

EARNING AN INCOME FLYING DRONES

Goldman Sachs forecasts a \$13 billion market opportunity for commercial drones by 2020, which makes now an ideal time to launch your commercial drone business.

As a drone service provider, you will make money working across industries including agriculture, construction, energy, insurance and the public sector. The service you'll provide will transform the way your clients do business. With quicker and more accurate data processing capabilities, drone technology is disrupting industry standards. You'll help your clients reduce cost, timelines and risk with drone technology, all while increasing your income. (If it sounds like a win-win, that's because it is.)

Ensuring the success and profitability of your business will require some preparation, but don't let that deter you. Our comprehensive guide will cover everything you need to know from obtaining licensing and purchasing insurance to understanding regulations and best practices for marketing your drone services. We will also provide an overview of our hardware and software for your business needs.

You can rest assured that, by the time you finish this guide, you will have everything you need to start your commercial drone business.

You will make money working across industries including:











TABLE OF CONTENTS

01	DRC	NE EQUIPMENT AND APPLICATIONS	→
	01	Services	
	02	Applications	
	05	Hardware	
	06	Software and Data Analytics	
08	SAF	ETY, COMPLIANCE, AND INSURANCE	→
	08	Certifications	
	09	Getting the Right Insurance	
	10	Safety and Compliance	
	11	Creating a Safety Manual	
	13	Waivers/Training	
14	START		→
	14	Ownership	
14	ΔDΓ	DATE	
16	UPE	KAIL	7
10	16	Equipment and Tools	7
10		Equipment and Tools	フ
10	16		7
10	16 17	Equipment and Tools Hiring and Staff/Financial Management and Record Keeping	7
20	16 17 18	Equipment and Tools Hiring and Staff/Financial Management and Record Keeping Understanding Your Costs Managing the Customer Experience	→
	16 17 18 19	Equipment and Tools Hiring and Staff/Financial Management and Record Keeping Understanding Your Costs Managing the Customer Experience	→
	16 17 18 19	Equipment and Tools Hiring and Staff/Financial Management and Record Keeping Understanding Your Costs Managing the Customer Experience	→
	16 17 18 19 GRO 21	Equipment and Tools Hiring and Staff/Financial Management and Record Keeping Understanding Your Costs Managing the Customer Experience W Finding Customers and Marketing Your Business	→
	16 17 18 19 GRO 21 25	Equipment and Tools Hiring and Staff/Financial Management and Record Keeping Understanding Your Costs Managing the Customer Experience W Finding Customers and Marketing Your Business Sales and Marketing Tactics	→
	16 17 18 19 GRO 21 25 26 27	Equipment and Tools Hiring and Staff/Financial Management and Record Keeping Understanding Your Costs Managing the Customer Experience W Finding Customers and Marketing Your Business Sales and Marketing Tactics Commercial Pilot Networks	→ →
20	16 17 18 19 GRO 21 25 26 27	Equipment and Tools Hiring and Staff/Financial Management and Record Keeping Understanding Your Costs Managing the Customer Experience W Finding Customers and Marketing Your Business Sales and Marketing Tactics Commercial Pilot Networks Pricing PY FLYING!	→ →
20	16 17 18 19 GRO 21 25 26 27 HAP	Equipment and Tools Hiring and Staff/Financial Management and Record Keeping Understanding Your Costs Managing the Customer Experience W Finding Customers and Marketing Your Business Sales and Marketing Tactics Commercial Pilot Networks Pricing	→ → →

SERVICES

Drone technology has applications across a variety of industries. To own and operate a successful drone business, you'll need to decide **which industries to target** and **what services to provide your clients**. If you need help deciding which services to offer, here are a few popular ideas to consider:

- Real Estate Photography
- Cinematography
- Wedding Photography
- Mapping and Surveying
- Building and Insurance Inspections
- Search and Rescue

This article by The Balance takes a deeper dive into the top drone business ideas.



APPLICATIONS

If you're still wondering how many job opportunities there are for drone pilots, here are just a few examples of how **drones are advancing a variety of industries**.

Construction

In construction, drone site data can be used across a project's lifecycle to **reduce risk and effectively manage more with less**. Here are a few ways aerial intelligence is being used to transform the construction industry.



