



## Alaska DOT&PF

Data Modernization and Innovation Office  
Pavement Management and Preservation  
5800 East Tudor Road, Anchorage AK 99507-1286

# Pavement Inspection Report Unalakleet Airport



Airport Name	IATA	ICAO	Latitude	Longitude	Elevation (ft)
Unalakleet Airport	UNK	PAUN	63° 53' 18.6" N	160° 47' 56.8" W	25.7

Please refer all questions or for further information about this report, please contact the AKDOT&PF Pavement Management and Preservation Office as follows:

Point of Contact	Phone	Email	Date Inspected	Date Published
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Pavement Condition Index (PCI)

PCI Values / General Pavement Recommendations

(85 - 100) - Preventative Maintenance

(70 - 84) - Preventative / Corrective Maintenance

(55 - 69) - Rehabilitation

(40 - 54) - Reconstruct

(25 - 39) - Reconstruct

(10 - 24) - Reconstruct

(0 - 9) - Reconstruct



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Pavement Condition Index (PCI)

PCI Values / General Pavement Recommendations

(85 - 100) - Preventative Maintenance

(70 - 84) - Preventative / Corrective Maintenance

(55 - 69) - Rehabilitation

(40 - 54) - Reconstruct

(25 - 39) - Reconstruct

(10 - 24) - Reconstruct

(0 - 9) - Reconstruct

Inventoried Sample Unit

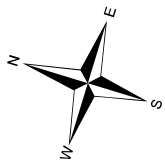


## Unalakleet Airport

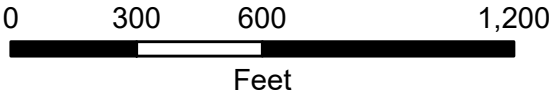
Airport Code: UNK  
Site Number: 50799.\*A

### Sample Unit Pavement Condition Index (PCI)

Target PCI Range for Runways: 70 to 100  
Target PCI Range for Taxiways and Aprons: 60 to 100



### 2024 Pavement Inspection Results



Map Created by Duval Engineering  
for AK DOT&PF

Map 2 of 6



5 Year Predicted\* (Year 2029)

Pavement Condition Index (PCI)

PCI Values / General Pavement Recommendations

(85 - 100) - Preventative Maintenance

(70 - 84) - Preventative / Corrective Maintenance

(55 - 69) - Rehabilitation

(40 - 54) - Reconstruct

(25 - 39) - Reconstruct

(10 - 24) - Reconstruct

(0 - 9) - Reconstruct

\*Assumes continued preventive maintenance

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<div>Unalakleet Airport</div> <div>Airport Code: UNK</div> <div>Site Number: 50799.*A</div>	<div>5 Year Predicted</div> <div>Pavement Condition Index (PCI)</div> <div>Target PCI Range for Runways: 70 to 100</div> <div>Target PCI Range for Taxiways and Aprons: 60 to 100</div>	<div></div> <div>2024 Pavement Inspection Results</div> <div><div>03006001200</div><div>Feet</div></div>	<div></div> <div>Map Created by Duval Engineering for AK DOT&amp;PF</div> <div>Map 3 of 6</div>
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**Map 4 of 6**



**Age at Inspection**

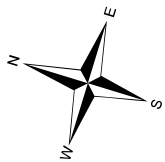
0 - 4 Years Old
5 - 9 Years Old
10 - 14 Years Old
15 - 19 Years Old
20 - 24 Years Old
25 - 29 Years Old
30 - 100 Years Old



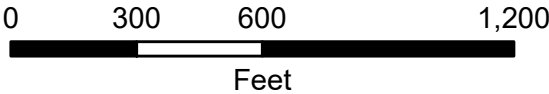
# Unalakleet Airport

Airport Code: UNK  
Site Number: 50799.\*A

## Pavement Age at Inspection



## 2024 Pavement Inspection Results



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**Crack Seal Condition (CSC)**

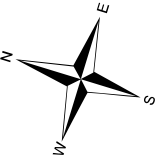
- No CS - New Surface
- Has CS - Good
- Has CS - Touch Up
- No CS - Recommend CS
- Has CS - Replace
- No CS - Below Repair
- PCC - Concrete



