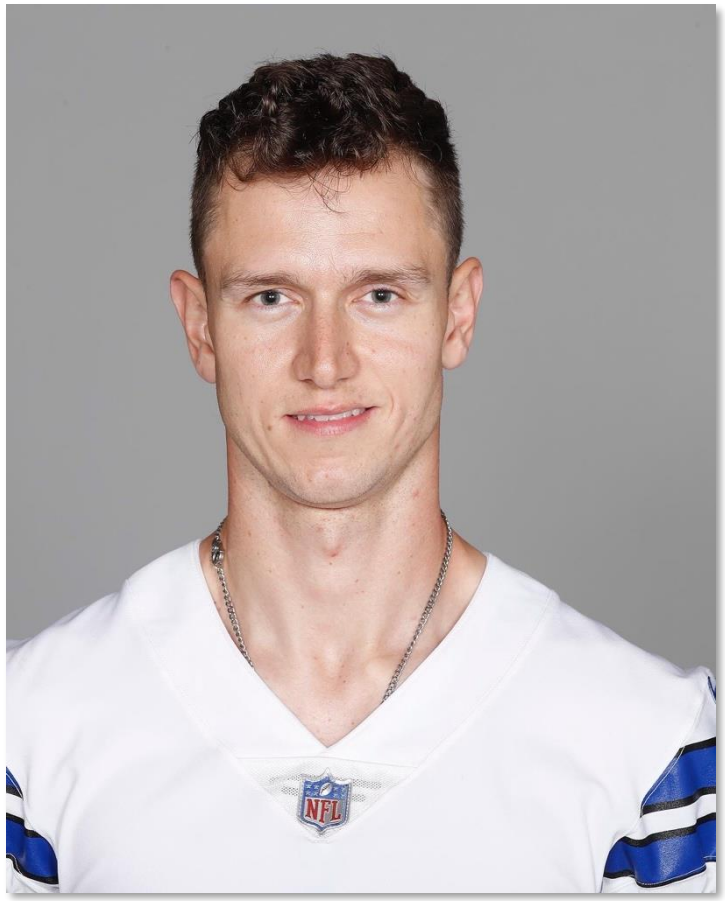
1.12.26

The Specialist Standard

Defining Metrics That Drive Elite Performance

4DU Fourth Down University™ x TRACKMAN FOOTBALL

SPEAKERS



- Simon Mathiesen
- Head of Trackman Football
- Northwest Missouri State



- Dan Lundy
- Founder: 4th Down University & The Tour
- University of Miami

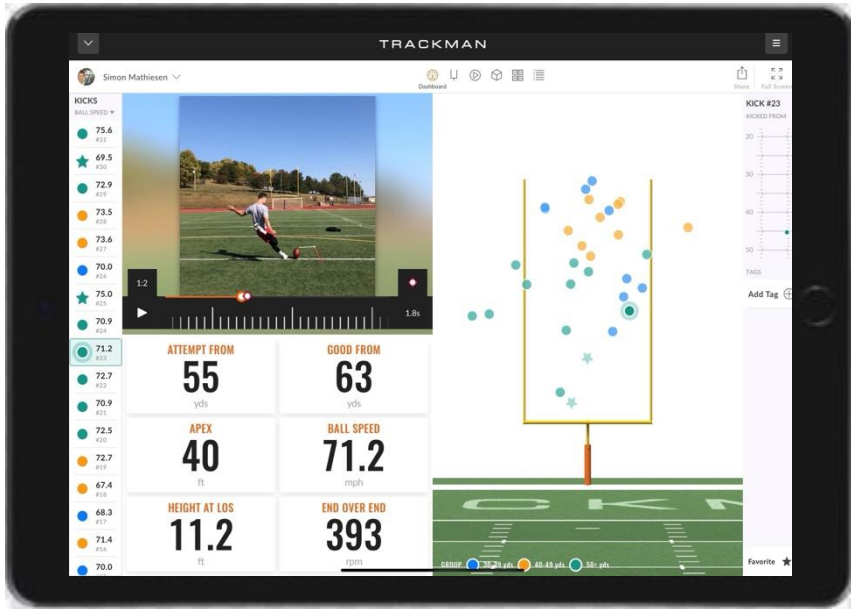
Purpose

1. Introduce Trackman Technology
2. Showcase Benefits of Objective Data
3. Share Concrete Drill Work Examples



Agenda		Trackman Insights	4Th Down University Inspiration
1	Intro to Trackman	●	
2	Performance - Field Goal	1 2 3	1 2 3
3	Performance - Punting	1 2 3	1 2 3
5	Evaluation	●	●

TRACKMAN FOOTBALL



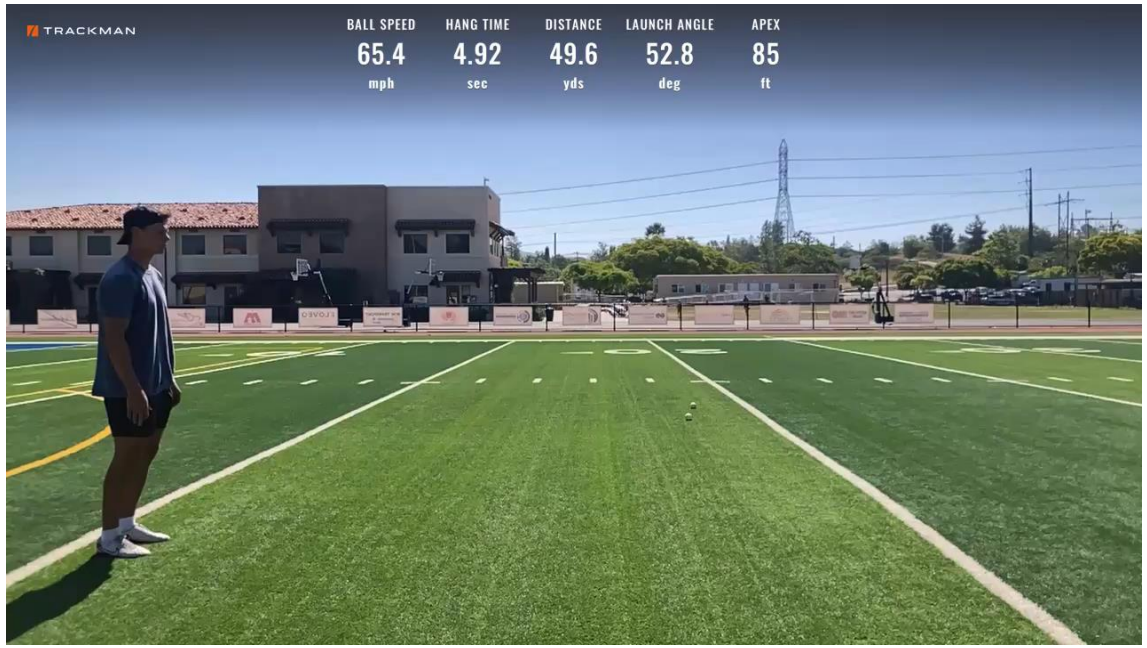
MOBILE RADAR TRACKING

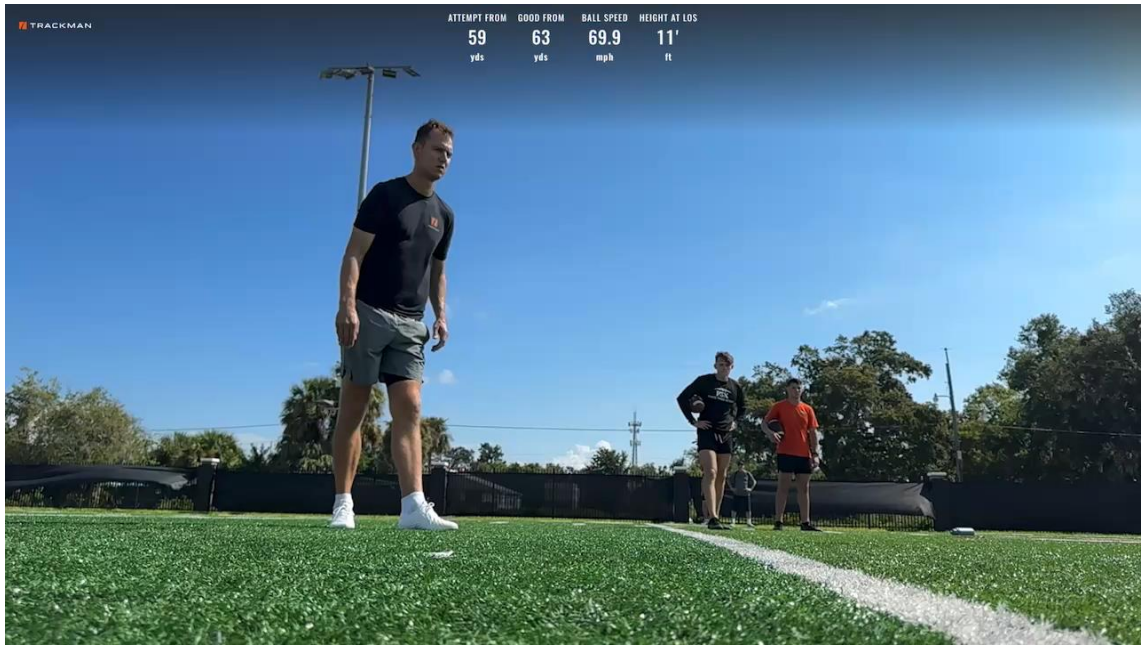
- ✓ On-field system tracks kicks, punts & QB passes
- ✓ Instant data and video feedback
- ✓ Single, portable radar that can be used on any marked field
- ✓ Radar connects directly to an iPad via Wi-Fi for data visualization



