



# Westfield Starfires

## *Pitcher Report*

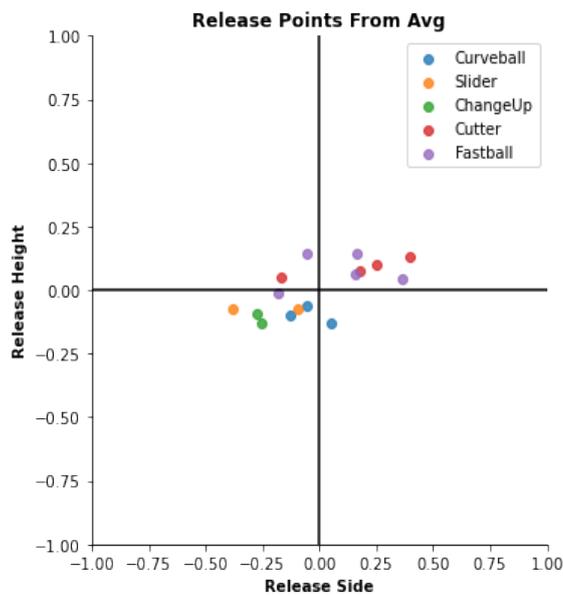
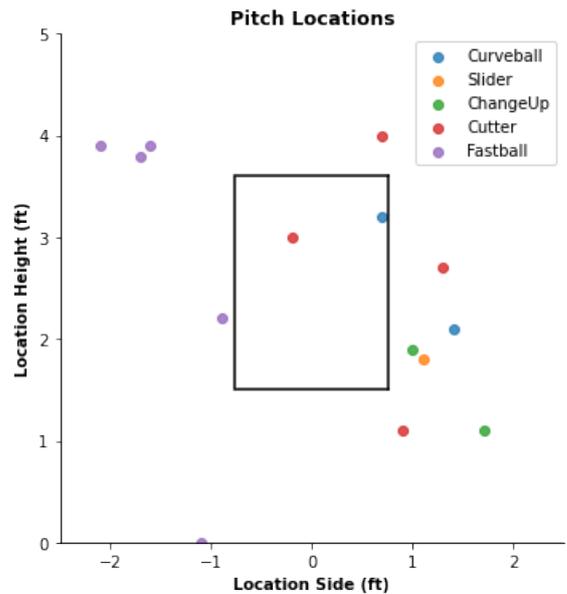
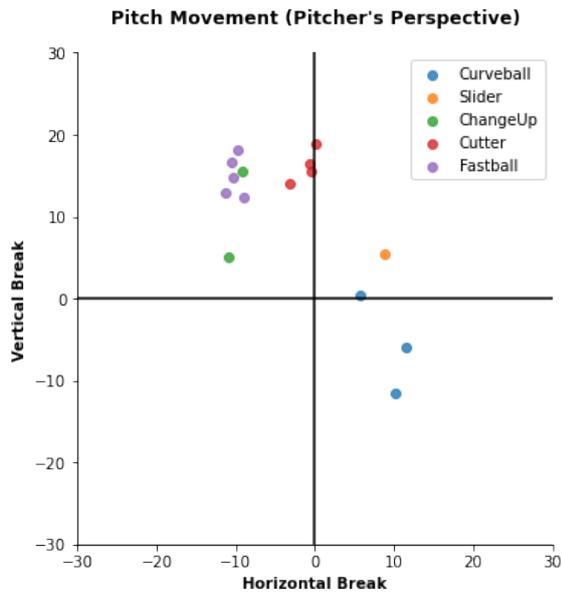




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Pitch Type	Total	Usage	Velocity	Spin	Horz. Movement	Vert. Movement	Tilt	Extension	VAA
ChangeUp	2	12.50%	84.5	1788	-10.05	10.3	10:22	5.65	-7.45
Curveball	3	18.75%	76.57	2269	9.2	-5.67	3:45	5.3	-8.73
Cutter	4	25.00%	88.38	2234	-1.02	16.25	11:52	5.85	-5.52
Fastball	5	31.25%	88.96	2275	-10.18	14.96	10:51	5.64	-5.52
Slider	2	12.50%	80.8	2312	8.9	5.4	2:15	5.65	-8.0