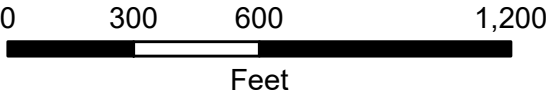
**Unalakleet Airport**

Airport Code: UNK  
Site Number: 50799.\*A

**Pavement Crack Seal Condition (CSC)**





**2024 Pavement Inspection Results**





Map Created by Duval Engineering  
for AK DOT&PF



# AIRPORT PAVEMENT INSPECTION NOTES BY BRANCH

Branch ID	Branch Name	Branch Use	No. of Sections	Area (sf)	Weighted Average PCI
0100	Taxiway A	Taxiway	1	21,875	60
					

Taxiway A was constructed in 2009 and has not received major work since. Annual crack seal operations have been performed on the branch. The most common distresses observed are low severity block cracking, low severity longitudinal and transverse cracking, and low severity weathering. Field observations include further development of cracks becoming interconnected, leading to a larger quantity of block cracking.

Branch ID	Branch Name	Branch Use	No. of Sections	Area (sf)	Weighted Average PCI
0200	Taxiway B	Taxiway	1	17,236	61
					

Taxiway B was constructed in 2009 and has not received major work since. Annual crack seal operations have been performed on the branch. The most common distresses observed are low severity block cracking, low severity longitudinal and transverse cracking, and low severity weathering. Field observations include continued development of cracks becoming interconnected, leading to a larger quantity of block cracking.



Branch ID	Branch Name	Branch Use	No. of Sections	Area (sf)	Weighted Average PCI
0300	Taxiway C	Taxiway	1	15,191	56



Taxiway C was constructed in 2009 and has not received major work since. Annual crack seal operations have been performed on the branch. The most common distresses observed are low severity block cracking, low to medium severity longitudinal and transverse cracking, and low severity weathering. Field observations include further development of cracks becoming interconnected, leading to larger quantities of block cracking. Additionally, some cracks are beginning to depress, increasing the severity level of the distress.

Branch ID	Branch Name	Branch Use	No. of Sections	Area (sf)	Weighted Average PCI
4100	Main Apron	Apron	1	292,474	64



The Main Apron was constructed in 2009 and has not received major work since. Annual crack seal operations have been performed on the branch. The most common distresses observed are low to medium severity longitudinal and transverse cracking, oil spillage, and low severity weathering. Field observations indicate that the cracking is continuing to degrade, with cracks increasing in both width and depth across the apron. This has led to higher severity distresses.



Branch ID	Branch Name	Branch Use	No. of Sections	Area (sf)	Weighted Average PCI
4200	GA Apron	Apron	1	65,000	54



The GA Apron was constructed in 2009 and has not received major work since. Annual crack seal operations have been performed on the branch. The most common distresses observed are low to medium severity block cracking, low to medium severity longitudinal and transverse cracking, oil spillage, and low severity weathering. Field observations include further development of cracks becoming interconnected, leading to a larger quantity of block cracking. Additionally, some cracks are beginning to depress, increasing the severity level of the distress.



Branch ID	Branch Name	Branch Use	No. of Sections	Area (sf)	Weighted Average PCI
6100	Runway 15/33	Runway	2	925,000	57



Runway 15/33 was constructed in 2009 and has not received major work since. Annual crack seal operations have been performed on the branch. The most common distresses observed are low severity block cracking, low to medium severity longitudinal and transverse cracking, low severity raveling, and low severity weathering. Field observations include further development of cracks becoming interconnected, leading to a larger quantity of block cracking. Additionally, some cracks are beginning to depress, increasing the severity level of the distress.



Branch ID	Branch Name	Branch Use	No. of Sections	Area (sf)	Weighted Average PCI
6200	Runway 08/26	Runway	3	172,173	57



Runway 08/26 was constructed in 2009 and has not received major work since. Annual crack seal operations have been performed on the branch. The most common distresses observed are low severity block cracking, low to medium severity longitudinal and transverse cracking, low severity raveling, and low severity weathering. Field observations include further development of cracks becoming interconnected, leading to a larger quantity of block cracking. Additionally, some cracks are beginning to depress, increasing the severity level of the distress.



