Dear Friends,

Main Strategy accounts managed by 10 West increased by 20.5% in 2024 and 54.1% year-to-date through the third-quarter 2025[1], compared to an increase of 25.2% in 2024 and 14.8% year-to-date for the S&P 500 index. Through September 30, 2025, the annualized and cumulative gain since inception on January 1, 2016 is 20.5% and 517.9%, respectively, compared to a gain of 14.9% and 288.1% for the S&P 500 index.

	2024	Q3 2025 YTD	Trailing 3 Year Annualized	Since Inception Annualized (1/1/2016)	Since Inception Cumulative (1/1/2016)
10 West	20.5%	54.1%	28.7%	20.5%	517.9%
S&P 500	25.2%	14.8%	25.0%	14.9%	288.1%

I jinxed us by calling the undisclosed position "the best opportunity I have come across in my career" in my last letter. As it turns out, I ended up being completely wrong, to a laughable degree. We lost quite a bit of unrealized gains, but I was able to exit the position without much permanent capital loss. This does not excuse the mistake, but we learn, brush ourselves off, and move forward. Again, this is not the first time I have been wrong about a stock, and it certainly will not be the last. In fact, if I am never wrong, that likely means we are not taking on enough overall risk in the portfolio to generate optimal returns. We may return to this position in the future, so I will leave the post-mortem for another time.

Our portfolio has self-concentrated into a handful of positions and that is, as it should be. **AST SpaceMobile (ASTS-US)**, **Cloudflare (NET-US)**, **ClearPoint Neuro (CLPT-US)**, and **Nintendo (7974-JP)** account for ~75% of the portfolio and carry significant embedded capital gains. Cloudflare and Nintendo have matured into inevitable businesses during our holding period with long runways of growth still ahead. AST is on the cusp of inevitability as the company begins a launch campaign to put 60 satellites into orbit through the end of 2026. One of ClearPoint's partners will soon commercialize the first ever treatment for Huntington's Disease. There is no reason to interrupt the compounding of these amazing businesses. We will simply hold on to them while we search for the next inevitable business to add to our collection.

Let's review our large positions and then check in on my "should I be managing money or eating tacos on the beach" benchmark.

AST SpaceMobile

Photons experience neither time nor distance[2]. A photon is emitted from the sun and absorbed by your eye in the same moment. How cool is that? Photons are also the fundamental carrier of the electromagnetic field and the medium through which information moves across the universe.

Why mention photons? Because as investors, it is important to understand what a company actually does, not just what it is commonly perceived to do. Was **Amazon (AMZN-US)** an online retailer? No, Amazon sells massive datacenter and logistics capacity. Was Nvidia **(NVDA-US)** a gaming GPU company? No, Nvidia sells high-performance matrix multiplications. Both Amazon and Nvidia are multi-trillion-dollar enterprises because what they really sell is exceptionally rare: globally scalable key enabling technologies.

[1] This is an aggregate figure, net of fees and expenses. Individual account performance may vary based on when the account was opened and the type of account.

[2] I know some readers are actual scientists, so more accurately, photons do not experience anything. There is no valid inertial reference frame for a photon.

Users all around the world built on Amazon's datacenters and Nvidia's GPUs – some of these applications were foreseeable, but many were not. No one, not even Nvidia's leather jacket clad founder, predicted that the matrix multiplications used to render video game graphics would one day power modern artificial intelligence. Globally scalable key enabling technologies are among the most valuable assets in the world because they are the canvas on which human creativity paints the future.

So what does AST actually do? Will it provide satellite-based 5G broadband directly to your phone? Yes, that is one application, but **what AST really sells is photons**. AST's satellites can manipulate the electromagnetic spectrum anywhere on Earth and thus can enable the transfer of information anywhere on Earth. This sounds like a globally scalable key enabling technology to me. How much is the ability to control the electromagnetic spectrum worth? I don't know, probably a lot[3].

One customer, the newly rebranded U.S. Department of War ("DoW"), is already finding new applications for AST's photons. In fact, AST's first material revenues have been from DoW contracts, including a $43 million Space Development Agency ("SDA") contract and a $20 million Defense Innovation Unit ("DIU") contract. The SDA contract is to test "non-communications" use cases with the five Bluebird Block 1 satellites currently in orbit. As expected for a DoW project, AST is secretive about what the Bluebird satellites are doing, but we can make some informed guesses.

The five Bluebird Block 1 satellites currently in orbit each carry a 693 square foot phased array antenna. The Bluebird Block 2 satellites sport a 2,400 square foot phased array. To help you visualize, this is roughly the size of half a basketball court. The original application of phased arrays was radar during World War II, so what can you do with the largest phased arrays ever put into low earth orbit?