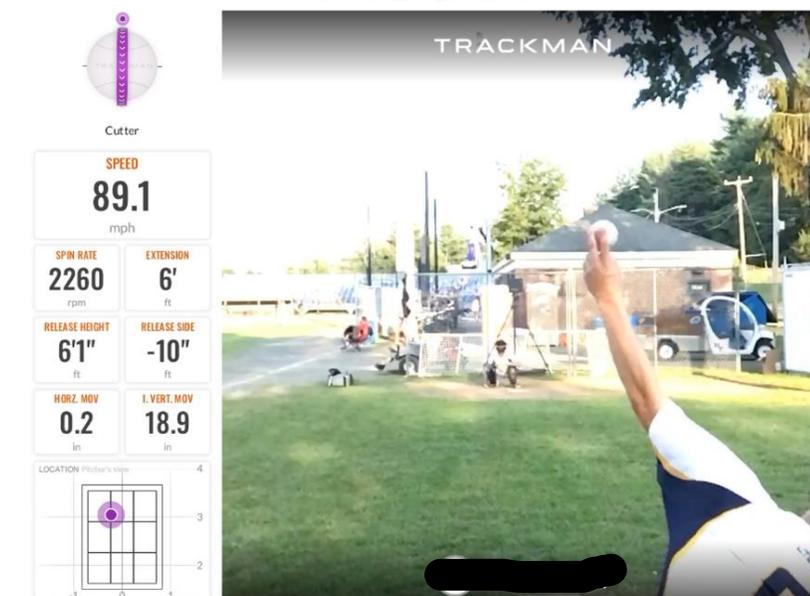
# Pitch Arsenal Write-Up

## FB/CT/CH/CB

### Cutter

As we start to dissect your entire pitch arsenal I wanted to begin with, what is in my opinion, your best offering. What makes this pitch potentially special is how natural it is for you. You threw this Cutter (or cut-fastball) at 88-89mph from directly over the top (0 inches of horizontal movement) ranging from 15 to 18 inches of vertical movement with roughly 2250~ rpms...and this was on the bullpen mounds of Westfield. In-game, I'd imagine you're a couple of ticks higher on the velo with the movement playing up more consistently as well.

Not many big-league pitchers can even do this...there are probably less than a half dozen left-handers in the entire league who can sport that type of movement from that arm slot and most that do sit 88-92mph in a game setting just like you. Some names that identify in that group are the likes of Clayton Kershaw, Drew Pomeranz, Mike Dunn, and others. Not to mention these guys make the majority of their living on a single incredible pitch like this...if that doesn't get you fired up, I'm not sure what will!



To go further into the details, here's why it's effective. Take a look at your ball release video (I attached a picture here), you're able to stay behind the ball better than 95% of pitchers at this arm slot. Most pitchers who throw their FB/CT from that slot, or those that maintain the type of spin axis/tilt as you do, usually cut the ball so much it kills their vertical movement. As we induce more "cut" (aka lower our spin efficiency) we reduce the amount of spin-induced movement onto the ball. That means less "rise" and ultimately lower vertical movements. 4SFB's or Cutters with high amounts of vertical break are desired and effective because it seems like the pitch is rising and leads to more swings/misses. On top of this all, hitters especially don't expect that type of movement from your arm slot and ultimately it becomes more difficult to make hard, or even any contact.

The average FB/CT vertical movement for a left-hander with a similar arm slot/axis as yours is around 12~ inches! In our session, you were easily between 15-18 inches. Meaning that you're already well above that average. Even the entire MLB average for FB vertical movement is roughly 15-16 inches at 91.5mph and that's

considering mostly low  $\frac{3}{4}$  to high  $\frac{3}{4}$  throwers. Once again, proving that this pitch is something worth seriously considering and has the chance to be a future outlier type offering.

The last thing I wanted to touch upon is how incredibly raw you are as a pitcher. You're a 19-year-old outfielder by trade and I believe you've pitched *only* 2-3 innings over the last 6 months between the FCBL and college with never having any pitching training. So, it becomes worth pondering the – “what if’s”. What if you trained as a pitcher, or committed to a velo program, or focused on improving the entire pitch arsenal? What if we had you in a pitch design session in our lab? Could this pitch gain more movement? Could you get up to 95+ mph one day? There are so many questions I have its truly remarkable when you take a step back and look at it all. You have the chance to be an excellent pitching prospect and you're not far off already. You have a potential MLB type offering in the wings, have good velocity from the left-side, have excellent size, are 19 years old with little pitching experience, and thus, the potential is just beaming. I think this could be your ticket to the next level, and if taken seriously over the next 12-24 months I'm confident you can make it. I believe in this pitch, and in you.

