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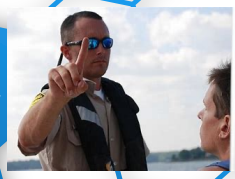
91% = 91%: The Seated SFST Battery



Presented by Ari Briskman

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Ari Briskman

1. Law enforcement officer in northern Illinois for 18 years
2. Drug Recognition Expert - Instructor
3. NASBLA Seated Standardized Field Sobriety Test Instructor
4. Traffic Crash Reconstructionist / Watercraft Incident Investigator

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Learning Objectives

1. Become familiar with the history of field sobriety testing in the marine environment
2. Understand the study that scientifically validated the Seated SFST Battery
3. Understand the role the Seated SFST Battery can play in roadside impaired driving investigations

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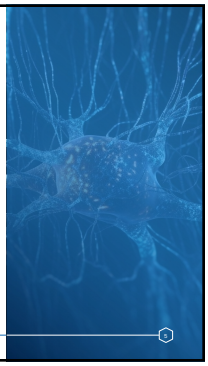
Impairment on the Water

- Millions of Americans enjoy boating
- 2023: 4.9 deaths per 100,000 vessels
- 2023: $63 million in property damage
- Alcohol is the leading known contributor in fatal boating crashes



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Alcohol and Boating: A Deadly Combination

The Vessel	No brakes, no seatbelts, no protection
The Water	No speed limits (generally), no marked lanes, obstacles galore
The Operator	No license (generally), no formal training (often), open alcoholic beverages, many distractions
The Public	Apathy until tragedy strikes, disdain for restrictions on behavior, desire to hamper law enforcement's abilities

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Early Boating Under the Influence (BUI) Enforcement Efforts

- BUI was not always illegal
- Lack of training for investigators
- BUI was not a priority for potential investigators
- Existing training was inadequate for maritime purposes

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1987 US Coast Guard Study

Objective
Determine the usefulness of a field sobriety test (FST) battery in the marine environment.

Participants
- Maryland DNR / Ohio DOW officers
- 97 volunteer drinkers

FSTs
Alphabet Recital, Hand Pat, Finger to Nose, Finger Count, HGN, WAT, OLS.

FST Location
Water: Alphabet Recital, Hand Pat, Finger to Nose, Finger Count, HGN.
Land: HGN, (10 minutes) WAT, OLS.

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Major Takeaways

Test Accuracy
Under recreational boating conditions, the tests are as accurate as when evaluated under simulated highway conditions.

Officer's BAC Estimates
Administering the entire test battery improved officers' BAC estimates vs. observations and an interview only.

HGN Test
Provided the most accurate information above the other tests.

Water vs. Land
No significant difference in the accuracy of the officer's BAC estimates.

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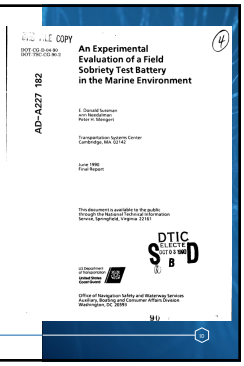
Conclusions

- This study did not scientifically validate a seated SFST battery
- The results were convincing, but more research was needed



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Laying the Groundwork

The Robustness of the Horizontal Gaze Nystagmus Test (Burns, 2007)

- Like prior NHTSA-funded research, this study was conducted through the Southern California Research Institute.
- "Participants' position (standing, sitting, or lying down) had no statistically significant effects on officers' reports of HGN signs."

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Limitations of the Standing SFSTs for Maritime purposes

- Age and weight of the test subject
- Custody issues when moving the subject
- "Sea legs"

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USCG Joins Forces with NASBLA

2007 – USCG funded a study sponsored by NASBLA to develop a seated SFST battery that met the following criteria:

- Must be seated
- Must be effective in detecting impairment at 0.08
- Must be easy to administer
- Must not rely on equilibrium

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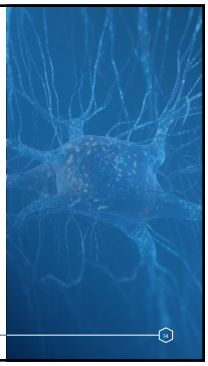
Study – Year 1

- 1,146 BUI reports from agencies in 14 states
- 15 tests were identified as showing promise
- 6 of the 15 tests were selected for the study



