Pregame Advance Scouting Report TCU Horned Frogs vs. Georgia Bulldogs

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NATIONAL CHAMPIONSHIP

JANUARY 9 | LOS ANGELES

Prepared By: Grant Hizer

 ${\bf Email: gphizer stats@gmail.com}$

Phone: (918)-361-9360

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Introduction

Myself:

My name is Grant Hizer and I am an aspiring football data analyst. I recently finished up a data science and statistics degree from SMU and spent the past year and a half working as a personnel student assistant, focusing on analytics and scouting. I am creating this sample advance report as an example/template for my analytics advances for the following season.

The Report:

This report is being done from the perspective of the Georgia Bulldogs preparing to face TCU in the 2023 national championship. I utilized play feed data from PFF to create this report in RStudio. Games against FCS opponents will not be considered in these reports, unless they constitute half of the total games played by your upcoming opponent. That means there are 1946 unique non-kicking plays being used to generate this particular report, all with 180 unique variables.



Run Offense

Intended Rushing Gap Efficiency

In order to gauge the effectiveness and strong/weak points of the opponent's run game going into each game, we will be judging them based on their season-long "Point of Attack" effectiveness .Additionally, "big rushes" as any rush that goes for more than 10 yards or a touchdown.

Success when targeting each rushing Point of Attack by TCU this season											
	Wide Left	Left End	Left Tackle	Left Guard	Middle Left	QB Sneak	Middle Right	Right Guard	Right Tackle	Right End	Wide Right
Attempts at POA	3	87	36	49	74	3	79	38	41	75	3
Successfully Hits POA	3	81	35	43	62	3	72	32	40	70	3
Success Rate to Hit POA	100.00%	93.00%	97.00%	88.00%	84.00%	100.00%	91.00%	84.00%	98.00%	93.00%	100.00%
YPC when Targeting POA	10.00	4.57	6.86	6.49	6.81	1.33	6.61	6.05	6.83	5.88	-2.00

"Big" Rush Rate when targeting each Point of Attack by TCU this Season											
	Wide Left	do Loft Loft End									Wide Right
Rushes to POA	3	87	36	49	74	3	79	38	41	75	3
Big Rushes to POA	1	20	9	11	17	1	15	10	10	16	0
Big Rush Rate to POA	33.3%	23.0%	25.0%	22.4%	23.0%	33.3%	19.0%	26.3%	24.4%	21.3%	N/A

Success when hitting intended gap vs. not - by TCU								
	Rate	Yards Per Carry	Yards Before Contact					
Hit Intended POA	91.0%	6.25	2.71					
Changed POA	9.0%	1.00	0.35					

- Coming into this game, the Horned Frogs have been one of the better rushing teams in the nation. However, they are
 much stronger running to or outside of the tackles. Only 87% of run plays run at or between the guards stay on target,
 while over 94.5% of off-tackle runs stay on target. This becomes important because TCU's yards per carry decreases by
 5.25 yards (84%) when the running back has to change attack lanes.
- When looking at the big play rate, the TCU rushing offense is rather balanced, with a 22.5% big rush rate across the board. There were even splits of 22% vs. 23% when looking at the rates of inside runs vs. outside runs, respectively, as well as 23% vs. 22% when judging rushes vs. the left side of the line vs. the right. The biggest hot spot appears to be runs between the right guard and right tackle, Wes Harris and Andrew Coker, where the big play rate jumps up to 25.5% over a sample of 79 plays.

Pass Offense

Pass Blocking Efficiency

TCU had the benefit of a relatively healthy offensive line for most of the season, with 4 players being on the field for at least 443 of their 475 pass plays (or over 93%) leading up to this game. The only position that did not exceed that amount is RG, where RG78 Wes Harris and RG 53 John Lanz have been rotating throughout the year. However, the only other tackle with at least 10 pass blocking snaps on the outside this season, OT68 Michael Nichols, suffered a season-ending injury earlier this year, so that depth could be something to watch. The TCU offense this year ran 10 personnel on 54.5% of passing plays and 11 personnel on 32% of them, with 6 and 5 percent going to 12 and 20 personnel, respectively.