## Fastball

In your bullpen session, you threw 3 “types” of fastballs. The cutter/cut-fastball (which we tackled above), a 2SFB, and a 4SFB. In short, the cutter should be prioritized moving forward as your essential weapon but that doesn’t mean the two-seam/four-seam can’t be utilized or toyed around with at all. We combined the data on your 2SFB and 4SFB because they were very similar. You averaged about 89mph with 10 inches of horizontal movement and 15 inches of vertical movement (40<sup>th</sup> percentile vs. MLB). It's clear this pitch had some arm side run just by watching the video and it could be a nice compliment to the cut-fastball. In terms of MLB LHP comparisons, it would profile as slightly below average. Still, not bad for a Futures League outfielder. Where this pitch lacks from being next level is ultimately in velocity and vertical movement.

While you can get away with your 89-92mph cutter with its movement/arm slot, it becomes more difficult to do so with this Fastball’s profile. Your 4SFB is thrown on an 11:00 axis. Most LHP who throw on this axis has close to 95-100% spin efficiency, meaning they barely cut the ball, if at all. Because you may naturally cut the ball, you induce less movement. This may explain why your VM is only 15 inches when some others might be 17+. Along with that, I’m guessing your velocity likely sits around 90-92 mph in-game. Currently, the MLB LHP average is 92.8 mph in 2021, but with solely bullpen arms it’s even higher.

At a first glance, this pitch seems like neither a dominant offering nor something that is a liability. It’s solid from the few pitches we have on file. Moving forward we want to be completely sure about what we are working with to prioritize your best weapons. Next time we see you, I suggest throwing at least five 2SFB and five 4SFB, that way we have a better idea if there are any distinct differences and we can re-evaluate.

Either way, to take this pitch to the next level, a velo increase will be your best friend. The higher the velocity, the smaller the margin for error that any hitter will have. Additionally, even if you gained velocity that will likely play up the entire arsenal including the cutter. Which, if you added 2-4 mph more...man, that cutter is going to be incredible.

In a pitch design session, we can try decreasing the amount of cut you induce onto your 4SFB, but we just have to be careful as it could impact your cutter. Sometimes when we practice throwing pitches with certain cues it can have adverse effects on how we release all our other offerings as well. We don’t want to take away from what makes your cutter that outlier pitch as we discussed above. A controlled trial and error is the way to go as we learn more about what your 2SFB or 4SFB can do!

## Changeup

Your changeup is a pitch that will be a small part of what compliments your cut-fastball and 4SFB. You only threw two of these when we saw you, so, we'll take the data with a grain of salt. But we can still provide you some guidance on how to craft something effective in the future until we get more data.

As with any changeup, what makes these pitches so effective is the separation in movement profile off the primary fastball (your cutter). We either want to throw a CH with side spin to induce fading movement arm side (lowering the tilt closer to 9:00), or we want to kill as much total spin as possible to let the ball drop and die out (think splitter), or both.

Due to your high release point, it is usually difficult for pitchers like you to throw a CH with complete side-spin. But, out of the two CH's thrown, we saw a pretty effective one. Although it was spiked in the dirt, it had a 1600 spin rate at a 9:45 axis with -11 inches of HM and 5 inches of VM. Which would be over 10 inches in movement difference compared to your FB's. That right there, is the money spot. I'm not sure how consistent something like that would be for you to achieve but knowing it was done once, makes me think we can get close to that again.

In the future, continue to think about rolling over the ball, or using your ring finger to that effect. It's okay to spike some in the dirt at first to gain a feel, as the CH is a feel pitch and something that will come with time and reps. A splitter is also an option but only recommended if you have big enough hands to wedge the ball in between your fingers. It's worth giving that a shot too, you'll probably know if it's a fit after the first couple attempts.

Lastly, consider the velocity differential from your CH off your fastballs. The MLB average velo difference is roughly 8mph. Yours was only 4~ mph. Meaning that your CH was thrown at 84, while the FBs were 88-89. That is a very small gap. Part of what makes a killer CH is throwing a hitter off with timing. It will be worth considering trying to throw this a bit slower especially if the movement profile resembles your 4SFB. Any pitcher who throws a CH similar to their heater in terms of movement, and can't create that velocity difference isn't setting themselves up for maximum deception.