Jobsite Reports and Progress Monitoring

Using aerial imagery to track and report daily progress to reduce claims and improve the accuracy of scope, schedule, and cost estimates.



Volume Measurement

Calculating cut-fill and liquids volumes to increase the accuracy and authority of measurable work reports; and accelerate surveys, project engineering, and management.



Security and Monitoring

Monitoring jobsites with aerial surveys of equipment and materials to protect against loss of material and reduce claims.

Insurance

Aerial intelligence is being used in the insurance industry to **optimize risk assessments and claims management**. Several applications include:



Roof Inspection

Obtaining detailed aerial imagery and measurements of roofs to accelerate inspections and improve quality assurance.



Crop and Field Damage

Applying quantitative measures to fire, hail, water, and wind damage to reduce assessment time, accelerate claims management, and reduce bias and fraud.

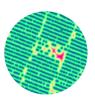


2D Mapping

Using drones to produce high-resolution aerial imagery of property before and after a damaging event.

Agriculture

Today drones are being used to make smarter decisions about farm management. When paired with the right software, drones make it easier to **count plants, measure plant height, monitor field performance** and much more. Take a look at a few ways drone technology is advancing the agriculture industry:



Plant Counting and Yield Prediction

Farmers can improve the accuracy of yield forecasts and accelerate scouting, collecting and analyzing data by using drones to generate plant counts and forecast yield based on surveys of row-based plants.



Field Water Pooling

Drones can also help identify standing water in pre-emergent fields, determine flood damage, and monitor permanent water features to improve the accuracy of insurance claims and yield forecasting.



Stockpile Monitoring

To improve the accuracy of materials management, farmers are using drones to monitor stockpile volume of feed, fertilizer, and other agriculture products.

Energy -

Drones are replacing traditional inspection techniques in the energy sector. Managers are using them to inspect the condition of key assets like power plant and pipelines, which in turn helps to **reduce onsite safety risks** by eliminating the need to use humans for dangerous tasks. Here are a few examples of how drones are being used to transform this industry:



Right-of-Way

Drones are accelerating inspections and protecting uptime by monitoring right-of-ways.



Pipeline Integrity

Managers are reducing the risk of high-consequence events by using drones to visually inspect pipeline conditions.



3D Asset Analysis

Increase the accuracy of asset inventory and reduce climbs by using drones to extract antennas, plumness, rad center, top height, bottom height, width, height, surface area, azimuth, and down tilt measurements.



HARDWARE

We receive calls every day from drone pilots asking about the best drones and sensors for their specific applications. The answer to this question depends on several factors, including your budget and business objectives.

At PrecisionHawk, we created our **Smarter packages** to make it easy for you to procure all the tools you need to get started. We have packages designed for several industries, including insurance, energy, agriculture, construction and government. With our Smarter packages you'll have the choice of a multi-rotor or fixed wing drone, either of which come with a visual sensor.

You will also get access to our mapping software, PrecisionMapper Pro, that includes unlimited data capture and storage along with advanced algorithms. Our package also includes fundamental accessories, including a travel case, controller and batteries. More information about our packages can be found here.





ADD-ON SENSORS



SOFTWARE + ANALYTICS



ACCESORIES



SOFTWARE AND DATA ANALYTICS

Selecting the proper hardware is only the first step in becoming a drone service provider—you'll also need to purchase the right mapping and flight planning software to **automate flights**, **review surveys offline**, **and process your data** into meaningful business intelligence.



While you have a variety of software providers to choose from, it is important to select an **easy-to-use**, **comprehensive platform** to ensure the success of your commercial projects. PrecisionHawk offers both free and advanced drone software and data analytics. Here's an overview of PrecisionHawk's software solutions:

Advanced Sensors

LiDAR, hyperspectral, thermal, and other advanced sensors achieve unrivaled precision when deployed on drones.

This accuracy is key to generating powerful maps and models which—when processed by machine intelligence—can identify plant disease, assess water quality, produce volume measurements, detect heat signatures, create surface composition surveys and more.

Like choosing a drone, deciding which sensors to deploy often depends on your prospective clients' needs, as well as your own business objectives and budget.









In our eBook **Beyond the Edge**, you'll learn about
advanced drone-based sensing
and four key sensors: thermal,
multispectral, hyperspectral,
and LiDAR. The book includes
insight into how the sensors
work and how to deploy them.