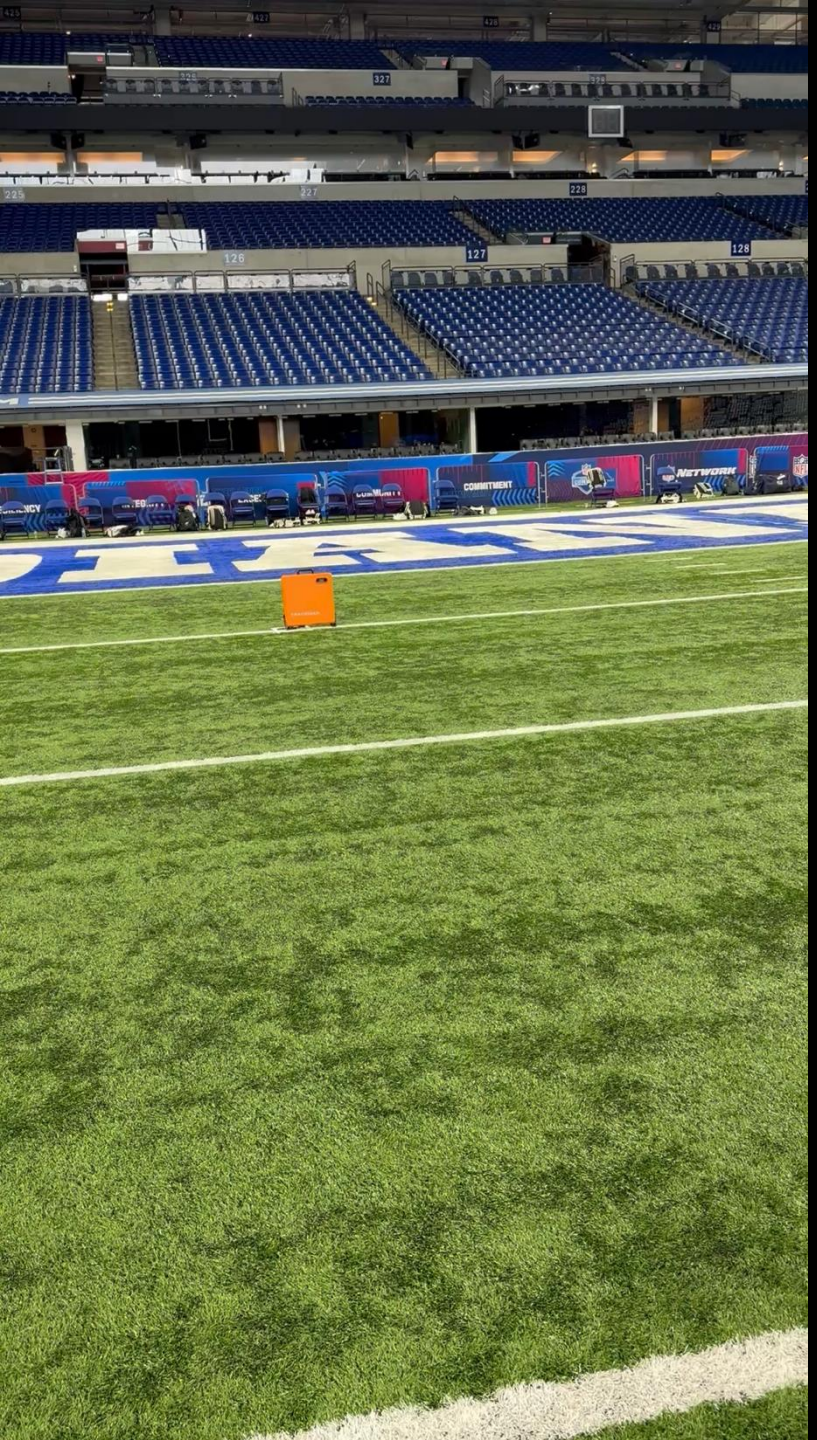
TRACKMAN FOOTBALL

Focus: Field Goal & Punting

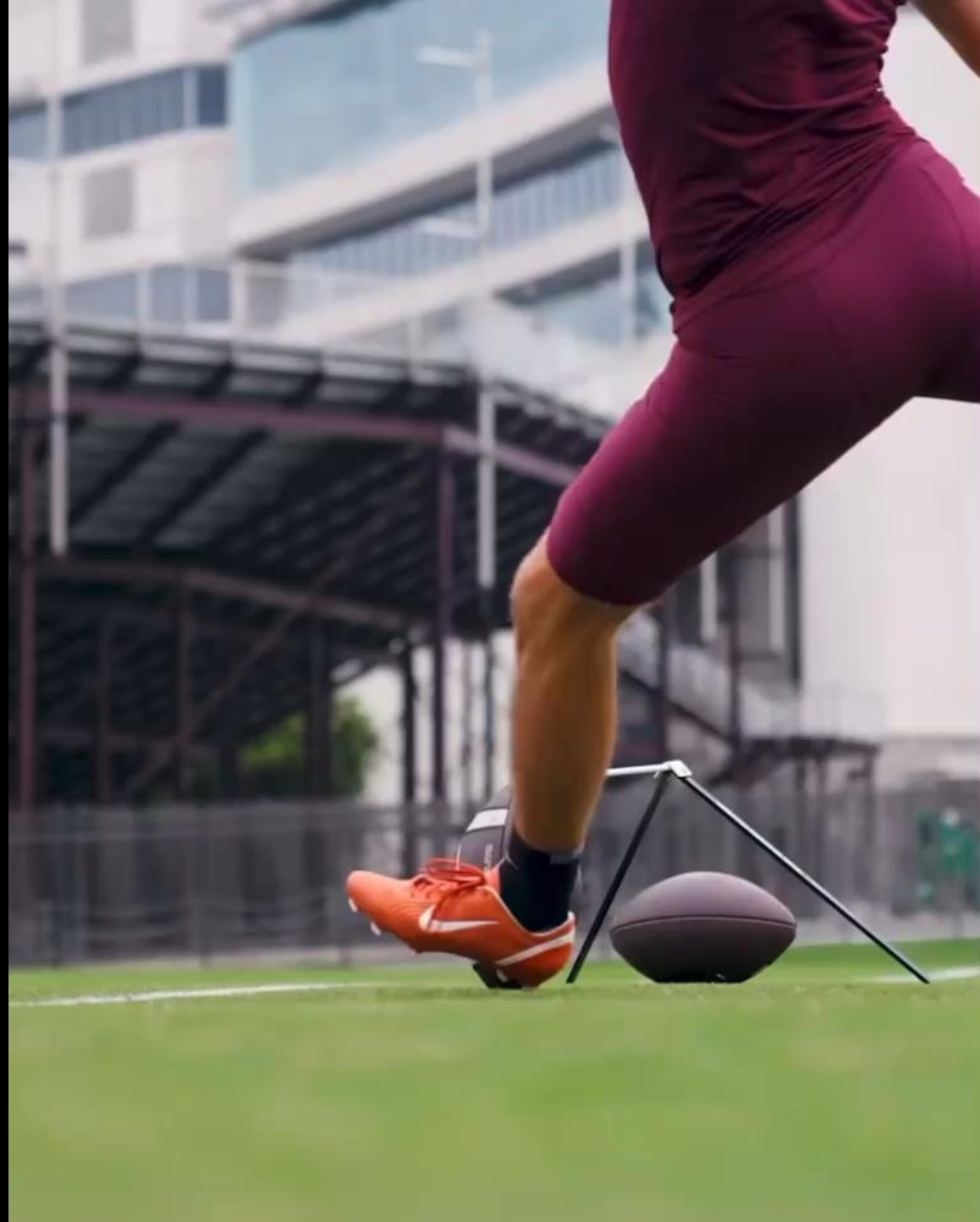




NFL SEC ACC BIG XII MAC 1946 MID-AMERICAN CONFERENCE



TRACKMAN
FOOTBALL





FIELD GOAL FOCUS

3 Keys to Success | FG

A.
Height at Line of Scrimmage

B.
Consistent Ball Contact & Spin

C.
Ball Speed & Good From

Field Goal Focus

A. Height at Line of Scrimmage

At Trackman Football, data suggests:

A. Ideal Height @ LOS is between **11-13 ft**

B. Below **10 ft** = More blocked kicks

C. Above **13 ft** = Added weather variables

What we're seeing in the modern game:

1. Low trajectory kicks get blocked
2. **11%** of NCAA P4 kicks are below 10 ft
3. **Only 4%** of NFL kicks are below 10 ft