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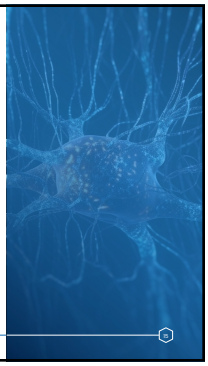
Study – Year 1: The Tests

- Finger to Nose
- Time Estimation
- Finger Count
- Hand Coordination
- Palm Pat
- Horizontal Gaze Nystagmus



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Study – Year 2

Objective: Identify the most alcohol-sensitive tests

- 157 drinkers evaluated by 24 officers
- Officers did not know the drinkers' BrACs
- Officer only administered one test without more interaction
- The drinkers were dosed to various BrAC levels

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Study – Year 2: Results

Test Accuracy

HGN was found to be the most reliable test in predicting a BrAC of 0.08 or higher (55%), followed by Finger to Nose (48%), Palm Pat (46%), and Hand Coordination (46%)

Why were the percentages lower?

- Average BrACs were below previous studies
- Decisions were made exclusively on the drinkers' test performance
- Officers were not equally proficient

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Study – Year 3: Objectives

DEVELOP

standardized, practical, and effective procedures for officers to use in reaching arrest or release decisions. This led to:

1. Standardized administrative procedures
2. Standardized clues
3. Standardized evaluation criteria

TEST

the feasibility of the procedures in the marine environment

SECURE DATA

to determine if the tests will discriminate in the field, as well as in the laboratory

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Study – Year 3: The Field

SCRI researchers rode with Missouri State Water Patrol on the Lake of the Ozarks for four months

- Four experienced officers
- Officers received four days of training specifically for the study
- Subjects' BrACs were confirmed with PBTs

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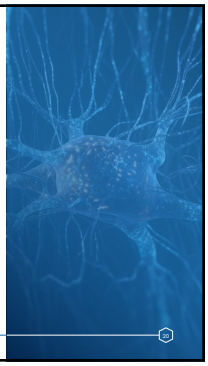
Study – Year 3: The Stops

- 331 boat stops
- 58% of probable cause stops = BrAC ≥ 0.08
- 42% of all stops = BrAC ≥ 0.08



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Study – Year 3: Results

Test	Number of Clues	Percentage
Horizontal Gaze Nystagmus	4 or more clues = BrAC ≥ 0.08	80% of the time
Finger to Nose	9 or more clues = BrAC ≥ 0.08	65% of the time
Palm Pat	2 or more clues = BrAC ≥ 0.08	57% of the time
Hand Coordination	3 or more clues = BrAC ≥ 0.08	52% of the time

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Study – Year 3: Results (continued)

Test	With Minimum Number of Clues	Percentage
HGN + 1 other test	= BrAC ≥ 0.08	82% of the time
FTN, PP, and HC (no HGN)	= BrAC ≥ 0.08	76% of the time
All four tests	= BrAC ≥ 0.08	**91% of the time**

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Study – Year 3: Major Takeaways

FIRST
significant assessment of the overall effectiveness of the Seated SFST battery under actual enforcement conditions

FIRST
time objective clues and scoring criteria had been defined and assessed for the tests

UNMISTAKABLY
validated the Seated SFST battery

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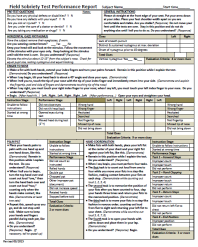
Field Sobriety Test Performance Report



Instructions
This form contains the instructions for both the Seated SFST Battery and the Standing SFST Battery (on the rear)

Documentation
NASBLA requires the use of this form to document an individual's performance during the Seated SFST Battery

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Pre-Test Questions

PRE-TEST QUESTIONS Notes:

Do you have any physical defects or disabilities? Y N
Do you have any defects with your eyes? Y N
Are you sick or injured? Y N
Are you under the care of a doctor or dentist? Y N
Are you taking any medication or drugs? Y N

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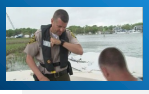
Administration of the Seated SFST Battery

GENERAL INSTRUCTIONS:
Please sit straight at the front edge of your seat. Put your arms down at your sides. Place your feet shoulder-width apart so you are comfortable and stable. Are you stable? *(Response)* **Do not move your feet until the tests are over. Stay in this position and do not do anything else until I tell you to do so. Do you understand?** *(Response)*