<u>Read it now</u>

Any of these advanced sensors can be added to a PrecisionHawk Smarter Package.



PRECISIONFLIGHT

A free mobile application that enables drone operators to capture aerial imagery, semiautonomously.

Features and Benefits

- Accommodate a variety of sensors and environmental conditions
- Fly the most efficient path
- Conduct recurring surveys using a single flight plan
- Operate without an Internet connection
- Pass imagery to PrecisionViewer and PrecisionMapper, seamlessly
- Bring-your-own-device (optional)



PRECISIONFLIGHT PRO

An application that enables drone operators to capture advanced remote sensing data, semi-autonomously.

Features and Benefits

- All of the features and benefits of PrecisionFlight Free
- Advanced flight plan creation
- Terrain following
- In addition to DJI drones, it's compatible with Pixhawk, xFold, and others



PRECISIONVIEWER

An application that enables drone operators to view and assess aerial imagery and make flight path adjustments in the field.

Features and Benefits

- View site surveys minutes after landing
- Evaluate image quality
- Add ground control points to ensure data accuracy
- Increase data upload speeds by compressing the data
- Operate without an Internet connection



PRECISIONMAPPER

A free local and cloud application that automatically processes aerial imagery into 2D maps, 3D models, analysis, and reports.

Features and Benefits

- Process imagery from visual sensors
- Upload data from PrecisionFlight or PrecisionViewer
- Analyze your data using an ever-expanding library of on-demand algorithms
- Manage, collaborate, and share
- It's free!



PRECISIONMAPPER PRO

A local and cloud application that automatically processes aerial imagery into 2D maps, 3D models, analysis, and reports.

Features and Benefits

- Unlimited storage and orthomosaics enable on-demand aerial intelligence
- Get more insight out of each survey with our complete library of algorithms
- Unveil new dimensions to your surveys using a range of standard and advanced sensors
- Manage, collaborate, and share

As a drone service provider, you'll want to protect yourself and your business from operational risks by **obtaining proper insurance and certifications** for your commercial activities. This section covers everything you'll need to mitigate risk and legally fly your drones.

CERTIFICATIONS

Beginning in June 2016, the FAA (Federal Aviation Administration) unveiled the Part 107 rule, which allowed aspiring pilots to comply with the following steps to legally operate a drone for commercial purposes.











1. Obtain a Remote Pilot Certificate

To receive your certificate you will need to be at least 16 years old and pass an initial aeronautical knowledge test. You'll need to obtain a passing score of 70% or higher. After you receive your certificate, you must renew it every two years by passing a recurrent knowledge test. You can learn more about the process and the test here. If you need help with test prep, the Drone Pilot Ground-School offers an online course to help you prepare for the Part 107 knowledge test.

Keep in mind that every drone operator your business employs will need to obtain their own certificate.

2. Complete the FAA Form 8710-13

After you pass the test, you must complete <u>form 8710-13</u> to apply for your certificate using the FAA's Integrated Airman Certificate and/or Rating Application (IACRA) system.

3. Register your Drone

It will cost you \$5 to register each drone you plan to operate for your business. Each registration is valid for three years. You can register your drone **here**.

GETTING THE RIGHT INSURANCE

There are two primary types of coverage you need to protect your business.

1. Liability Insurance

Liability is the base policy for aviation insurance. It protects your business from **Property Damage and Bodily Injury claims** that may occur from day-to-day operations. You need to have this insurance before you can purchase any additional coverage. Liability limits usually start at \$500,000 and generally can be increased as needed for your business and clients.

2. Hull Insurance

After getting liability insurance, you want to get hull insurance to **protect your drones and minimize cost** from any physical damage your drones encounter. The amount of coverage you
receive is decided on an "Agreed Value" basis, meaning that the amount is based on the agreed
upon value of your drone. With this in mind, it is important that you get an accurate appraisal.



SAFETY AND COMPLIANCE

As a drone service provider, it is your responsibility to **comply with the latest safety regulations**. This protects your safety and the safety of the people around your flight path, not to mention the reputation of your business.

The FAA's Part 107 ruling has explicit guidelines on when and where drones can be safely operated. It is important to review these guidelines to educate yourself (and your employees) on best practices. A fact sheet of the Part 107 rules can be found here.

