LOGAN - CACHE AIRPORT AUTHORITY BOARD MEETING
SEPTEMBER 3, 2020
MINUTES

The Logan-Cache Airport Authority Board convened in a regular session on Thursday, September 3, 2020 at 8:30 a.m. in the Cache County Historic Courthouse, County Council Chambers, 199 North Main, Logan, Utah.

ATTENDANCE

Members of the Airport Authority Board in Attendance:
John Kerr – Chairman, At-large – Appointed by Airport Authority Board
Craig W Buttars – Cache County Executive
Karl Ward – Cache County Council
Mayor Holly Daines – Logan City
Jeannie F. Simmonds – Logan City Council
Gar Walton – Appointed by Logan City
Bill Francis – Appointed by Cache County

Members of the Airport Authority Board Absent:
All Board members were in attendance

Also in Attendance:
Lee Ivie – Logan-Cache Airport Manager
Bryce Mumford – Cache County Deputy Executive
Andrew Scanlon – Kimley Horn and Associates
Judd Hill – Armstrong Consultants
Eric Rivera – Armstrong Consultants
David Hartmann – Armstrong Consultants
Zan Murray – J-U-B Consultants
Kim Silvester – J-U-B Consultants
Baron Wesemann – Utah State University
Aaron Dyches – Utah State University
Scott Weaver – Leading Edge Aviation
Russ Kirkham
Janeen Allen – Minutes

CALL TO ORDER

Chairman John Kerr called the meeting to order at 8:30 a.m.

ITEMS OF BUSINESS

APPROVAL OF MINUTES – JUNE 4, 2020

ACTION: Motion was made by Gar Walton and seconded by Bill Francis to approve the minutes of June 4, 2020 as written. The vote in favor was unanimous, 7-0

ITEMS FOR DISCUSSION

MANAGER'S REPORT – LEE IVIE

Lee Ivie gave the Manager's Report (Attachment A).

Ivie asked the Board about installing fencing around a specific area at the airport and maintaining it. After some discussion on the matter, the Board agreed to have Ivie maintain the area, but not to fence it.

HANGAR REQUEST: F10 – DAVID WITBECK

Ivie showed the request letter and map of the proposed hangar location (Attachment B). There was discussion about the location regarding drainage issues and the need for grading. Kerr noted that, as the developer, the Airport Authority should be responsible for making the area tenable for the tenant.

ACTION: Motion was made by Karl Ward and seconded by Bill Francis to approve the request for a hangar at location F10 by David Witbeck. The vote in favor was unanimous, 7-0

DESIGN CONSIDERATION: RUNWAY 17-35

Armstrong representatives, David Hartmann, Eric Rivera, and Judd Hill, presented information on the design of Runway 17-35 (Attachment C).

They are looking at a complete upgrade of the runway. The design study addressed several aspects including runway capacity, fleet mix, pavement condition rating, airport condition rating, and two-wheel versus four-wheel classifications. The bid will be for a 3-inch thick road base which will increase existing 737 traffic by 700%. Francis noted that the 3-inch thickness will save the airport in the long run.

Armstrong will advertise the bid opening the first week of October. They hope to receive the grant by late October or early November. The sixty-day construction project should begin spring 2021.

LAND ACQUISITION UPDATE

ACTION: Motion was made by Bill Francis and seconded by Jeannie Simmonds to approve the recommended land acquisition funded through the FAA by the CARES Act federal funding. The vote in favor was unanimous, 7-0

10-YEAR AIP

John Kerr provided the Board with an updated Airport Improvement Plan that extends through 2026 and beyond (Attachment D). He noted that the airport has received over $30 million in state and federal funds over the past 20 years.

ARFF BUILDING LOCK/KEYPAD

The Logan City Fire Department requested to change the locks on the ARFF building. They are concerned with having multiple groups who have access to the building. The request was for a keypad entry.

The Board discussed the issue of having multiple groups who have access to the building and the security risk it poses.

Kerr believed the keypad entry would work better than a lock operationally for the LCFD. He cautioned to avoid giving the code to anyone other than members of the LCFD. It was noted that keypads have already been given to Lee Ivie. He wanted to get the Airport Authority Board's approval before installing them. Kerr recommended installing a keypad entry on the east side but not the west side of the building.

ACTION: Motion was made by Mayor Holly Daines and seconded by Bill Francis to approve the installation of keypad entries to the ARFF building at the airport. The vote in favor was unanimous, 7-0

OPEN ITEMS

No additional items were discussed

COMMITTEE REPORTS:

Audit & Finance – Craig Buttars

Buttars reported that the Cache County Council has approved the Airport Authority's application for RAPZ funding.

Operations Committee – Kim Hall

Baron Wesemann and Aaron Dyches gave an update on how many aircraft are in the USU aviation program at the airport.

Capital Improvements – Bill Francis
No report

Economic Development / Public Relations – Gar Walton
Walton said there is a newsletter coming out in the next few days. All future events have been canceled due to the COVID pandemic.

NEXT SCHEDULED MEETING
Thursday, October 1, 2020 at 8:30 a.m.

ADJOURNMENT
The meeting adjourned at 9:34 a.m.

ATTACHMENT A

August 2020 Manager's Report

1. **AIP Projects.**

   a. The Runway 17/35 overlay and safety area grading project is in the design phase of the project and at this juncture I haven't received a signed grant from the FAA. The estimated cost of the project is 6.5 million but no invoices have been submitted for cost involving survey and geotech work that has already been done on the project.
   b. The 10 acre land acquisition grant has now become two separate grants. We have received the first grant for $484,876.00, and the second grant for $430,642.00 should arrive by the end of the month. Both grants need to be signed and sent back to the FAA Denver District Office prior to September 11, 2020. The ground work has been laid to help expedite the signing of these two grants in order to meet this deadline.
   c. The CARES Grant for operational expenses in the amount of $69,000.00 was given to the Logan-Cache Airport. Currently I have made a draw down from this grant for operational expenses in the amount of $51,219.42. I will meet with the county finance department in September to submit the second draw down for the remaining $17,780.48 or the closest figure to that amount we can reach without going over the dollar amount of the grant. Once this draw down has been made the grant can be closed out.

2. **Buildings, Grounds, and Vehicle Maintenance.**

   a. A number of items will need to be addressed on the ARFF Truck. Some are minor repair items and other items deal with equipment that needs to be added to the vehicle.

   b. The two snow plows and the Oshkosh blower will need some maintenance work performed on these vehicles before winter arrives. I've compiled a list of repair items for the mechanic to fix on those vehicles. In addition to these snow removal vehicle repairs one of the diesel engines on the closure X's that the airport owns need to have the fuel system repaired be for the runway overlay project commences in the spring.

   c. Both the Jeep Cherokee and the GMC pickup were serviced in August and a repair to the driver's side window was done allowing the electric window to operate properly.

   d. Due to the amount of rain the valley received this spring and early summer, mowing operations at the airport have increased a considerable amount from past years. The county weed department canvased the entire airport spraying for broad leaf vegetation in August. We are hoping that this will help control the noxious weeds growing in the non-paved areas in particular the prickly pear infestation at the airport.

3. Part 139 Safety Inspection

The annual safety inspection conducted by the FAA that was scheduled for June 10th, 11th, and 12th was postponed for a later date in September. I've not received any follow up regarding this matter.

