417.

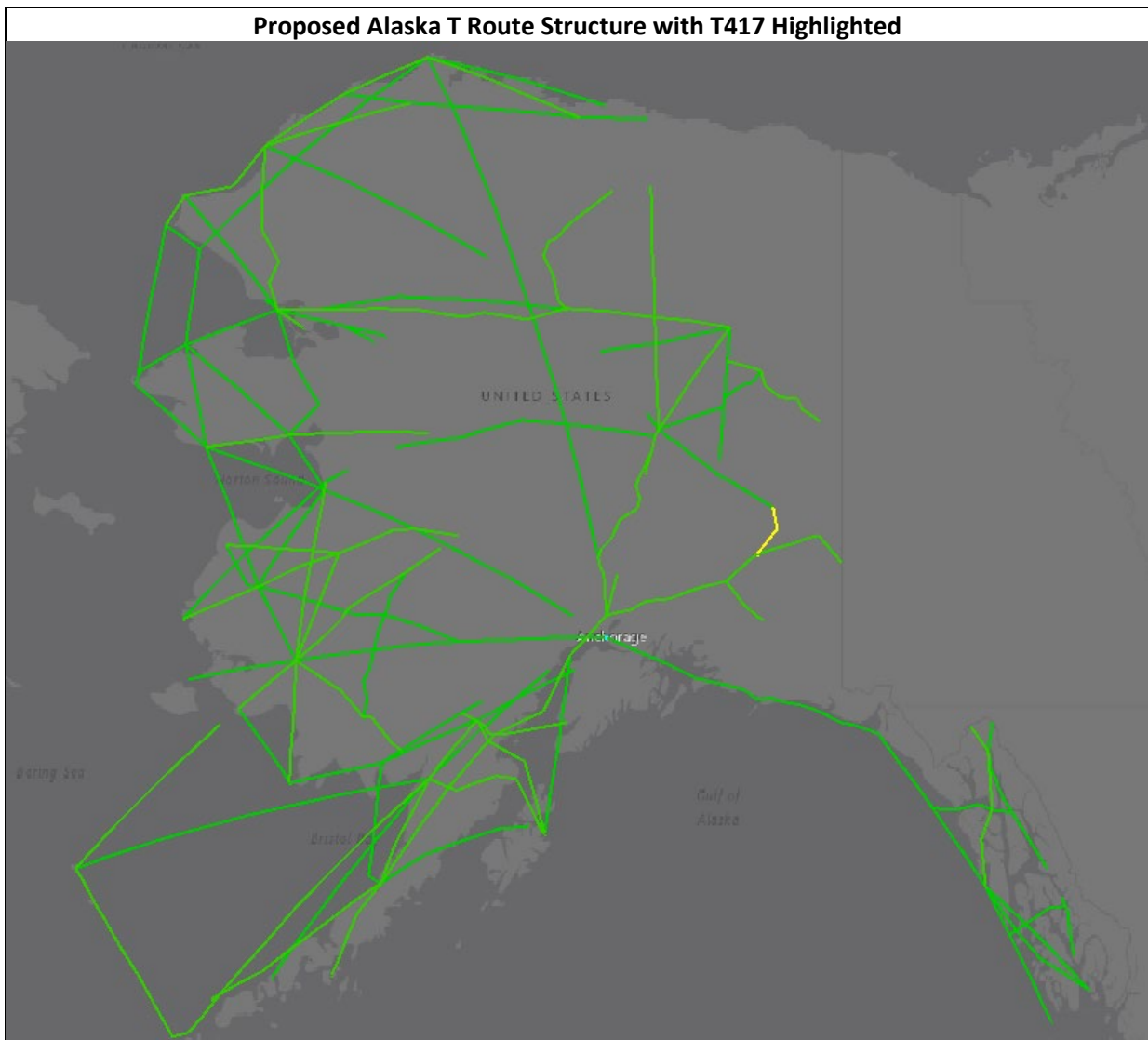


The following figure identifies the location of the tribal areas (red dots), National Preserve (brown), and other federal lands (shown in legend) in the vicinity of the T417 route (thick orange), and historical flight tracks (light orange) from 2019. The figure also shows some airports (aircraft icons) along the new T417 route. The usage of the T417 route is uncertain at this point and will be determined in the future in conjunction with the pertinent arrival and departure procedures with which it would connect.



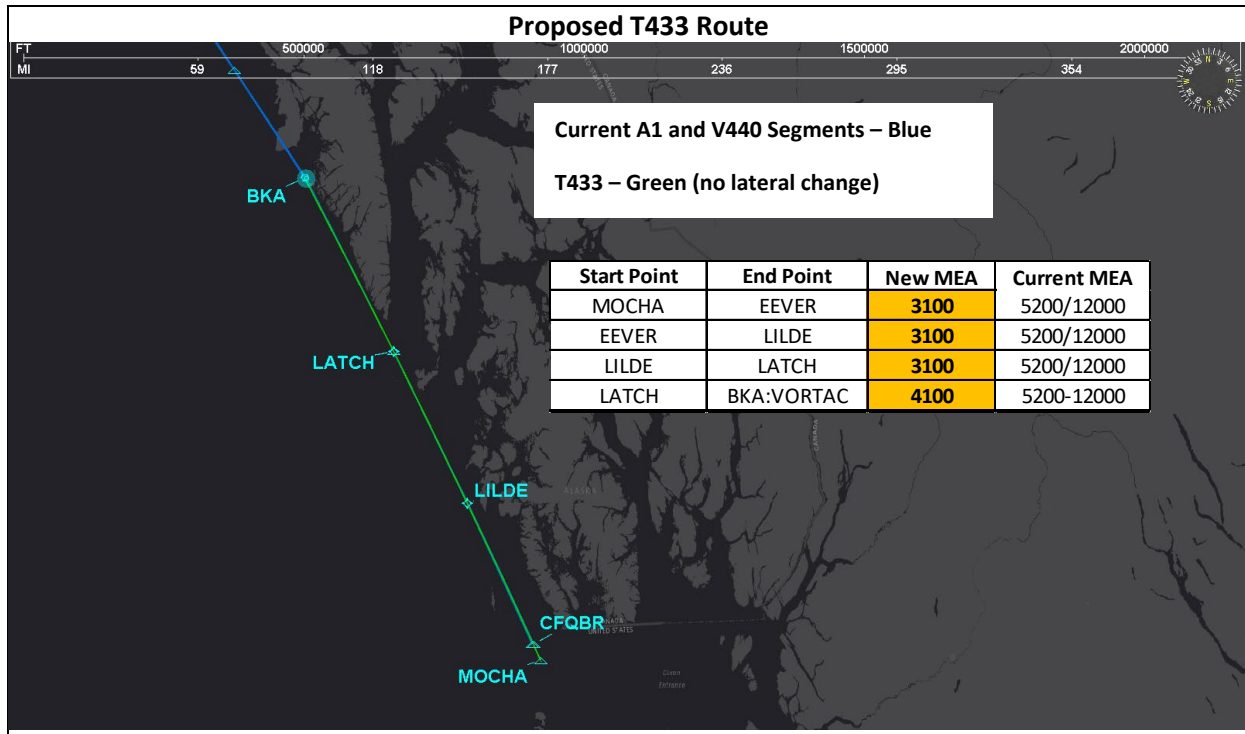
The proposed route is mostly over remote and sparsely populated areas.

The following figure depicts the overview of T417 (yellow) and the other T routes (green) that are proposed to modernize Alaska's ATS route structure.

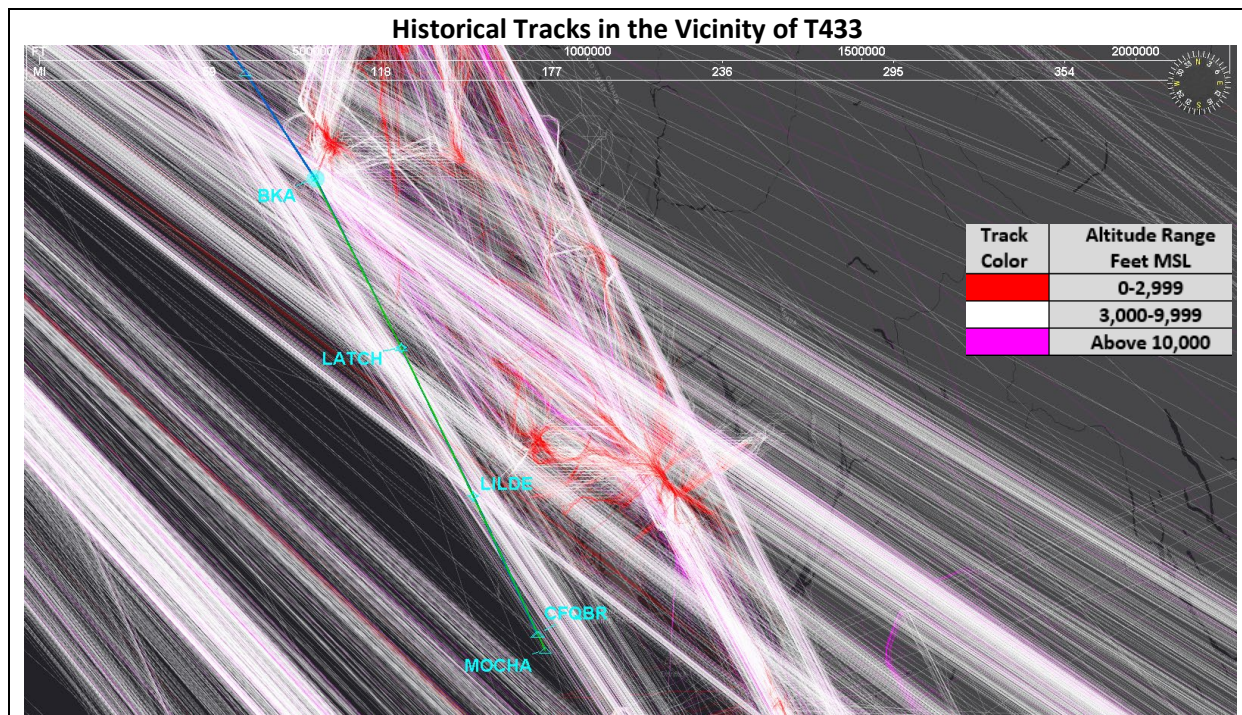


Proposed T433

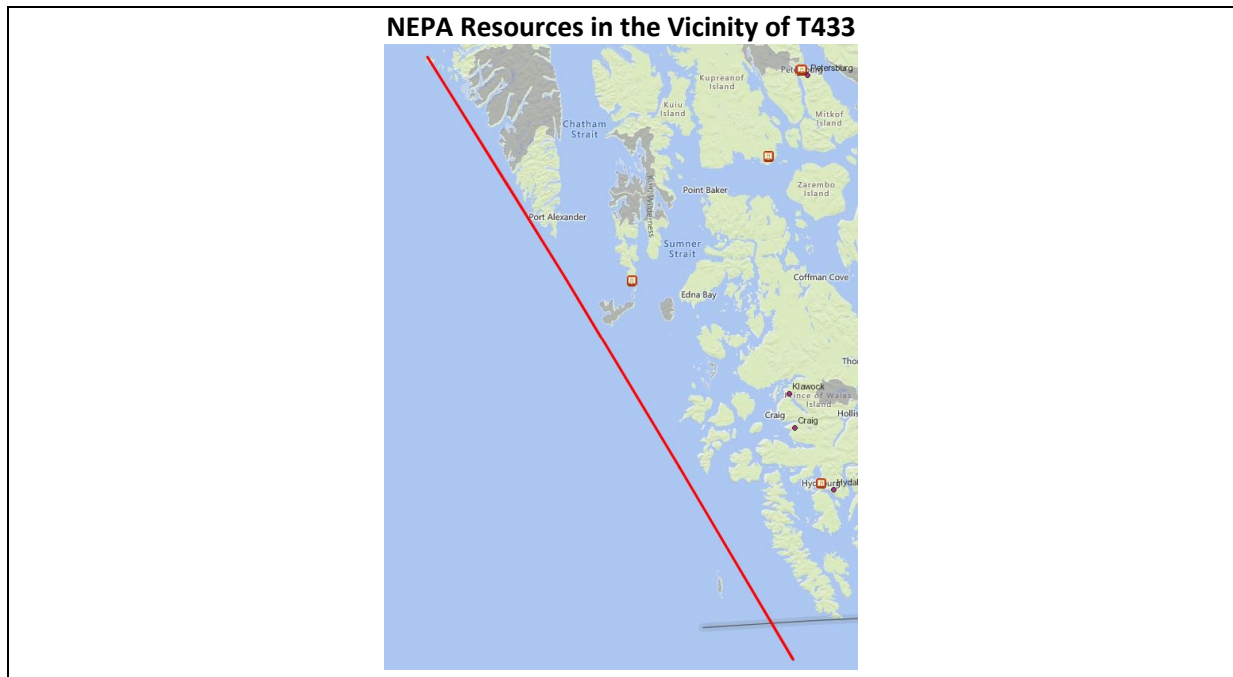
The following figure depicts the overview of the proposed T433 route.