In addition to the FAA's regulations, under the <u>OSHA Act</u> business owners have a duty to provide all workers with a safe and healthful workplace. The Occupational Safety and Health Administration (OSHA) offers a free and confidential <u>consulting service</u> for small businesses to assist with identifying potential hazards at their workplace and improve existing safety programs.



CREATING A SAFETY MANUAL

The first step in developing an OSHA-compliant and safe workplace environment is to develop a safety manual. Here are a few safety items to include in your manual:

1. Standard Operating Procedure (SOP)

A standard operating procedure is a set of written directions that describes how to safely perform work involving hazardous materials, equipment or operations. As a drone operator, your SOP should include:

Pilot and Staff Workflows A Code of Conduct A Team Safety Policy

Actions operators should complete prior, Normal and Emergency during, and post-flight operations.

Communication Procedures

2. Safety Management System (SMS)

Following the SOP, you will need to establish a safety management system. As defined by the FAA, a SMS "is the formal, top-down, organization-wide approach to managing safety risk and assuring the effectiveness of safety risk controls." The standardized procedures, practices, and policies included in your company's SMS will vary and should be based on the safety standards required in the industries you serve.

3. Personal Protection Equipment (PPE)

PPE is worn to minimize exposure to a variety of onsite safety hazards. At a minimum you should wear a hard hat, safety vest, long pants and steeltoe boots at all times to protect yourself from potential safety threats when operating a drone.



4. Incident Response Plan

Incident response plans document the organized approach a company uses to address and manage safety incidents. This plan should cover how your company would:

Document the steps leading up to and following a safety incident

Conduct a thorough investigation

Identify and implement corrective actions

5. Injury Prevention Plan

The purpose of creating an Injury Prevention Plan is to establish and implement effective injury prevention and education strategies to avoid workplace hazards.

6. Job Safety Analysis (JSA)

A JSA is used to **reinforce internal safety protocol** by describing job tasks in a step-by-step manner, identifying the associated hazards, and outlining the proper hazard controls to minimize workplace risks when performing the task. At PrecisionHawk, we have our operators review and complete our JSA prior to each flight.

"

"If something goes wrong, like a crash, you need to have a plan describing how you address, investigate and implement corrective procedures."

MATT TOMPKINS, DIRECTOR OF FLIGHT OPERATIONS AT PRECISIONHAWK



WAIVERS

On a case-by-case basis, the FAA issues waivers to certain Part 107 requirements if you are able to demonstrate that your business can operate safely without harming people or property. As you familiarize yourself with the FAA's regulations, you should identify any applicable waivers your business may need and apply for them on the FAA's DroneZone portal by following these **application instructions**. While processing times vary, on average waiver requests are reviewed within 90 days.

PrecisionHawk now offers Beyond Visual Line of Sight (BVLOS) consulting and training services to enable drone operators to fly commercial missions BVLOS. Over 1,180 companies have applied for the BVLOS waiver, but only 15 (1.2%) companies have been approved to fly BVLOS. For the last three years, PrecisionHawk has conducted BVLOS research on behalf of the FAA's Pathfinder Program to develop BVLOS operational and safety practices. We are using our extensive knowledge to help other companies navigate the complexities of the BVLOS waiver process and explore new possibilities for executing inspections, surveys, precision agriculture, emergency response, and more.

TRAINING

To develop or advance your drone piloting skills, you should **consider investing in drone pilot training**. PrecisionHawk offers training packages to help individuals become drone pilots and understand how to use mapping and analytics. Our package covers regulation and safety procedures along with how to capture data and create data products.

Visit our website to learn more about our BVLOS Drone Operations Consulting Program

For more information on our training packages visit us here



START

OWNERSHIP

Before you begin selling your services, you'll need to decide on a legal structure for your business. Here's an overview of the 3 most common structures:

1. Sole Proprietorship

As the most common business structure in the United States, the sole proprietorship is the simplest business structure to start and operate. With few formal business requirements and minimal legal expenses to forming a sole proprietorship, **you are in complete control of your business**. There are no corporate tax payments and you'll have no one to answer to such as a board of directors. More importantly, all business profits and assets are yours.

The only snag with this business structure is that **there isn't any legal separation between you and your business**. Your business assets and liabilities are one in the same with your personal assets and liabilities, which exposes you to great risk if your business is ever faced with a lawsuit.

