Friends, Donors, and Fellow Lovers of Liberty,

I had planned to release the first of these updates sooner but have had to balance time spent on technical progress of the Dagny Dagger Project with administrative duties such as legal reporting, media engagement, and writing this update. As you will see, we're now in a short break from active development which gives me perfect opportunity to bring this to you. This first update will be quite lengthy as I aim to be as transparent as possible and accountable to our donors.

- **We have been actively testing prototypes for the last 4 months.**

We are thankful to have cultivated a partnership of sorts with a local machine shop which generously donates our prototype parts, saving Atlas Arms many hundreds of dollars so far. The parts are then meticulously measured on over 15 metrics to characterize each bullet before, during, and after assembly on the scale of 0.00005" and 0.1gr. Then 6 more measurements are taken as the bullet is loaded into a complete, charged cartridge (with our Dillon 650 press). The measurement and assembly process for a single batch consumes about 10 hours over multiple days. Such intense scrutiny is critical to development as we try to glean all knowledge possible from each test.
From there we take the prototypes to a local gun club to shoot through a Ransom Rest-mounted Canik TP9SFx (a good full-size pistol, though I recommend buying used so as not to fund the tyranny of the present Turkish government, especially over the Kurds). Each test shot flies over a chronograph on its way to a poster board frame with multiple screens, which renders a sectional image of the shot as it passes through.

- **We have learned a lot to refine the Dagger's design.**
  - **Several parameters have been tested:**
    - Jacket/core bonding method & parameters
    - Bullet diameter
    - Ogive
    - Nose geometry
    - Jacket/core fit
  - **The bullet is stable.**

  With such an exotic geometry, we could not take for granted that the bullet would fly with stable external ballistics out to typical handgun range. I am pleased to announce that the Dagger is indeed stable in a standard 1:10 twist 9mm barrel. The bullets leave clean, perfectly circular holes in the target frame, a stark contrast to the torn profile of an unstable yawing or tumbling bullet.
  - **The cartridge feeds.**

  We now understand the dynamics of the complex nose geometry in a magazine and on a feed ramp and have successfully chambered a Dagger from a magazine under the recoil of a preceding round.
  - **Jacket/core fit is critical.**

  The only mode of failure of the prototypes seems to be their tendency to shatter under the shock of exiting the barrel into the still, ambient air. We've seen lower incidence of failure when the fit between the jacket and core is looser. This is part of a larger complex of bonding dynamics which is the object of our investigation with the current batch of prototypes.
  - **Recoil is very light.**

  Lightweight bullets mean lightweight recoil, even with the superior penetration and terminal ballistics. In fact, recoil is so light that successful test shots exhibit "stovepipe" failure to eject

when a maximum charge is not used. We will easily fix this problem by altering powder burn rate, but recoil will remain very low for the given caliber.

- **Jacket fragments carry terminal energy.**

We are currently waiting for the shipment of a new chronograph unit to finish testing the most recent batch of prototypes. This is because our old chronograph was hit and killed a few days ago by a jacket fragment from a failed prototype. Shown in a photo soon to be posted to social media, the fragment, comprising only 6% of total projectile mass, wrecked notable damage on the structure of the chronograph, even after traveling through 5 feet of wind resistance apart from the rest of the bullet. This plus the images captured on our target screens **indicates the efficacy of the APHP (Armor-Penetrating Hollow-Point) design** to expand and fragment on soft-bodied targets. We believe this is a very important aspect of the Dagger's design, wholly novel in overcoming the trade-off between armor-piercing and anti-personnel ballistics to give the user confidence against the widest range of target types.