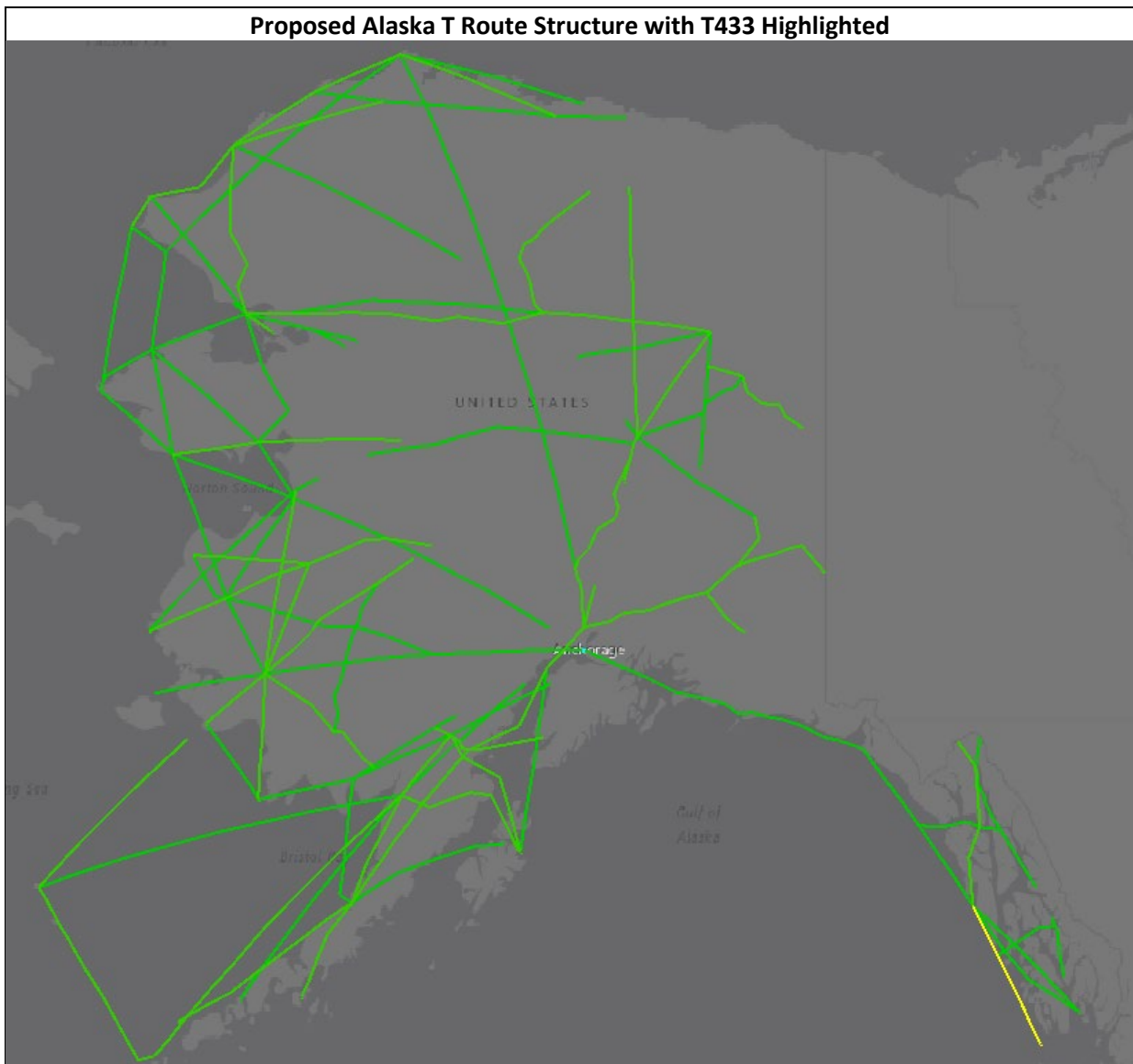
The following figure depicts historical tracks in the vicinity of the new T433.



The following figure shows that the route is over water.

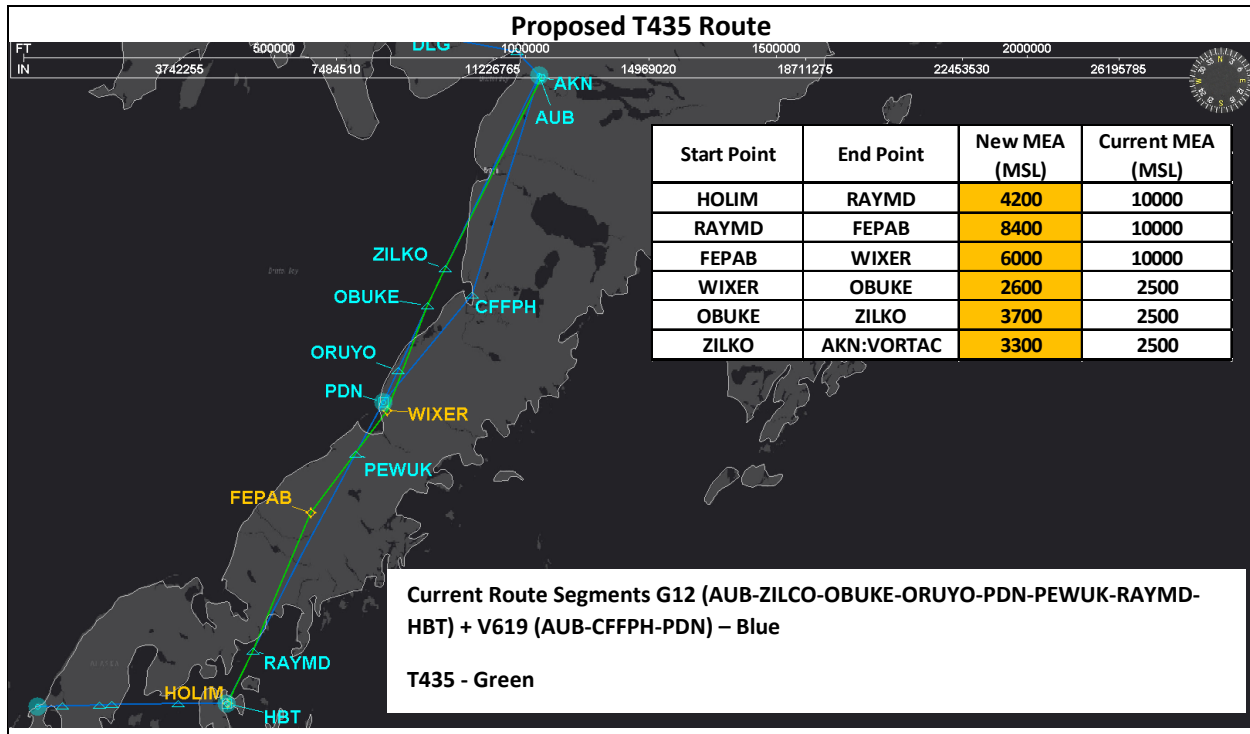


The following figure depicts the overview of T433 (yellow) and the other T routes (green) that are proposed to modernize Alaska's ATS route structure.