Total Pass Blocking Snaps and Pressures Allowed by TCU											
	LT77	LG79	OC56	RG78	RT74	TE19	RB33	RB03	RG53		
Pass Block Snaps	465	471	468	308	443	30	44	45	170		
Pressures Allowed	26	11	18	12	21	0	5	5	11		
Pressure Allowed Rate	5.6%	2.3%	3.8%	3.9%	4.7%	0.0%	11.4%	11.1%	6.5%		

Total Pass Blocking Snaps and Pressures Allowed, by Gap - TCU OL											
	LOLB	Wide 9 - L	C Gap - L	B Gap - L	A Gap - L	NT	A Gap - R	B Gap - R	C Gap - R	Wide 9 - R	ROLB
Pass Rush Snaps	212	183	94	276	15	190	19	268	88	159	235
Pressures	18	18	5	21	0	11	1	12	6	13	26
Pressure Rate	8.5%	9.8%	5.3%	7.6%	0.0%	5.8%	5.3%	4.5%	6.8%	8.2%	11.1%
									- 1		

- The majority of the damage in the pass rush against TCU has been at and outside of the tackles. LT77 Brandon Coleman and RT74 Andrew Coker appeared to struggle most with wide-aligned DEs and pass rushing linebackers, with Coleman allowing 36 pressures of 395 reps (9.1%) and Coker allowing 39 pressures on 394 reps (9.9%) to those types of players. Coleman specifically performs much better against DEs lined up in a more traditional C gap, closer to him
- The inside of the line does a much better job at not allowing pressures. While the pressure rate appears to be higher on
 the left side of the iOL due to the B gap, LG79 Steve Avila is actually the best individual pass blocker of the group, only
 allowing a paltry 2.3% pressure rate.
- Backup iOL, RG53 John Lanz has by far the worst pressure rate of the 6 OL with significant snaps, and we should
 definitely target him if he is subbed into the game.
- There is not much difference shown in the pass blocking abilities of the two RBs, RB33 Kendre Miller and RB03 Emari
 Demercado, and they should not affect our rush strategy much.

Protection Slide Splits

ı	Protecti	on Slide	Splits b	y TCU 0	L	
		1st	2nd	3rd	4th	Total
DONT	Left	94	77	58	8	237
Doz	Middle	20	18	23	1	62
	Right	67	55	49	4	175
٠		Short (1-3)	Med (4-6)	Long (7-10)	Long+ (11+)	Total
Distance	Left	19	30	158	30	237
Dis	Middle	4	11	38	9	62
	Right	14	24	116	21	175
		00/10	11	20/21	12/13	Total
Personnel	Left	124	77	18	18	237
Petsu	Middle	33	19	4	6	62
•	Right	104	56	9	6	175
,¢		Pressures	Snaps	Pressure %		
Pressure Rates	Left	87	237	36.7%		
Press	Middle	15	62	24.2%		
	Right	53	175	30.3%		

- From the jump, it appears TCU prefers to slide their protections left on designed pass plays, doing so on 49.9% of passes, as opposed to 37% and 13% for sliding right or no slide, respectively.
- The pattern of sliding left more than sliding right holds throughout a number of different splits, with only slight variations from the percentages.
- That being said, TCU allows pressures at a much higher rate when sliding left than when not, allowing a pressure on 36.7% of snaps where they slide left and on 28.7% when not sliding left.