4. Capital Improvement Projects

The FAA Staff are unable to travel this year and conduct CIP planning sessions as they have in the past. Instead of joint planning meetings usually scheduled during the UAOA conference they would like to arrange for a Zoom meeting sometime between September 28th and October 5th. I have been asked to submit a ten year capital improvement plan (CIP) to the Denver ADO before September 14th. Each item should include a:

a. Project area sketch
b. Cost estimate
c. Project narrative and justification summary

ATTACHMENT B

August 26, 2020

Airport Authority Board
c/o Mr. Lee Ivie
Airport Manager
2500 North 900 West BLDG. FL-6A
Logan, UT 84321

Dear Airport Authority Board,

I am writing this letter as an official request and letter of intent to lease property at the Logan-Cache Airport for the purpose of building a hangar on that property. The lot that I am requesting is identified as F10. The hangar in which I am proposing would measure 45 feet wide and 40 feet deep. It would be a simple hangar with electricity and heat and and water/sewer for a small bathroom. The purpose of this hangar would be to store a single engine airplane which I will purchase after the hangar is complete. I am still in the process of determining which model of airplane I will buy, but I am looking at several models such as a Cirrus SR22T or a Columbia 400. I intend to use this airplane for personal use.

If you could approve this request and allow me to move forward with this I would greatly appreciate it.

Thank You,

David H Witbeck
1159 Forgotten Lane
Providence, UT 84332
dhwitbeck@gmail.com
(435) 881-6995

DISCLAIMER: THIS EXHIBIT HAS BEEN PREPARED FOR THE PURPOSES OF DEFINING THE SITE TO BE USED FOR A 40' BY 50' HANGAR STRUCTURE. PLEASE NOTE THAT THE INFORMATION PROVIDED HEREIN IS PRELIMINARY IN NATURE AND SHOULD BE VERIFIED BASED ON THE ACTUAL DESIGN OF THE PROPOSED DEVELOPMENT PRIOR TO SUBMITTAL OF A 7460-1 FORM TO THE FAA. LIKEWISE, THE INFORMATION SHOULD BE VERIFIED BASED ON THE "AS-BUILT" CONSTRUCTION PERFORMED ON THE PROPOSED DEVELOPMENT PRIOR TO SUBMITTING THE SUBSEQUENT 7460-2 FORM TO THE FAA.

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SCALE IN FEET

LOGAN-CACHE AIRPORT
LOGAN, UTAH

HANGAR F10 EXHIBIT

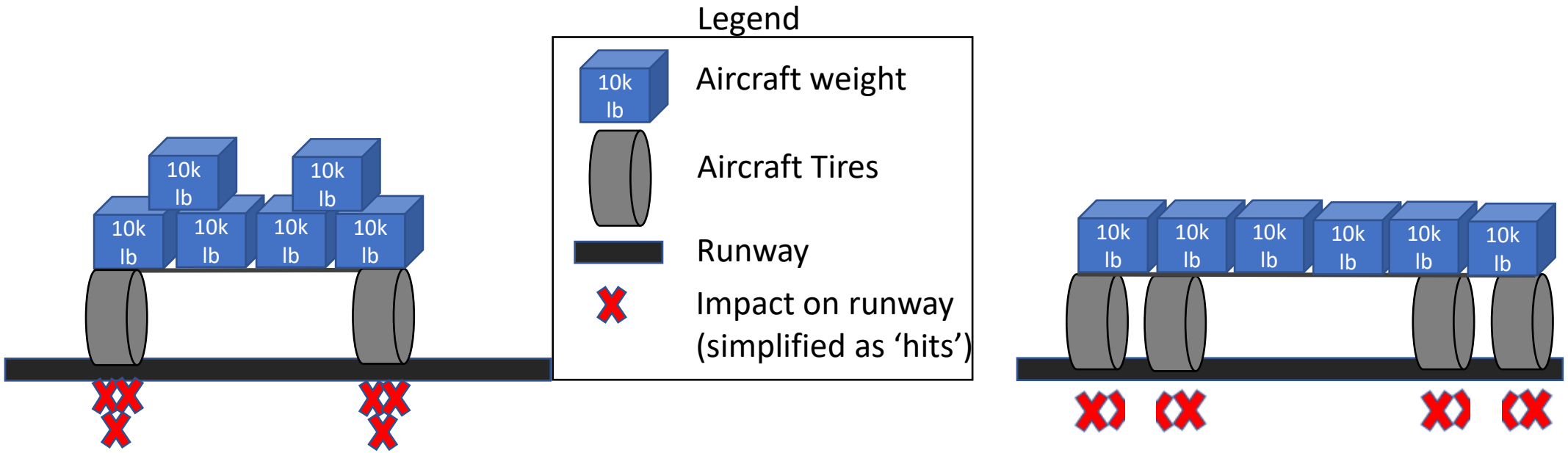
ARMSTRONG

S:\...\Logan\Misc Reports\HANGAR EXHIBITS-Dwg Reports\Taxiway E-F-G\FIG Hangar.dwg 9/1/2020 11:03:45 AM LEACHMAN