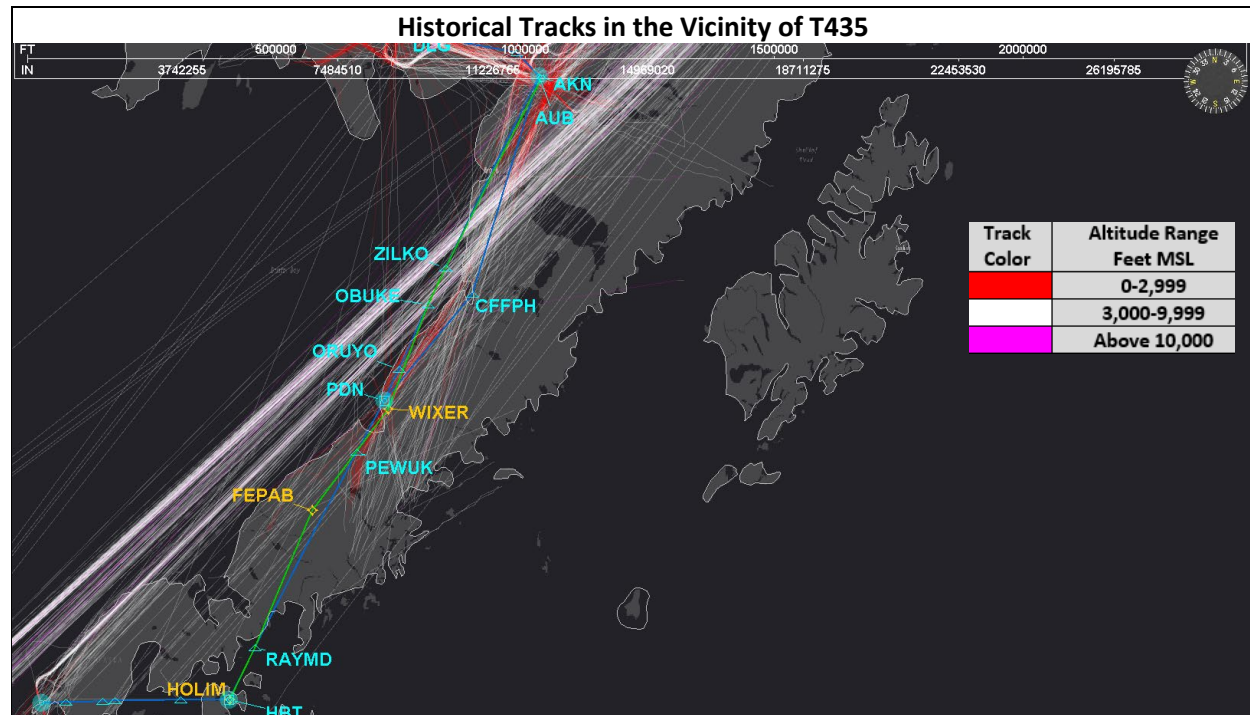


Proposed T435

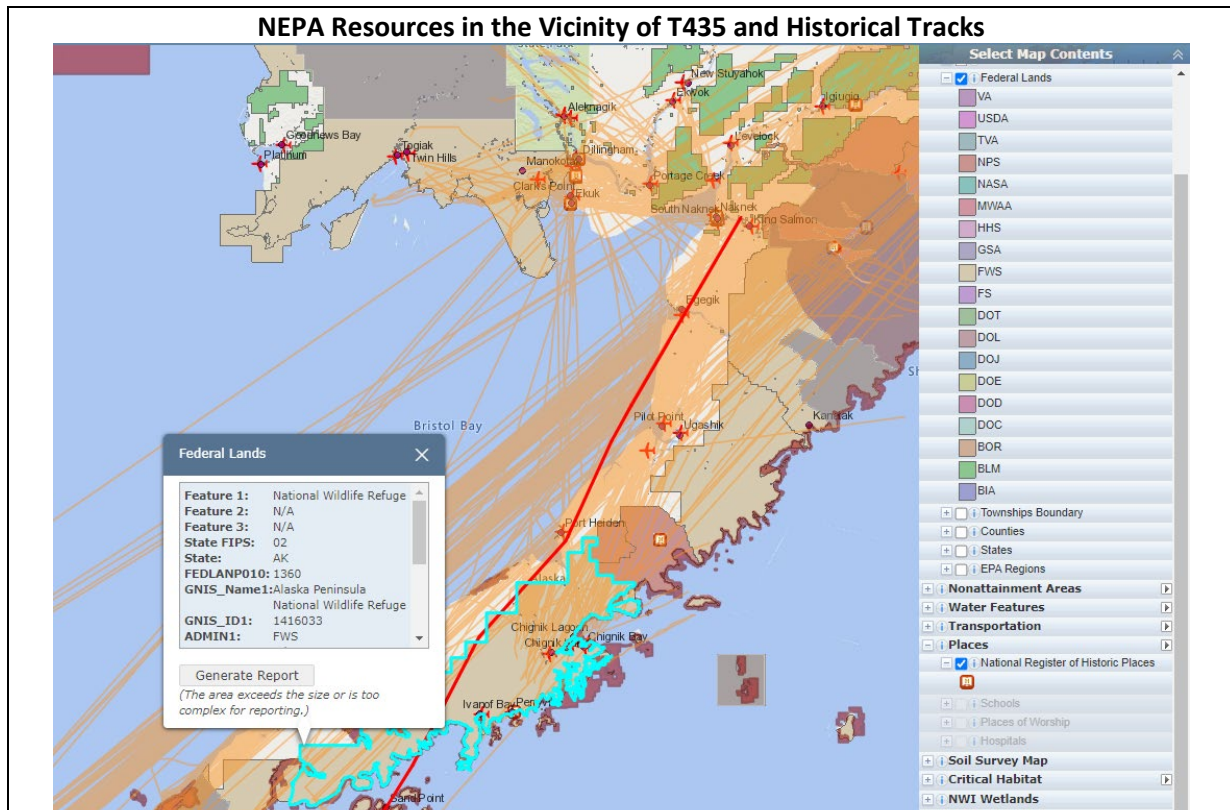
The following figure depicts the overview of the proposed T435 route.



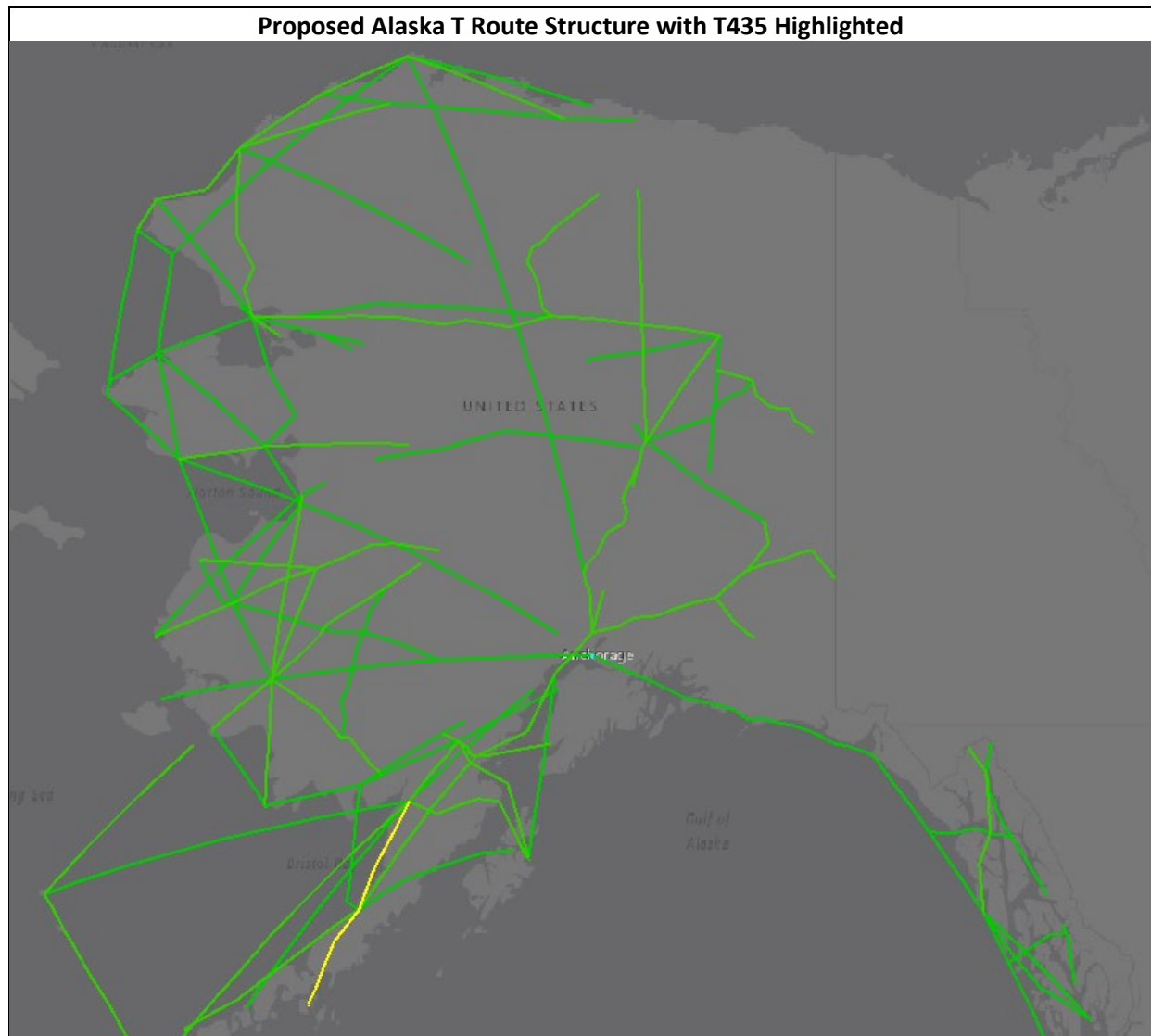
The following figure depicts historical tracks in the vicinity of the new T435.



The following figure identifies the location of the historical properties (brown icons), tribal areas (red dots), Northern Sea Otter critical habitat (brown areas), Alaska Peninsula National Wildlife Refuge, and other federal lands (shown in legend) in the vicinity of the T route (thick orange), and historical flight tracks (light orange) from 2019.



The following figure depicts the overview of T435 (yellow) and the other T routes (green) that are proposed to modernize Alaska's ATS route structure.



Appendix 5. Air Traffic Initial Environmental Review (IER)

Facility: Anchorage Air Route Traffic Control Center (ARTCC) Date: 12/30/2021

Prepared by: FAA Western Service Center, Operations Support Group Phone: 202-550-6876

NOTE: *This IER provides basic information about the proposed action to better assist in preparing for the environmental analysis phase of a proposed action. Although it requests information in several categories, not all the data may be available initially; however, it does represent information, in accordance with FAA Order 1050.1F, Environmental Impacts: Policies and Procedures, dated July 16, 2015, which ultimately will be needed for preparation of the appropriate environmental document. If the Instrument Flight Procedure (IFP) Environmental Pre-Screening Filter is used for initiating the environmental review process, and it passes the initial screening, then the IER is unnecessary. Additional guidance on the identification of potential environmental impacts by environmental category is available in FAA Order 1050.1F Desk Reference (1050.1F Desk Reference).*

Section 1. Proposed Project Description

Describe the proposed project. Include general information identifying procedure(s) and/or airspace action(s) to be implemented and/or amended. Identify the associated airports and/or facilities.

The Federal Aviation Administration (FAA) is proposing to modernize portions of the Alaska low altitude Air Traffic Services (ATS) route network by amending 25 existing T routes and creating 30 new T routes to provide options in addition to the current conventional Federal airways.

- 1.1. Describe the operational and/or environmental benefits that may result if the proposed action is implemented.

T routes are available for use by global positioning system (GPS) equipped aircraft from 1,200 feet (ft) above the surface (or in some instances higher) up to but not including 18,000 ft mean sea level (MSL). The Proposed Action would ensure low minimum en route altitudes (MEA) are maintained and ensure the continuation of safe and efficient operations. An MEA is the lowest published altitude between two points that assures the required navigational signal coverage and communication requirements while meeting obstacle clearance requirements between those points. Aircraft must be able to avoid icing, turbulence, and other conditions by having the ability to fly at the lowest possible safe altitude. However, aircraft on T routes tend to fly higher than the published MEAs.

The Proposed Action is necessary to mitigate the forecasted decommissioning (DeCom) of non-directional beacons (NDB) and canceling of Federal airways in Alaska. The current relevant Federal airways are named with a prefix of either A, B, G,

R, or V. An alternative airway structure must be developed given the lack of NDB acquisition, maintenance, sustainment programs, and the increasing number of NDBs that are being decommissioned. Without an alternative airway structure, aircraft would be forced to fly at higher altitudes; this would force instrument flight rules (IFR) aircraft that are not equipped with de-icing protection to fly closer to—or within—the icing level, which could potentially create a safety issue for the aircraft.

- 1.1.1.** Is a reduction of fuel cost and/or energy consumption anticipated as a result of the proposed action?

☐ Yes ☐ No ☒ N/A

Fuel consumption is not applicable to the purpose and need of the project.

- 1.1.1.a.** If so, can it be quantified, and how?

☐ Yes ☐ No ☒ N/A

Not applicable to the purpose and need of the project.

- 1.1.1.b.** If not quantifiable, describe the approximate anticipated benefits in lay terms.

Not applicable to the purpose and need of the project.

- 1.1.2.** Describe any additional operational and/or environmental benefits that may result from the proposed action.

No additional benefits are applicable to the purpose and need of the project.

- 1.2.** Describe the existing procedure(s) (the no action alternative) in full detail. Provide the necessary chart(s) depicting the current procedure(s). Describe the typical fleet mix, including (if possible) the number and types of aircraft on the route (both annually and average day) and depict their altitude(s) along the route.

Table 1 provides a list of the current T routes and a description of the amendments.

Table 2 provides a list of proposed new T routes that would provide alternatives to existing Federal airways. The tables also list the number of flight operations from 2019 for each route. The flight data was obtained from the FAA's Instrument Flight Procedures (IFP), Operations, and Airspace Analytics (IOAA) Tool (<https://sda.tc.faa.gov/AfsTools/#/>). The numbers of aircraft operations are not expected to change as a result of the Proposed Action.

Appendix A provides the graphics of individual T routes and relevant Federal airway segments.