- **The Dagny Dagger is cased in Shell Shock NAS^3 cases.**

We believe that the technology of NAS^3 casings is the future of cased ammunition, and that only intellectual property claims are preventing wide industry adoption. These cases are 50% lighter than typical 9mm brass, more consistent and voluminous, stronger, and endlessly reloadable. Not only do these cases allow us to slightly increase the power of the Dagger, but I am happy to announce that between our ultralight bullet and the NAS^3 casing, **the Dagger will be the lightest 9mm Luger cartridge on the market.**

- **I am optimistic that we will demonstrate soft armor penetration by the end of the Summer.**

To reach this goal, we are working first to master bullet construction integrity so that every bullet survives intact to the target. Hopefully we will accomplish this over the next 2 batches of prototypes. At that point, **we will begin pressure testing** powder burn rates and charge weights to achieve the highest velocity possible at +P pressure, which should be around 2,200fps. Though we are still testing with a copper alloy and not yet the super-secret special stuff that will take us to the edge of possibility, I am confident that even copper in this form at this velocity will be more than enough to penetrate IIIA soft armor. It is my belief and hope that proof of the Dagger's ability will **launch a new wave of public confidence in the project** along with greater exposure and funding.

- **The crowdfunding campaign sits at around $5k.**

This is 1/6th of our desired goal. In one way, this may seem underwhelming. In another light, we appreciate this as a successful effort. We are considerate that we continue to see a slow steady stream of donations as awareness of the project spreads and we keep an active public presence. We have tapped very little of our market as most firearms enthusiasts have yet to hear of the project. As our exposure grows, so will funding. There is also an understandable incredulity and suspicion among conservative-minded gun culture that we can deliver on the project's tall promises. We will convince them in time, as mentioned in the section above.

It is also telling that our campaign has been better crowdfunded to this point than any developmental firearms product of which I am aware. There is now only one other funding campaign in our space which has secured as much public funding, but it is a pre-order drive for a market-ready product offered by a well-established company.

Please continue to spread the word! Follow and share us on social media and tell your friends about the work. Tell them to match your donation. I will be happy to specially-recognize friends or organizations who donate together.
And of course, **we would like to take every opportunity to thank our donors**. Not only do your dollars move us forward, but they show your faith in us and in the project, a shot of inspiration and confidence for us all. Thank you.

- **We have been building our workshop and toolkit.**

We have recently refocused on testing direction and the production of special new tools to augment/improve prototype assembly, measurement, and testing. These will allow us to better evaluate ogive, core/jacket fit, bonding dynamics, and chamber pressure, as well as assemble the bullets with greater consistency. **We have now acquired a universal receiver** (UR) along with the UR test barrel, pressure sensor, and electronic metering equipment critical to pressure measurement and key to load development and performance optimization. We are still building the UR system, but we should begin using it for pressure testing in the coming weeks. This UR-based test bench represents the majority of our testing equipment cost, totaling about $10k.

Obviously, we are yet to raise such funding, but needing to elapse the lead time and use this rig to demonstrate the viability of our technology, I floated the cost myself to acquire the tools we need, in addition to the corporate legal fees and video production cost. I would like the supporters of the project to know that I'm personally dedicated to the success and promise of the Dagny Dagger project.
I am planning to move Atlas Arms to Arizona, the seat of the US firearms industry, and working on the Dagger full-time. This will greatly speed development of the "DD9" but is contingent on securing enough funding to complete the project without the support of my present 9-5 salary.

- **We have begun work on interstitial projects.**

The Dagny Dagger is the first of our major projects, the kind of work which requires significant investment to accomplish, but several smaller projects are also on the menu. We've now begun real work and progress on 2 of these small projects in the incidental downtime in Dagger development. One of these projects is the design of a new type of magazine which laughs in the face of magazine capacity limits, the slogan for which is "They want you to be limited to ten rounds, so we're giving you ten HUNDRED rounds." The other is a multifaceted endeavor to add core functionality to the Ghost Gunner and improve ease of use. Joining us in the latter project are a couple of volunteer contractors at the center of Ghost Gunner software development at Defense Distributed. These concepts will be relatively cheap to develop and neither time nor finances will be rerouted to them from the Dagny Dagger.

That's all I have to report today. I look forward to bringing you more news and developments in the second update.
We're always looking for more volunteers to help us with the work. Engineers, programmers, web developers, and other technical experts are critical to our work, but we can find a helpful role for just about any volunteer. If you'd like to help or know someone who would, please make it known.
Thank you again for your support and keep spreading the word!

--Austin Thomas Jones
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