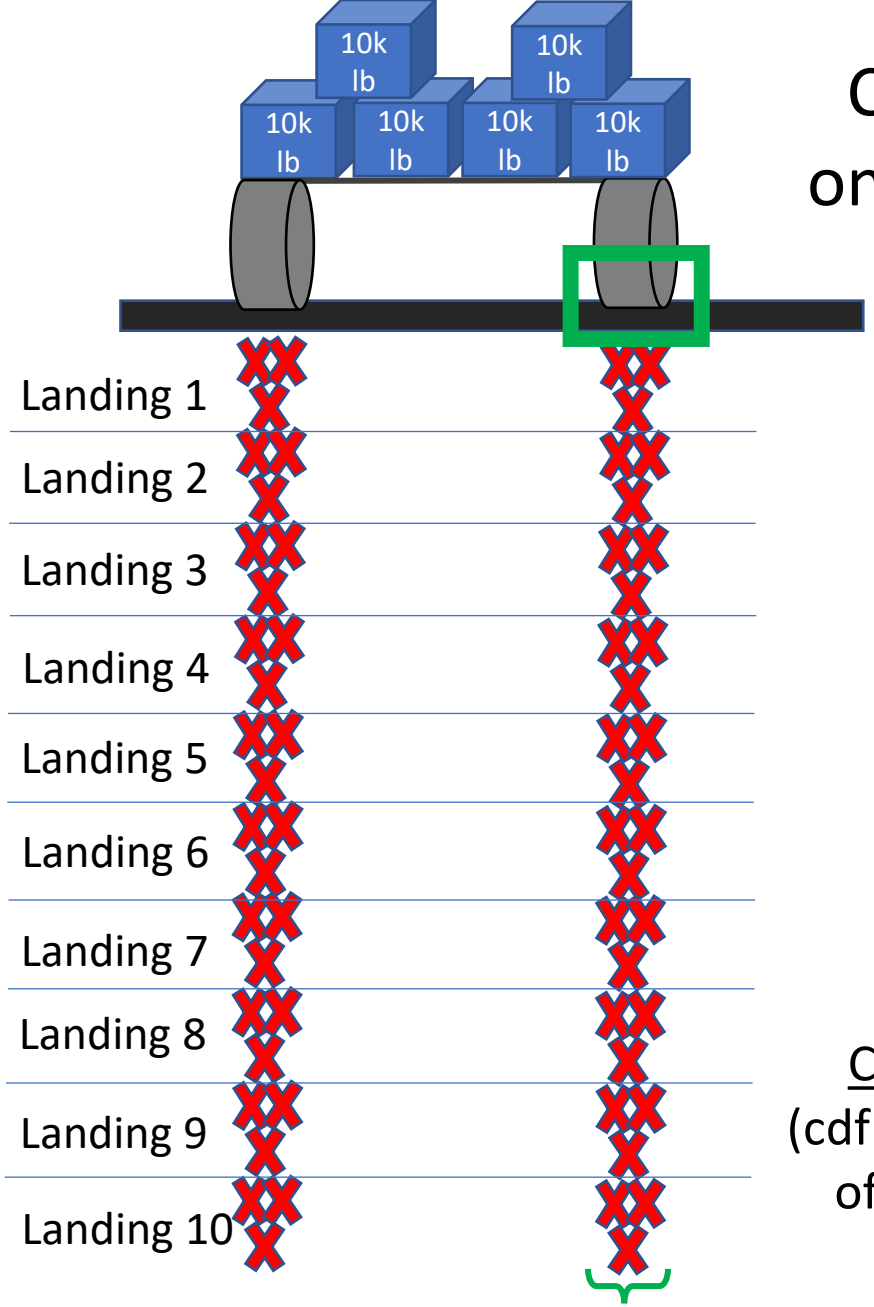
ATTACHMENT C

Aircraft Design Affects Runway Wear and Tear

- Every aircraft operation causes some wear and tear on the runway
- Example:
  - Two aircraft that weigh the same (60,000 lbs), but have different designs (single vs dual-wheel)
  - The two aircraft that weigh the same will have different long-term impacts on the runway
  - The weight of the aircraft on the left is concentrated on just two wheels, versus the same amount of weight spread across four wheels

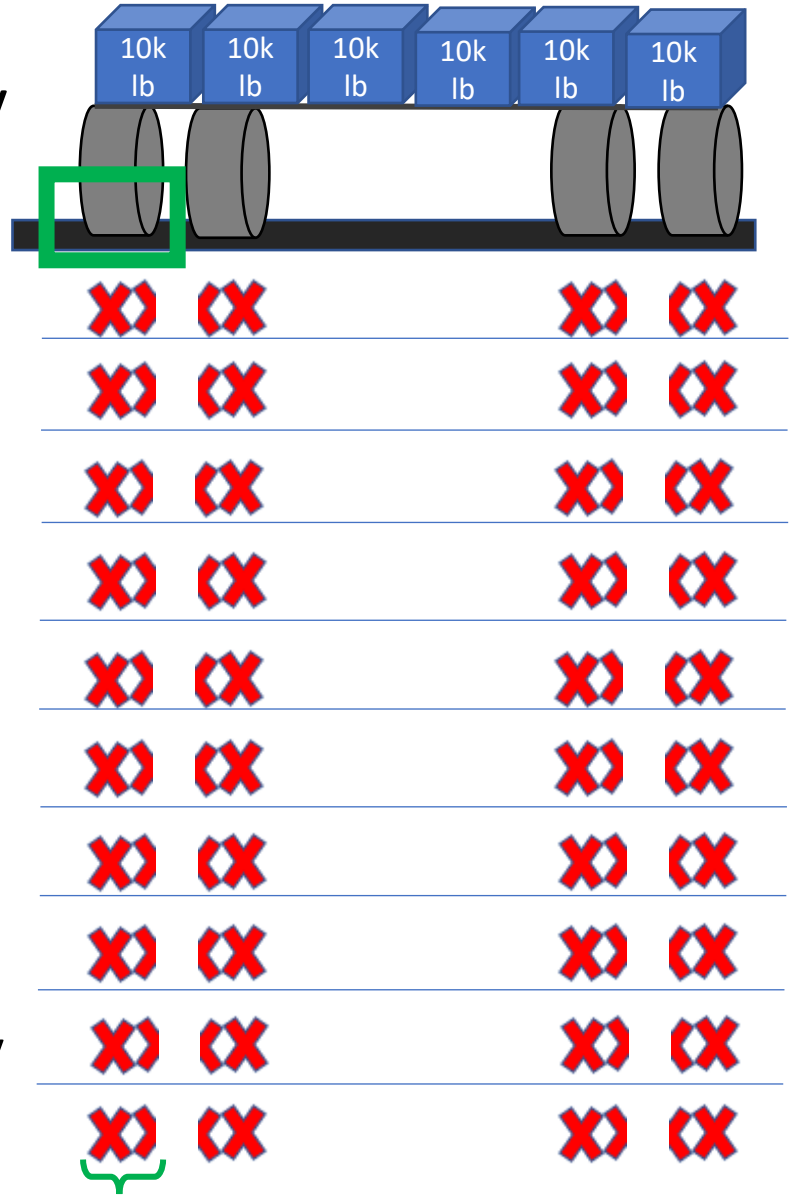


Cumulative Damage on a section of runway over 10 landings



30 'hits'
on this section of runway

Cumulative damage factor
(cdf – technical term) on runway of the left aircraft is greater than the right aircraft

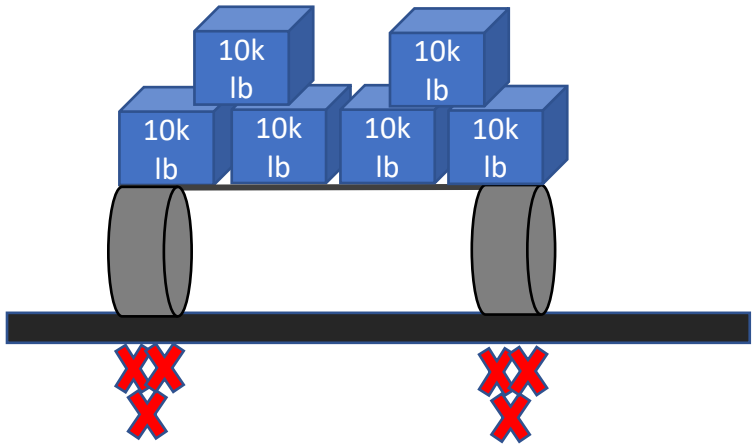


15 'hits'
on this section of runway

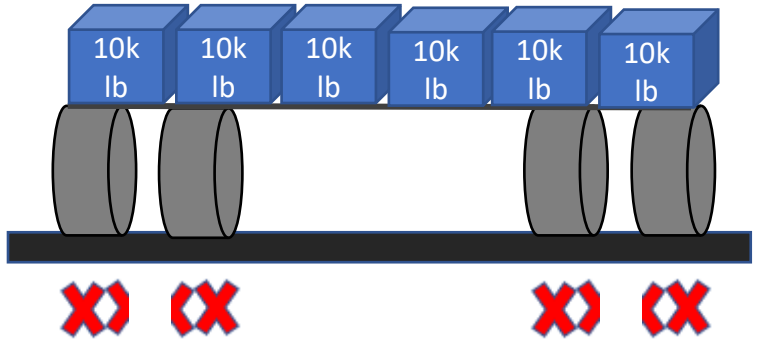
Aircraft Classification Number (ACN)

- The aircraft on the left has a greater impact on the runway, thus a higher ACN
- This simplified example shows how the ACN of an aircraft is *more impactful* on a runway than just the aircraft weight