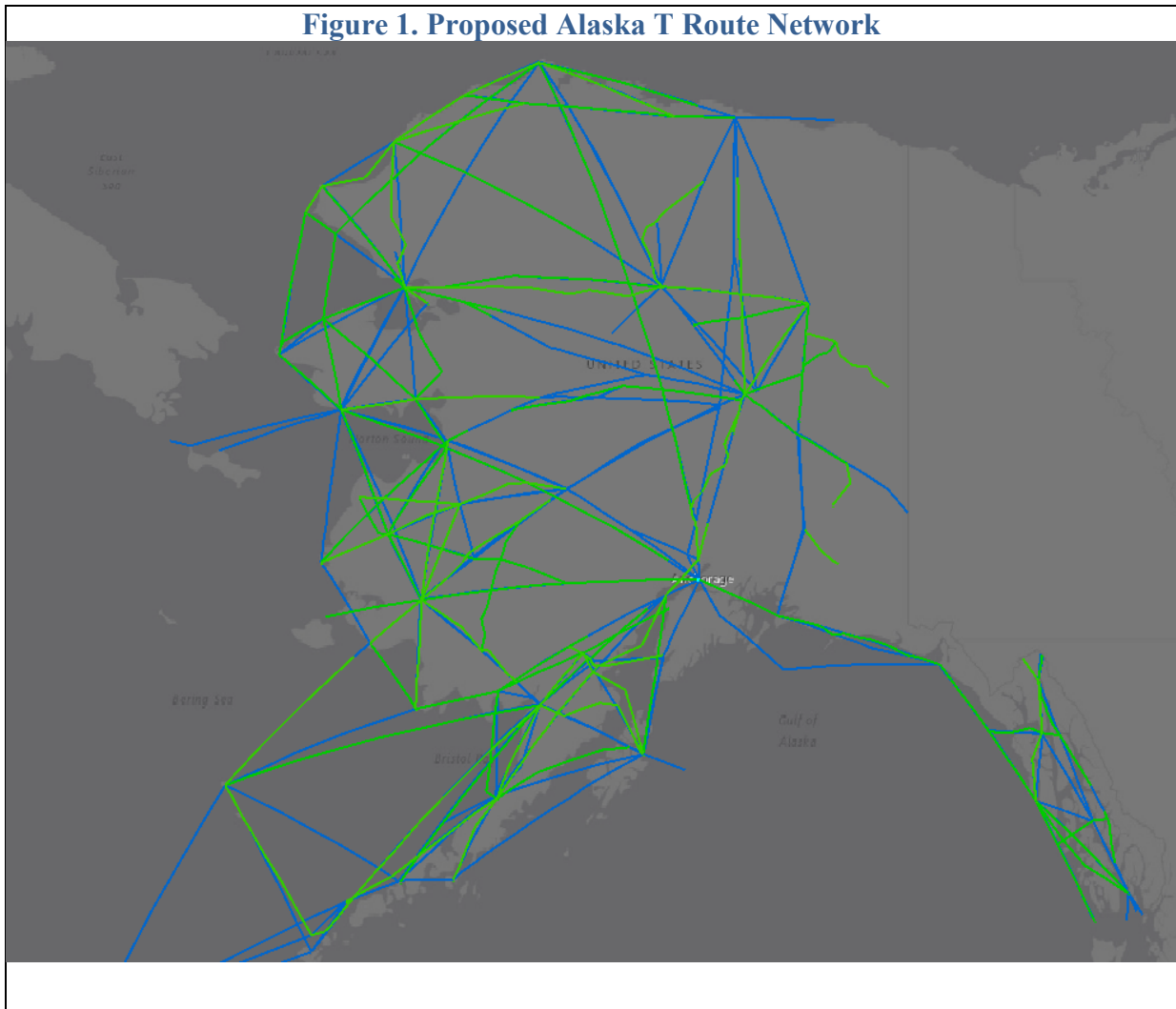
Table 1. Existing T Routes Proposed for Amendments		
T Route	Proposed Actions	2019 Operations on Current T Routes
T222	Reroute for lower MEAs (CABOT waypoint [WP]–UTICE WP), remove Aniak NDB (ANI), and cancel St Paul Island NDB (SPY)–BAERE WP segment.	8
T223	Replace Cape Newenham NDB (EHM) with ZIKNI WP as well as provide connectivity with T373.	12
T225	Lower MEAs and provide connectivity with T380, T369, and T367.	-
T226	Provide connectivity with T386.	1
T227	Replace Port Heiden NDB (PDN) with WIXER WP, reroute for lower MEAs, add PERZO WP, and provide connectivity with T385, T376, T394, and T378.	16
T228	Replace EHM with ZIKNI WP and Shishmaref NDB (SHH) with HIPIV WP. Provide connectivity with T235 and T364.	1
T229	Replace Point Hope NDB (PHO) with VANTY WP and lower MEA to match T231.	-
T230	Replace Chinook NDB (AUB) with King Salmon (AKN) Very High Frequency Omnidirectional Range/Tactical Air Navigation (VORTAC).	-
T231	Lower MEA to match T229.	3
T232	Add CUTUB WP to lower MEAs and add RIVOR WP.	20
T233	Extend from KORKY WP to Kotzebue (OTZ) Very High Frequency Omnidirectional Range/Distance Measuring Equipment (VOR/DME) as alternative to V401 and lower MEA. Replace Ambler NDB (AMF) with TOMPY WP and Evansville NDB (EAV) with Bettles (BTT) VOR/DME.	-
T235	Developed as alternative to G16 and would replace Nuiqsut Village NDB (UQS) with JATIL WP. Extend from JATIL WP to FILEV WP for G17 and Wainwright Village NDB (UKK) DeCom. Replace Atkasuk NDB (ATK) with ZISDU WP.	1
T241	Extended to provide connectivity with T266, T377, and T269.	-
T242	Provide connectivity with T381 and T235. Lower MEAs.	-
T244	Provide connectivity with T275 and T367.	2
T260	Replace PHO with VANTY WP and Tin City NDB (TNC) with FEDEV WP.	
T266	Alternative to A15 and B40. Extend from RADKE WP to Canadian Border at SPUTA WP and provide connectivity with T241.	20
T267	Alternative to B3 and G18. Replace ATK with ZISDU WP.	18
T269	Alternative to A1, reroute to accommodate lower MEAs, remove Nanwak NDB (AIX), and add connectivity with T379 and T241.	651

T270	Replace SHH with HIPIV WP and Norton Bay NDB (OAY) with HALUS WP.	-
T271	Provide connectivity with T385.	7
T275	Extend to ZIKNI WP as alternative to B7 and Oscarville NDB (OSE) DeCom, provide connectivity with T244, T367, T380, V453, and T382.	7
T277	Replace Point Lay NDB (PIZ) with JODGU WP.	-
T278	Alternative to B37, reroute to accommodate lower MEA, provide connectivity with T266 and extend to Sisters Island (SSR) VORTAC–RADKY WP segment.	24
T282	Reroute for lower MEAs.	2

Table 2. New T Routes to Replace Existing Airways		
T Route	Proposed Actions	2019 Operations on Current Federal Airway Segments
T308	Replacement for V510 segment and Anvik NDB (ANV) DeCom.	2,810
T364	Alternative to B2 and B8 segments.	39
T366	Alternative to B2 and G16 segments. Add JATIL WP to support UQS and UKK DeComs.	37
T367	Alternative to B3, A6, and B2 segments. Support OAY, Cape Lisburne NDB (LUR), Hotham NDB (HHM), St Marys NDB (SMA), and North River NDB (JNR) DeComs.	53
T368	Alternative to B27 and V506 segments.	121
T369	Alternative to B27 segments.	82
T370	Alternative to G4/V351 segments and support PDN and Iliamna NDB (ILI) DeComs.	139
T371	Alternative to G10 segments and provide access to Kodiak and Homer airports.	2
T372	Alternative to G11, A2, and A15 segments. Provide connectivity with Canadian L646 at OLARU WP.	29
T373	Alternative B27 and R50 segments. Add WEREL WP to support OSE and ANV DeComs.	82
T374	Alternative to A5, B4, and T233 segments to provide lower MEAs and support EAV and Yukon River NDB (FTO) DeComs.	13
T375	Alternative to A9 and A4 segments. Support Anaktubuk Pass NDB (AKP) and EAV DeComs.	10
T376	Alternative to G8 and R99 segments. Support operations at Iliamna airport	54
T377	Alternative to A1 and B28 segments.	582

T378	Alternative to B4 segments and provide published routing through mountainous terrain. Connectivity with T227.	12
T379	Provide published routing to avoid Special Use Airspace and connect with T222, T269, and T373.	-
T380	Alternative to G6 and V508 segments. Support decom of SMA, ANI, CRN NDBs. Separation from STONY military operations areas (MOAs).	123
T381	Alternative to B26, V436, and V438 segments with lower MEAs. Support FTO DeCom.	3,630
T382	Alternative to G15, V496, and V510 segments and support SMA DeCom.	3,059
T383	Alternative to A15, B38, V428, and V593 segments. Connectivity with Canadian L686. Support HNS, EEF, SIT NDB DeComs. IAP connectivity for Juneau Airport	13
T384	Provide access to Eagle Airport and provide a route between Fairbanks (FAI) VORTAC and DEYEP WP.	-
T385	Alternative to B12 segments.	1
T386	Provide a published route over terrain. Access to PACE (Central), connectivity with T226.	-
T388	Alternative to G10 segments. Support PDN, RWO NDB DeComs.	2
T390	Alternative to R99 segments and support PDN, ILI, and AUB DeComs.	48
T394	Alternative to T376 with lower MEA.	54
T396	Alternative to G7 and V452 segments. Support Moses Point (MOS) VOR/DME DeCom.	723
T415	Provides access to McCarthy Airport.	-
T417	Provides access to Tok Junction Airport.	-
T433	Alternative to A1 segments and support Sitka NDB (SIT) DeCom.	573
T435	Alternative to G12 and V496 segments. Support PDN and AUB DeComs.	347

Figure 1 depicts the proposed T route tracks in green superimposed on the relevant existing route tracks in blue.



Due to the volume of routes, these T routes are scheduled to be implemented in 4 phases.

- 1.3.** Describe the proposed action, providing the necessary chart(s) depicting changes. Describe anticipated changes to the fleet mix, numbers of aircraft on the new routes and their altitude(s), if any.

Table 1, Table 2, and Figure 1 (shown in Section 1.3) provide the description of the Proposed Action. It is anticipated that adequately equipped turboprop-type aircraft would use Alaska T routes, although propeller-driven aircraft and jets could potentially use the T routes if needed. **Appendix A** provides the graphics of individual T route designs with MEA changes highlighted.

- 1.3.1.** Has airspace modeling been conducted using Sector Design Analysis Tool (SDAT), Aviation Environmental Screening Tool (AEST), Terminal Area Route Generation, Evaluation, and Traffic Simulation (TARGETS), or another airspace/air traffic design tool?

☒ Yes. Model: TARGETS ☐ No

If yes, provide a summary of the output from the modeling.

All T routes shown in **Appendix A** were designed in TARGETS.

- 1.3.2.** Will there be actions affecting changes in aircraft flights between the hours of 10 p.m. – 7 a.m. local?

☒ Yes ☐ No

Describe: T routes are designed to be available at all times.

- 1.3.3.** Are any noise abatement programs presently in effect for the affected airport(s), formal or informal?

☐ Yes ☐ No ☒ N/A

Describe: T routes, although providing en route connectivity between Alaska airports, are not relevant for airport noise abatement programs.

- 1.3.4.** Will airport preferential runway configuration use change as a result of the proposed action?

☐ Yes ☐ No ☒ N/A

Explain: T routes, while providing en route connectivity between Alaska airports, would not determine or affect runway configuration use.

- 1.3.5.** Is the proposed action primarily designed for Visual Flight Rules (VFR), Instrument Flight Rules (IFR) operations, or both?

☐ VFR ☒ IFR ☐ Both

If the proposed action specifically involves a charted visual approach (CVA) procedure, provide a detailed local map indicating the route of the CVA, along with a discussion of the rationale for how the route was chosen.

N/A.

- 1.3.6.** Will there be a change in takeoff power requirements?

☐ Yes ☐ No ☒ N/A

If so, what types of aircraft are involved, i.e., general aviation propeller-driven versus large air carrier jets?

1.3.7. Will all changes occur over 3,000 feet above ground level (AGL)?

☐ Yes ☒ No

T routes are available for use from 1,200 ft AGL (or in some instances higher) up to but not including 18,000 ft (MSL). Generally, aircraft on T routes tend to fly higher than the published MEAs.

1.3.8. What is the lowest altitude on newly proposed routes or on existing routes that will receive an increase in operations?

An increase in operations is not part of the purpose and need for the Proposed Action.

