

We love to put order in your chaos.

Morai Logistics Inc. is a 3rd party logistics provider with an operating agency agreement representing Mode Transportation. We are a powerhouse logistics team based in the Greater Toronto Area and do business throughout North America, including Mexico. Our team is dedicated to our terrific clients and we strive to take the chaos out of your supply chain. We are always on the lookout to do exceptional work with remarkable people and companies!



Introduction

Would you believe that drone technology is just a year shy of its centennial birthday? Its true!

Despite what a certain not-to-be-named science fiction film about malevolent time-hopping A.I would have you believe, the earliest of records of unmanned aerial vehicles (UAVs) can be traced back to 1849 when Austrian ship Vulcano, used them to attack the city of Venice. The main difference between the film and this event is that instead of deadly flying robots, you had the much more ominous <u>deadly flying balloons</u>.

However, a balloon (now matter how explosive-ridden) wouldn't generally meet most people's idea of a UAV. The honor then of first actual UAV goes to the Hewitt-Sperry Automatic Airplane, otherwise known as the "flying bomb" which was revealed on September 12, 1916 and is also the precursor of the cruise missile.

It has been almost a full century since UAVs were invented, and the technology has come a long way. What started and has historically been a technology focused on military and espionage operations, has shown incredible non-military uses in the last few years.

Here then, is the top non-military applications of drone technology that are in use today.



5. Food & Beverage Delivery



Few things can enhance an experience like the right food or drink at the right time.

It was with this philosophy in mind that Anheuser-Busch InBev developed experimental prototypes of commercial <u>beer delivery drones</u>.

It then used these drones in Whatever, USA--a fictional town that Bud Light created in Colorado last year for the sole purpose of throwing a party for 1,000 contest winners. The best part of these drones was that all the drones were supervised by one person using an app on Google Glass.

"The drone can easily function as a push-button bartender or a beer-caddy, following you down the street with refreshment just hovering a few feet away, just in case you need a drink" writes an article on CNET about the drones.

If you'd prefer food, there is the <u>Burrito Bomber</u>, or the <u>Tacocopter</u>. Both use mobile integration and apps to conveniently deliver you a tasty snack with only a swipe of your finger.

If you are not a fan of beer, burritos, OR tacos, the Huffington Post has you covered with its list of currently airborne foods in this <u>article</u>.



4. Archaeology



Drone technology hasn't just brought about innovations and advancements things that are new, but also in the study of things which old.

The relatively cheap aerial capabilities of UAVs means that historically important sites can be surveyed to create data-rich, three-dimensional maps of archaeological sites.

These details maps can help researchers pinpoint exactly where to dig, and with the addition of <u>heatimagining technology</u>, makes finding buried architecture much faster and cheaply as bricks and stone walls retain and emit warmth differently than surrounding soil.

More important than that, UAVs are currently being used to protect historically significant sites.

Although the technology is already being used in places such as the Middle East to guard against looting, archaeologists Peru use UAVs to guard against a slightly different problem.





"Here they struggle to protect the country's archaeological heritage from squatters and land traffickers, who often secure property through fraud or political connections to profit from rising land values. Experts say hundreds, perhaps thousands of ancient sites are endangered by such encroachment" writes William and Ralph Blumenthal, reporters of the New York Times in this <u>article</u>. "The maps are then used to legally register the protected boundaries of sites, a kind of landmarking that can be cited in court to prevent development or to punish those who damage ruins by building anyway" they explain.

With the utility afforded to archaeologists by drone technology, it's a matter of time until the next Indiana Jones entry features Indie with a rambunctious drone-sidekick off to seek fortune an adventure.



3. Expanding Internet Access



Back in March of last year, Facebook <u>announced</u> that it would make the world wide web truly global.

It would achieve this by delivering internet access to remote regions of the world, targeting the four billion people who arn't yet online, via specialized drones.

Unlike the more traditional methods used to bring people online, such as networks of fiber-optic cables and cell towers, its Aquila aircraft, is far more cost effective and versatile way to deliver internet access.

It was just a few months past that Facebook also announced the <u>successful testing</u> of its internet-beaming drones.