***NCAA Avg = 11.8 ft @ LOS**





Field Goal Focus | How to

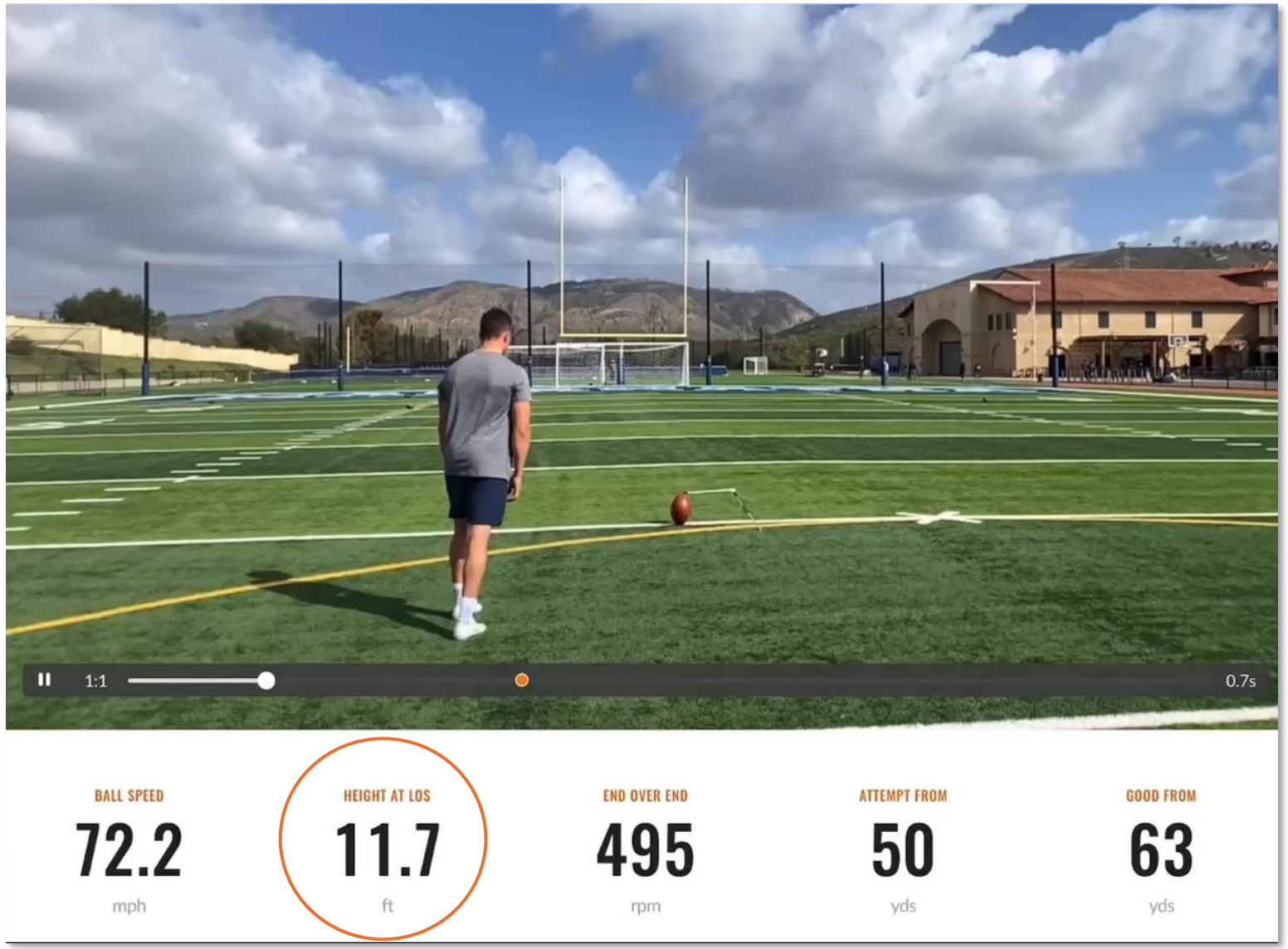
A. Improve Height at LOS

DO's

A. Linear approach
B. Repeatable plant spot
C. Foot-to-ball

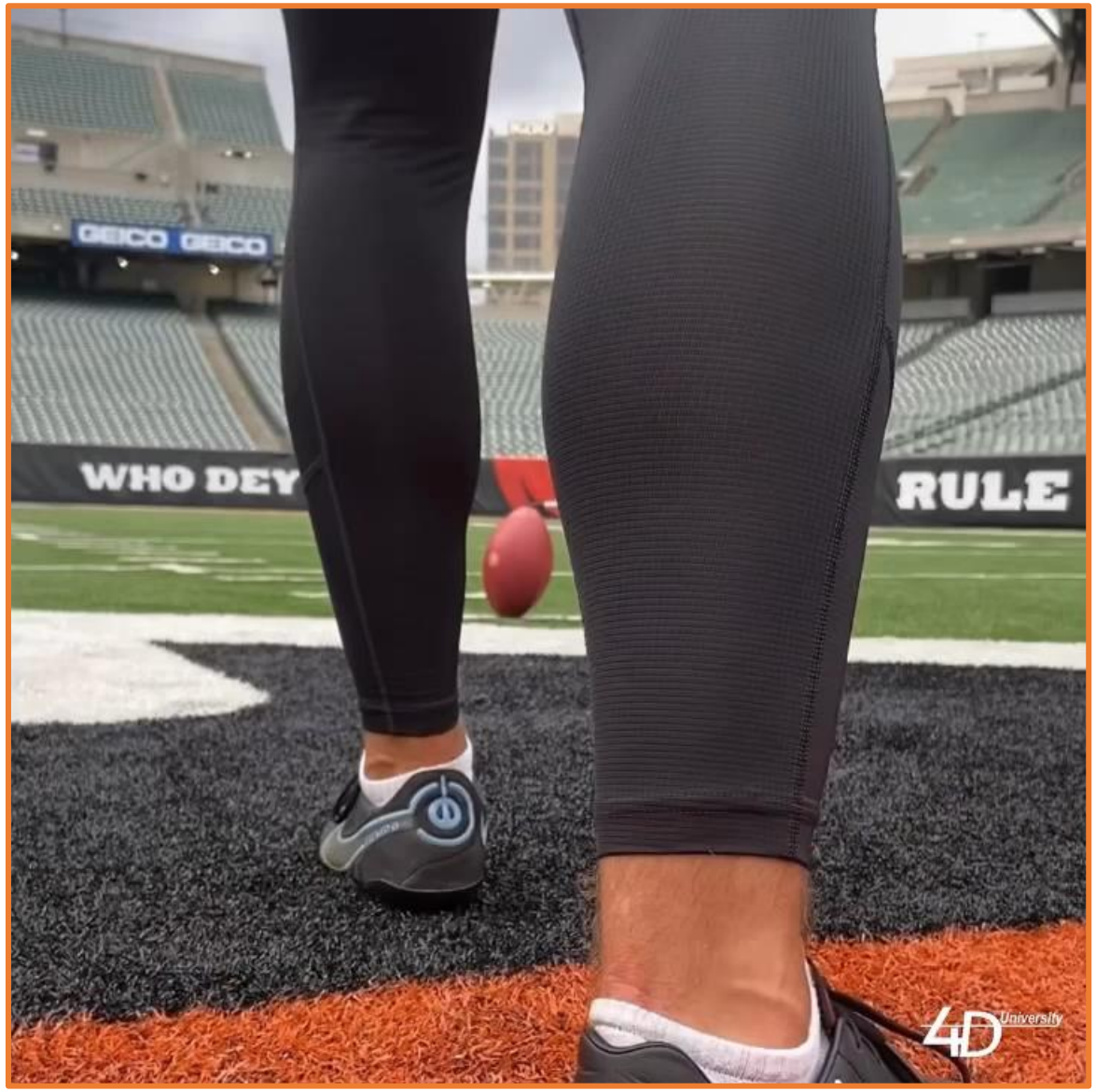
DON'Ts

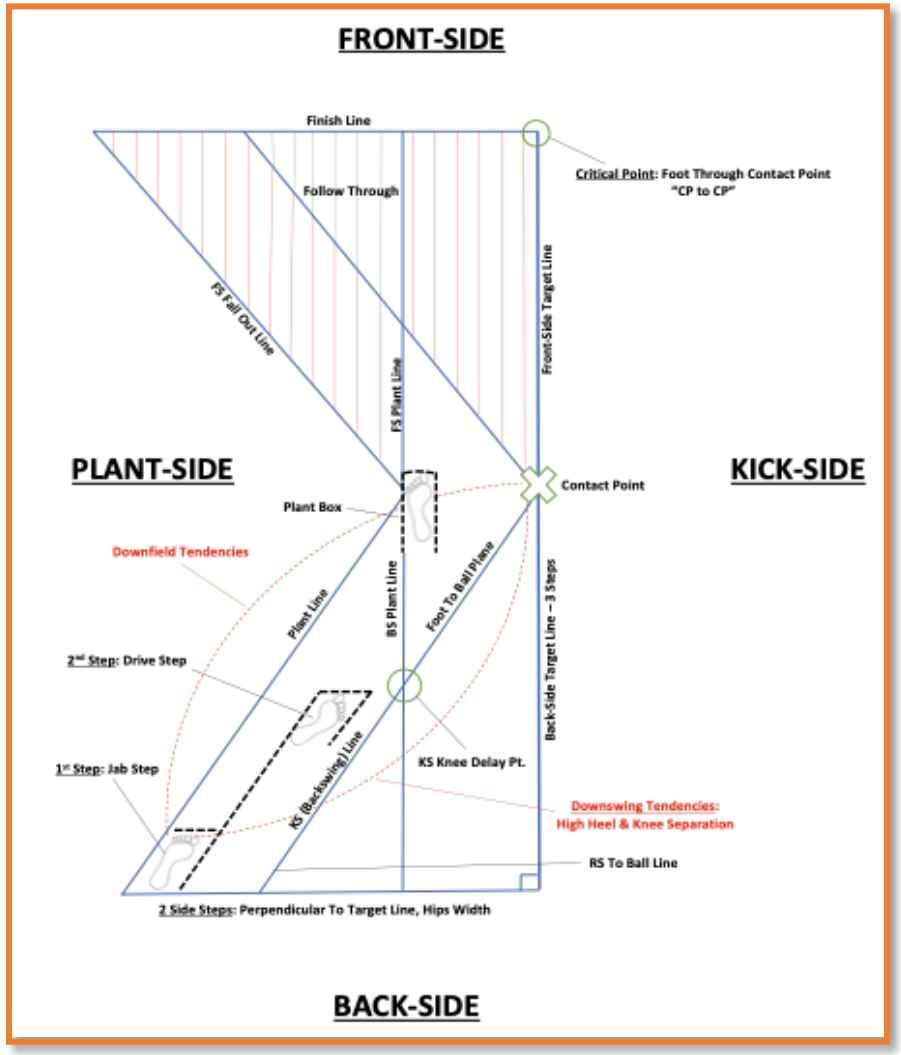
A. Shoot
B. Excessive Movements
C. Change swing



KICKOMETRY

4D University





BACKSIDE SPLIT LINE ANGLE

Field Goal Focus

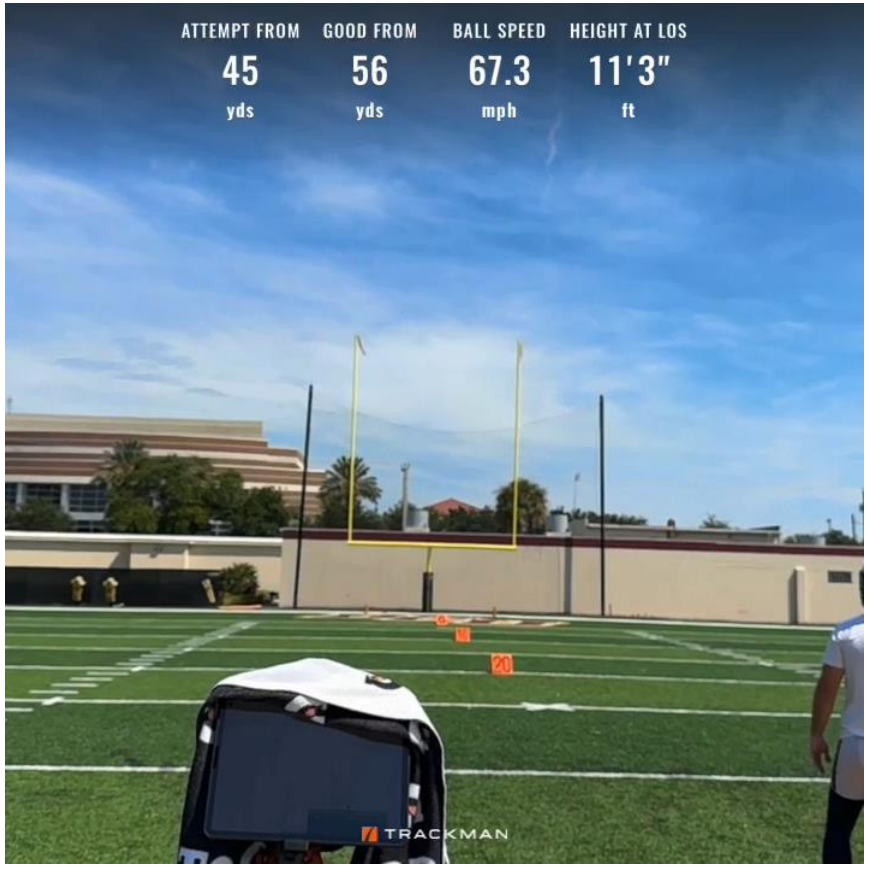
B. Consistent Ball Contact & Spin



At Trackman Football, data suggests:

A. Consistent Ball Contact = High FG%

B. Consistent Spin Rate = consistent ball contact



What we're seeing in the modern game:

1. Top NFL kickers = Low SD for spin rate (~ 75)
2. NCAA kickers struggle staying below (~100)

Groups	Spin Rate Deviation*	Accuracy Score	FG%
Combine Invites w/ Success in NFL	82	90.0	92%
Combine Invites Not in NFL	131	72.6	67%