1.3.9. Will there be actions involving civil jet aircraft arrival procedures between 3,000-7,000 feet AGL or departures between 3,000-10,000 feet AGL?

☐ Yes ☒ No

It is anticipated that mostly turboprop-type aircraft would use Alaska T routes, although jets could potentially use the T routes if needed.

Section 2. Purpose and Need

- 2.1.** Describe the purpose and need for the proposed action. Present the problem being addressed and describe what the FAA is trying to achieve with the proposed action. The purpose and need for the proposed action must be clearly explained and stated in terms that are understandable to individuals who are not familiar with aviation or commercial aerospace activities. If detailed background information is available, summarize here and provide a copy as an attachment to this review.

The FAA is proposing to modernize the Alaska low altitude ATS route network by amending 25 existing T routes and creating 30 new T routes to provide options in addition to the current conventional Federal airways.

T routes are available for use by GPS equipped aircraft from 1,200 ft above the surface (or in some instances higher) up to but not including 18,000 ft MSL. The Proposed Action would ensure low MEAs are maintained and ensure the continuation of safe and efficient operations. An MEA is the lowest published altitude between two points that ensures the required navigational signal coverage and communication requirements while meeting obstacle clearance requirements between those points. Aircraft must be able to avoid icing, turbulence, and other conditions by having the ability to fly at the lowest possible safe altitude. However, aircraft on T routes tend to fly higher than the published MEAs.

The Proposed Action is necessary to mitigate the forecasted NDB DeComs and Federal airway cancellations in Alaska. The current relevant Federal airways are named with a prefix of either A, B, G, R, or V. A replacement airway structure must be developed,

given the lack of NDB acquisition, maintenance, and sustainment programs and the increasing number of NDBs taken out of service. Without an alternative airway structure, aircraft would be forced to fly at higher altitudes; this would force IFR aircraft that are not equipped with de-icing protection to fly closer to—or within—the icing level, which could potentially create a safety issue for the aircraft.

The Proposed Action is driven by an effort to modernize Alaska's ATS route structure using satellite-based navigation and is consistent with the Radio Technical Commission for Aeronautics (RTCA) Tactical Operations Committee's recommendations for the Performance Based Navigation (PBN) route system (dated March 2017). The Alaska Low Altitude Recommendation 5 states that the *"FAA should evaluate all Colored Federal airways for: (a) direct replacement (i.e., overlay) with a T route that offers a similar or lower MEA; (b) the replacement of the colored airway with a T route in an optimized but similar geographic area while retaining similar or lower MEA; or (c) removal with no route structure (T route) restored in that area because the value was determined to be insignificant."*

In addition to RTCA recommendations, specific T routes were proposed jointly by the Aircraft Owners & Pilots Association (AOPA) and Alaska Airmen's Association (AAA). Furthermore, some proposed amendments are driven by recommendations from Alaska air traffic control facilities.

2.1.1. Is the proposed action the result of a user or community request or regulatory mandate?

☒ Community Request ☐ Regulatory Mandate ☒ User Request.

2.1.2. If not, describe what necessitates this proposed action:

Section 3. Alternatives

3.1. Are there alternatives to the proposed action?

☒ Yes ☐ No

If yes, describe any alternatives to the proposed action.

The no action alternative is the only alternative to the Proposed Action.

3.2. Please provide a summary description of eliminated alternatives and the reasons for their elimination.

The no action alternative does not meet the purpose and need of the Proposed Action.

Section 4. Environmental Review and Evaluation

The determination of whether a proposed action may have a significant environmental effect is made by considering requirements applicable to the specific environmental impact categories discussed below (see FAA Order 1050.1F, Appendix B).

4.1. Describe the Affected Environment

4.1.1. Describe the existing land use, including noise sensitive areas (if any) in the vicinity of the proposed action.

Figure 3 shows all proposed T routes structure (orange lines) superimposed on noise sensitive areas such as wilderness areas (grey), parks/game preserves (green), tribal villages (red dots), and historical properties (brown icons). Most areas in Alaska are sparsely populated. As a comparison, **Figure 4** shows air traffic in Alaska with proposed T routes indicating that the noise sensitive areas in **Figure 3** may already experience overflights. **Appendix A** provides a more detailed view of land use for each T route.

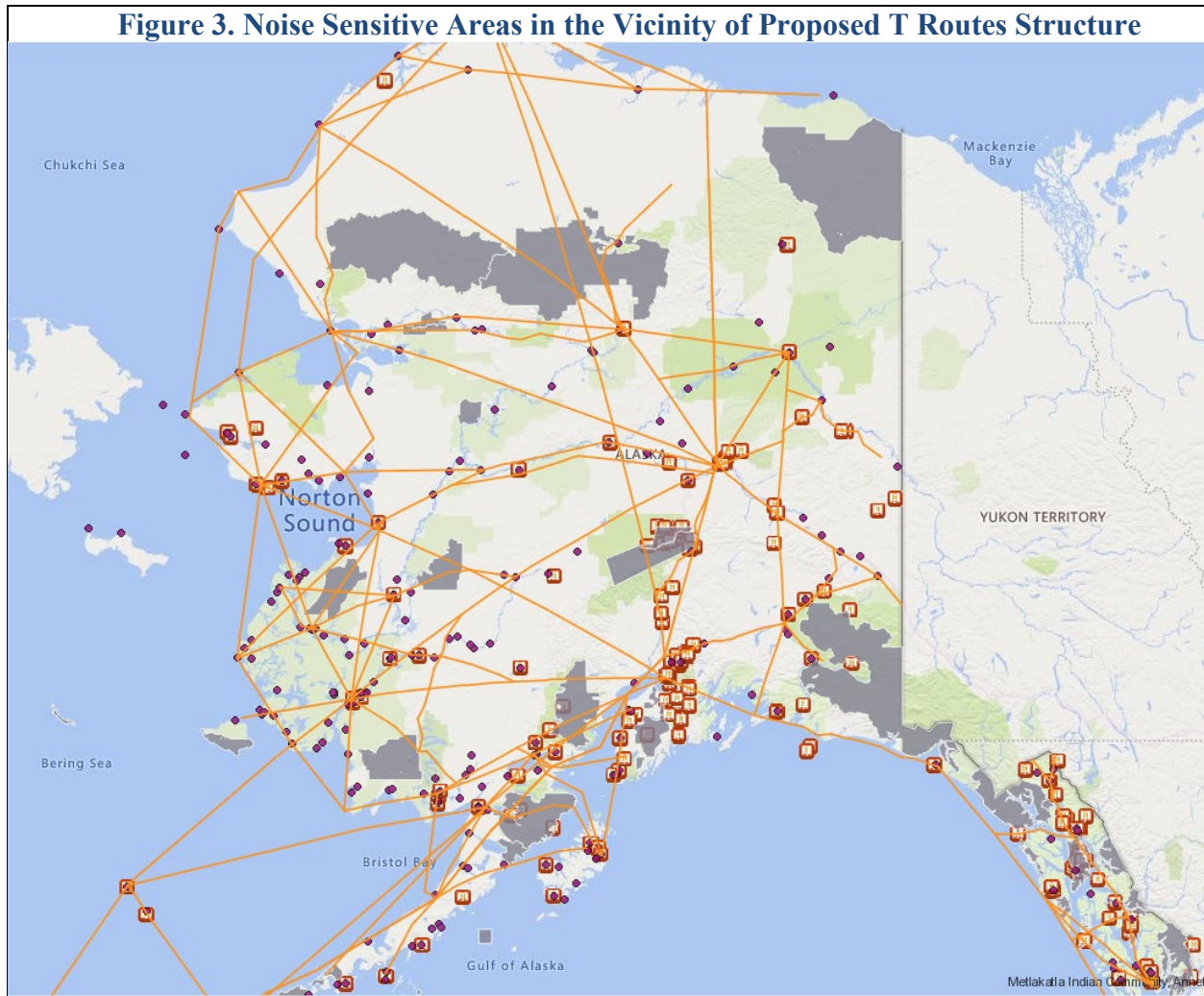
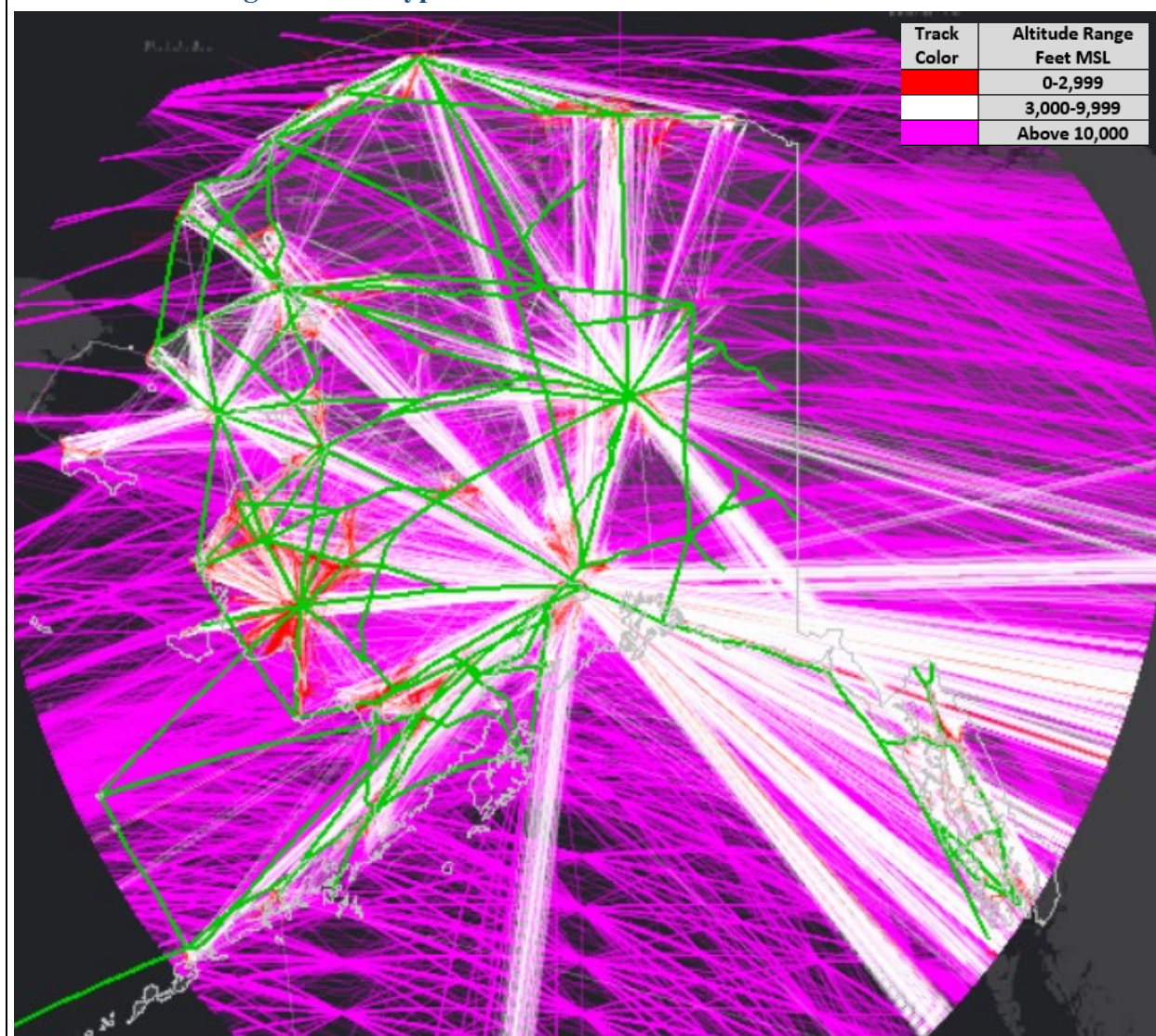


Figure 4. All Types of Aircraft Tracks from 12 Weeks of 2019



- 4.1.2. Will the proposed action introduce air traffic over noise sensitive areas not currently affected?