Notes

1. Officer safety is an important consideration when administering the Seated SFST Battery.

2. If any of the standardized elements of the tests are changed, their validity will be threatened.



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Horizontal Gaze Nystagmus Test

HORIZONTAL GAZE NYSTAGMUS
Have the subject remove their eyeglasses, if worn.
Are you wearing contact lenses? ___ Yes ___ No
Keep your head still and look at the stimulus. Follow the movement of the stimulus with your eyes only. Keep looking at the stimulus until told the test is over. Do you understand? *(Response)*
Elevate the stimulus about 12-15" from the subject's nose. Check for equal pupil size, resting nystagmus and equal tracking.

Clues	Left	Right
Lack of smooth pursuit		
Distinct & sustained nystagmus at max. deviation		
Onset of nystagmus prior to 45-degrees		
Total Clues		
Vertical nystagmus: Yes___ No___	**Evaluation Criteria: 4 or more clues**	

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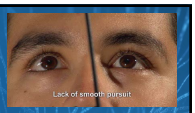
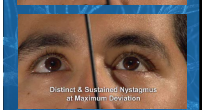
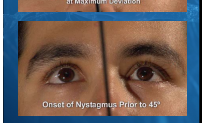
6 possible clues







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Finger to Nose Test

FINGER TO NOSE

- **Make a fist with both hands, extend your index fingers and turn your palms forward. Remain in this position while I explain the test.** *(Demonstrate)* **Do you understand?** *(Response)*
- **When I say begin, tilt your head back to about a 45° angle and close your eyes.** *(Demonstrate)*
- **When I tell you to, touch the tip of your nose with the tip of your index finger and immediately return it to your side.** *(Demonstrate and explain the fingertip, pad and side of fingers and demonstrate touching tip of the nose)*
- **When I say right, you must touch your right index finger to your nose; when I say left, you must touch your left index finger to your nose. Do you understand?** *(Response)*
- **Begin.** *(After head tilt…)* **Left…Right…Left…Right…Right…Left** *(After performance…)* **Open your eyes and straighten your head.**

Instruction Stage	2	Performance Stage	46		Left	Right	Left	Right	Right	Left	
Unable to follow instructions		Did not close eyes		Wrong hand							Wrong hand
		Did not tilt head back		Wrong finger							Wrong finger
Started at wrong time		Opened eyes during test		Hesitated							Hesitated
				Searched							Searched
		Moved head during test (1*+)		Not fingertip							Not fingertip
				Missed tip of nose							Missed tip of nose
				Did not bring down							Did not bring down
				Total Clues							
				Evaluation Criteria: 9 or more clues							

48 possible clues

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Palm Pat Test

PALM PAT

- **Place your hands palm to palm with one hand up and one hand down, like this.** *(Demonstrate)* **Remain in this position while I explain the test. Do you understand?** *(Response)*
- **When I tell you to begin, turn the top hand over and count out loud "one," then turn the hand back over and count out loud "two," counting only when the hands make contact, like this.** *(Demonstrate at least two sets)*
- **Repeat this, speed up as you go, and do not stop until told. Make sure to keep your hands and fingers parallel during each pat, like this.** *(Demonstrate)*
- **Do you understand?** *(Response)* **Begin.** *(If necessary, tell to speed up)*

Instruction Stage	2
Unable to follow instructions	
Started at wrong time	
Performance Stage	**8**
Did not count as instructed	
Rolled hands	
Double pat	
Chopped pat	
Other improper pat (document)	
Did not increase speed	
Rotated hands	
Stopped before told	
Total Clues	
Evaluation Criteria: 2 or more clues	

10 possible clues

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Hand Coordination Test

HAND COORDINATION

- **Make fists with both hands, place your left fist at the center of your chest and your right fist against your left fist, like this.** *(Demonstrate)*
- **Remain in this position while I explain the test. Do you understand?** *(Response)*
- **When I say begin, you must perform four tasks.**
- **The first task is to count out loud from one to four while you move your fists in a step-like fashion, making contact between your fists at each step.** *(Demonstrate while counting out loud 1, 2, 3, 4)*
- **The second task is to memorize the position of your fists after you have counted to four, clap your hands three times and return your fists to the memorized position.** *(Demonstrate)*
- **The third task is to move your fists in a step-like fashion in reverse order; counting out loud from five to eight and returning your left fist to your chest.** *(Demonstrate while counting out loud 5, 6, 7, 8)*
- **The fourth task is to open your hands with palms down and place them in your lap.** *(Demonstrate)*
- **Do you understand?** *(Response)* **Begin.**