2. Logistics



As in industry predicated on efficiency and delivery, it's no surprise then that logistics industry has been discussing heavily the possibilities and roles drones could play within countless articles.

However, the discussion is relatively young. It was just a little under two years ago that Jeff Bezos, CEO of online giant Amazon.com went on <u>60 Minutes</u> and revealed the company's plan to take to the skies with its deliveries via the <u>Amazon Prime Air</u> program.

Quite a bit of controversy followed the announcement with many in the press and public at large joking about this being the first step to a machine run Big Brother-society.

The program has since gotten better public approval, especially once the details and implications of the technology came to light.

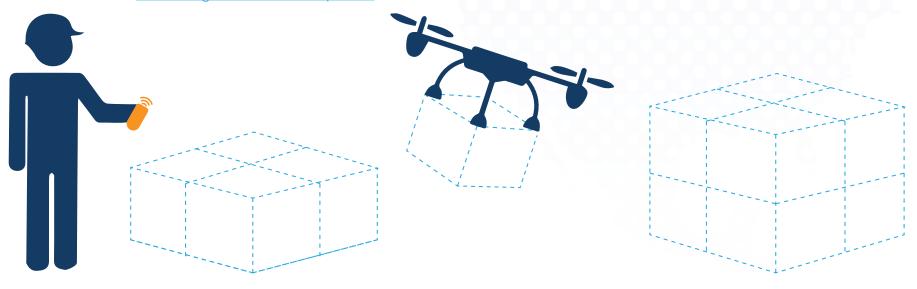




"Amazon says that 84% of its orders are under five pounds, and are therefore deliverable by drone. Let's do some exploratory math and estimate that 75% of UPS deliveries meet the same criteria. That means that 3,080,250 packages could be delivered by drone, greatly reducing the workload on humans. This is huge. If commercial drone delivery is properly implemented, it means fewer cars and trucks on the road and increased convenience for customers and employees alike" excerpt from an article on Business Insider.

Even with the Amazon Prime Air program effectively grounded by the US Federal Aviation Administration (FAAA), drone technology is already having a practical impact on logistics.

From <u>quick delivery</u> and pick-up within a warehouse, <u>fast product retrieval</u>, to <u>inventory management</u>--drone technology is already having an impact on the day to day logistics solutions. It's no wonder that drone were voted by Cerasis as one of the <u>Top 4 Emerging Technologies for 3PL companies</u>.



1. Humanitarian Aid



As demonstrated by the previous examples, drones have the potential to revolutionize several different industries by offering cheaper practical alternatives to problems that would otherwise have to be solved through expensive traditional means.

The mapping of difficult to traverse areas, the transportation of small goods, and the versatility of drones all have non-commercial applications in the field that needs it most--humanitarian aid.

It was only this past April that GlobalMedic, an organization that manages a fleet of UAVs for disaster relief missions, sent in its team to Nepal to assist the victims of the earthquake.

Here is a excerpt from a corresponding Fox News <u>article</u>:

"Our UAV team is tasked with aerially mapping crisis-affected areas, then compiling and cross-stitching the collected imagery into maps that provide a superior snapshot of needs on the ground," wrote a GlobalMedic spokeswoman, in an email to FoxNews.com. "Identifying flooded areas, obstructed roads, population movements, and damaged infrastructure, the possibilities for UAV use in an emergency setting



are extensive."



Amazon isn't the only organization excited about the delivery possibilities of UAVs. The small start-up Matternet seeks to build an integrated network of drones to deliver essential medical supplies, food, and other materials to people living in hard to access rural areas. This network, could also solve the problem of getting the aid to right people by circumventing warlords and other obstacles in war torn areas.

Tracking wildfires and other natural disasters, as well as providing important information to relief workers are only some of the applications that <u>drone technology</u> is <u>revolutionizing humanitarian aid efforts</u>.

It's encouraging that a technology birthed from warfare can have the potential to positively influence so many through increased convenience, protection of our shared culture, increasing connectivity between people, expanding logistical possibilities, and helping those most in need.

Drone technology has come a long way in its almost 100 years and humble, and unreliable, exploding balloon origins.



