



CELEBRATING ★ ★ ★ ★ ★ ★ ★ ★

250

 **RPUG**
Road Profile Users' Group

★ ★ ★ ★ ★ ★ ★ ★

★ ★ ★ ★ ★ ★ ★ ★ YEARS OF PROGRESS

HONORING THE PAST. PAVING THE FUTURE.

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 1ST 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

