



# A PIRATE LOOKS AT 40

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# OUTLINE - REFLECTIONS ON 40 YEARS (BUFFETT TRIBUTE)



- PIRATE TRIVIA
- STATE OF THE ART TO STATE OF THE PRACTICE
- PAVEMENT INVESTMENTS
- RPUG REFLECTION



1946-2023

# PIRATE TRIVIA



ORIGINATION OF PITTSBURGH BASEBALL TEAM NAME — PIRATES

A. PIRATES ON THE ALLEGHENY RIVER IN THE 1800's



B. PITTSBURGH BASEBALL TEAM "ACQUIRES" LOUIS BIERBAUER FROM THE PHILADELPHIA A's BASEBALL TEAM



C. JIMMY BUFFETT

ANSWER: 1891 PITTSBURGH BASEBALL TEAM ACCUSED OF "PIRATING" PLAYER LOUIS BIERBAUER

# "STATE OF THE ART" TO "STATE OF THE PRACTICE"



"STATE OF THE ART" - THE MOST ADVANCED, CUTTING-EDGE TECHNOLOGY OR KNOWLEDGE

"STATE OF THE PRACTICE" - WHAT'S COMMONLY DONE IN THE FIELD, LAGS STATE OF THE ART

PROMISING IDEA – IS IT FEASIBLE

STATE OF THE PRACTICE ACHIEVED WHEN:

- AGENCIES CAN RELY ON THE DATA
- VENDORS CAN CONSISTENTLY DELIVER IT
- ENGINEERS CAN INTERPRET IT
- DECISION MAKERS CAN DEFEND IT

# “STATE OF THE ART” TO “STATE OF THE PRACTICE”



NATIONAL QUALITY INITIATIVE – 1995 NATIONAL HIGHWAY USER SURVEY

- PAVEMENT CONDITIONS – RANKED TOP PRIORITY (#2 SAFETY)
- 1986 INTERNATIONAL ROUGHNESS INDEX (IRI) INTRODUCED
- LITTLE BOOK OF PROFILING 1<sup>ST</sup> PUBLISHED 1995
- FHWA REQUIRES STATE AGENCIES TO REPORT RIDE QUALITY IN IRI

RPUG WAS CENTRAL HUB – CREDIBILITY, REPEATABILITY, AND TRUST

# SAMPLING VS CONTINUOUS MEASUREMENT



PAVEMENT CONDITIONS CAN VARY CONSIDERABLY WITHIN SHORT LENGTHS

- RIDE, RUT, CRACK, FAULTING
- STRUCTURAL
- TEXTURE (TEXTURE FOR FRICTION AND SEGREGATION)
- DENSITY

CONTINUOUS MEASUREMENT DATA COLLECTION: NETWORK VS PROJECT LEVEL? TIME?

- IS IT TIME TO SUNSET THESE TERMS FROM DATA COLLECTION AND MAINTAIN FOR USE OF DATA/INFORMATION

# “STATE OF THE ART” TO “STATE OF THE PRACTICE”



## PEOPLE WHO MAKE IT HAPPEN

- GENERALLY A FEW KEY INDIVIDUALS
- CHAMPIONS—ENGINEERS, RESEARCHERS, AND AGENCY LEADERS—WHO ARE WILLING TO TEST, REFINE, AND SOMETIMES FIGHT FOR THE VALUE OF NEW METHODS.
  - BUILD CONSENSUS ACROSS AGENCIES AND VENDORS
  - INSIST ON DATA QUALITY WHEN IT WOULD BE EASIER NOT TO

# “STATE OF THE ART” TO “STATE OF THE PRACTICE”



## DATA QUALITY: THE NON-NEGOTIABLE FOUNDATION

- USE OF THE DATA/INFORMATION GUIDES QUALITY
  - CLEAR DEFINITIONS
  - REPEATABLE MEASUREMENT PROTOCOLS
  - CALIBRATION AND VERIFICATION
  - TRANSPARENT QUALITY MANAGEMENT
  - SHARED UNDERSTANDING OF WHAT THE NUMBERS MEAN

WITH ALL OF THESE EFFORTS — CHANGE IS VERY CHALLENGING

# PAVEMENT INVESTMENTS



## PAVEMENT INVESTMENTS DRIVEN BY PAVEMENT MANAGEMENT SYSTEMS: TODAY VS 25 YEARS AGO

- PAVEMENT DECISIONS MORE DRIVEN BY DATA TODAY
- NEED TO HAVE DATA/INFORMATION DRIVEN PAVEMENT DECISION
  - REDUCE "POLITICAL" PRIORITIZATION

# RPUG: THE QUIET ENGINE BEHIND NATIONAL PRACTICE

- IDEAS MATURE
- STANDARDS DEBATED, REFINED, AND ACCEPTED
- NEXT GENERATION LEARN THE HISTORY
- FUTURE:
  - TECHNOLOGY WILL ADVANCE
  - ADOPTION WILL LAG
  - STANDARDS WILL TAKE TIME
- RPUG COMMUNITY - FRIENDS





HONORING THE PAST. PAVING THE FUTURE.

**THANKS FOR YOUR TIME**