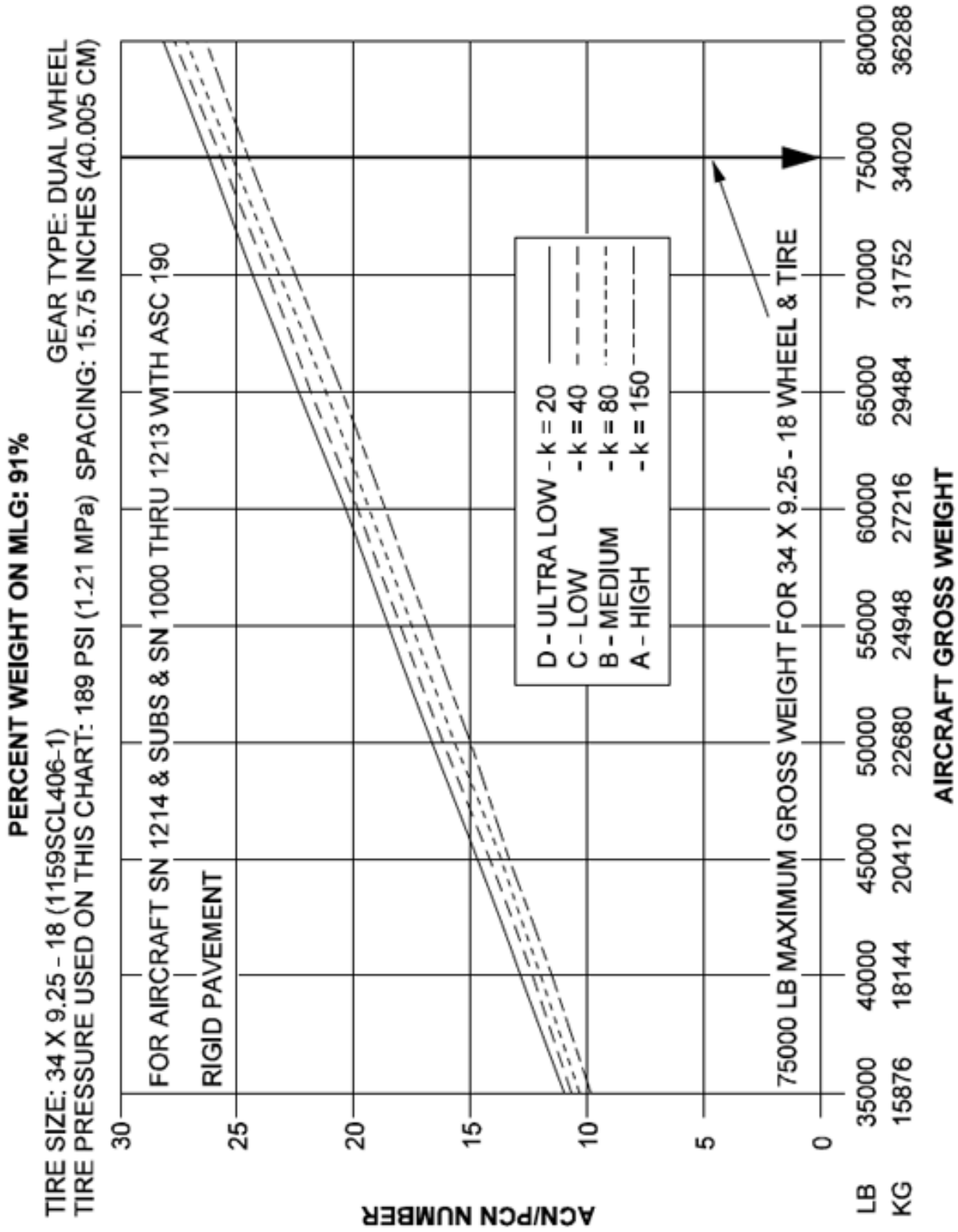
High ACN



Low ACN



G450 ACN, ctd...



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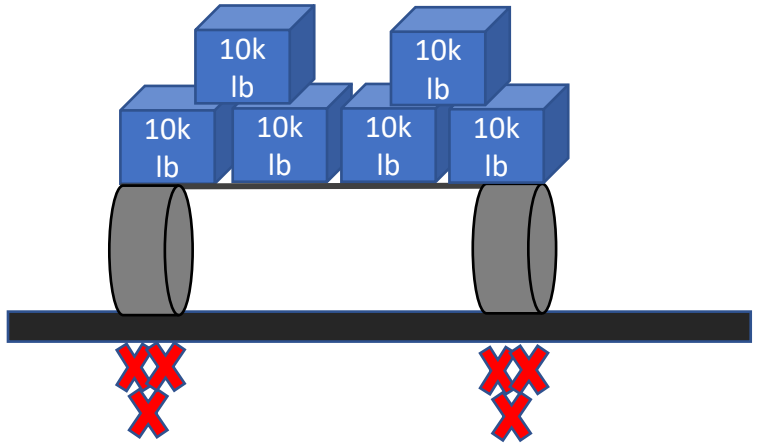
NOTE: Use of these charts is to be with reference to G450 Operating Manual Chapter 6: Approach and Landing Characteristics and Procedures.

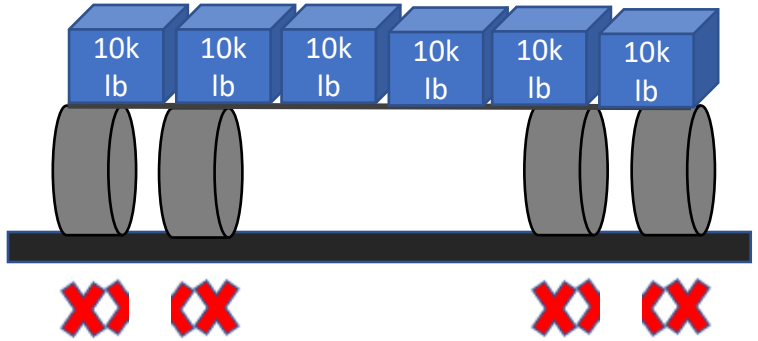
Pavement Classification Number (PCN)

- Runway designed with the left aircraft as the critical aircraft would have to be stronger than for the right aircraft because of cumulative damage factor (cdf)

Higher PCN Design



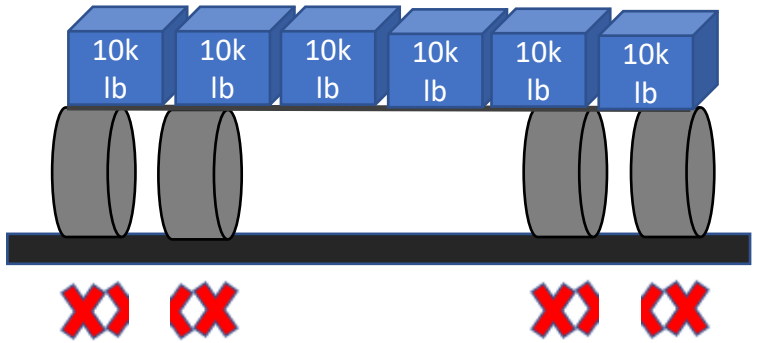
Lower PCN Design



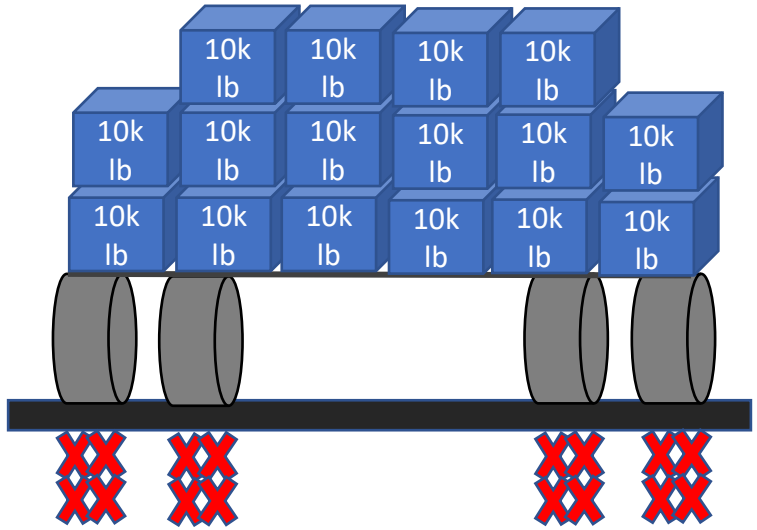
PCN - Logan

- Runway designed for critical aircraft (G-III)
- Runway currently handling 20 departures/year of 737's
- 737-800 has greater impact than G-III