Field Goal Focus

C. Ball speed & Good From

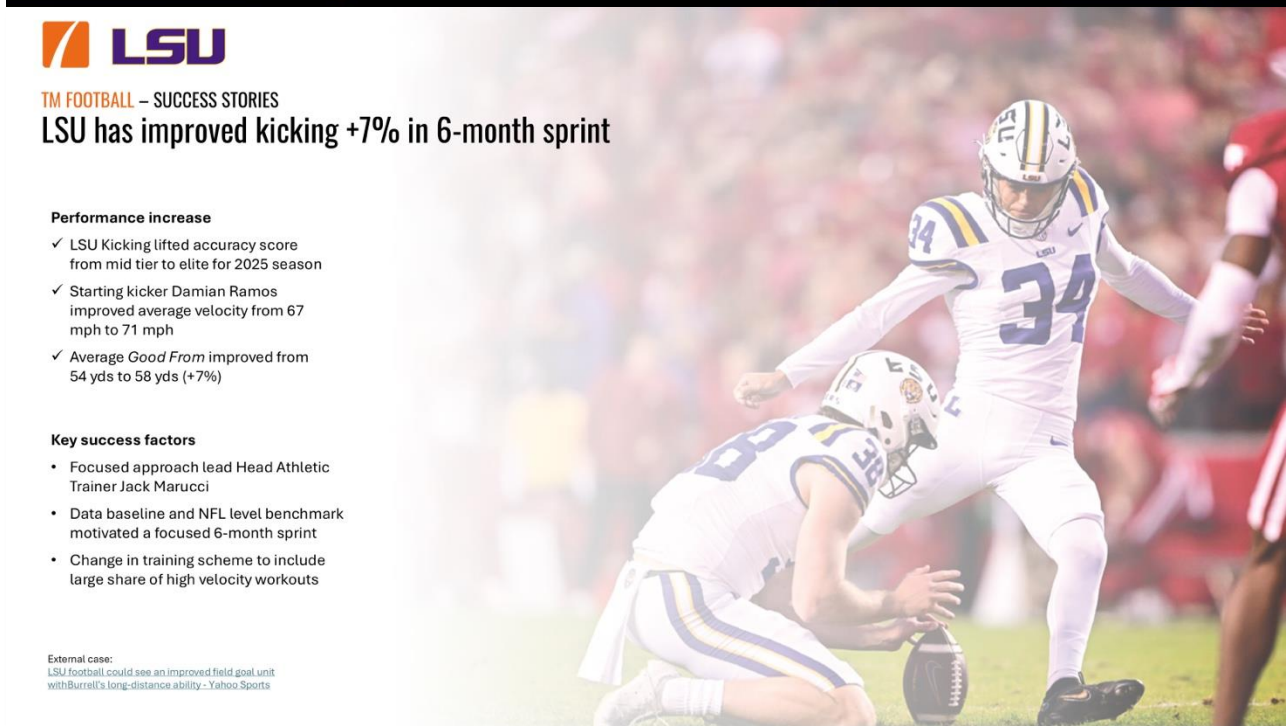
At Trackman Football the data suggests:

1. Using *Good From* helps kickers/coaches understand true FG range
2. Avg NCAA ball speed = 67 mph
    1. Strongest kickers avg ~ 72-75 mph
    2. Top speeds at 78-80 mph

What we are seeing in the modern game:

1. NFL records powered by big legs and improved training
2. NFL avg = 70 mph
3. LSU kicker Damian Ramos improved ball speed and good from 7% in 6 months





Field Goal Focus

C. Ball speed & Good From

FG STANDARDS - NCAA

Kicking Metrics	All distances	20-29 yds	30-39 yds	40-49 yds	50-59 yds	60+ yds
1. Ball Speed (mph)	67.0	65.3	65.0	67.0	70.2	74.6
2. Height@LOS (ft)	11.8	12.4	11.7	11.7	11.6	11.6
5. Good From (yds)	52.0	41.4	48.2	52.8	58.8	64.0

Field Goal Focus | **How to**

C. Ball Speed & Average Good From

DO's

A. Know your numbers

B. Consistent set up and steps

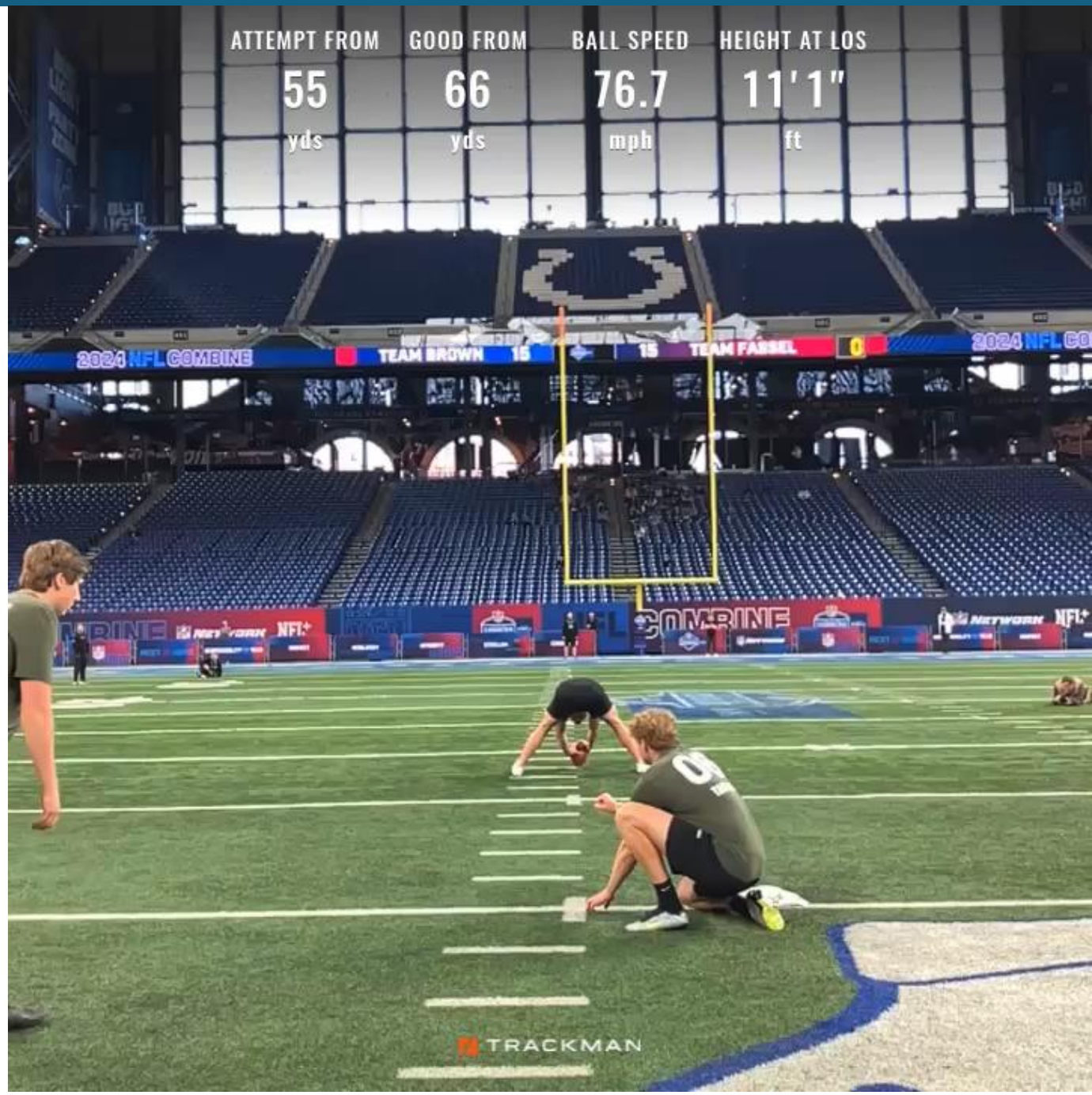
C. Swing your swing

DON'Ts

A. Excessive backswing

B. Deep plant

C. Fighting momentum Loss



We are developing an innovative

QB PRODUCT

TM Quarterback provides actionable data:

A. Ball velocity
B. Apex
C. Air Yards
D. Release Height
E. Flight time

The tracking data will support:

- ✓ **Preparation for the week's game plan**
- ✓ **Instant Feedback**
- ✓ **Improve Throwing Accuracy**
- ✓ **Improve Consistency**
- ✓ **Improve Velocity**
- ✓ **Health monitoring**
- ✓ **Benchmark performance**



TM FOOTBALL – KEY INSIGHTS PASSING

B. Long ball against 1 on 1 coverage between 50-55 yds call for **Apex over 35 feet and flight time ~ 3+ secs**

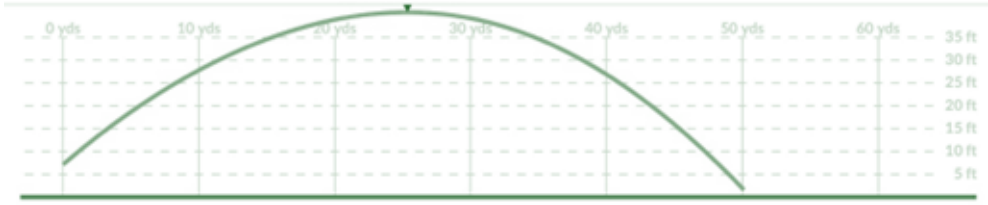
TM Findings

- Even the elite passer has limited feedback into the ideal ball flight to increase distance, accuracy and chances of completions
- The increased Apex against 1on1 coverage gives WR more time to adjust – "Throwing the receiver open"

NFL Examples

Complete pass

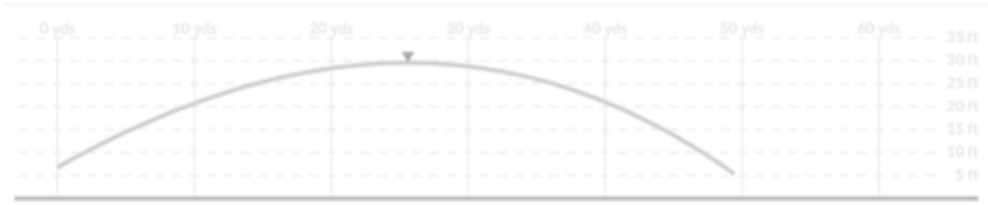
Wilson deep pass to Nabers ~ 60 air yards
High apex/arc,
Flight time 3.30 secs