☐ Yes ☒ No

Describe: **Appendix A** provides the graphics of individual T route designs that show that most T routes will overlay the existing routes. In some instances, the new T routes move laterally compared to the existing routes. However, these areas currently experience overflights.

4.2. Environmental Consequences

As stated in FAA Order 1050.1F, Paragraph 5-2.b., extraordinary circumstances exist when a proposed action meets both of the following criteria:

- 4.2.a. Involves any of the following circumstances below; and

4.2.b. May have a significant impact (see 40 CFR 1508.4).

The proposed action does not involve land acquisition, physical disturbance, or construction activities. The following environmental impact categories were assessed and were deemed either not to be present or to have negligible or non-existent effects from the Proposed Action and, in accordance with Council on Environmental Quality (CEQ) regulations, did not warrant further analysis:

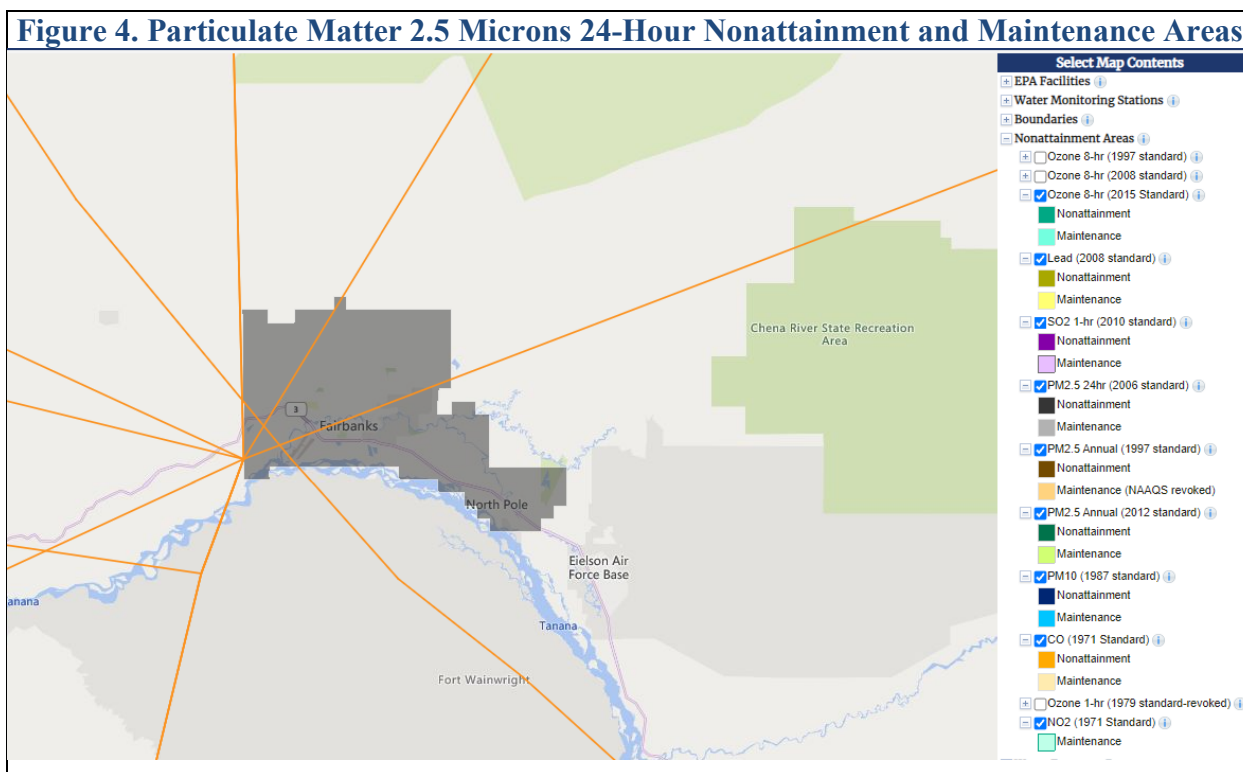
- Biological resources (including fish, wildlife, and plants)
- Climate
- Coastal resources
- Farmlands
- Hazardous materials, solid waste, and pollution prevention
- Land use
- Natural resources and energy supply
- Socioeconomic impacts and children's environmental health and safety risks
- Water resources (including wetlands, floodplains, surface waters, groundwater, and wild and scenic rivers)
- Visual effects

4.2.1. Air Quality

Has research been conducted to identify areas of concern or communication with air quality regulatory agencies to determine if the affected area is a non-attainment area (an area which exceeds the Clean Air Act (CAA) National Ambient Air Quality Standards (NAAQS) for the following criteria air pollutants: ozone, carbon monoxide, lead, particulate matter, sulfur dioxide, or nitrogen dioxide) or maintenance area (an area which was in non-attainment but subsequently upgraded to an attainment area) concerning air quality?

☒ Yes ☐ No

Comment: **Figure 4** shows the only criteria air pollutants area in Alaska in the vicinity of relevant T routes.



Evaluation: Will implementation of proposed action result in an impact on air quality or a violation of local, state, tribal, or federal air quality standards under the Clean Air Act amendments of 1990? (See FAA Order 1050.1F, Paragraph 5-2.b.(8), the Air Quality Handbook, and 1050.1F Desk Reference, Chapter 1 for details on how to make the determination.)

☐ Yes ☒ No

Comment:

The Proposed Action is intended to enhance operational safety and efficiency. Additionally, the Proposed Action would not change project-related aircraft emissions below 3,000 feet AGL. The Proposed Action is not intended to change the number of aircraft operations and/or aircraft fleet mix. The Proposed Action is presumed to conform to the State Implementation Plan (SIP). The Proposed Action is a type of action that promotes the safe, orderly, and expeditious flow of aircraft traffic—including airport, approach, departure, and en route air traffic control (ATC) procedures—and, therefore, is presumed to conform as emissions from this type of action are below the applicable *de minimis* levels (40 CFR 93.153(c)(2)(xxii)).

The Environmental Protection Agency (EPA) regulations identify certain actions that would not exceed these thresholds, including ATC activities and adoption of approach, departure, and en route ATC procedures for aircraft operations above the mixing height specified in the applicable SIP (or 3,000 feet AGL) in places without an established mixing height. FAA Order 1050.1F provides that further

analysis for National Environmental Policy Act (NEPA) purposes is normally not required where emissions do not exceed the EPA's *de minimis* thresholds. Therefore, the implementation of the Proposed Action is not expected to affect air quality and is presumed to conform as Category 14, "Air Traffic Control Activities and Adopting Approach, Departure and Enroute Procedures for Air Operations," as identified in the General Conformity Rule, 72 Fed. Reg. 41565–41580 (July 30, 2007).

4.2.2. Biological Resources (including Marine Mammals; Wildlife and Waterfowl; Endangered/Threatened Species; Critical Habitat)

4.2.2.1. Are wildlife and/or waterfowl refuge/management areas, protected or critical habitats within the affected area of the proposed action?

☒ Yes ☐ No ☐ N/A

Identify:

Appendix A identifies wildlife refuge/management areas and protected or critical habitats, if any, in the vicinity of each T route. In addition, the U.S. Fish & Wildlife Service's Information for Planning and Consultation (IPAC) tool was used to identify endangered/threatened species, including birds.

4.2.2.2. If so, has there been any communication with the appropriate wildlife management regulatory agencies (federal or state) agencies to determine if endangered or protected species inhabit the area?

☐ Yes ☒ No ☐ N/A

If yes, identify endangered or protected species.

4.2.2.3. At what altitude would aircraft overfly these habitats?

Generally, aircraft on T routes would fly higher than 2,000 ft AGL.

4.2.2.4. During what times of the day would operations be more/less frequent?

The utilization frequency, times of the day, and conformance of each T route usage are not predictable. However, as shown in **Table 1**, no routes were used more than 10 times a day in 2019. This is not anticipated to change.

Evaluation: Will implementation of the proposed action result in an impact on natural, ecological or biological resources of federal, tribal, state, or local significance (for example, federally listed or proposed endangered, threatened, or candidate species or proposed or designated critical habitat under the Endangered Species Act)? (See FAA Order 1050.1F, Paragraph 5-2.b.(3), and 1050.1F Desk Reference, Chapter 2 for details on how to make the determination.)

4.2.2.a. ☐ Yes

Comment:

4.2.2.b. ☒ No. An impact to biological resources is not anticipated. See Section 4.2.

4.2.3. Climate

NOTE: *The FAA has not established a significance threshold for climate. The Council on Environmental Quality (CEQ) has noted that “...it is not currently useful for the NEPA analysis to attempt to link specific climatological changes, or the environmental impacts thereof, to the particular project or emissions; as such direct linkage is difficult to isolate and to understand.”¹ Accordingly, it is not useful to attempt to determine the significance of such impacts. (See FAA Order 1050.1F, Desk Reference, Chapter 3.)*

4.2.4. Coastal Resources

NOTE: *Coastal resources include both coastal barriers and coastal zones.*

4.2.4.1. Are there designated coastal resources in the affected area?

☐ Yes ☐ No ☒ N/A

Identify: [Refer to Section 4.2.](#)

4.2.4.2. Will implementation of the proposed action result in any construction or development or any physical disturbances of the ground with the potential to affect coastal resources?

☐ Yes ☐ No ☒ N/A

Evaluation: Will implementation of the proposed action result in an impact to coastal resources? (See FAA Order 1050.1F, Paragraph 5-2.b.(4), and 1050.1F Desk Reference, Chapter 4 for details on how to make the determination.)

4.2.4.a ☐ Yes.

4.2.4.b ☒ No. An impact to coastal resources is not anticipated. See Section 4.2.

4.2.5. Department of Transportation Act, Section 4(f)

4.2.5.1. Are there cultural or scenic resources, of national, state, or local significance, such as national parks, publicly owned parks, recreational areas, and public and private historic sites in the affected area?

☒ Yes ☐ No ☐ N/A

Identify: **Appendix A** identifies cultural or scenic resources of national, state, or local significance, such as national parks, publicly owned parks, recreational areas, and public and private historic sites, if any, in the vicinity of each T route.

¹ Draft NEPA Guidance on *Consideration of the Effects of Climate Change and Greenhouse Emissions*, CEQ (2010).
http://ceq.hss.doc.gov/nepa/regs/Consideration_of_Effects_ofGHG_Draft_NEPA_Guidance_FINAL_02182010.pdf

4.2.5.2. If so, during what time(s) of the day would operations occur that may impact these areas?

The utilization frequency, times of the day, and conformance of each T route usage are not predictable. However, as shown in **Table 1**, no routes were used more than 10 times a day in 2019. This is not anticipated to change.

Evaluation: Will implementation of the proposed action result in an impact to properties protected under Section 4(f) of the Department of Transportation Act? (See FAA Order 1050.1F, Paragraph 5-2.b.(2), and 1050.1F Desk Reference, Chapter 5 for details on how to make the determination.)

4.2.5.a. ☐ Yes.

Comment:

4.2.5.b. ☒ No. For most of the T routes, the lateral flight tracks are not anticipated to change. Although some T routes would move the tracks laterally from the current routes, the traffic from the proposed routes would still be within the areas already experiencing aircraft overflight. In addition, the analysis of potential noise impacts indicated no noise threshold criteria would be exceeded as a result of the Proposed Action.

A noise screening analysis was completed to assess potential impacts resulting from the Proposed Action in accordance with MITRE's Center for Advanced Aviation System Development's Guidance for Noise Screening of Air Traffic Actions (December 2012). The TRAF Test was used to determine if the number of operations on a particular procedure or route is high enough to generate noise levels that warrant further screening. The TRAF Test considers aircraft type to determine the maximum number of operations by pistons, turboprops, small jets (Lear Jets or similar), large jets (Boeing 737 or similar), heavy jets (Boeing 777 or similar), or any combination thereof that would warrant further noise screening. The Tables 1 and 2 above show the potential annual utilization of each T route. As a conservative estimate, 10 turboprops in departure setting at 2,000 ft AGL for each T route was used for the TRAF Test. The results show that no further noise screening is needed for this environmental review.