### BRANCH CONDITION REPORT

Branch ID	No. of Sections	Sum Section Length (Ft)	Avg Section Width (Ft)	True Area (Sq Ft)	Use	Average PCI	Standard Deviation PCI	Weighted Average PCI
0100	1	270	60	21,875	TAXIWAY	60.00	0.00	60.00
0200	1	235	60	17,236	TAXIWAY	61.30	0.00	61.30
0300	1	210	60	15,191	TAXIWAY	55.50	0.00	55.50
4100	1	1,250	220	292,474	APRON	63.70	0.00	63.70
4200	1	130	500	65,000	APRON	53.90	0.00	53.90
6100	2	6,100	175	925,000	RUNWAY	56.65	0.85	57.43
6200	3	2,300	95	172,173	RUNWAY	59.23	2.95	57.06

*Note: the dimensions in the Branch Condition Report are derived from area calculations and may not reflect actual dimensions of individual sections. Refer to the maps for actual section dimensions.*

### BRANCH USE CONDITION REPORT

Use Category	No. of Sections	Total Area (Sq Ft)	Arithmetic Average PCI	Standard Deviation PCI	Weighted Average PCI
APRON	2	357,474	58.80	4.90	61.92
RUNWAY	5	1,097,173	58.20	2.67	57.37
TAXIWAY	3	54,302	58.93	2.49	59.15
ALL	10	1,508,949	58.54	3.21	58.51



### SECTION CONDITION REPORT

Branch ID	Section ID	Last Const. Date	Surface	Use	Rank	True Area (Sq Ft)	Last Inspection Date	Age At Inspection	PCI
0100	0100-01	8/1/2009	AC	TAXIWAY	S	21,875	7/20/2024	15	60
0200	0200-01	8/1/2009	AC	TAXIWAY	T	17,236	7/20/2024	15	61
0300	0300-01	8/1/2009	AC	TAXIWAY	T	15,191	7/20/2024	15	56
4100	4100-01	8/1/2009	AC	APRON	S	292,474	7/20/2024	15	64
4200	4200-01	8/1/2009	AC	APRON	T	65,000	7/20/2024	15	54
6100	6100-01	8/1/2009	AC	RUNWAY	S	885,000	7/20/2024	15	58
6100	6100-02	8/1/2009	AC	RUNWAY	T	40,000	7/20/2024	15	56
6200	6200-01	8/1/2009	AC	RUNWAY	T	130,173	7/20/2024	15	56
6200	6200-02	8/1/2009	AC	RUNWAY	T	21,000	7/20/2024	15	63
6200	6200-03	8/1/2009	AC	RUNWAY	T	21,000	7/20/2024	15	59

### SECTION CONDITION REPORT (SUMMARY BY AGE CATEGORY)

Age Category	Average Age at Inspection	Total Area (Sq Ft)	Number of Sections	Arithmetic Average PCI	Standard Deviation PCI	Weighted Average PCI
11-15	15	1,508,949	10	58.54	3.21	58.51
ALL	15	1,508,949	10	58.54	3.21	58.51



<h2 style="margin: 0;">Work History Report</h2> <p style="margin: 0;"><i>Pavement Database: Alaska</i></p>	<b>Page 1 of 3</b>
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<b>Network:</b> Unalakleet		<b>Branch:</b> 0100		Taxiway A		<b>Section:</b> 0100-01		<b>Surface:</b> AC	
<b>L.C.D.</b> 8/1/2009		<b>Use:</b> TAXIWAY		<b>Rank:</b> S		<b>Length:</b> 270.00 (Ft)		<b>Width:</b> 60.00 (Ft) <b>True Area:</b> 21875 (SqFt)	
Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments			
8/1/2009	NC-IN	New Construction - Initial	0.00	0.00	<input checked="" type="checkbox"/>	4" AC, 14" Crushed Aggregate Base C			

<b>Network:</b> Unalakleet		<b>Branch:</b> 0200		Taxiway B		<b>Section:</b> 0200-01		<b>Surface:</b> AC	
<b>L.C.D.</b> 8/1/2009		<b>Use:</b> TAXIWAY		<b>Rank:</b> T		<b>Length:</b> 235.00 (Ft)		<b>Width:</b> 60.00 (Ft) <b>True Area:</b> 17236 (SqFt)	
Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments			
8/1/2009	NC-IN	New Construction - Initial	0.00	0.00	<input checked="" type="checkbox"/>	4" AC, 14" Crushed Aggregate Base C			

