

2025 Texas Pedestrian Safety Forum

Seeing the Intersection Without Sight:

A Look From Behind the White Cane

Presented by:
Suzette May



**Suzette
May** LLC

Bridge Gaps. Build Access. See Possibilities.



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Overview

- What it's like for a blind pedestrian at an intersection.
- Why Accessible Pedestrian Signals (APS) and compliance matter.
- Practical, actionable ways to ensure compliance and accessibility.

Suzette May

Suzette May is a disability advocate and accessibility consultant. Based in Waco, Texas, she champions access without barriers and serves on state and national pedestrian committees. She recently completed her undergraduate honors thesis on Accessible Pedestrian Signals and begins a Master's in Orientation & Mobility this fall. She travels nationwide often with her Seeing Eye Dog, Fred.



Intersection or Aviary?

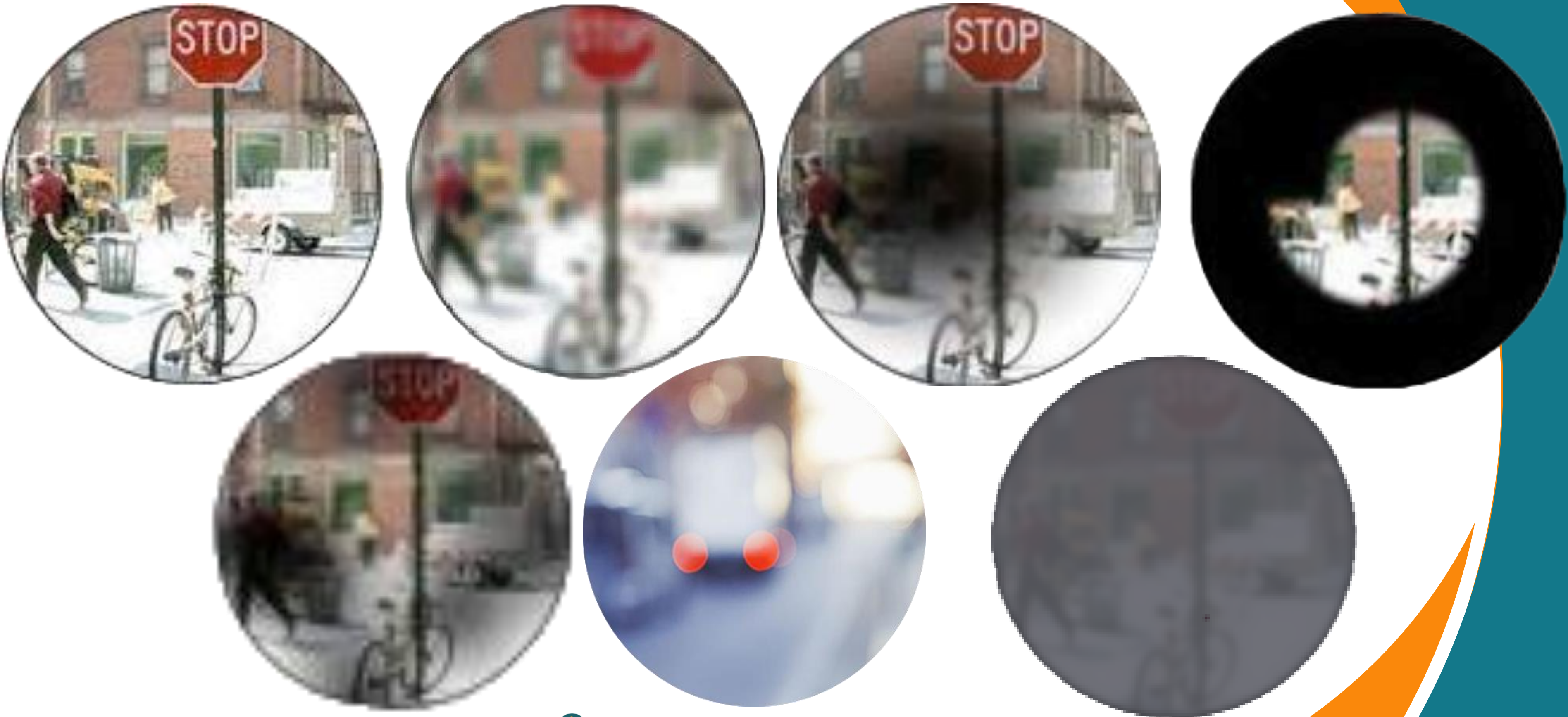
- **cuckoos for north-south** crossings and **chirps for east-west**.
- Loud and confusing
- Spillover from other intersections
- Created more questions than answers