Furthermore, the Proposed Action does not involve land acquisition, physical disturbance, or construction activities. The number of aircraft operations and/or the aircraft fleet mix are not expected to change as a result of the implementation of the Proposed Action. Generally, in many areas in Alaska, aircraft need to maintain a minimum altitude of 2,000 ft above the surface of lands and waters in National Park Service Areas, U.S. Fish and Wildlife Service Areas, and U.S. Forest Service

Wilderness Areas.² Aircraft on T routes would fly higher than 2,000 ft AGL. Therefore, the FAA has determined that the Proposed Action would not result in a constructive use of properties protected by Section 4(f). Section 4(f) impacts are not anticipated. Therefore, it was determined that Section 4(f) consultation was not necessary for the Proposed Action.

4.2.6. Farmlands

Are the following resources present: National Resources Conservation designated prime and unique farmlands or, state, or locally important farmlands including pastureland, cropland, and forest?

☐ Yes ☐ No ☒ N/A

Identify: Refer to Section 4.2.

Evaluation: Will the implementation of the proposed action involve the development of land regardless of use, or have the potential to convert any farmland to non-agricultural uses? (See FAA Order 1050.1F, Paragraph 5-2. b.(4), and the 1050.1F Desk Reference, Chapter 6 for details on how to make the determination.)

4.2.6.a. ☐ Yes.

Comment:

4.2.6.b. ☒ No. An impact to farmland resources is not anticipated. The Proposed Action is an air traffic action only, and no land acquisition, construction, or other ground disturbance would occur. In accordance with CEQ regulations, the environmental impact category did not warrant further analysis.

4.2.7. Hazardous Material, Solid Waste, and Pollution Prevention

Will implementation of the proposed action result in any construction or development or any physical disturbances of the ground in an area known to contain hazardous materials, hazardous waste, solid waste, or other forms of pollution or contamination?

☐ Yes ☐ No ☒ N/A. Refer to Section 4.2.

Evaluation: Is implementation of the proposed action likely to cause contamination by hazardous materials, hazardous waste, or likely to disturb existing hazardous materials, hazardous waste site, or other area of contamination? (See FAA Order 1050.1, Paragraph 5-2.b.(12), and 1050.1F Desk Reference, Chapter 7 for details on how to make the determination.)

4.2.7.a. ☐ Yes.

Comment:

² FAA Advisory Circular (AC 91-36C)

https://www.faa.gov/about/office_org/headquarters_offices/ato/service_units/systemops/fs/alaskan/advisories/parks

- 4.2.7.b. ☒ No. An impact to existing areas of hazardous material, hazardous or solid waste, or pollution prevention activities is not anticipated. Implementing the Proposed Action is not anticipated to result in the production of hazardous material or hazardous or solid waste. See Section 4.2.

4.2.8. National Historic Preservation Act of 1966 (NHPA)

***NOTE:** Section 106 of the NHPA applies to actions that have the potential to affect historic properties in a way that alters any of the characteristics that make the property significant, including changes in noise where a quiet setting is an attribute of significance. Direct effects include the removal or alteration of historic resources. Indirect effects include changes in noise, vehicular traffic, light emissions, or other changes that could interfere substantially with the use or character of the resource.*

- 4.2.8.1. Are there historic resources protected under Section 106 of the NHPA in the study area of the proposed action?

☒ Yes ☐ No

Identify:

A search of the National Register of Historic Places, accessed through NEPAassist, was conducted to identify historic properties in the vicinity of each T route included in the Proposed Action. **Appendix A** identifies the location of historic sites, if any, in the vicinity of each T route.

- 4.2.8.2. Will the proposed action include removal or alteration of historic resources (direct effect)?

☐ Yes ☒ No

- 4.2.8.3. Do any of the historic resources identified have quiet as a generally recognized feature or attribute?

☐ Yes ☐ No ☒ N/A

If yes, explain: Overall operations and T route specific flight tracks are not expected to change. In some instances, the new T routes move laterally compared to the existing routes. However, these areas currently experience overflights.

- 4.2.8.4. Will the proposed action substantially interfere with the use or character of the resource (indirect effect)?

☐ Yes ☒ No

Explain: Overall operations and T route specific flight tracks are not expected to change. In some instances, the new T routes move laterally compared to the existing routes. However, these areas currently experience overflights.

Evaluation: Will the proposed action result in an adverse effect on resources

protected under the National Historic Preservation Act of 1966, as amended? (See FAA Order 1050.1F, paragraph 5-2.b.(1), and 1050.1F Desk Reference, Chapter 8 for details on how to make the determination.)

4.2.8.a. ☐ Yes.

Explain:

4.2.8.b. ☒ No. Overall operations and T route specific flight tracks are not expected to change. In some instances, the new T routes move laterally compared to the existing routes. However, these areas currently experience overflights.

A noise screening analysis was completed to assess potential impacts resulting from the Proposed Action in accordance with MITRE's Center for Advanced Aviation System Development's Guidance for Noise Screening of Air Traffic Actions (December 2012). The TRAF Test was used to determine if the number of operations on a particular procedure or route is high enough to generate noise levels that warrant further screening. The TRAF Test considers aircraft type to determine the maximum number of operations by pistons, turboprops, small jets (Lear Jets or similar), large jets (Boeing 737 or similar), heavy jets (Boeing 777 or similar), or any combination thereof that would warrant further noise screening. The Tables 1 and 2 above show the potential annual utilization of each T route. As a conservative estimate, 10 turboprops in departure setting at 2,000 ft AGL for each T route was used for the TRAF Test. The results show that no further noise screening is needed for this environmental review.

An impact to resources subject to Section 106 review is not anticipated. The Proposed Action would not result in construction, development, or any physical disturbances of the ground. For this undertaking, no land acquisition, construction, or other ground disturbance would occur. Accordingly, there would be no direct effects on historic resources. Additionally, the FAA considered that certain historic sites may be potentially sensitive to the effects of overflights that introduce a visual, atmospheric, or auditory element. The number of aircraft operations and aircraft fleet mix is not expected to change as a result of implementing the Proposed Action. Given that aircraft are currently overflying these areas and would continue to overfly these areas, the Proposed Action would not inherently have the potential to affect historic resources, even if they are present. Thus, the FAA determined that there would be no potential to introduce visual, atmospheric, or auditory elements that could diminish the integrity of a historic property. Therefore, it was determined that Section 106 consultation was not necessary for the Proposed Action.

4.2.9. Land Use

The compatibility of existing and planned land uses with an aviation or aerospace proposal is usually associated with noise impacts. In addition to the impacts of noise on land use compatibility, other potential impacts of FAA actions may affect land use compatibility. The impact on land use, if any, should be analyzed and described under the appropriate impact category.

Evaluation: The determination that significant impacts exist in the Land Use impact category is normally dependent on the significance of other impacts. (See 1050.1F Desk Reference, Chapter 9 for details on how to make the determination.)

An impact to land use is not anticipated. The Proposed Action is an air traffic action only, and no land acquisition, construction, or other ground disturbance would occur. In accordance with CEQ regulations, the environmental impact category did not warrant further analysis.

4.2.10. National Resources and Energy Supply

NOTE: This resource category excludes fuel burn.

Will the proposed action have the potential to cause demand or strain on a natural resource(s) or material(s) that exceeds current or future availability of these resources? (See FAA Order 1050.1F, paragraph 5-2.b.(4).

☐ Yes ☐ No ☒ N/A

If yes, explain: Refer to Section 4.2.

Evaluation: Will implementation of the proposed action result in an impact in relation to natural resources and energy supply?

4.2.10.a. ☐ Yes.

Comment:

4.2.10.b. ☒ No. An impact to natural resources and materials and/or energy supply is not anticipated. The Proposed Action is an air traffic action only, and no land acquisition, construction, or other ground disturbance would occur. In accordance with CEQ regulations, the environmental impact category did not warrant further analysis.

4.2.11. Noise and Noise-Compatible Land Use

The significance threshold for noise is whether the proposed action would increase noise by Day-night average sound level (DNL) 1.5 dB or more for a noise sensitive area that is exposed to noise at or above the DNL 65 dB noise exposure level; or that will be exposed at or above the DNL 65 dB level due to a DNL 1.5 dB increase, when compared to the no action alternative for the same timeframe.

NOTE: An area is noise sensitive if aircraft noise may interfere with the normal

activities associated with the use of the land. See FAA Order 1050.1F, Paragraph 11-5. b.(10), for the full definition of noise sensitive areas.

Noise compatibility or non-compatibility of land use is determined by comparing the proposed action DNL values to the values in the 14 CFR Part 150, Appendix A, Table 1, Land-Use Compatibility guidelines. (See FAA Order 1050.1F and 1050.1F Desk Reference, Chapter 11.)

NOTE: *14 CFR Part 150 guidelines are not sufficient to address the effects of noise on some noise sensitive areas.*

4.2.11.1.1. Will the proposed action introduce air traffic over noise sensitive areas *not* currently affected?

☐ Yes ☒ No

Comment:

4.2.11.1.2. Do the results of the noise analysis indicate that the proposed action would result in an increase in noise exposure by DNL 1.5 dB or more for a noise sensitive area that is exposed to noise at or above the DNL 65 dB noise exposure level?

☐ Yes ☒ No ☐ N/A

A noise screening analysis was completed to assess potential impacts resulting from the Proposed Action in accordance with MITRE's Center for Advanced Aviation System Development's *Guidance for Noise Screening of Air Traffic Actions* (December 2012). The TRAF Test was used to determine if the number of operations on a particular procedure or route is high enough to generate noise levels that warrant further screening. The TRAF Test considers aircraft type to determine the maximum number of operations by pistons, turboprops, small jets (Lear Jets or similar), large jets (Boeing 737 or similar), heavy jets (Boeing 777 or similar), or any combination thereof that would warrant further noise screening. As a conservative estimate, 10 turboprops in departure setting at 2,000 ft AGL for each T route was used for the TRAF Test. The results show that no further noise screening is needed for this environmental review.

4.2.11.1.3. If yes, are the results of the noise analysis incompatible with one or more of the Land Use Compatibility categories? (See FAA Order 1050.1F, Desk Reference Chapter 11, Exhibit 11-3.)

☐ Yes ☒ No ☐ N/A

If yes, explain:

4.2.11.1.4. Do the results of the noise analysis indicate a threshold of significance over noise sensitive areas *not* listed under the Land Use Compatibility categories (for example, national parks, wildlife/waterfowl refuges)?

☐ Yes ☒ No ☐ N/A

If yes, explain:

4.2.11.2. Do the results of the noise analysis indicate a change in noise meeting threshold criteria considered “reportable”?

i. For DNL 60 dB to <65 dB: + 3 dB ☐ Yes ☒ No ☐ N/A

ii. For DNL 45 dB to <60 dB: + 5 dB ☐ Yes ☒ No ☐ N/A

Evaluation:

4.2.11.a. Will the proposed action result in a significant noise impact over noise sensitive land use? (See FAA Order 1050.1F, paragraph 5-2.b.(7), and the 1050.1F Desk Reference, Chapter 11 for details on how to make the determination.)

☐ Yes

If yes, explain:

4.2.11.b. ☒ No. The Proposed Action is not anticipated to cause significant noise impacts.

4.2.11.c. Will the proposed action result in a reportable noise impact over noise sensitive areas? (See FAA Order 1050.1F, paragraph 5-2.b.(7), and the 1050.1F Desk Reference, Chapter 8 for details on how to make the determination.)

☐ Yes

If yes, explain:

4.2.11.d. ☒ No. The Proposed Action is not anticipated to cause significant noise impacts.