Figure 1: Very far

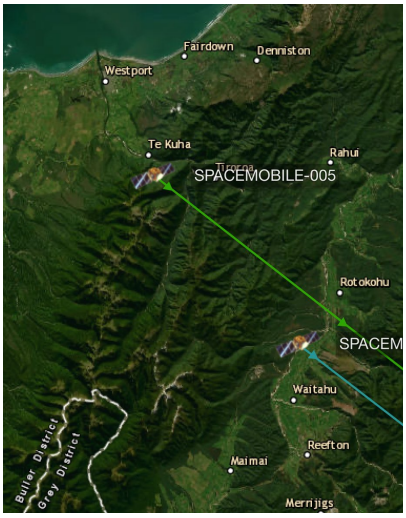


Figure 2: Very close

As you can see in the figures above, AST has flown the Block 1 satellites spaced very far apart, except for two. These two Bluebirds were flown 20 km apart for about a year and if you use some fancy physics/engineering tricks, you can create a radar with a synthetic aperture of 20 km! A large radar aperture is important for two reasons:

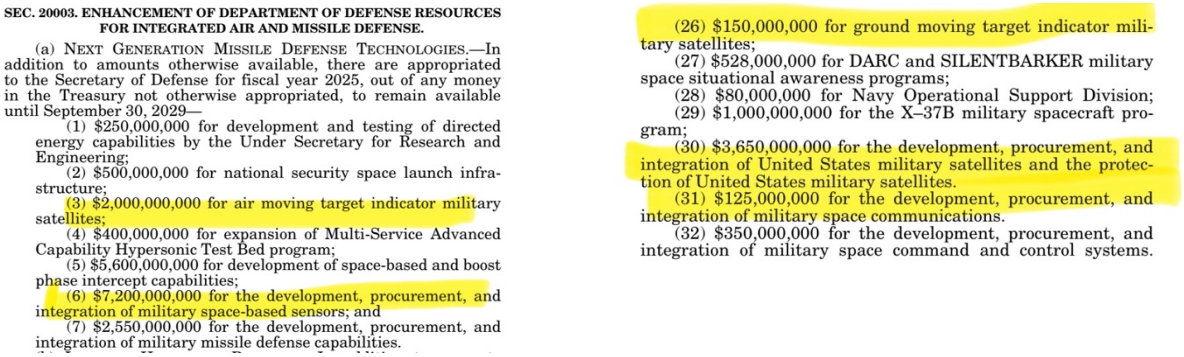
1) The beamwidth of a radar is wavelength divided by aperture diameter. A larger aperture produces a narrower beam, which means smaller details can be distinguished. Using assumptions gleaned from AST's regulatory filings, these two Bluebirds can provide 5-to-10-meter resolution of objects. Future Bluebirds could provide sub-meter resolution if required by the DoW.

[3] Much like I said about Cloudflare many years ago: "How much is a better internet worth? I don't know, probably a lot".

2) Antenna gain scales with aperture area and the power received by a radar scales with the square of antenna gain, thus aperture size has a disproportionately large effect on the signal-to-noise ratio[4]. That's just a long way of saying "larger aperture, better radar".

Beyond a large synthetic aperture radar, there are other interesting applications enabled by the paired Bluebirds. Here is one more: ground and air object motion tracking. The two Bluebird are moving along the same track, so you can obtain two synthetic aperture radar images of an area roughly 3 seconds apart. By using a little math (the interferometric phase relation), you can detect even the tiniest movements (on the order of 10 to 20 cm/s velocity). In military parlance, this functionality is referred to as air moving target indicator ("AMTI") and ground moving target indicator ("GMTI").

Interestingly enough, Public Law 119-21, otherwise known as the "One Big Beautiful Bill", has budget allocations for space-based communication and non-communication applications as part of the Golden Dome initiative.



SEC. 20003. ENHANCEMENT OF DEPARTMENT OF DEFENSE RESOURCES FOR INTEGRATED AIR AND MISSILE DEFENSE.

(a) NEXT GENERATION MISSILE DEFENSE TECHNOLOGIES.—In addition to amounts otherwise available, there are appropriated to the Secretary of Defense for fiscal year 2025, out of any money in the Treasury not otherwise appropriated, to remain available until September 30, 2029—

(1) $250,000,000 for development and testing of directed energy capabilities by the Under Secretary for Research and Engineering;

(2) $500,000,000 for national security space launch infrastructure;

(3) $2,000,000,000 for air moving target indicator military satellites;

(4) $400,000,000 for expansion of Multi-Service Advanced Capability Hypersonic Test Bed program;

(5) $5,600,000,000 for development of space-based and boost phase intercept capabilities;

(6) $7,200,000,000 for the development, procurement, and integration of military space-based sensors; and

(7) $2,550,000,000 for the development, procurement, and integration of military missile defense capabilities.