LGU – Gulfstream-III



LGU – 737-800



Current Runway 17/35

- LGU now gets infrequent 737 operations
- Using the limited operations (~20/year) of the 737-800, and the overall fleet mix using the airport (IFR use data), Armstrong was able to calculate the PCN of RWY 17/35
  - **PCN = 51/F/C/X/U**
  - The weight rating did not change because the calculation could only be made off of the established fleet mix currently using the runway

Runway Rehabilitation Project Results

- With the current project, including the detailed technical analysis of existing runway subgrade materials and the addition of significantly more asphalt on the runway, the PCN and weight for Logan (RWY 17/35) will be:

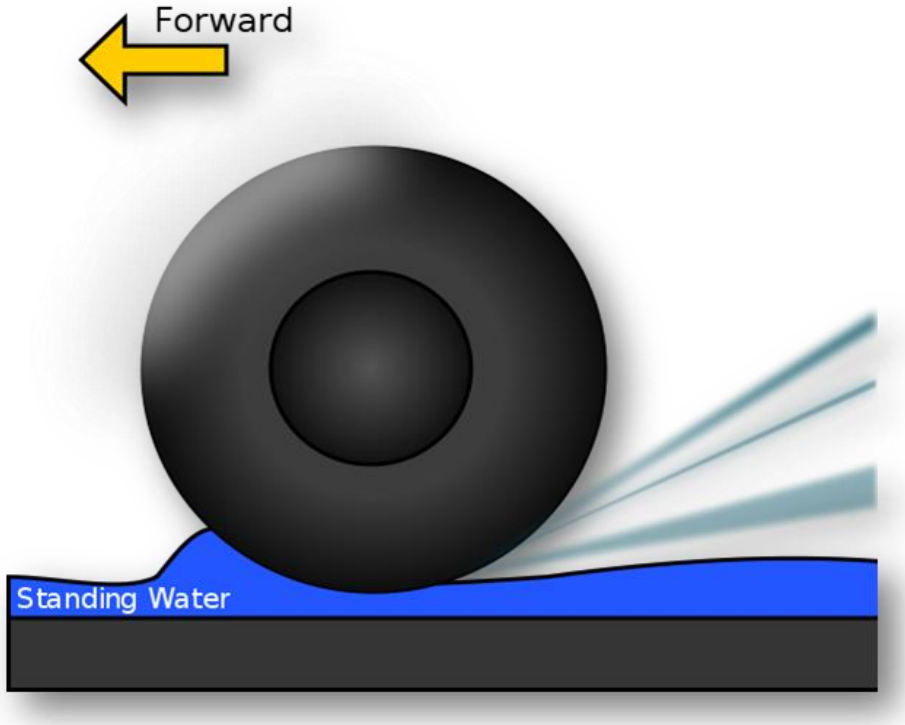
  55 F/D/X/T

  Dual-wheel weight of 170,000 lb

- This is directly tied to the fleet mix (frequency) of aircraft using the runway, specifically that 737-800's will not be regularly (according to FAA) using runway
- 2" increase in RWY thickness will enable a 350% increase in existing 737 traffic
- 3" increase in RWY thickness will enable a 700% increase in existing 737 traffic (dependent upon construction bids)
- Runway upgrade will support unlimited commuter jet service (eg. Delta/United/American 50-seat CRJ-200s)

Runway Grooving

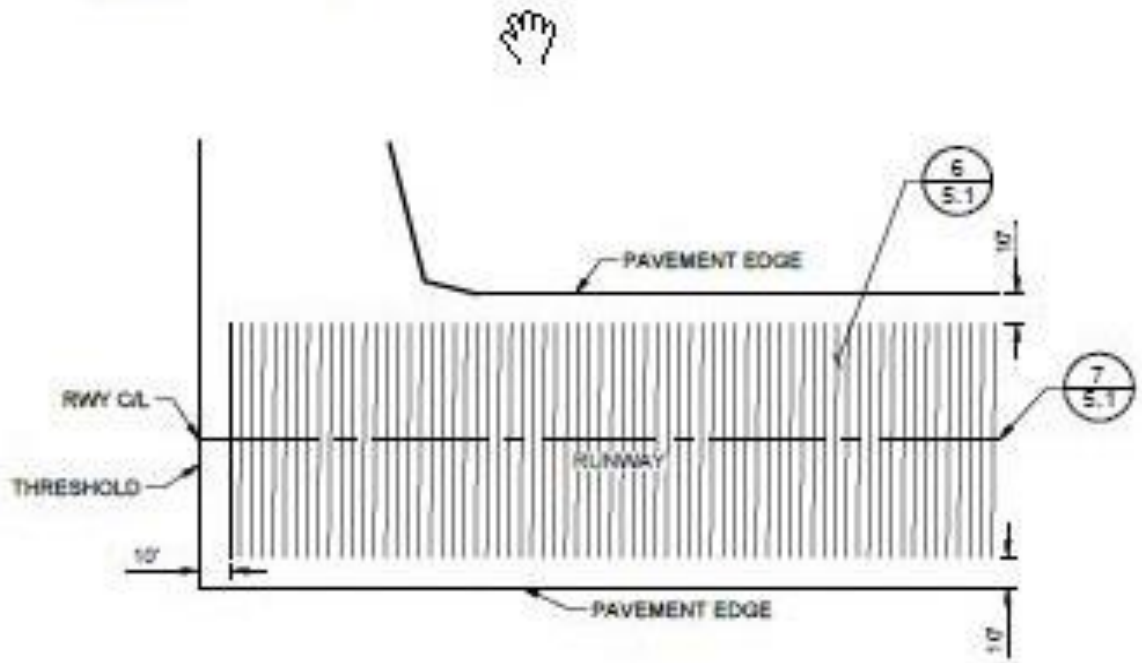
- Hydroplaning mitigation (not friction)
- Grooves provide path for water during braking action
- Increased surface area compared to flat surface, similar to current porous friction course. Will need more seal coat quantity.