Important Progress

- Origin: APS first appeared in Japan in the 1960s, later spreading to Europe and the U.S.
- Evolution:
 - Early versions were simple buzzers or beeps (or chirps and cuckoos!).
 - Modern APS include features like tactile arrows, speech messages, and locator tones.
- First incorporated into 2000 MUTCD standards.



A Blind Perspective



Nonvisual Intersection Navigation

Alignment

- Physical cues- sidewalk, curb edge (not curb ramp)
- Traffic cues- parallel and perpendicular
- Auditory cues- stop line
- Vibrotactile arrow
- Opposite locator tone while crossing

When To Cross

- Leading parallel surge- safest time to cross (sometimes mistaken for on protective left)
- All Quiet (4 way stops, fixed time low traffic volume)
- Rapid tick (easily heard above ambient noise)
- Speech message ("Walk sign is on") fades rapidly into ambient noise

While Crossing

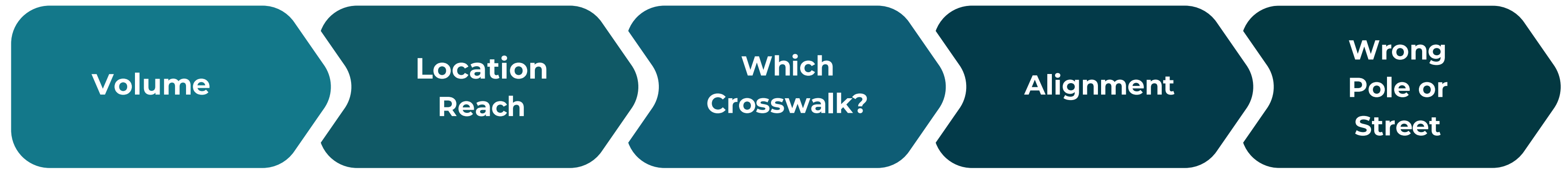
- Listen for red light running
- Right turning vehicles
- Alignment cues- stop line, parallel traffic
- Rapid tick, locator tone behind
- Locator tone in front

Other Information

- Intersection layout
- Intersection control and pattern
- Street names
- Vibrotactile arrow for deaf-blind and hard of hearing



Common APS Issues



5 dB, 6-12 ft

- 5 dB above ambient noise
- No louder than 12 ft max
- No softer than 6 ft min
- Too loud- hard to localize
- Too soft- can't hear at crosswalk, inaccessible

Outside

- First place visually impaired look
- Consistent
- Less likely to be taken out by errant vehicles
- Reach- no more than 10" from clear ground space (30"x48"), 42" high

Next to

- Eliminates ambiguity
- Easy to find, easy to reach
- Accessible for deaf-blind, hard-of-hearing

In Line

- Eliminates guesswork on crosswalk direction
- Decreases time spent lining up and crossing
- Increases successful completion



Wrong Pole or Street

- Less than 10 ft. apart or on same pole:
 - Increases likelihood of crossing at the wrong time
 - Not lined up
 - Creates confusion and ambiguity
 - Even sighted pedestrians guess wrong
 - Stays loud



Without Audible Messaging



“Walk Sign is
On to Cross
Broadway at
Seventh”

Leading Pedestrian Intervals (LPIs)

- Pedestrians begin crossing 3-10 seconds before parallel traffic, giving them a head start and an established presence in the crosswalk
- Many cities are adopting this as part of their Vision Zero Initiatives
- ***Without an audible speech message***, blind pedestrians wait for their parallel traffic surge to begin crossing when drivers aren't expecting them, missing or cutting short their time to cross.

Exclusive Pedestrian Phasing (EPPs)

- Vehicles in all directions stop while pedestrians cross in all directions including diagonally.
- Popular in high pedestrian areas such as college campuses
- ***Without an audible speech message***, blind pedestrians wait for their parallel traffic surge when drivers don't expect them, missing the pedestrian phase altogether.