If you're looking for more liability protection, you should consider forming an Limited Liability Corporation (LLC) or Corporation.

Don't forget to register your business!

Once you determine the right business structure for your business, register your business by visiting the Secretary of State website in the state you plan to conduct business in.

Filing fees will vary by location.

START

2. Corporation

There are two types of corporations – S Corporation and C Corporation. While a corporation is a more complex business structure, it has certain advantages beyond those of a sole proprietorship. First, **owners have limited liability** meaning that they are protected from the liabilities of the business. Secondly, if you decide to sell your business in the future, **you can easily handover ownership by selling shares of stock**. Corporations also have perpetual lifetimes which will allow the business to live beyond the lifespan of existing owners. However, there are also a few disadvantages such as decreased individual control with a board of directors as well as greater federal regulation and oversight.

3. Limited Liability Company (LLC)

Similar to a corporation, under an LLC **your personal and company assets are viewed as separate entities**. This separation protects your personal assets from risk in the event of a lawsuit. Unlike the conventional corporation, forming an LLC also provides several unique advantages including flexible management wherein you do not need to report to a board of directors.



EQUIPMENT AND TOOLS

The following list includes the basic equipment and tools you'll need to operate and maintain your drones.



1. Mobile Hotspot

A hotspot allows you to share your mobile network connection with other devices (i.e. a laptop) to access the internet. You'll need a hotspot to access data on your laptop when Wi-Fi isn't available.



2. Inverter Generator

An inverter generator will come in handy if you're ever in an area where the utility power is unreliable. A backup generator will prepare you for any unexpected electrical emergencies.



3. Duplicate Onsite Hardware

"When it comes to hardware, two is one and one is none" according to PrecisionHawk's Director of Flight Operations, Matt Tompkins. Bring backup drones, sensors, and batteries to avoid experiencing equipment failure during a job.



4. First Aid Kit

In the event of a minor workplace injury or ailment, have a first aid kit available to quickly respond to medical needs.



5. External SD Reader

You will need an external SD reader to store data if your laptop doesn't come with one.



Aircraft Maintenance & Repair Tools

Have the following tools readily available for hardware repairs:

- Flat-blade Screwdriver
- Phillips Head Screwdriver
- Hex Key and Allen Wrenches
- Alcohol Wipes
- Wire Cutter Snips
- Electrical Tape

HIRING AND STAFF

As a business owner, it can be difficult deciding when you need to hire additional employees. If you're just getting started, we recommend taking time to first understand your business and the industries you serve before hiring additional employees. However, as your business and client base grows, hiring employees may be necessary to generate additional income. Expanding your staff might be the right choice if your business is experiencing some of the following operational issues:

- 1. You're turning down business because you don't have enough time to respond to customer requests.
- 2. You're delivering subpar customer service because you're overextended.
- 3. You want to expand into a new service line but you don't have the time or skillset to do it on your own.

FINANCIAL MANAGEMENT AND RECORD KEEPING

To manage your finances and maintain accurate record keeping, we recommend using accounting software like **QuickBooks** or **FreshBooks**. You can link these applications to your bank account and credit cards, to track expenses, automate invoices, and generate reports.

If you need more guidance on hiring and staffing, this article by Entrepreneur magazine walks you through how to decide when it is the right time to hire employees.

UNDERSTANDING YOUR COSTS

To effectively manage your business, you need to understand how to **identify and categorize your expenses**. Expenses fall into two general categories: fixed cost and variable cost.



Fixed Costs

These are cost that are **not affected by sales volume**. These costs are consistent and must be paid regardless of your business' profitability. Examples include rent, insurance, utilities, and loan payments. Finding ways to manage and reduce your fixed costs will increase your business' profitability.



Variable Costs

These are costs that **increase**, **or decrease**, **as sales volume changes**. Examples of variable costs are supplies, labor, and sales commissions. It is important to understand your variable costs as it will affect how you price your services to ensure your sales are profitable.



MANAGING THE CUSTOMER EXPERIENCE

Providing an excellent customer experience is essential for the success of any business. You want to make every interaction with your business, from phone calls to website visits, a pleasant and worthwhile experience. Here are four ways to improve the customer experience:



1. Know Your Products and Services

Make yourself the expert on your products and services. Customers are coming to you to resolve their business issues and identify solutions. Be prepared to answer common questions and share information that adds value.