Incomplete pass

Jackson incomplete ~ 62 air yards
Less apex/arc,
Flight time 3.0 secs





PUNT FOCUS

3 Key Points To Improve

A.
Launch Angle/ Apex

B.
Hangtime/ Dist. Match

C.
Placement 🎯



Punt

A. Launch Angle / Apex

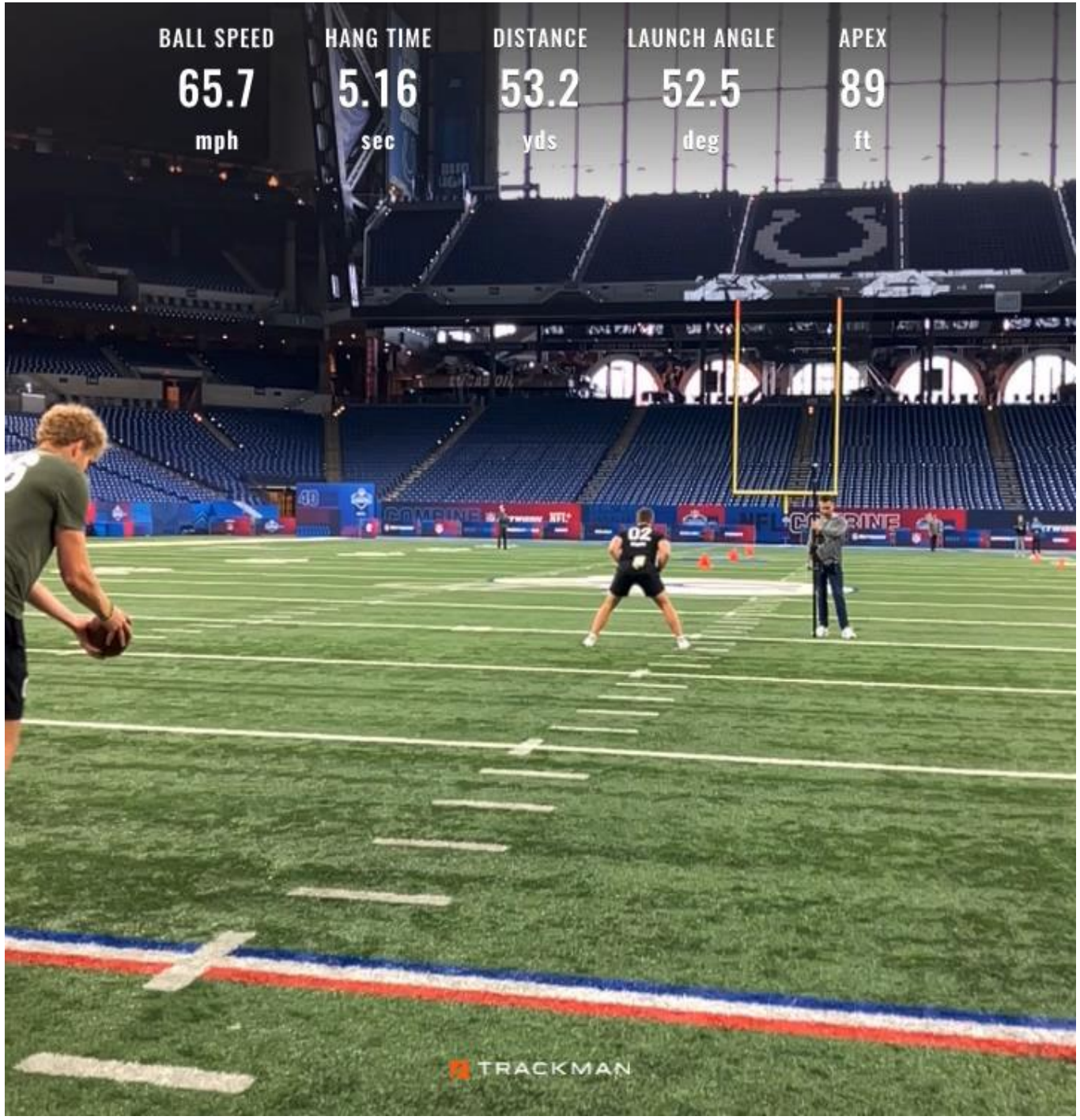
At Trackman Football we believe:

1. Launch Angle dictates hangtime
2. The ideal launch angle = 50-55 deg.

What we're seeing in the modern game:

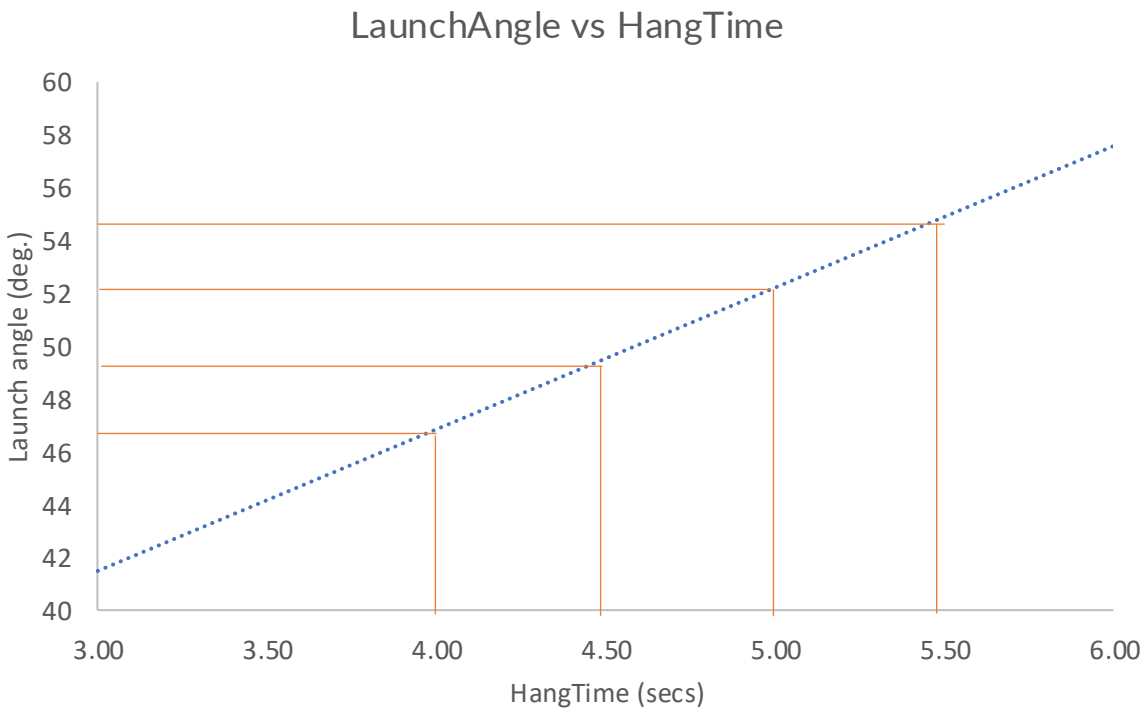
1. Matching hangtime/distance is a priority
2. Low trajectory punts (Launch angle < 50 deg) results in return yds allowed

NFL Combine 2024 – 4th round pick
Tory Taylor , Iowa



BALL SPEED + LAUNCH ANGLE = DISTANCE & HANGTIME





Punt Focus | **How to**

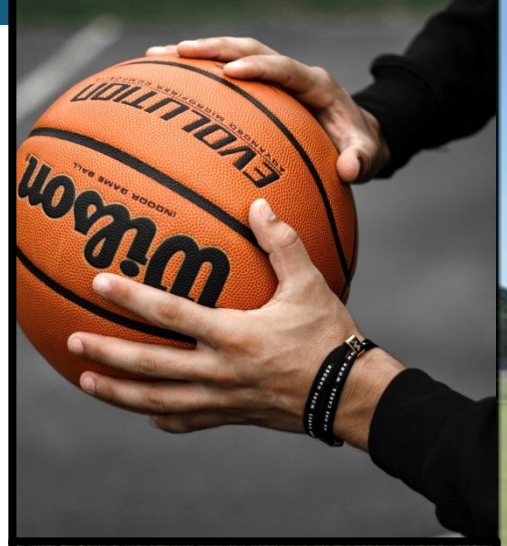
A. Launch Angle / Apex

DOES

A. Know your numbers
B. Quicker plant
C. Leverage the Basketball Grip

DON'Ts

A. Don't just drop it
B. Stress Possession







Punt

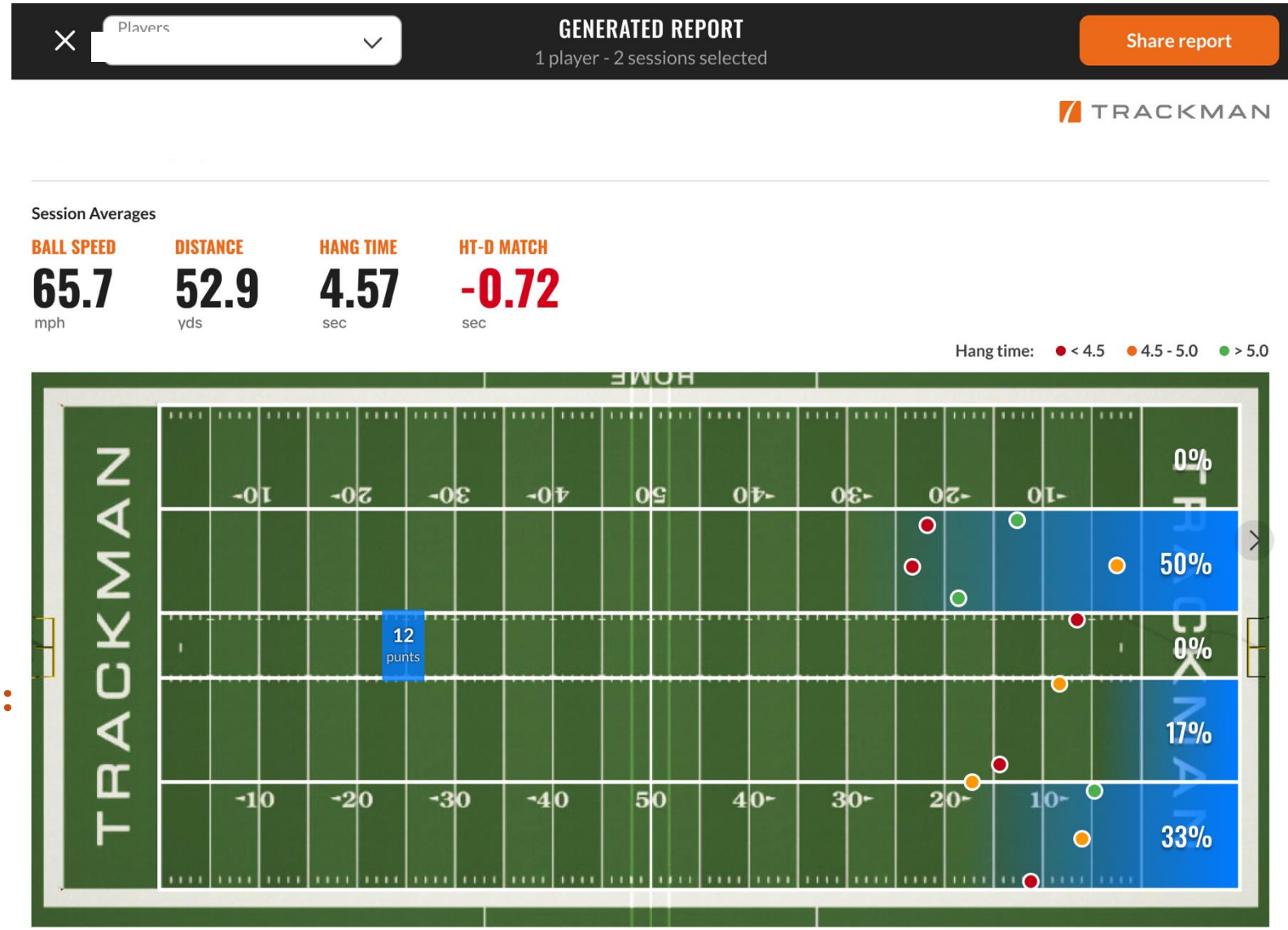
B. Hangtime/Distance Match

At Trackman Football we believe:

1. Hangtime and distance needs to match
2. You shouldn't outkick coverage

What we're seeing in the modern game:

1. Coaches want to avoid returns
2. Too much time spent on charting



Punt Focus | How to

B. Hang Time Efficiency

DO's

A. Get Launch Angle to 50+ degrees

B. Stick in the right pocket

C. Stabilizes Punt Table

DON'Ts

A. Avoid Over-Striding

B. Avoid Stacking



Punt
C. Placement

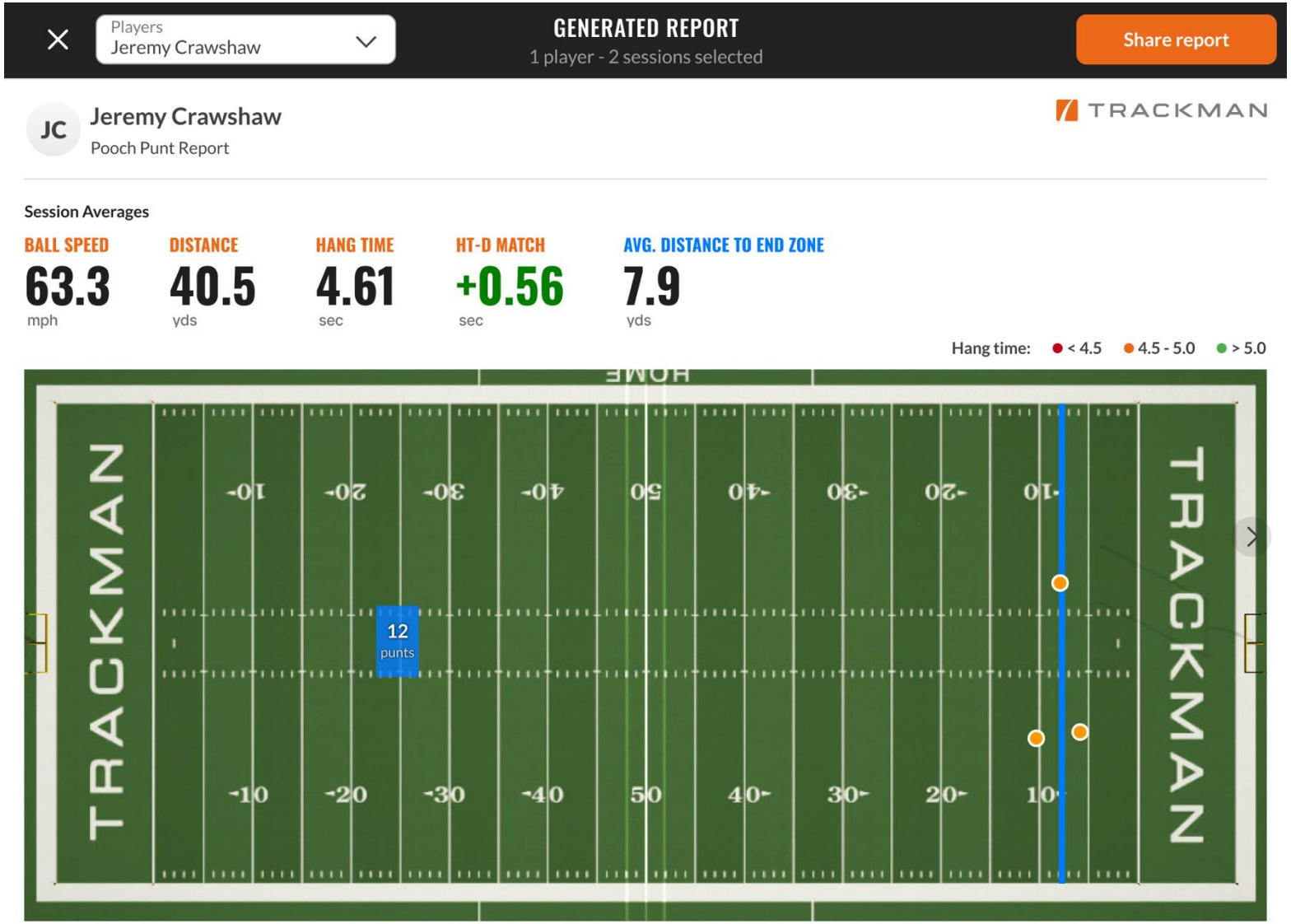
NFL Combine 2025 – Pick 216
Jeremy Crawshaw (6-3, 205), Florida

At Trackman Football we believe:

1. Pooch punting is about placement & Hang Time
2. Success dictated by avg. distance to endzone

What we are seeing in the modern game:

1. Best punters allow coverage team to run underneath the ball
2. HT-D match should be positive



Punt Focus | How to

C. Placement

DO'S



A. Think Foot Work First
B. 0.8 (Snap) + 1.3 (Hand To Foot) = 2.1 (Op)
C. Remember all 3 coaching angles (Side, Back & Front)

DON'Ts



A. Don't get lost in what looks good on social
B. Limit counter movement

TRACKMAN EVALUATION



THE TOUR
Powered By TRACKMAN

NFL, NCAA & NFL Combine Averages – FG

Averages: Field Goal	Ball Speed (mph)	Max Ball Speed (mph)	Height At LOS (ft)	Apex: High Pt. (ft)	End Over End (rpm)	Good From (yds)	Max Good From (yds)	Accuracy Score (out of 100)
NFL	70.3	82.5	11.9	43.6	616	57.1	74	85.0
NCAA	67.0	80.6	11.8	39.0	570	52.0	73	78.0
NFL combine attendees	71.7	80.6	12.1	45.6	601	59.3	70	83.8

THE TOUR

TRACKMAN

4D University

NFL, NCAA & NFL Combine Averages – Punt

Averages Punt	Ball Speed (mph)	Max Ball Speed (mph)	Launch Angle (deg.)	Apex (ft)	Distance (yds)	Hang Time (sec)
NFL	64.5	76.0	50.0	76.0	45.7	4.58
NCAA	61.2	73.6	48.9	66.6	41.6	4.23
NFL combine attendees	64.3	71.1	50.0	76.5	44.8	4.60