<b>Network:</b> Unalakleet		<b>Branch:</b> 0300		Taxiway C		<b>Section:</b> 0300-01		<b>Surface:</b> AC	
<b>L.C.D.</b> 8/1/2009		<b>Use:</b> TAXIWAY		<b>Rank:</b> T		<b>Length:</b> 210.00 (Ft)		<b>Width:</b> 60.00 (Ft) <b>True Area:</b> 15191 (SqFt)	
Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments			
8/1/2009	NC-IN	New Construction - Initial	0.00	0.00	<input checked="" type="checkbox"/>	4" AC, 14" Crushed Aggregate Base C			

<b>Network:</b> Unalakleet		<b>Branch:</b> 4100		Main Apron		<b>Section:</b> 4100-01		<b>Surface:</b> AC	
<b>L.C.D.</b> 8/1/2009		<b>Use:</b> APRON		<b>Rank:</b> S		<b>Length:</b> 1,250.00 (Ft)		<b>Width:</b> 220.00 (Ft) <b>True Area:</b> 292474 (SqFt)	
Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments			
8/1/2009	NC-IN	New Construction - Initial	0.00	0.00	<input checked="" type="checkbox"/>	3" AC, 9" Crushed Aggregate Base Co			

<b>Network:</b> Unalakleet		<b>Branch:</b> 4200		GA Apron		<b>Section:</b> 4200-01		<b>Surface:</b> AC	
<b>L.C.D.</b> 8/1/2009		<b>Use:</b> APRON		<b>Rank:</b> T		<b>Length:</b> 130.00 (Ft)		<b>Width:</b> 500.00 (Ft) <b>True Area:</b> 65000 (SqFt)	
Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments			
8/1/2009	NC-IN	New Construction - Initial	0.00	0.00	<input checked="" type="checkbox"/>	3" AC, 9" Crushed Aggregate Base Co			

<b>Network:</b> Unalakleet		<b>Branch:</b> 6100		15/33		<b>Section:</b> 6100-01		<b>Surface:</b> AC	
<b>L.C.D.</b> 8/1/2009		<b>Use:</b> RUNWAY		<b>Rank:</b> S		<b>Length:</b> 5,900.00 (Ft)		<b>Width:</b> 150.00 (Ft) <b>True Area:</b> 885000 (SqFt)	
Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments			
8/1/2009	NC-IN	New Construction - Initial	0.00	0.00	<input checked="" type="checkbox"/>	4" AC, 14" Crushed Aggregate Base C			

<b>Network:</b> Unalakleet		<b>Branch:</b> 6100		15/33		<b>Section:</b> 6100-02		<b>Surface:</b> AC	
<b>L.C.D.</b> 8/1/2009		<b>Use:</b> RUNWAY		<b>Rank:</b> T		<b>Length:</b> 200.00 (Ft)		<b>Width:</b> 200.00 (Ft) <b>True Area:</b> 40000 (SqFt)	
Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments			
8/1/2009	NC-IN	New Construction - Initial	0.00	0.00	<input checked="" type="checkbox"/>	4" AC, 14" Crushed Aggregate Base C			

<b>Network:</b> Unalakleet		<b>Branch:</b> 6200		08/26		<b>Section:</b> 6200-01		<b>Surface:</b> AC	
<b>L.C.D.</b> 8/1/2009		<b>Use:</b> RUNWAY		<b>Rank:</b> T		<b>Length:</b> 1,900.00 (Ft)		<b>Width:</b> 75.00 (Ft) <b>True Area:</b> 130173 (SqFt)	
Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments			
8/1/2009	NC-IN	New Construction - Initial	0.00	0.00	<input checked="" type="checkbox"/>	4" AC, 14" Crushed Aggregate Base C			



<b>Work History Report</b> <i>Pavement Database: Alaska</i>	<b>Page 2 of 3</b>
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Network: Unalakleet		Branch: 6200		08/26		Section: 6200-02		Surface:AC	
L.C.D. 8/1/2009		Use: RUNWAY		Rank: T		Length: 200.00 (Ft)		Width: 105.00 (Ft) True Area: 21000 (SqFt)	
Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments			
8/1/2009	NC-IN	New Construction - Initial	0.00	0.00	<input checked="" type="checkbox"/>	4" AC, 14" Crushed Aggregate Base C			