Ideally, we want a CH that we can rely upon up to 10-15% of the time against right-handed hitters. So, this pitch isn't a huge concern to your future, but the more we can add to your arsenal the better, especially if you can command it well.

### **CH Target Ranges:**

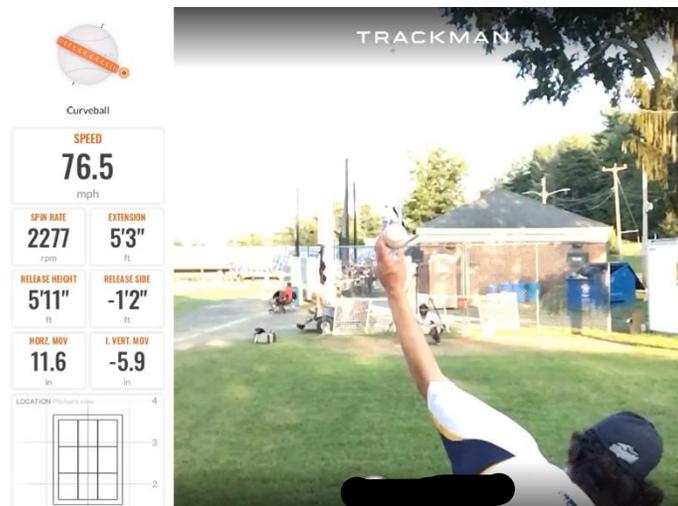
- 7-10mph off the FB
- Tilt: 10:00 or lower

## Slider/Curveball

Last but not least, the breaking ball. Out of all the pitches you've thrown, I'd say this is the pitch that has the greatest room for improvement. You threw about 5 of these and there wasn't much of a consistent profile going on. Both the slider and curveballs similarly blended in with each other. The good thing with curveballs or sliders is that, in my opinion, they are the easiest pitches to learn. You've got the hard part out of the way since you have a great cut-fastball, now it's going to be about finding the best breaking ball to complement that moving forward. Instead of going for both an SL and CB at first, I think the smart play will be choosing one and focusing your efforts on the one that works best. We'll want to execute and advance one at a time.

As it pertains to sliders or curveballs, there is a constant tradeoff between movement and velocity. The best breaking pitches in the MLB optimize to find the greatest point within that tradeoff. For example, Joe Kelly can throw an 88mph curveball with 15 inches of vertical break, Clayton Kershaw throws his with 20+ inches of VM at 75mph, and Chaz Roe can throw his slider at 77mph with 20+ inches of horizontal movement. All are unbelievably effective offerings and are so different. But neither of these pitches can do what the others throw. These pitch types are individualistic to the thrower, thus, it is imperative to experiment, trial, and error different grips to find the pitch profile that suits you where we find the best combination of velocity, movement, and command.

Because you naturally cut the ball, my first gut instinct is that it might be more innate for you to pursue a slider. I attached a visual of your curveball, and we can even see the gyro/sidespin that you induce just as it leaves your hand. Ultimately, it even had more horizontal movement than vertical movement (see image below) at close to 10-12mph off the FBs. It's hard to make any recommendation off the small sample size we have, so I wouldn't count out a traditional curveball. Future pitch design sessions with high-speed video are going to be essential in crafting your optimal breaking pitch here.



## Overall Notes

To put together some final thoughts onto one page, I think the potential and projection of you as a left-handed pitcher is very real. We can see the velocity and athleticism already there. Your size is a huge plus to making future improvements and I think you'd have an easier time climbing the velo ladder than most, especially since you have not had any pitching training. I think it comes down to committing to a program and fine-tuning certain parts of your game, arsenal, and delivery to take everything to the next level.

Nothings ever a guarantee, but the path to pitching in professional baseball is closer than you may realize, which is why when I first saw you throw weeks ago, I was quietly stoked. A 19–21-year-old lefty throwing 90mph+ with a potentially lethal cutter....is going to get your attention and I believe that will lead you down your path to pro ball. Frank Mozzicato signed for \$3.5 million at 18 y/o and he threw 92-94 from the left side with a solid FB and high spin CB. Scouts ate up that projection, along with the 5 no-hitters he threw. But he's had years of pitching development and training. You've had zero...let that speak for itself.