COURSE

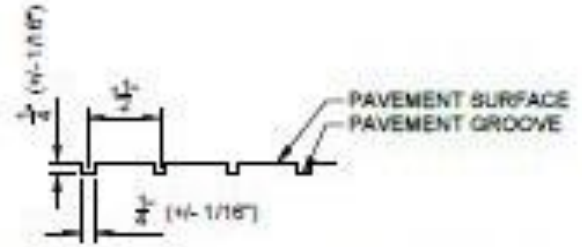
2 / 5.1 TAXIWAY & BLAST PAD TYPICAL SECTION

NOT TO SCALE



5 / 5.1 SAW-CUT GROOVES LAYOUT

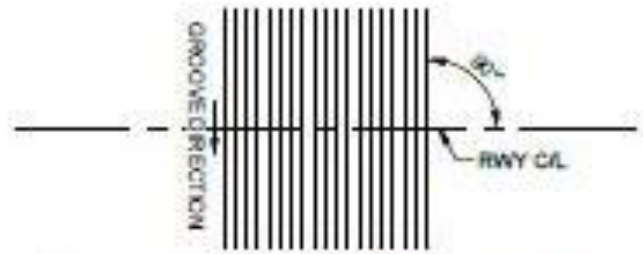
NOT TO SCALE



6 / 5.1 SAW-CUT GROOVES TYPICAL SECTION

NOT TO SCALE

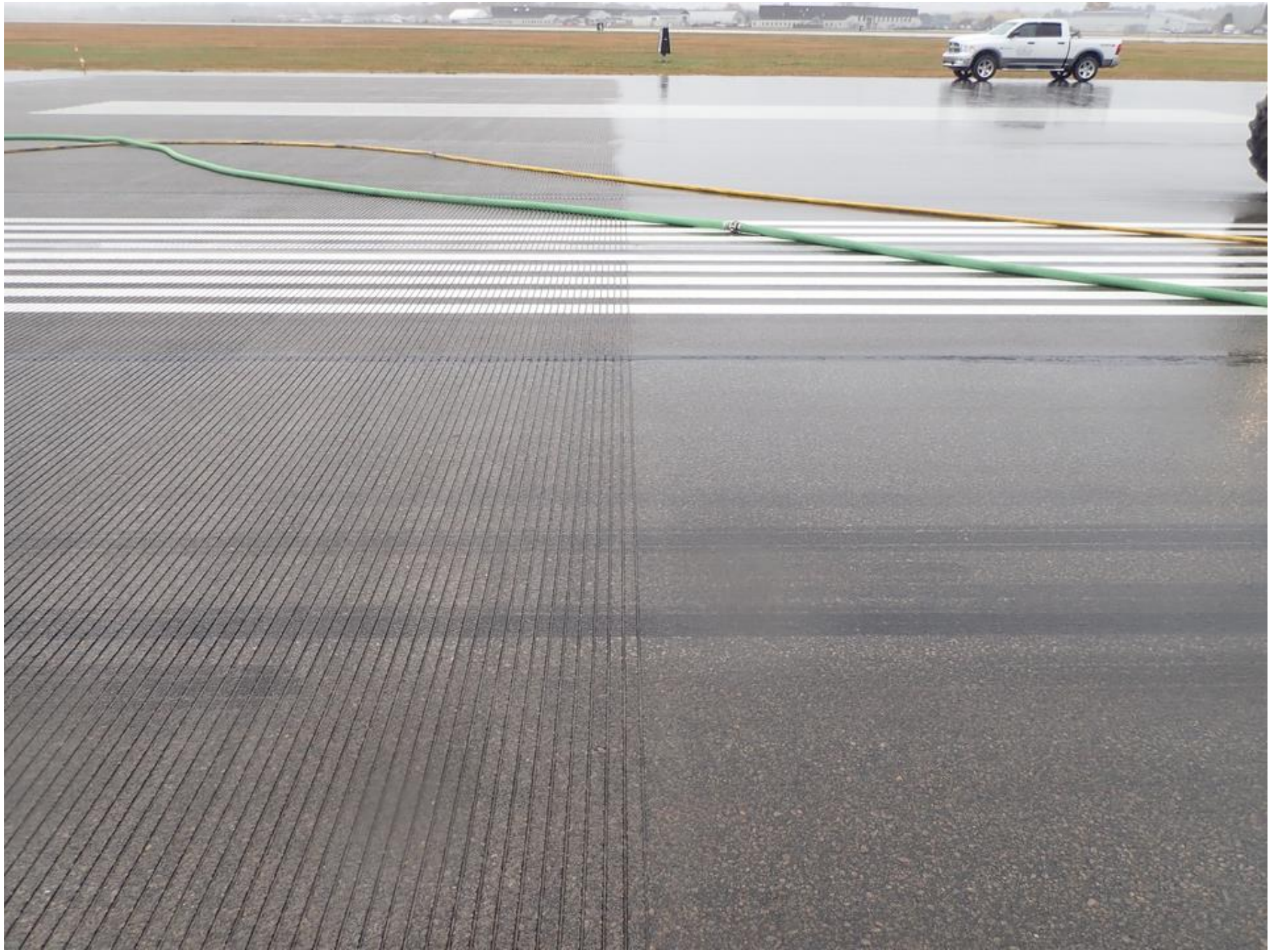
TOLERANCE: CENTER TO CENTER SPACING - 1-3/8" MIN., 1-1/2" MAX.



7 / 5.1 SAW-CUT GROOVES ALIGNMENT

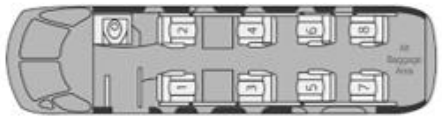
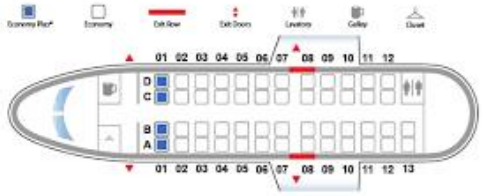
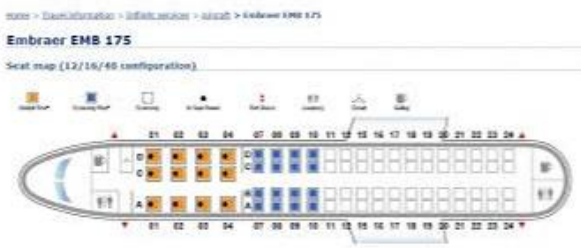
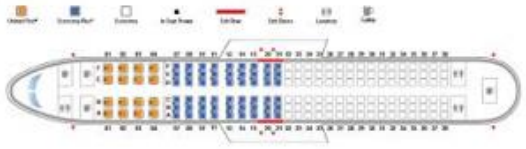
NOT TO SCALE