Network: Unalakleet		Branch: 6200		08/26		Section: 6200-03		Surface: AC	
L.C.D. 8/1/2009		Use: RUNWAY		Rank: T		Length: 200.00 (Ft)		Width: 105.00 (Ft) True Area: 21000 (SqFt)	
Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments			
8/1/2009	NC-IN	New Construction - Initial	0.00	0.00	<input checked="" type="checkbox"/>	4" AC, 14" Crushed Aggregate Base C			



**Summary:**

Work Description	Section Count	Area Total (SqFt)	Thickness Avg (in)	Thickness STD (in)
New Construction - Initial	10	1,508,949.00	0.00	0.00



**PHYSICAL PROPERTY DATA**

		Pavement		Base		Subbase		Subgrade	
Branch ID	Section ID	Thick (in)	Type	Thick (in)	Type	Thick (in)	Type	Type	CBR
Taxiway A 0100	0100-01	4	P-401	14	P-209	-	-	GP <sup>1</sup>	12
Taxiway B 0200	0200-01	4	P-401	14	P-209	-	-	GP <sup>1</sup>	12
Taxiway C 0300	0300-01	4	P-401	14	P-209	-	-	GP <sup>1</sup>	12
Main Apron 4100	4100-01	3	P-401	9	P-209	-	-	GP <sup>1</sup>	12
GA Apron 4200	4200-01	3	P-401	9	P-209	-	-	GP <sup>1</sup>	12
Runway 15/33 6100	6100-01 RW 15/33	4	P-401	14	P-209	-	-	GP <sup>1</sup>	12
	6100-02 S. Overrun	4	P-401	14	P-209	-	-	GP <sup>1</sup>	12
Runway 08/26 6200	6200-01 RW 08/26	4	P-401	14	P-209	-	-	GP <sup>1</sup>	12
	6200-02 W. Overrun	4	P-401	14	P-209	-	-	GP <sup>1</sup>	12
	6200-03 E. Overrun	4	P-401	14	P-209	-	-	GP <sup>1</sup>	12

Notes:

1. Soil type is estimated from construction records.



### AIRCRAFT FLEET MIX

No.	Aircraft	Gross Wt (lb)	% Gross Wt on Main Gear	Tire Pressure (psi)	Annual Departures	20 Yr Coverages
1	Cessna 206 Stationair	3,612	95.00	52	1,798	11,702
2	S-5	3,999	95.00	40	4	27
3	PA-32 Cherokee Six	3,400	95.00	50	4	26
4	S-15	17,637	95.00	59	507	3,989
5	Cessna 208B	8,750	95.00	75	3,377	23,311
6	S-10	10,450	95.00	52	87	641
7	PA-31-325 Navajo C/R	6,536	95.00	66	460	3,108
8	D-15	17,120	95.00	63	305	2,969
9	Beechcraft King Air	12,590	95.00	98	611	5,745
10	Q100/Dash 8-100	34,700	94.40	131	510	5,641
11	D-100	107,200	95.00	150	32	430
12	L-100-20	155,801	96.40	104	8	76
13	Saab 340B	29,000	95.00	55	6	68
14	B737-200	116,000	92.80	158	72	1,051
15	B737-300	140,000	90.80	201	69	993
16	B737-400	150,500	93.80	185	67	999
17	B737-7 MAX	177,500	93.40	204	41	602
18	DC9-51	109,000	94.00	154	36	502

### PAVEMENT CLASSIFICATION RATINGS

Runway	Critical Aircraft	Max Allowable Wt (lb)	Subgrade Mr (psi)	Evaluation Thickness (in)	Pass to Traffic Cycle Ratio	PCR
08-26	B737-7 MAX	188,179	18,000	18.0	1.0	448/F/B/X/T
15-33	B737-7 MAX	188,179	18,000	18.0	1.0	448/F/B/X/T

### PCR CALCULATION NOTES

- 1% traffic growth assumed
- Subgrade strength reduction for frost applied
- D-15 refers to “generic” dual gear aircraft as modeled in FAARFIELD

## REFERENCES

Year	Project No.	Document Title
2006	3-02-0309-02, 61438_63094	Airport Improvements As-Builts