(26) $150,000,000 for ground moving target indicator military satellites;

(27) $528,000,000 for DARC and SILENTBARKER military space situational awareness programs;

(28) $80,000,000 for Navy Operational Support Division;

(29) $1,000,000,000 for the X–37B military spacecraft program;

(30) $3,650,000,000 for the development, procurement, and integration of United States military satellites and the protection of United States military satellites.

(31) $125,000,000 for the development, procurement, and integration of military space communications.

(32) $350,000,000 for the development, procurement, and integration of military space command and control systems.

$2 billion for AMTI, $7.2 billion for space-based sensors, $150 million for GMTI, $3.65 billion for satellites, $125 million for space communications… the numbers get large quickly. Given the unique and differentiated capabilities enabled by the size and power of the Bluebird satellites, I expect AST to be awarded several Golden Dome-related contracts in the near future.

Here is another non-communications use case for the Bluebird satellites. The Global Positioning System ("GPS") supports an unfathomable amount of economic value around the world. Beyond the monetary aspect, even a brief GPS outage likely leads to the loss of human life. For such a critical service, the GPS signal is both extremely weak and unauthenticated. The GPS signal is approximately -160 dBW at the Earth's surface, or many billions or trillions of times weaker than your WiFi signal. A signal that weak can easily be jammed by a hostile party. Moreover, the lack of authentication allows a hostile party to spoof the signal sent to say, a commercial airliner, with incorrect data. Prudence dictates that there should be a jam and spoof resistant supplement to GPS. Thankfully, the FCC is on the case.

AST was granted a patent in November 2024 titled "Geolocation of radio frequency devices using spaceborne phased arrays", which describes a method to provide geolocation using Bluebird satellites. As part of providing cellular service, a Bluebird lays down fixed cells on the Earth's surface. Each cell is 12 to 40 km in diameter, depending on the frequency, and the Bluebird knows which cell the device is in, thus providing a "coarse" location. Once again, AST can use some physics/engineering magic, such as two-way timing measurements, Doppler shifts, and multi-beam geometry, to then provide a precise location.

[4] Antenna gain, $G = \frac{4\pi A}{\lambda^2}$, where A is the effective area of the antenna. The power received by a monostatic radar, $P_r = \frac{P_t G^2 \lambda^2 \sigma}{(4\pi)^3 R^4}$ where G is antenna gain.

AST offers not only redundancy, but also material improvements over GPS. Any device that emits radio frequency can be located without the need for a specialized GPS receiver chip[5]. In addition, the signal is coming from low earth orbit (500-700 km), thus is orders of magnitude stronger and more difficult to jam than the GPS signal from medium earth orbit (20,000 km)[6]. Finally, AST's signal can be encrypted and user authenticated to prevent spoofing. I suspect both governments and private enterprises would be interested in a "better GPS".

I want to emphasize that these use cases are side hustles to AST's core business of providing ubiquitous cellular coverage to its partners' 3 billion+ subscribers. That these side hustles may be worth billions in annual revenue illustrates the potentially immense scale of AST's platform. From cellular service in a remote village, to secure navigation in a contested battlefield, to applications we cannot yet imagine, AST's control of photons on a planetary scale is a humanity-changing level innovation.

This is my third consecutive year writing to you about AST. In previous letters, I included pictures of the satellites, so let's keep the tradition going. AST recently posted a picture of the first two Bluebird Block 2 satellites, and it is extremely gratifying to see how much the company has grown.

2022: Bluewalker 3

2024: Bluebird Block 1

2025: Bluebird Block 2

One day I will write the full story of our AST investment because everything I have ever learned about investing has gone into this journey. It sounded crazy three years ago to believe a pre-revenue, cash burning science project with an audacious idea that industry experts claimed violated the law of physics might end up as a globally scalable key enabling technology. Other professional investors, likely guided by industry experts, thought AST was a slam dunk short as evidenced by various reports. However, relying on industry experts is substituting someone else's thinking for your own, which is not a way to achieve extreme results. Extreme results require extreme behavior, and sometimes that extreme behavior is taking a few months to learn enough RF engineering to reason for yourself whether the RF link could be closed between a giant phased array in orbit and a cell phone transmitting at 200 mW[7].