4.2.12. Socioeconomics, Environmental Justice, and Children’s Environmental Health and Safety Risk

4.2.12.1. Socioeconomics

4.2.12.1.a. Will the proposed action result in a division or disruption of an established community; a disruption of orderly, planned development; or an inconsistency with plans or goals that have been adopted by the community in which the proposed action is located? (See FAA Order 1050.1F, Paragraph 5-2.b.(5).)

☐ Yes ☐ No ☒ N/A

4.2.12.1.b. Will the proposed action result in an increase in congestion

from surface transportation, by causing a decrease in the Level of Service below the acceptable level determined by the appropriate transportation agency? (i.e., a highway agency) (See FAA Order 1050.1F, Paragraph 5-2 b.(6).)

☐ Yes ☐ No ☒ N/A

Evaluation: Will implementation of the proposed action result in an impact to socioeconomics? (See the 1050.1F Desk Reference, Chapter 12 for details on how to make the determination.)

4.2.12.a. ☐ Yes

Comment:

4.2.12.b. ☒ No. The Proposed Action is not anticipated to involve acquisition of real estate, relocation of residence or community business, disruption of local traffic patterns, loss of community tax base, or changes to the fabric of the community. The Proposed Action is an air traffic action only and, in accordance with CEQ regulations, the environmental impact category did not warrant further analysis.

4.2.12.2. Environmental Justice

***NOTE:** FAA has not established a significance threshold for Environmental Justice. Impacts to Environmental Justice in the context of other impact categories should be considered.*

Evaluation: Will the proposed action have the potential to lead to a disproportionately high and adverse impact to an environmental justice population, (i.e., a low income or minority population) due to significant impacts in other environmental impact categories or impacts on the physical or natural environment that affect an environmental justice population in a way that the FAA determines are unique to the environmental justice population and significant to that population? (See 1050.1F Desk Reference, Chapter 12 for details on how to make the determination.)

4.2.12.2.a. ☐ Yes

Comment:

4.2.12.2.b. ☒ No. An impact related to environmental justice is not anticipated. Implementing the Proposed Action would not adversely affect air quality or land use within the affected environment study area. Additionally, the Proposed Action would not result in a change to the number of aircraft operations, fleet mix, or nighttime operations. Accordingly, the Proposed Action would not introduce new social or economic effects. Therefore, there would be no potential for disproportionately high or adverse effects to minority or low-income populations as a result of the Proposed Action when

compared to the no action alternative.

4.2.12.3. Children's Environmental Health and Safety Risk

***NOTE:** FAA has not established a significance threshold for Children's Environmental Health and Safety Risk. Impacts to Children's health and safety in the context of other impact categories should be considered.*

Evaluation: Will the proposed action have the *potential* to lead to a disproportionate health or safety risk to children due to significant impacts in other environmental impact categories? (See the 1050.1F Desk Reference, Chapter 12, for details on how to make the determination.)

4.2.12.3.a. ☐ Yes

Comment:

4.2.12.3.b. ☒ No. Refer to Section 4.2.

4.2.13. Visual Effects

***NOTE:** There are no special purpose laws for light impacts and visual impacts. Impacts from light emissions are generally related to airport aviation lighting.*

4.2.13.1. Will implementation of the proposed action create annoyance or interfere with normal activities from light emissions?

☐ Yes ☒ No

Explain:

The Proposed Action is not anticipated to create annoyance or interfere with normal activities from light emissions.

4.2.13.2. Will implementation of the proposed action affect the visual character of the area including the importance, uniqueness, and aesthetic value of the affected visual resources?

☐ Yes ☒ No

Explain:

The Proposed Action is not anticipated to interfere or have an effect on visual resources.

Evaluation: Will the proposed action result in an impact to visual resources? (See FAA Order 1050.1F, Paragraph 5-2. b.(5), and 1050.1F Desk Reference, Chapter 13 for details on how to make the determination.)

4.2.13.a. ☐ Yes

Comment:

4.2.13.b. ☒ No. The Proposed Action is not anticipated to interfere or have an effect on visual resources.

4.2.14. Water Resources (including Wetlands, Flood Plains, Surface Waters, Groundwater, and Wild and Scenic Rivers)

4.2.14.1. Are there wetlands, flood plains, and/or Wild and Scenic Rivers in the proposed action study area?

☐ Yes ☐ No ☒ N/A

Refer to Section 4.2.

4.2.14.2. Are there reservoirs or other public water supply systems in the affected area?

☐ Yes ☐ No ☒ N/A

Refer to Section 4.2.

4.2.14.3. Will implementation of the proposed action result in any construction or development or any physical disturbances of the ground?

☐ Yes ☒ No

4.2.14.4. Will implementation of the proposed action result in any changes to existing discharges to water bodies, create a new discharge that would result in impacts to water quality, or modify a water body?

☐ Yes ☒ No

If yes, is there a potential for an impact to water quality, sole source aquifers, a public water supply system, federal, state or tribal water quality standards established under the Clean Water Act and the Safe Drinking Water Act?

☐ Yes ☒ No

Evaluation: Will the proposed action result in an impact to water resources? (See FAA Order 1050.1F, paragraph 5-2. b.(9), and 1050.1F Desk Reference, Chapter 14 for details on how to make the determination.)

4.2.14.a. ☐ Yes

Comment:

4.2.14.b. ☒ No. Refer to Section 4.2.

4.2.15. Effects on the Quality of the Human Environment that are Likely to be Highly Controversial on Environmental Grounds.

NOTE: The term “highly controversial on environmental grounds” means there is a substantial dispute involving reasonable disagreement over the degree, extent, or nature of a proposed action’s environmental impacts or over the action’s risks of causing environmental harm. Mere opposition is not sufficient for a proposed action or its impacts to be considered highly controversial on environmental grounds. Opposition on environmental grounds by a federal, state, or local government agency or by a tribe or a substantial number of the persons

affected by the action should be considered in determining whether or not reasonable disagreement regarding the impacts of a proposed action exists.

NOTE: *If in doubt about whether a proposed action is highly controversial on environmental grounds, consult the Line of Business/Staff Office (LOB/SOB) headquarters environmental division, AEE, Regional Counsel, or AGC for assistance. (See FAA Order 1050.1F, Paragraph 5-2.b.(10).)*

4.2.15.1. Will implementation of the proposed action result in the likelihood of an inconsistency with any federal, state, tribal, or local law relating to the environmental aspects of the proposed action. (See FAA Order 1050.1F, Paragraph 5-2.b.(11).)

☐ Yes ☒ No

If yes, explain:

Evaluation: Is there likelihood for the proposed action to be highly controversial based on environmental grounds?

4.2.15.a. ☐ Yes

Comment:

4.2.15.b. ☒ No. The potential for controversy is not anticipated.

Section 5. Mitigation

Are there measures which can be implemented that might mitigate any of the potential impacts, i.e., GPS/FMS plans, NAVAIDS, etc.?

☐ Yes ☐ No ☒ N/A

Describe:

Section 6. Cumulative Impacts

What other projects (FAA, non-FAA, or non-aviation) are known, planned, have been previously implemented, or are ongoing in the affected area that would contribute to the proposed project's environmental impact?

The FAA's IFP Information Gateway (https://www.faa.gov/air_traffic/flight_info/aeronav/procedures/) was reviewed for planned air traffic projects at the five busiest Alaska airports—projects were identified at three of those airports, as listed below:

Airport Name	City	Procedure Name	Scheduled Pub Date	Status
Ted Stevens Anchorage International Airport	ANCHORAGE	STAR TAGER NINE	12/29/2022	Under Development
Juneau International Airport	JUNEAU	RNAV (GPS) T RWY 8, ORIG-B	9/8/2022	Pending
Ketchikan International Airport	KETCHIKAN	LOC X RWY 11, AMDT 2	11/3/2022	Pending
		ILS Z OR LOC Z RWY 11, AMDT 2	11/3/2022	Pending
		ILS Y OR LOC Y RWY 11, AMDT 9	11/3/2022	Pending

Projects that the FAA has scheduled for implementation in near future include:

Airport	Procedure/Route	Chart Date
Gulkana (PAGK)	B-25 Airway	07/14/22
Edward G. Pitka Sr. (PAGA)	V-489	07/14/22
Cape Lisburne LRRS (PALU)	B-5 Airway	07/14/22
Iliamna (PAIL)	RNAV (GPS) RWY 18	07/14/22
Klawock (PAKW)	NDB/DME RWY 2, AMDT 2 RNAV (GPS) Y RWY 2, AMDT 2 RNAV (GPS) Z RWY 2, AMDT 1 (Special) RNAV (GPS) RWY 20, AMDT 1	07/14/22
Klawock (PAKW)	NDB/DME RWY 2, AMDT 2 - Cancel RNAV (GPS) Y RWY 2, AMDT 2 RNAV (GPS) Z RWY 2, AMDT 1 RNAV (GPS) RWY 20, AMDT 1 KLAWOCK THREE (RNAV) DEPARTURE (OBSTACLE) - NDB removed	07/14/22
Homer (PAHO)	LOC BC RWY 22	07/14/22
Yakutat (PAYA)	ILS or LOC/DME RWY 11 LOC/DME BC RWY 29 VOR/DME RWY 29 RNAV (GPS) RWY 2 RNAV (GPS) RWY 11 RNAV (GPS) RWY 29	07/14/22
Yakutat (PAYA)	TAKEOFF MINIMUMS	07/14/22
Elim (PFEL)	RNAV (GPS) RWY 1 RNAV (GPS) RWY 19 RNAV (GPS)-A ELIM ODP (RNAV)	07/14/22
Kalskag (PALG)	RNAV (GPS) RWY 7 RNAV (GPS)-A CABOT TWO SID - Cancel TO Mins and ODP	09/08/22
Hooper Bay (PAHP)	RNAV (GPS) RWY 14 RNAV (GPS) RWY 32 VOR/DME RWY 32 Takeoff Mins and ODP (Textual)	09/08/22
Juneau (PAJN)	RNAV GPS T	09/08/22

No projects or proposals have been identified that, when combined with the Proposed Action, would introduce new environmental impacts. Therefore, the Proposed Action would not incrementally contribute to a cumulative impact to environmental resources.

Section 7. Community Involvement

Community involvement is the process of engaging in dialog and collaboration with communities affected by FAA actions. The appropriate level of community involvement and

public engagement will vary to some degree depending on the project scope and affected communities. (See FAA Order JO 7400.2, appendices 10 and 11, and the Community Involvement Performance Based Navigation Desk Guide, and/or AEE's Community Involvement Manual, or other available Community Involvement guidance for further information.)

Refer to the attached Community Involvement determination form for Section 7 responses.

Section 8. References/Correspondence

Attach written correspondence, summarized phone contacts using Memorandums for the File, etc.

Section 9. Additional Preparers

The person(s) listed below, in addition to the preparer indicated on page 1, are responsible for all or part of the information and representations contained herein:

Section 10. Facility/Service Area Conclusions

☒ This initial review and analysis indicates that no extraordinary circumstances or other reasons exist that would cause the responsible federal official to believe that the proposed action might have the potential for causing significant environmental impacts. The undersigned have determined that the proposed action qualifies as a categorically excluded action in accordance with FAA Order 1050.1F, and on this basis, recommend that further environmental review need not be conducted before the proposed project is implemented.

Facility Manager Review/Concurrence

Signature: KRISTINE M KUBITZ Digitally signed by KRISTINE M KUBITZ
Date: 2022.01.28
11:41:53 -09'00' Date: _____

Name: Talon Medema
Air Traffic Manager
Anchorage ARTCC

Service Area Environmental Specialist Review/Concurrence

Signature: _____ Date: _____

Name: Vikas Uberoi
Environmental Protection Specialist, Operations Support Group
Western Service Center, AJV-W25

Service Area Director Review/Concurrence, if necessary

Signature: _____ Date: _____

Name: B. G. Chew
Acting Group Manager, Operations Support Group
Western Service Center, AJV-W2