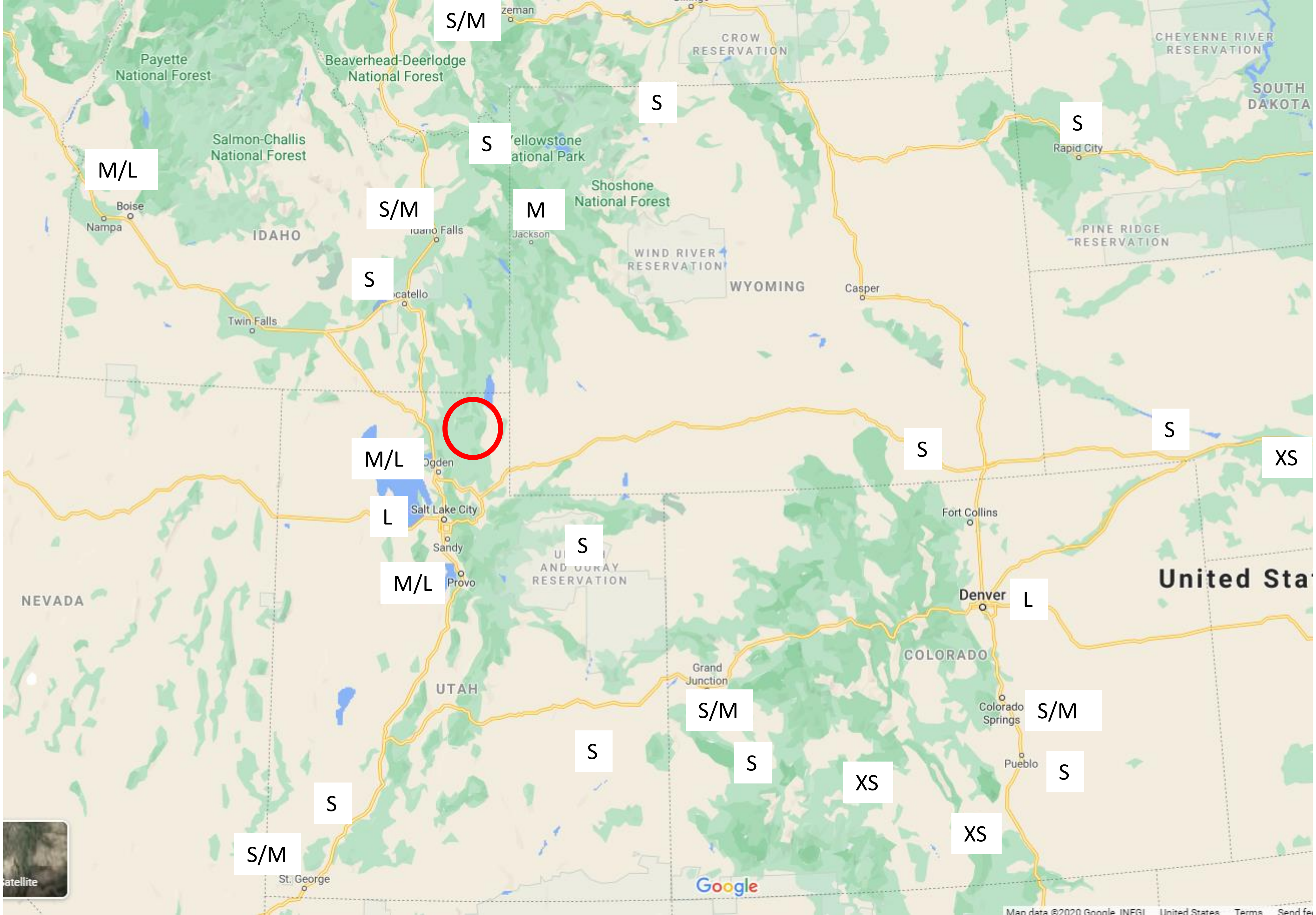
TOLERANCE: +/- 1-1/2" PER 75' LINEAL FEET OF RUNWAY



Future Airport Needs

- 500 Operations/year is considered regular use by FAA, and an airport would have to be designed and built for those aircraft
- If LGU reaches over 150 departures a year of 737's (1 flight every other day), the FAA would fund planning work to upgrade the airport
  - The FAA will not fund work if there is not a proven need*

XS	B-II		
S	C-II		
M	C-III		
L	C-III/C-IV		



S/M
Payette National Forest
Beaverhead-Deerlodge National Forest
CROW RESERVATION
CHEYENNE RIVER RESERVATION
SOUTH DAKOTA
S
S
Rapid City
Salmon-Challis National Forest
S
Yellowstone National Park
M/L
Boise
Nampa
S/M
M
Shoshone National Forest
Jackson
IDAHO
PINE RIDGE RESERVATION
WIND RIVER RESERVATION
WYOMING
Casper
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Twin Falls
M/L
Ogden
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Salt Lake City
Sandy
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Google
Satellite
Map data ©2020 Google, INEGI

Future Airport Needs (for unlimited 737 service) – Cost Estimates

- New airport master plan (~$500,000) for ARC upgrade from C-II to C-III
- Environmental Assessment (~$750,000)
- Terminal building for 150 passengers (~$20,000,000)
- Apron and taxiway strength upgrades (~$20,000,000)
- Runway upgrade (widen from 100’ to 150’) (~$25,000,000-$75,000,000)
- Most of these requirements would not be needed for commuter jet service*

Logan Runway Strength and Development Overview

- Why bother with Aircraft Classification Number (ACN)/Pavement Classification Number (PCN)?
- Aircraft impact on runway - ACN
- Strength of the runway - PCN
- Current Runway 17/35
- Future Runway 17/35

Why use ACN/PCN?

- FAA mandated that a runway's PCN is published in 2014
  - At this time, it was determined by the FAA that the affect of an aircraft's design, beyond just the weight of the aircraft, needed to be accounted for in runway design
  - Even though this method is mandated/required for reporting on an airport's 5010 by Grant Assurances #9 and #34 since 2015, many airports are non-compliant (eg. SLC, SGU, PVU)
- Aircraft Classification Number (ACN)
  - Determined for all aircraft by the manufacturer, based on a particular configuration, and on the PCN of the runway it is landing on
- Pavement Classification Number (PCN) calculation incorporates:
  - Pavement material
  - Fleet mix/aircraft design
  - Subgrade strength (CBR-California Bering Ratio)

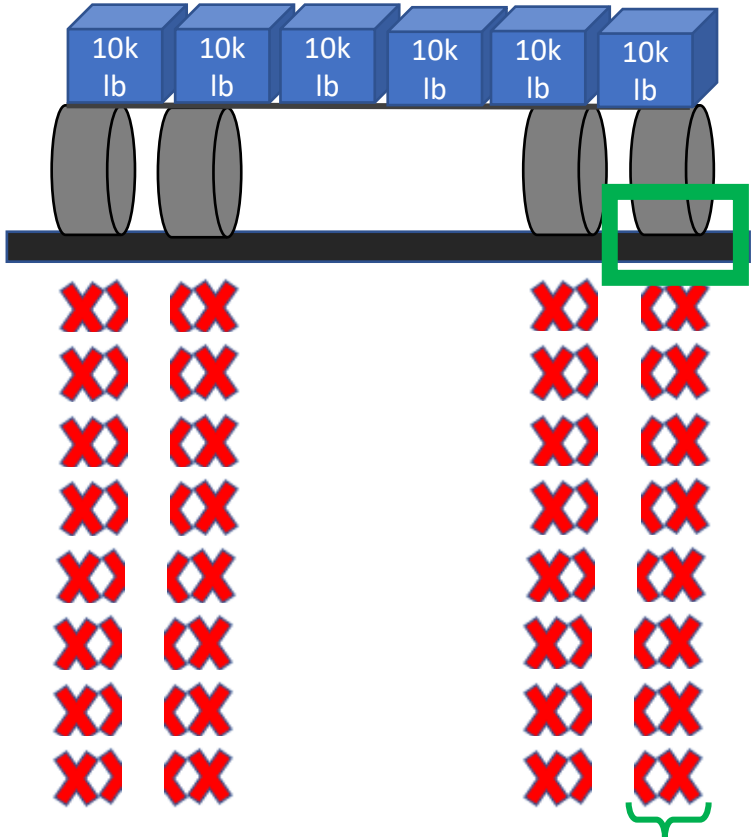
History of Runway 17/35

- 1997 - ALP Update, and construction in subsequent years
  - Airport determined their goals
  - Critical aircraft of RWY 17/35 was King Air 100 with 9,650 lb single wheel strength
  - Ultimate configuration was a critical aircraft of Gulfstream-III (68,700 lb) with C-II airport design
  - RWY 17/35 improved, and rated at 68,000 lb
- 2010 LGU contracted with JUB to develop master plan update
  - Existing critical aircraft, and future critical aircraft determined by LGU is the Gulfstream-III with a C-II ARC classification
  - Desire for commercial service is indicated within master plan, but aircraft type, timeline, and cost were not considered by LGU in timeline through 2029
- 2014 FAA requires switching to ACN/PCN under AC 150/5335-5C
- 2017 LGU and Armstrong developed a terminal area update
  - Existing critical aircraft, and future critical aircraft determined by LGU remained as the Gulfstream-III with a C-II ARC classification