As I mentioned earlier, AST is on the cusp of inevitability. Within the next few weeks, the company will begin a launch campaign to put 60 Bluebird satellites into orbit through the end of 2026. In the U.S., **AT&T (T-US)** and **Verizon (VZ-US)** will begin a marketing campaign with a simple compelling message: **5G connectivity all the time whenever you are, no matter what happens**. **Vodafone (VOD-US)** will do the same in Europe, and eventually all 50+ of AST's mobile network operator partners will roll out service to 3 billion+ subscribers. AST

[5] Located whether the device wants to be seen or not. If it emits radio frequency, AST's satellites can locate it. Again, the U.S. government may find this functionality useful as the satellites overfly certain geographies.

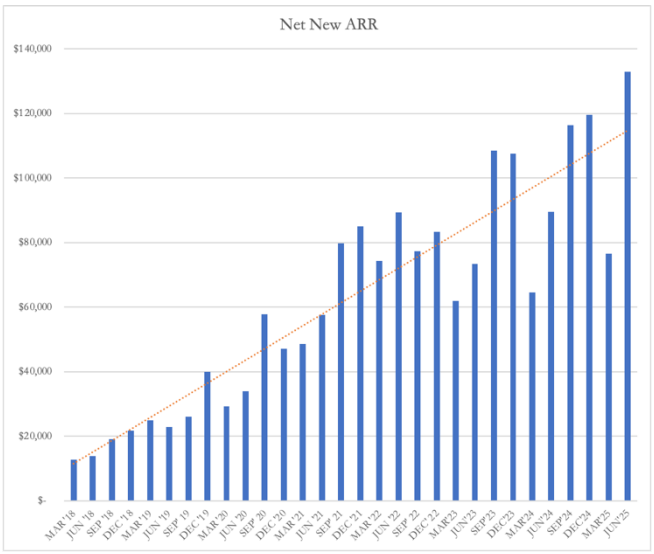
[6] If a Bluebird can produce a signal powerful enough to resist jamming, what if it produces noise that is powerful to jam other signals? This is ventures into heavy speculation, but the pair of Bluebirds overflew Iran at the exact time as the B-2 bombers during the June bombing.

[7] Each Bluebird Block 1 carries an 8×8 meter phased array orbiting at ~520 kilometers. A standard handset transmits about 200 mW (+23 dBm) with ~0 dBi antenna gain. At 850 MHz, the array's physical aperture (64 m^2) provides about 36 dBi of receive gain assuming normal efficiency. Free-space path loss over 520 km is roughly 145 dB. The received signal is therefore near -86 dBm, while thermal noise in a 10 MHz channel is -104 dBm. Even after typical losses, the uplink closes with several decibels of margin. On the downlink, a 40 dBW (10 W) transmit power from the same array with 36 dBi gain produces +76 dBm EIRP. At handset level (~0 dBi receive gain) and the same 145 dB path loss, received power is about -69 dBm, giving a signal-to-noise ratio exceeding 30 dB for a 10 MHz channel. Bluebird Block 2 satellites perform ever better with an array over 3X the size (223 m^2).

may end up as a 1 billion subscriber business generating recurring revenue at very high margins protected by technological, regulatory, and commercial moats. There are many Bluebirds to be built, launched, and successfully operated before we get there, but squint hard enough and you can see that AST's end state may very well be as one of the greatest businesses in the history of capitalism.

Cloudflare

I have found that it is a good thing when I do not have much to say about an existing position because that means the business is humming along nicely. Good businesses put up good results and Cloudflare does that every quarter. The chart to the right shows the net new annual recurring revenue ("ARR") added by Cloudflare each quarter since its IPO. There are fluctuations, of course, but the trend is clear. Every day, the revenue snowball gets bigger and Cloudflare's competitive advantages become stronger.



If the preceding paragraph seems familiar, that is because I wrote that to you last year about Cloudflare. I feel much the same this year. Nearly all the work on our positions is front loaded, and if we are right, there is not much to do but sit back and enjoy the compounding.

Fortunately, I was very right about Cloudflare, and the stock is now up over 10X from our purchases at the IPO in fall 2019. Six years of ownership down, many more years yet to go.

Nintendo

The wait was long and arduous, but that is indeed a Switch 2 pictured to the right. My very own Switch 2, in fact, that I purchased on the June 5 launch date. In the subsequent weeks, the Switch 2 went on to set many game console sales records:

- Record launch month sales of 1.6 million units in the U.S., beating the previous record of 1.1 million units held by the PlayStation 4.
- Global sales of 3.5 million units in the first four days, becoming the fastest selling Nintendo console ever.