Run Defense

Rushing Gap Efficiency Against

Success when targeting each rushing "Point of Attack" vs TCU this season											
	Wide Left	Left End	Left Tackle	Left Guard	Middle Left	QB Sneak	Middle Right	Right Guard	Right Tackle	Right End	Wide Right
Attempts at POA	16	104	43	26	48	5	45	32	40	118	11
Successfully Hits POA	16	96	39	24	41	5	36	38	38	113	11
Success Rate to Hit POA	100.0%	92.0%	91.0%	92.0%	85.0%	100.0%	78.0%	88.0%	95.0%	96.0%	100.0%
YPC when Targeting POA	8.62	5.04	3.58	5.69	4.00	1.40	5.16	7.00	4.10	4.53	8.91

"Big" Rush Rate when targeting each Point of Attack vs TCU this Season											
	Wide Left	Wide Left									Wide Right
Rushes to POA	16	104	43	26	48	5	45	32	118	40	11
Big Rushes to POA	5	22	4	8	7	1	5	7	16	7	3
Big Rush Rate to POA	0.3125	0.212	0.093	0.308	0.146	0.2	0.111	0.219	0.136	0.175	0.2727

Success when hitting intended gap vs. not - vs TCU								
Rate Yards Per Carry Yards E								
Hit Intended POA	91.4%	4.98	2.47					
Changed POA	8.6%	1.00	0.63					

- Coming into this game the key weak spots in the TCU defense have been running behind the guards on either side of the offense into the B gaps. This is due to their standard 3-man front. While the NT duo of Damonic Williams and Tymon Mitchell have been sturdy holding down the center and a-gap's, the B/C gaps are typically manned by their defensive ends, depending on how the front is shaded. Offenses have found success running behind the guard without a player directly on him or that has a smaller, defensive end-type build player.
- When looking to run on the outside, there is much more success to be had going left. DE Dylan Horton plays a majority
 of the snaps on the right half of the offensive side of the line, but running off the TE or wider on the left side of the
 offensive line results in a big run on 22.5% of attempts.

Pass Defense

Pass Rush Pressures

The base TCU defense under DC Joe Gillespie is a 3-3-5, occasionally putting 4 men on the line of scrimmage for obvious passing downs. For the sake of the heat maps, the DE and DT positions on each side of the line were combined into RDL and LDL, since they are typically played by the same player in the base 3-3-5. The RE-Outside and LE-Outside players are typically the same DL, moved outside when the defense is playing a 4-man front. The OLB's are their typical off-ball linebackers walked down to the line of scrimmage, not their DEs, with Dee Winters and Johnny Hodges being the most common OLBs. TCU also had someone lined up as NT or NT-shade on roughly 90% of passing snaps.

Total Rushes and Pressure Rates by TCU Pass Rushers														
	D09	D06	D13	D19	D57	D98	D94	D91	D44	D90	D52	D95	D96	D93
Pass Rush Snaps	11	66	88	32	67	375	21	178	22	180	300	300	90	151
Pressures	4	19	24	8	15	42	2	14	1	8	12	11	3	4
Pressure Rate	36.4%	28.8%	27.3%	25.0%	22.4%	11.2%	9.5%	7.9%	4.5%	4.4%	4.0%	3.7%	3.3%	2.6%

Total Rushes and Pressure Rates by Position - TCU Defense											
			LLB	MLB	RLB						
Pass Rush Snaps			40	9	84						
Pressures			8	3	25						
Pressure Rate			20.0%	33.3%	29.8%			ľ			
	LOLB	LE0	LDL	NT	RDL	REO	ROLB	١			
Pass Rush Snaps	52	189	364	528	340	193	81	٦.			
Pressures	2	9	11	25	39	20	14				
Pressure Rate	3.8%	4.8%	3.0%	4.7%	11.5%	10.4%	17.3%				