Instruction Stage	2
Unable to follow instructions	
Started at wrong time	
Performance Stage	**13**
Task 1 – Forward Steps	
Improper count	
Improper touch	
Did not perform	
Task 2 – Hand Clapping	
Improper count	
Improper touch	
Improper return	
Did not perform	
Task 3 – Return Steps	
Improper count	
Improper touch	
Did not return left fist to chest	
Did not perform	
Task 4 – End Position	
Improper position	
Did not perform	
Total Clues	
Evaluation Criteria: 3 or more clues	

15 possible clues

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Major Takeaways

The Clues

Like the Standing SFST Battery, the clues in the Seated SFST battery have been scientifically validated by the SCRI.

The evaluation criteria for each test in the Seated SFST Battery has a direct correlation to a subject's BrAC.

Arrest / Release Decision

An officer's arrest or release decision must always be based on the totality of the circumstances.

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Common Challenges to the Standing SFSTs

- Roadway conditions
- Weather conditions
- The suspect's age, weight, and disabilities
- The suspect's prior DUI arrests

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Seated SFSTs Off the Water

Location

The suspect's location may dictate the Standing SFST Battery cannot be completed.

Snowmobiles, ATVs, and off-road vehicles may be in areas where a reasonably level surface with sufficient room is not available.

Keep it Standardized

If any of the standardized elements of the Seated SFST Battery are changed, their validity will be threatened.

Additional Note

The Seated SFST Battery does not replace the Standing SFST Battery for roadside impaired driving investigations.

Officers should administer the Standing SFST Battery with every person they suspect of impaired driving, unless circumstances dictate they cannot.

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Training Courses Offered by NASBLA

Seated SFST Battery Transition Course
- 8 hours
- Designed for officers who are already trained in the Standing SFST Battery
- Does not require any knowledge or experience with maritime operations or law

Seated SFST Battery Refresher Course
- 4 hours
- Designed for officers who have completed a Seated SFST Battery course
- Recommended for completion every two years

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Training Courses Offered by NASBLA

BUI Detection and Enforcement Essentials
- 14 hours
- Designed for officers who are new to the maritime environment and who have previously completed DUI enforcement training

Comprehensive BUI Detection & Enforcement
- 24 hours
- Designed for officers with no DUI or BUI enforcement training, or those who have not utilized that training for an extended period

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Training Courses Offered by NASBLA

Advanced BUI Detection & Enforcement
- 12 hours
- Designed for officers with previous DUI and BUI training
- Provides training for officers to observe, identify, articulate, and document signs of impairment related to drugs, alcohol, or a combination thereof

BUI Enforcement / Seated SFST Trainer Development
- 24 hours
- Designed for officers with previous DUI / BUI training, and instructor development training
- Prepares officers to present NASBLA course material to future participants

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The Seated SFST Battery is a scientifically validated set of tests designed to identify impairment and assist officers in making an arrest or release decision.

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The Seated SFST Battery was scientifically validated by the same entity, the Southern California Research Institute, that scientifically validated the Standing SFST Battery.

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The Seated SFST Battery was scientifically validated with officers making the correct arrest or release decision using all four tests 91% of the time.

The Standing SFST Battery was scientifically validated with officers making the correct arrest or release decision using all three tests 91% of the time.

91% = 91%

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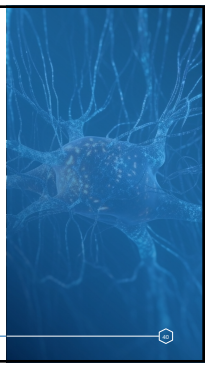
Thank You!

- National Association of State Boating Law Administrators
- Todd Radabaugh, NASBLA BUI Program Manager
- Dr. Dary Fiorentino
- Jennifer Cifaldi, Illinois Traffic Safety Resource Prosecutor



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