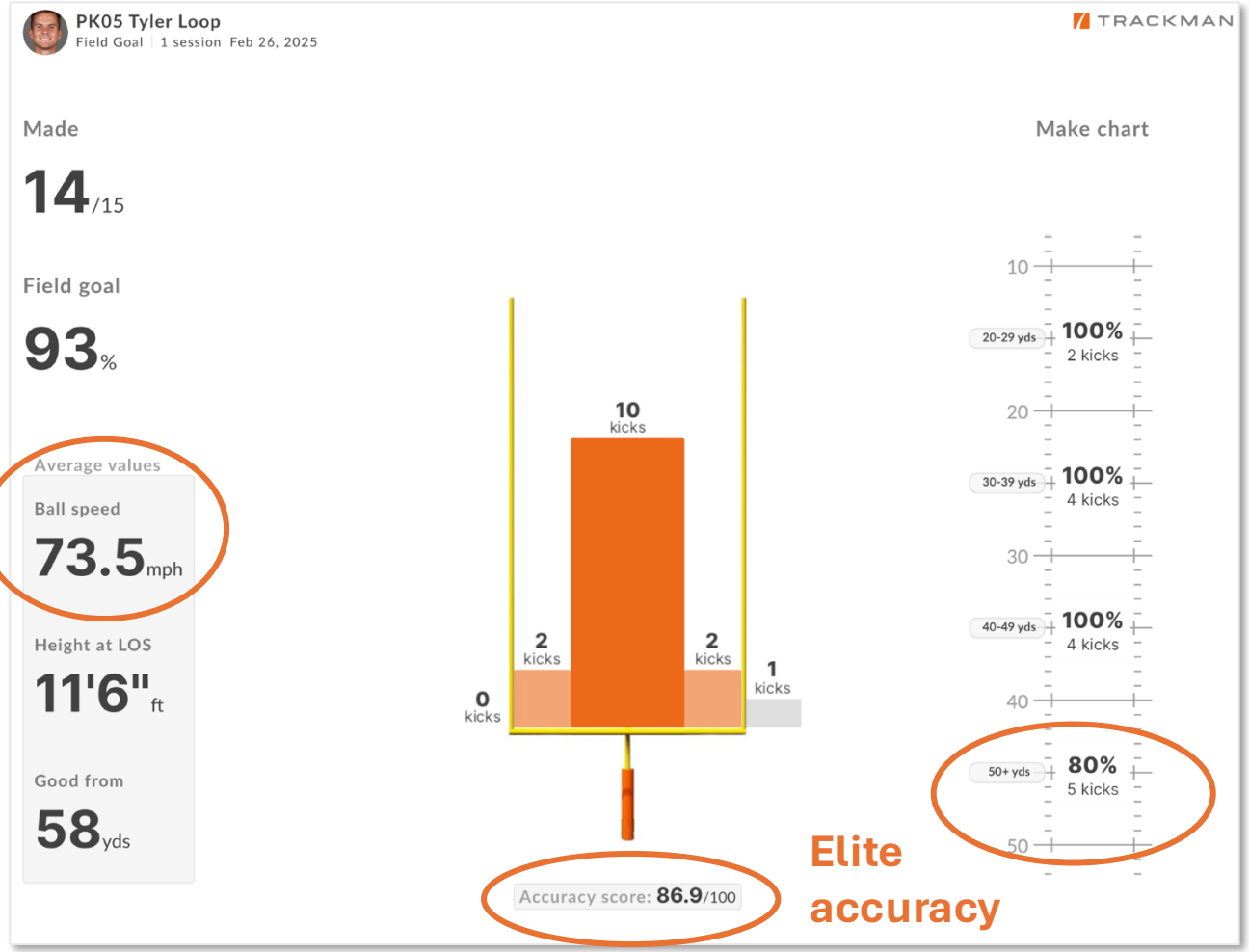




Evaluation

Tyler Loop was the Ravens' 6th round pick in the 2025 NFL Draft

Trackman Player Report



NFL Ready Velocity

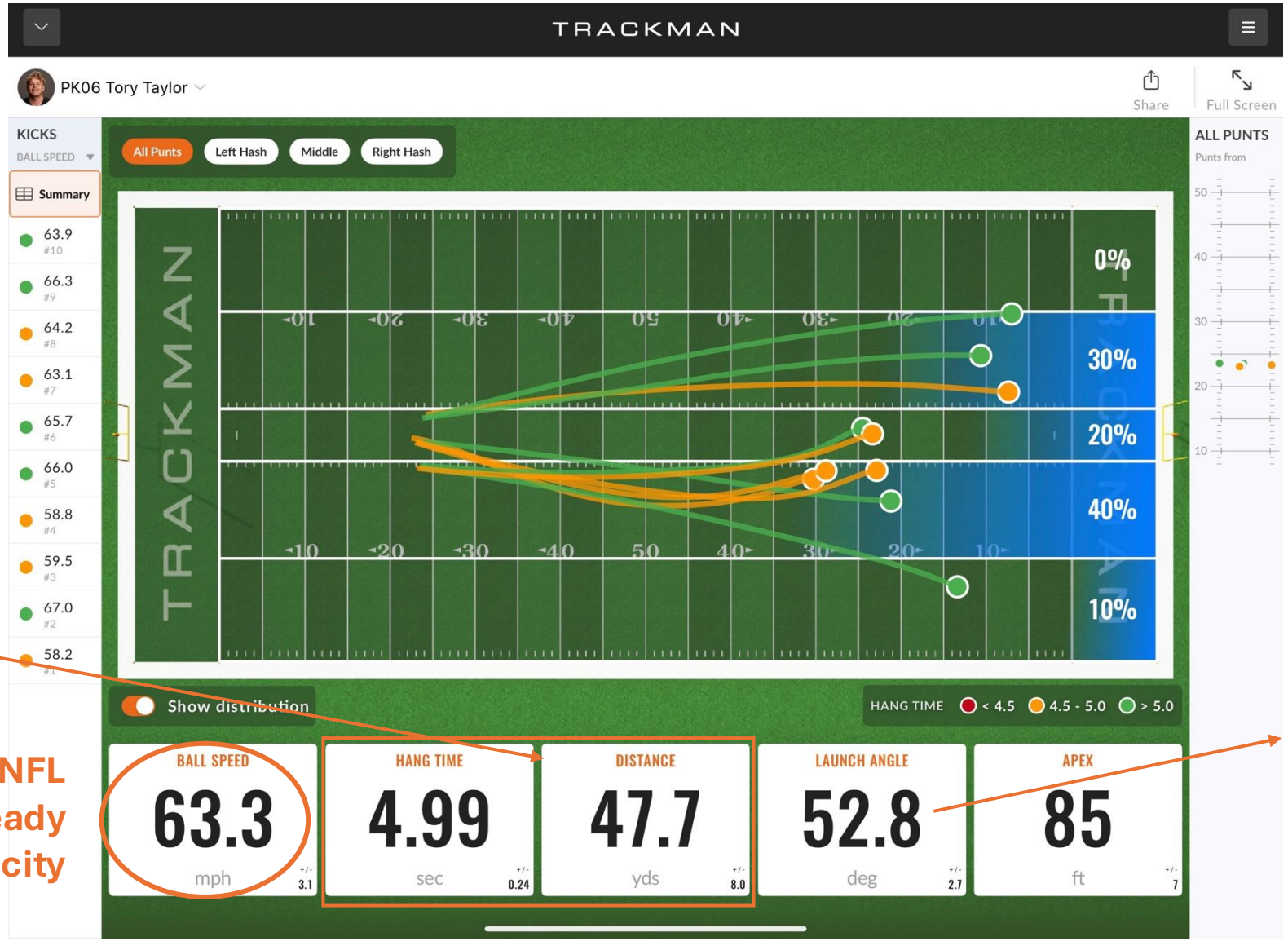
Elite accuracy

Only missed from 50+

Evaluation

Tory Taylor was the Bears' 4th round pick in the 2024 NFL Draft

Trackman Player Report



Ideal HT-Dist. match

+ 0.22

NFL Ready Velocity

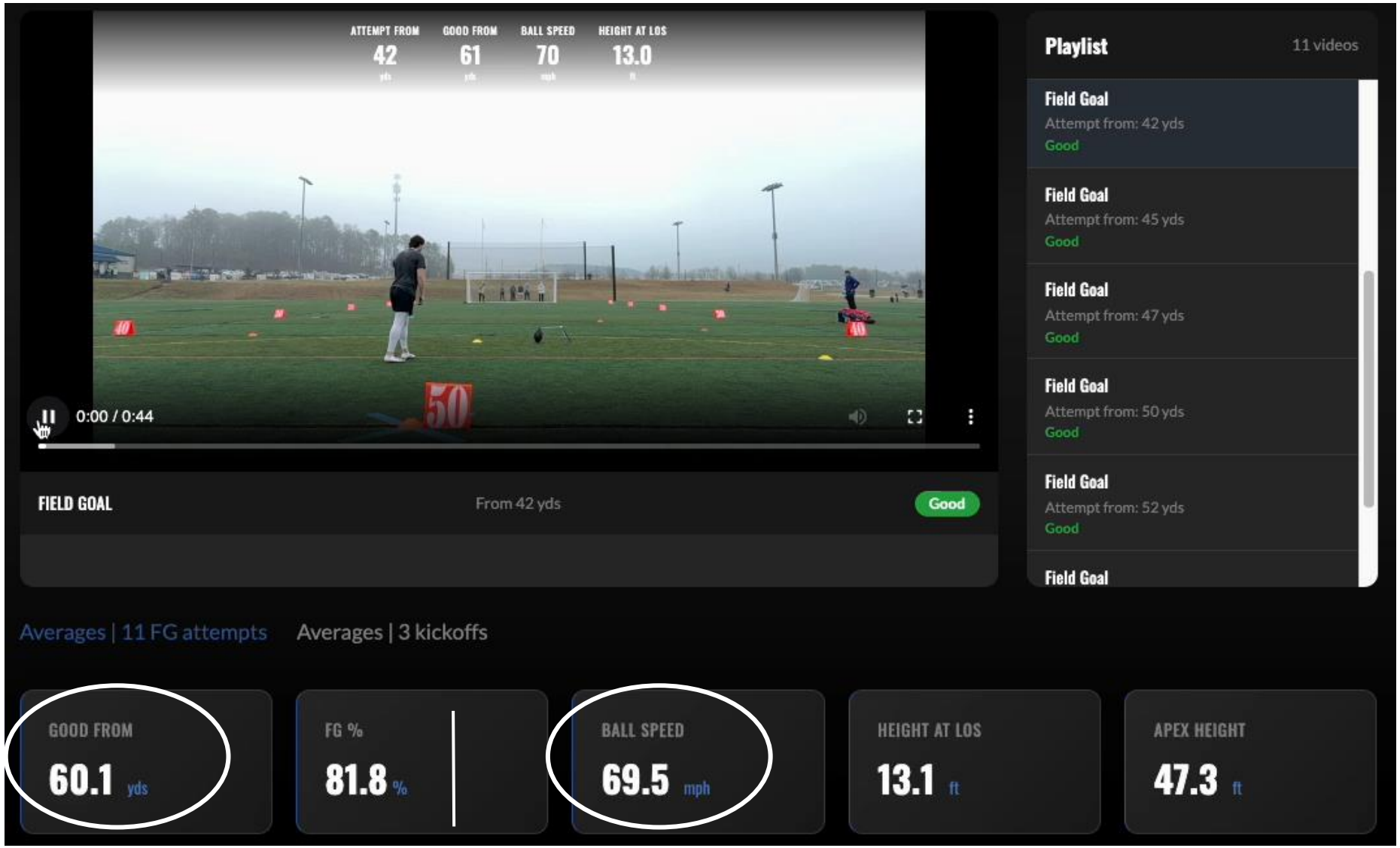
NFL Level Launch Angle

Evaluation

We are seeing some steep performance targets on each level

ACC Transfer Kicker



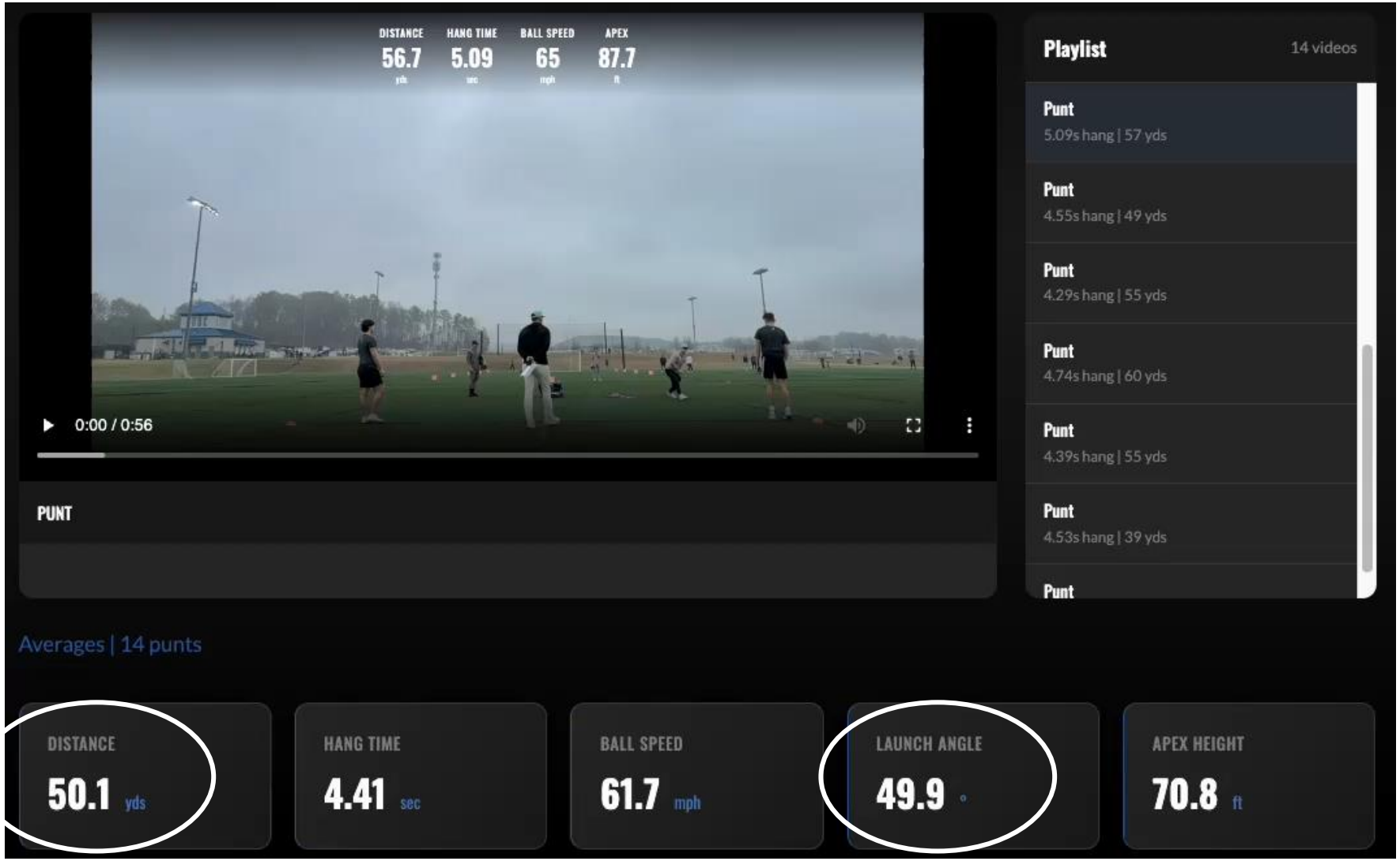


Evaluation

We are seeing some steep performance targets on each level

Group of 5 Transfer Punter





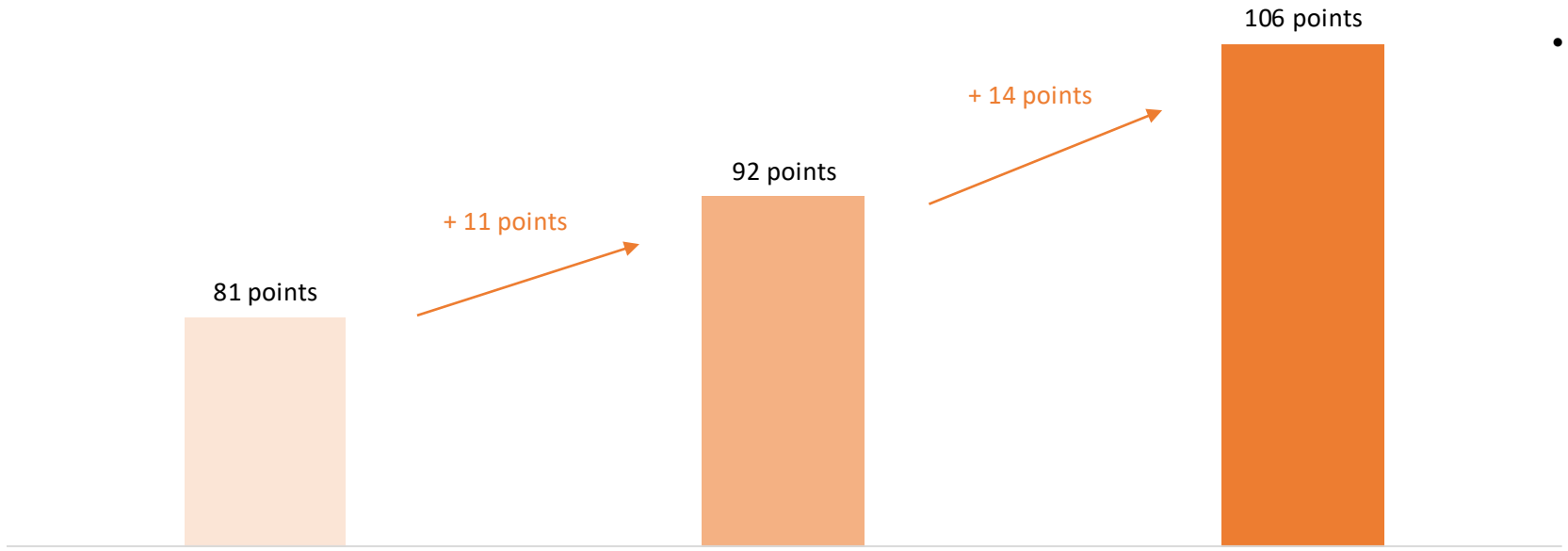
PLAYER EVALUATION – FIELD GOAL

Player level	Ball speed (mph)	HeightatLOS (ft)	Apex (ft)	Spin rate consistency (SD of RPM's)	Good From (yds)	Accuracy Score
NFL potential	72	12	45	<75 +/-	60	85+
P4 starter	69	11.8	42	<90 +/-	57	80+
D1 potential	67	11.5	39	<110 +/-	53	75+
D2/D3	65	11	35	<130 +/-	50	70+

PLAYER EVALUATION – PUNT

Player level	Ball speed (mph)	Hangtime (secs)	Distance (yds)	LaunchAngle (deg.)	Apex (ft)
NFL potential	65	4.8	48	52	80
P4 starter	63	4.6	46	50	75
D1 potential	61	4.3	42	48	67