- Coming into this game, the pass rushing splits for TCU are VERY lopsided. TCU generates pressure on the right side of the OL 3.3x more often than on the left side, on only 9 more total pass-rushing reps from that side of the ball. This is due in large part to the difference in players, as DE98, Dylan Horton, plays almost exclusively on the offense's right side, and led all qualified TCU DL with an 11.2% pressure rate. The next three most effective pass rushers are backup NT91 Tymon Mitchell, backup RDE90 Caleb Fox, and starting NT 52 Damonic Williams. This complete lack of production should allow us to slide our protection right all game to neutralize the threat more and take advantage of a weaker left side of the DL.
- Additionally, the linebackers have shown to be a lot more effective rushing coming off the right side of the OL, whether
 as a wide OLB or as an off-ball rusher. This puts us in a position to send more RB and TE help to that side of the OL to
 help chip the speedier LB Edge rushers, such as LB06 Jamoi Hodge and LB13 Dee Winters (who both have the highest
 pressure rates among qualified pass rushers).

Blitzing Splits

Blitzing Splits by TCU Defense										
		1st	2nd	3rd	4th	Total				
Down	Blitz	14	20	38	5	77				
	All Plays	429	318	209	40	996				
	Blitz Rate	3.3%	6.3%	18.2%	12.5%	7.7%				
Distance		Short (1-3)	Med (4-6)	Long (7-10)	Long+ (11+)	Total				
	Blitz	5	14	42	16	77				
	All Plays	122	135	640	99	996				
	Blitz Rate	4.1%	10.4%	6.6%	16.2%	7.7%				
Personnel		00/10	11	21/22	12/13	Total				
	Blitz	3	64	2	8	77				
	All Plays	74	651	49	222	996				
	Blitz Rate	4.1%	9.8%	4.1%	3.6%	7.7%				
Pressure Rates		Pressures	Snaps	Pressure %						
	Blitz	32	77	41.6%						
	Non Blitz Passes	101	467	21.6%						
	All Passes	133	544	24.4%						

- TCU Blitzed on 7.7% of plays, and that number jumps to 14.2% on passing plays. This becomes important because their pressure rate nearly doubles when they blitz.
- As with most teams, TCU begins to blitz more as a set of downs progresses, doubling between 1st and 2nd down, then tripling again between 2nd and 3rd down. Additionally, it may appear like blitz rates drop for scenarios between 7-10 yards to gain, but when removing 1st and 10's, the rate actually doubles to 12.44%

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Coverage Splits: 1-High vs. 2-High

1-High vs. 2-High Splits by TCU Defense										
		Shown Prenap		Actually Played		Disguise %				
Overall	1-High	544		469		13.8%				
	2-High	429		326		24.0%				
	Total	973		795		18.3%				
Down		1st	2nd	3rd	4th	Total				
	1-High Plays	278	169	98	27	572				
	2-High Plays	148	142	99	12	401				
	1-High %	65.3%	54.3%	49.7%	69.2%	58.8%				
Distance		Short (1-3)	Med (4-6)	Long (7-10)	Long+ (11+)	Total				
	1-High Plays	94	69	365	44	572				
	2-High Plays	27	60	260	54	401				
	1-High %	77.7%	53.5%	58.4%	44.9%	58.8%				
Personnel		00/10	11	21/22	12/13	Total				
	1-High Plays	25	346	35	166	572				
	2-High Plays	48	293	12	48	401				
	1-High %	34.2%	54.1%	74.5%	77.6%	58.8%				

- The TCU defense has favored running 1-high looks throughout the season, with them taking up 58.8% of their plays.
- When considering pre-snap formations, TCU switched from a 1-high look to 2-high during the play only 13.8% of the
 time, as opposed to 24.0% for the reverse. This means if the pre-snap look from the defense is 2-high, then it is
 roughly 1.75x more likely to be a disguised look than a 1-high pre-snap look
- Additionally, as the drive progresses towards a more obvious passing situation, they tend to run a lot more 2-high looks. When looking at 2nd or 3rd and 7+ yards to go, they actually run a two-high look 62.1% of the time, an increase of 50%
- Finally, against lighter personnels, such as 10 or empty, TCU runs 2-high looks nearly two thirds of the time, giving us a good opportunity to attack over the middle of the field and down the middle seam using those personnels