Risk of Inaccessibility

- Courts in New York City and Chicago have ruled that failing to install sufficient APS across a city's pedestrian grid such that blind pedestrians can't safely and independently cross signalized intersections is a violation of the ADA and Section 504.
- Complying with the ADA Title II mandate is not contingent upon there being written standards and guidelines in place. PROWAG and MUTCD (2024) are considered best practice.
- District of Columbia was just recently filed upon.



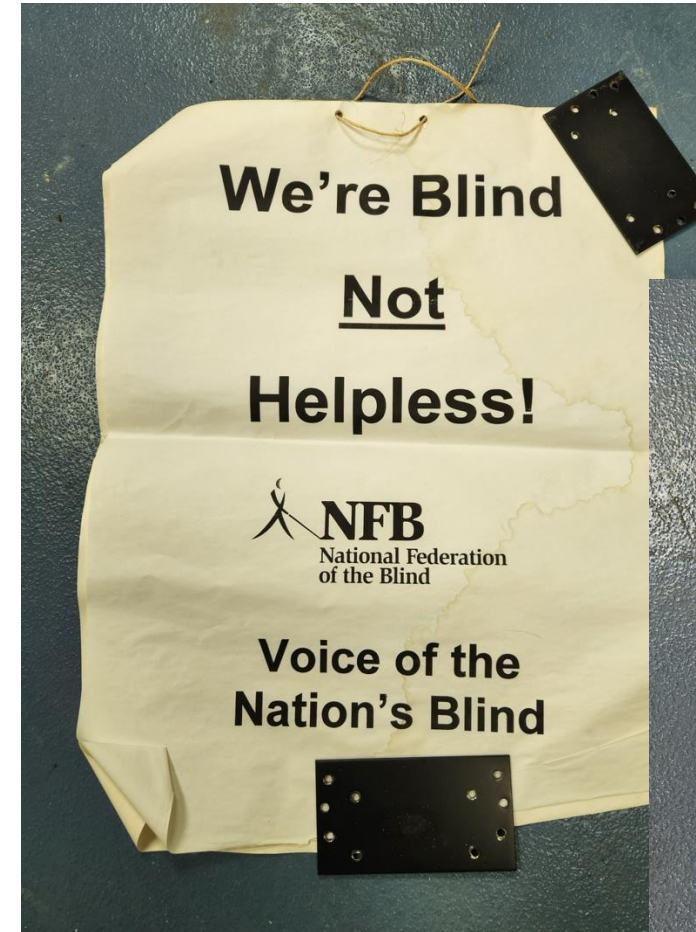
Two Approaches to Blind Travel

One Set of Standards for All Pedestrians

APS guidelines are based on rigorous research and field testing by mobility experts, designed to meet the needs of all users with visual impairments. Priority is mandated for established accessibility standards over individual or municipal objections.

National Federation for the Blind

- Prioritizes **nonvisual travel skills** over reliance on technology.
- Supports **selective use** of APS where standard cues are insufficient.
- Warns against fostering **dependence on devices** rather than training.
- Encourages blind user input but favors a **more limited APS scope**.



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American Council of the Blind

- Advocates for **widespread installation** of APS as essential to safe, independent travel.
- Emphasizes **user-centered design**: proper placement, volume, alignment.
- Promotes **collaboration** with blind users and O&M professionals in planning.
- Views APS as **necessary infrastructure**, especially at complex intersections.

Prioritization?

- Downtown looks good but really needed in arterials and perimeter populations, out from bus routes, etc.
- Find out process for requests and are they getting where they need to go quickly?
- Promote **feedback loop** with blind users and O&M professionals in planning and implementation.



Actionable Steps



Design and Punch List

- Much can be caught at the design stage
- Final Adjustment is critical

Feedback Loop

- Open up a request line
- Establishing a feedback loop to gather input and actively inform pedestrians about functionality, limitations, and design intent.



Innovations in Technology

- Polara's Wireless APS, Pedapp
- Oko
- Drawback: Not everyone has a cell phone or wants to use it at an intersection
- ADA states it has to be useable by everyone

THANK YOU



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