PCN – Logan (737 impact-simplified)

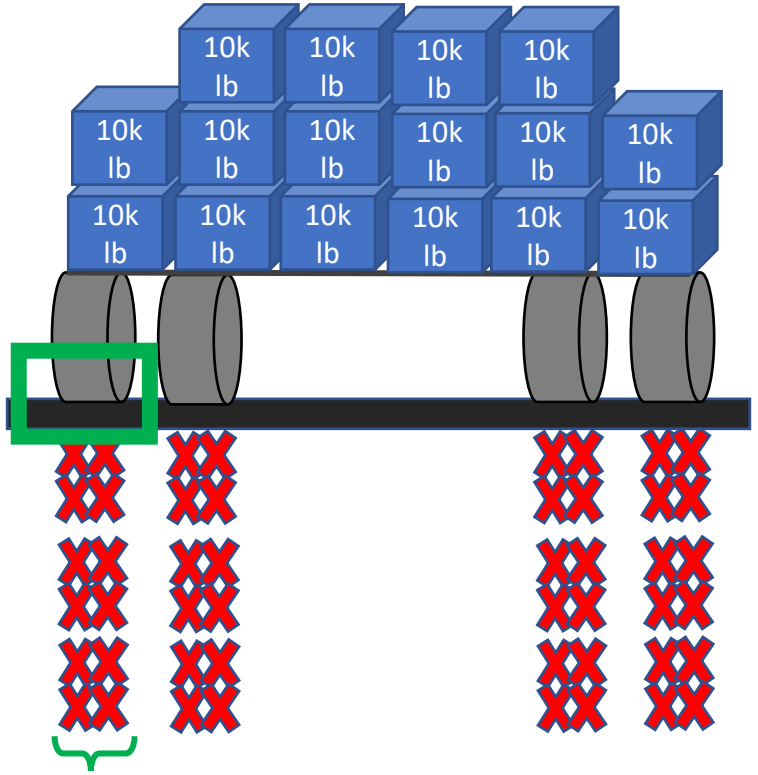
RWY 17/35 can support the 737 operations that come into airport, but each operation causes more wear and tear on runway than smaller aircraft

LGU – Gulfstream-III



8 Landings = 12 ‘hits’

LGU – 737-800



3 Landings = 12 ‘hits’

PCN/ACN

- If the *ACN is less than PCN*, aircraft can land
- Pilots have charts (like this example→) to tell them their ACN
  - You can see that ACN increases with more weight, and less-dense runway substrates (A-D)
- Pilots are responsible for knowing the PCN of where they are landing, and for knowing what their ACN is for a given weight of that aircraft on that runway

NOTE: Use of these charts is to be with reference to G450 Operating Manual Chapter 6: Approach and Landing Characteristics and Procedures.

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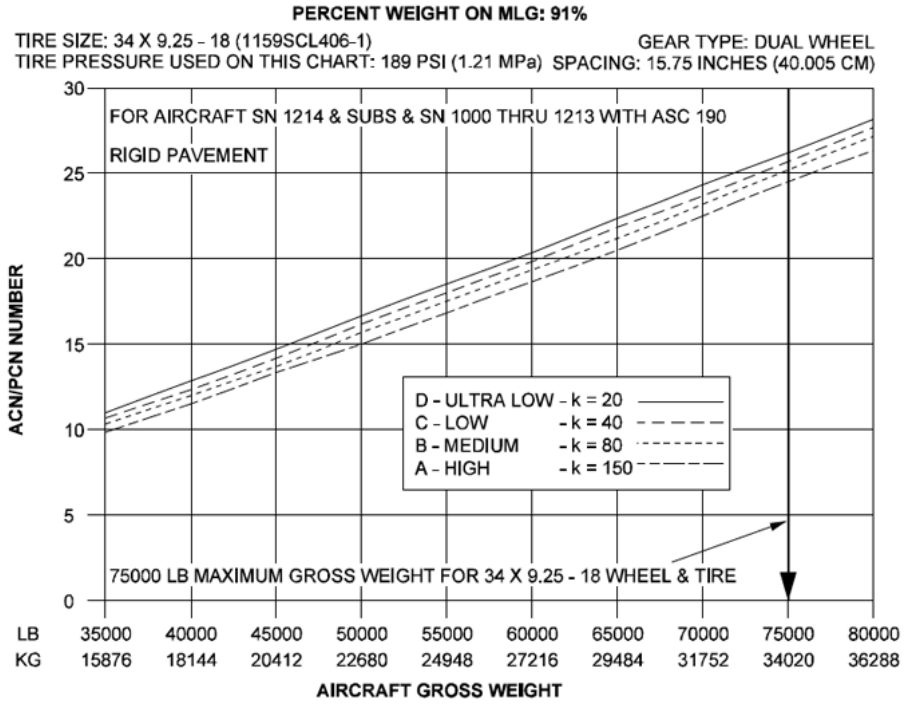

ATTACHMENT D

AIRPORT CAPITAL IMPROVEMENT PLAN

Federal Aviation Administration

2021 - 2026

Airport: Name: **Logan-Cache Airport**		Airport Identifier:	**LGU**		Site No.:		
Sponsor Name: **Logan-Cache**		State:	**Utah**		Date:	**4/8/2020**	
Project Description & Year	Federal Funds		State Funds		Local Funds		
	90.63%		4.685%		4.685%		
(By funding year in priority order)	FAA	NPE	Overmatch	Match	Other	Match	Total Cost
2019		$0					
RWY 17/35 (Supplemental Funding)	$6,000,000	$0		$310,162		$310,162	$6,620,324
				$0		$0	$0
2020		$150,000					
Land Acquisition (CARES Act - 100% FAA Funding)	$780,250	$150,000		$0		$0	$930,250
Bank $150,000 NPE							
2021		$150,000					
Self-service 100LL and Jet A	$484,410	$150,000		$32,795		$32,795	$700,000
				$0		$0	$0
2022		$150,000					
Snow Removal Equipment Building	$303,150	$150,000		$23,425		$23,425	$500,000
2023		$150,000					
Taxiway C Pulverize, Blend, Repave	$461,753	$150,000		$31,624		$31,624	$675,000
2024		$150,000					
Taxilane I Phase II	$556,914	$150,000		$36,543		$36,543	$780,000
2025		$150,000					
Taxilane K	$602,229	$150,000		$38,886		$38,886	$830,000
2026		$150,000					
New SRE	$393,780	$150,000		$28,110		$28,110	$600,000
Future Projects		$150,000					
Bus loop/bus stop							$850,000
Remote Communications Outlet (RCO)							FAA Funded
Electric Charging Ramp							$700,000

LOGANCACHE AIRPORT

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