One last thing to keep in mind is to keep that arm healthy. I watched your warmup in LF before your bullpen. I could have sworn you threw 50+ throws and that's not including warming up in the bullpen and eventually the 20~ you threw on the mound, etc. I'm not trying to say you are going to get hurt, but just to think about your workload management. I use this analogy with all of our pitchers: An Olympic track runner is meticulous about the number of miles they run in a single day. They'll track each day's long-distance runs because it's vital to predicting fatigue and stress on the body, and future performance. The same goes for baseball but with your arm. Every throw you make whether at 50% or 90% is creating fatigue and increasing your workload for a day. This is how pitchers can get hurt and wind up with sore arms, TJ, etc. An athlete's workload needs to be consistent and its needs to be monitored. That means tracking how many throws you make + the intensity each day. Arm injuries aren't solely mechanical, but rather a function of stressing or fatiguing the muscles and ligaments to an extreme. And they don't need to be pushed to an extreme if we track and know where we are at with our workloads. This is especially true for someone like you who isn't a pitcher by trade and may not have consistent day-to-day when throwing. Keep track of your arm, throw smart and stay healthy!

I hope you enjoyed this report, I had a great time writing it up and learning more about each aspect of your game. If you have any other questions or comments, don't hesitate to reach out!

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<https://www.gonpi.org/npi-sports>

# MLB Pitch Type Comparisons

2021

**Drew Pomeranz** - "FB"  
**LHP / San Diego**

Velo: 94 mph

Horz. Mvmt: -2.8 inches

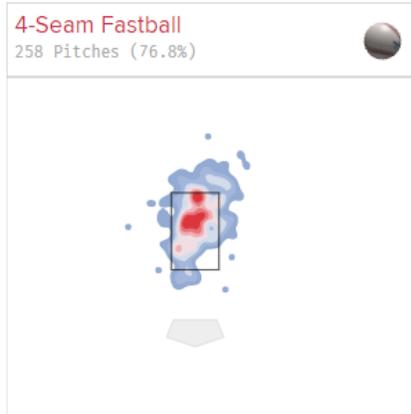
Vert. Mvmt: 17.5 inches

Spin rate: 2512

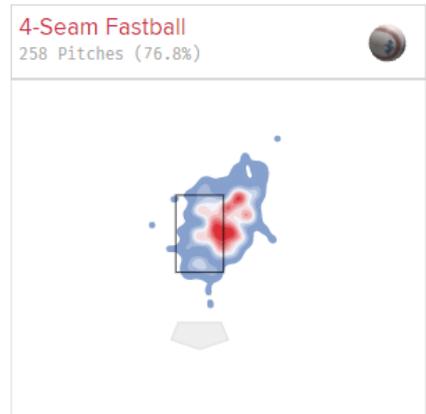
LHB Usage: 85%

RHB Usage: 72%

vs LHP



vs RHP



2021

**Lucas Gilbreath** - "FB/CT"  
**LHP / Colorado**

Velo: 93.5 mph

Horz. Mvmt: -0.25 inches

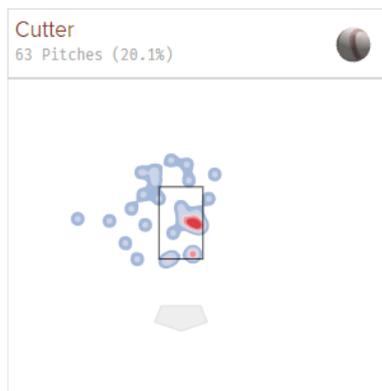
Vert. Mvmt: 15.2 inches

Spin rate: 2415

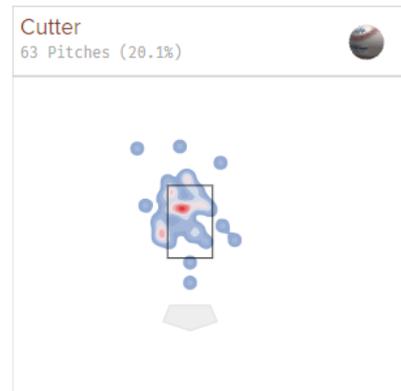
LHB Usage: 16%

RHB Usage: 25%

vs LHP



vs RHP



2021

**Clayton Kershaw** - "FB"  
**LHP / LAD**

Velo: 90.7 mph

Horz. Mvmt: 0.8 inches

Vert. Mvmt: 18 inches

Spin rate: 2510

LHB Usage: 48.2%

RHB Usage: 33.7%

vs LHP



vs RHP



# Mound Positioning Examples