D2/D3	58	4.1	39	45	60

ELITE KICKERS = 3+ WINS EACH SEASON



- **Kickers = 24% of FBS points**
- **15% of FBS margin = <3 points**
- **Avg. FBS scoring margin = 9 points**

BELOW AVERAGE KICKER*

FG% = 60% XP% = 90%

AVERAGE KICKER*

FG% = 74% XP% = 95%

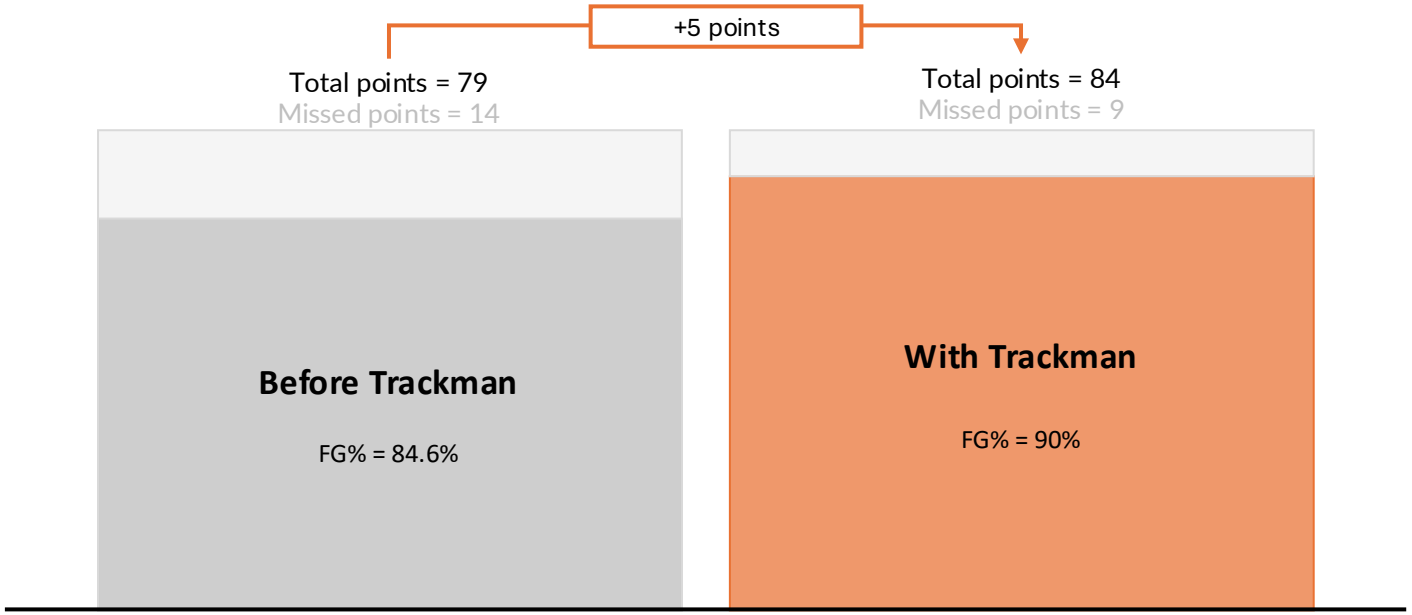
ELITE KICKER*

FG% = 90% XP% = 100%

**Assuming an FBS avg of 22 FG's & 46 XP per yr*

TRACKMAN FOOTBALL
NFL Kickers with Trackman based training score 5 points more

FG% for Trackman customers (NFL)





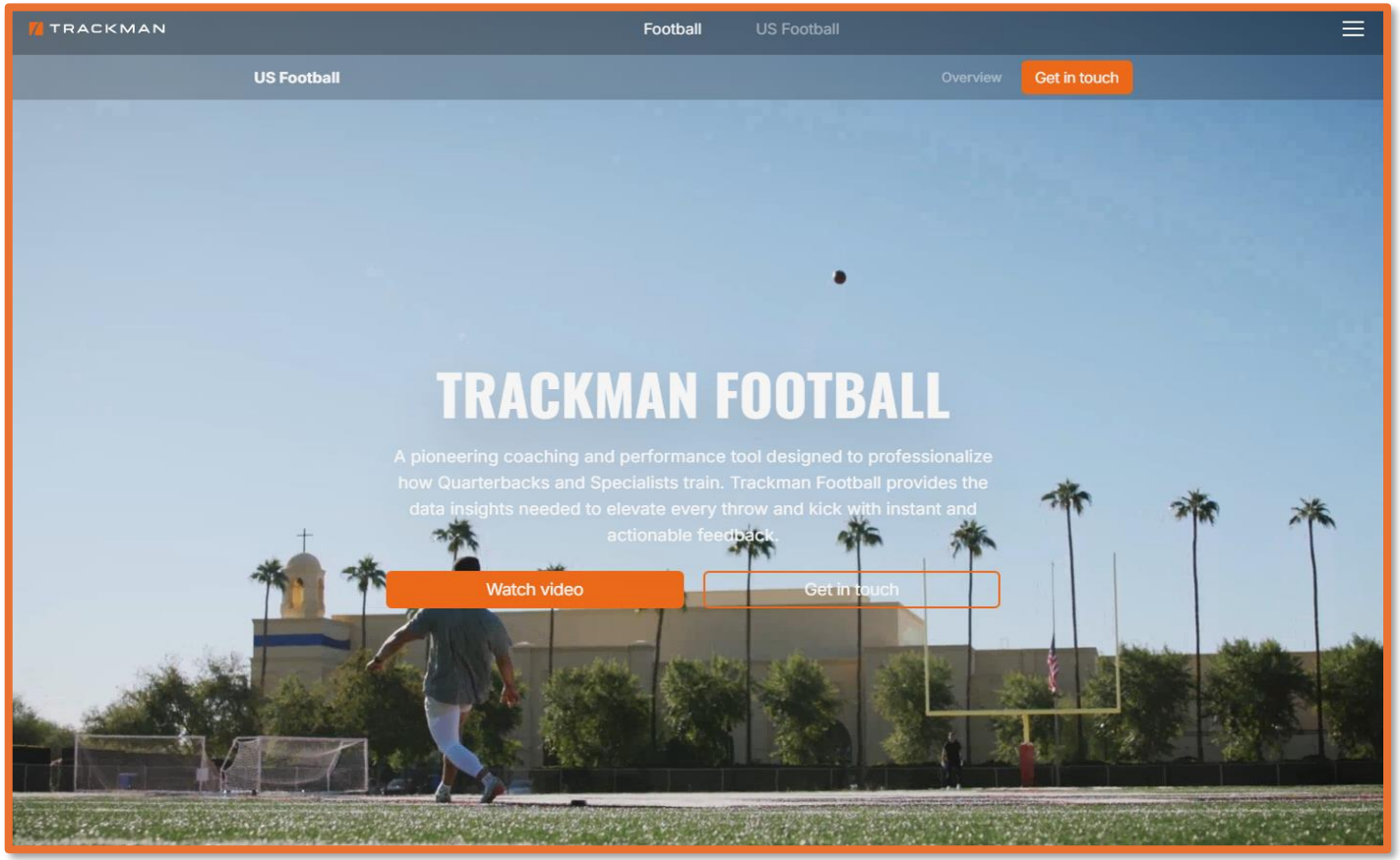
Conclusions

- The kicking game is growing even more important in the NFL and NCAA
- **Field goals account for 23% of all NFL points** in 2024 season, up from 19% in 2020
- Trackman kickers improve field goal percentage by an **average of 5.4% points**
- The improved efficient results in an **average +5 points** (based on average 31 field goal tries per season)*

Notes: The average increased is compared to same kicker performance before Trackman
* *Foxsports.com*


TRACKMAN
ATTEMPT FROM
43
yds
GOOD FROM
58
yds
BALL SPEED
73.0
mph
HEIGHT AT LOS
12' 8"
ft

GET IN CONTACT



Email: sma@trackman.com
Website: Trackman.com/US-Football

Email: dan@4thdownu.com
Website: 4thdownu.com