Nintendo was circumspect with new game titles as Mario Kart World was the lone big franchise to accompany the Switch 2 at launch. I suspect Nintendo is saving the big guns for the upcoming holiday season, but there is hardly a drought of games because the gigantic library of original Switch games can be played with improved performance on the Switch 2. The thesis of Nintendo moving to an Apple-like model, albeit with a much slower hardware refresh cycle, that I articulated all the way back in 2017 has come to pass. I expect the upcoming holiday season to be the best Nintendo has ever had, so like with Cloudflare, we will now sit back and enjoy the compounding.

ClearPoint Neuro

"The waiting is the hardest part, every day you see one more card". We have certainly done our share of waiting with ClearPoint, but now we are starting to see the cards flip in the clinical trials run by the company's partners. AMT-130, the gene therapy for Huntington's Disease, that I discussed last year will likely be approved by the FDA in 2026. The AMT-130 three-year data reported by uniQure (QURE-US) were breathtaking. There now exists a treatment for Huntington's Disease, which is delivered using ClearPoint's SmartFlow cannulas.

We will soon see cards flip for other indications such as Parkinson's, epilepsy, and dementia. The success of AMT-130 and other ClearPoint-delivered therapies should encourage partners to run even more trials, especially with therapies that previously failed because the compounds could not be delivered accurately and at the correct concentration gradient in the brain. With each clinical success, the snowball will grow larger and one day, we will own a business collecting a "royalty" on a large portfolio of treatments for currently intractable brain disorders.

The Halfway Point

> *"If I cannot produce market-beating returns over any six-year period, which is long enough to qualify as 'long term' in my mind, then I have no business managing your money or my money."*

Over a year has passed since I wrote the sentence above and we are now more than halfway through my six-year measurement period. At the end of 2024, we trailed the S&P 500 index for three consecutive years, but as I have mentioned many times, our returns will be lumpy and 2025 is turning out to be lumpy good. I will keep you updated as the timer counts down to December 31, 2027, when we will have solid evidence whether I should be managing money or eating tacos on the beach. I received a few questions after my last letter. Some questions focused on where to get the best tacos in Los Angeles, which I can easily answer[8], while other questions, I shall leave to Oakland A's general manager Billy Beane, as portrayed by Brad Pitt in Moneyball.

[8] I recommend the taco stand at Western Ave and 4th St. where freshly pressed tortillas from homemade masa = heavenly tacos.

Guys, you're fighting me here with your esoteric MSCI or whatever benchmarks and Sharpe ratios and compounding artifacts.

We're not going to do that.

What we're doing here is making money.

The most money we can make compared to our opportunity cost, which is...

The S&P 500 Index

Billy, who's that? Does he need to be here?

That's Pete, my taco dealer. Yes, he does.

Look, look Billy, if I may. That's trouble. The S&P 500 has the Mag7 in there. Nvidia, Microsoft, Apple... nobody beats those guys.

Why don't we pick a crappy benchmark? Russell 2000? Even better, let's hire some consultants to create a "custom" benchmark for us.

No, Artie. We benchmark to the S&P 500 because we're a major league team and the S&P 500 is the major league index.

Are we going to feel good beating some piss ant index if we could have made more money in...?

The S&P 500 Index

No, no we aren't. And our fans won't either.

We also gotta beat the S&P 500 over any six-year period.

Billy, what's going on? We can rely on our strong early years to make the "since inception" returns look good.

No, Grady, that's just an artifact of compounding when we could have made more money over those six years in the...

The S&P 500 Index

Remember, we aren't here to sell a product or justify our jobs.

We're here to make money, the most money possible compared to our opportunity cost. And well, if we can't do that, we might as well go sit on the beach and...

Buy tacos from me

One of the great privileges of my work is that I can know, with objective numbers, whether I'm any good at it. I am good at my job if our returns beat the S&P 500 index over any six-year period. The S&P 500 is the benchmark, not because it is a stylistic match, but because it is our opportunity cost. If I did not actively manage my money, it would be invested in the S&P 500 and I would recommend to you to do the same. My time frame is any six-year period, because that is sufficiently long to be "long term", and removes any artifacts of compounding[9]. That is my standard to be considered a good investor and if I fall short, I will certainly let you know.

Thank you for your trust and confidence. As always, I am happy to hear from you with any thoughts or questions.

Sincerely,

Toan Tran
Los Angeles, CA
October 7, 2025

[9] Good early returns will positively skew "since inception" returns even if later returns are bad.