3. Be Responsive

Respond quickly to your customers. You never want to lose business because you responded too slowly to a customer who was trying to purchase a solution or find out more about your offerings.



2. Engage In Active Listening

Active listening is the foundation of excellent customer service. Customers want to feel heard and understood. Pay attention to both verbal and non-verbal communication to ensure your delivering satisfactory solutions.



4. Ask for Feedback & Implement Change

Find out what your customers think about your business by getting their feedback. While surveys are commonly used to gather customer feedback, you can add a personal touch by reaching out to clients directly for first-hand feedback. Once you receive feedback, put the data to work by identifying areas for improvement and making strategic changes to your business.



The customer relationship is the driver for additional business. You must" build relationships and build trust."

DARYL WATKINS, VP ENTERPRISE INSURANCE SOLUTIONS AT PRECISIONHAWK

A fundamental component of building your business is pricing and marketing your offerings. As we discussed in the beginning of this guide, demand for commercial drone services is growing. However, **the supply of commercial drone operators is growing**, too.

As of January 2018, the FAA reported that there were 122,000 Part 107-certified drone pilots. Many of these pilots are your competition. In this section, we'll cover what you need to know to market your services and stand out from competitors.



FINDING CUSTOMERS AND MARKETING YOUR BUSINESS

What comprises the market for your services? Fundamentally, it's a group of prospective customers that would benefit from drone-based remote sensing services. But, since no single drone service provider can address all the possible applications of drone technology, you'll need to qualify your offerings, as well as your target customer (or target market).

Define Your Offerings

First, consider your own constraints:

- **Geography—**To where are you willing and able to travel to conduct drone missions?
- Technology and Staffing—What are the limits of the hardware and software you own?
 How many mission-ready pilots are on your team and how large a project scope can they complete?
- Regulations, Insurance, and Risk—What missions are you certified to fly? What are the limits of your insurance? To what degree are you willing to put your the safety of you and your staff, as well as your equipment, at risk?



For example, a drone service provider may live in Louisiana, and only be willing and able to conduct video inspection of electric utilities within the state (excluding its treacherous and swampy southern region).

By defining these limits, you'll **refine the size of your addressable market**, or the number customers that you can reasonably expect to serve. (While it's helpful to identify limits when starting a drone business, bear in mind that growth is typically realized by redefining those limits.)



Next, consider your expertise: what kind of missions are you most qualified to perform? Do your interests or experience apply to a particular industry or type of mission? For example, traditional photographers typically see drone-based wedding and real estate photography as a logical extension of their expertise. A lineman could easily transfer their knowledge to drone-based electric infrastructure inspection.

Contrastingly, consider areas in which your expertise may be poor. For instance, if you lack experience contracting for federal and state governments, they may not represent be the easiest client to first target.

Marketing to consumers is a lot like targeting business professionals.

Knowing who they are, what they're motivated by, and their pain points—as well as how they go about resolving those pain points—is foundational to an effective marketing approach.

Define Your Target Customers

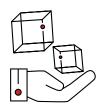
To market your services effectively, you must understand your buyer. If you're planning to sell to businesses, you should learn about those organizations and **consider how you might help them achieve their objectives**. Consider the following:



Traits—

Just like demographics define a group people around a set of basic characteristics, businesses can be organized in a similar fashion. Knowing following traits of your target businesses will help you anticipate a prospective buyer's needs, purchasing power, procurement process, and other elements critical to "making the sale:"

- Industries
- Size (people and revenue)
- Location(s) and home country
- Ownership



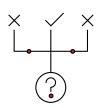
Offerings (and how they can be augmented by drones)—

What services does the target business offer? Of those service offerings, which elements, or specific operational activities, can be augmented by drones? Refer back to the Applications section of this guide for examples.



Objectives and Goals—

Every business's ultimate goal is to make a profit. How do they build profitability? For example, builders protect profits by ensuring projects meet scope, schedule, and budget requirements.



Challenges-

What obstacles are preventing the business from achieving their objectives? In the case of builders, project scope, schedule, and budget overruns drain project profitability.

Beyond understanding the businesses you're targeting, you must **identify the professionals at said business who will ultimately procure your services**. Knowing what role these people play in the organization, and how drones can help the business succeed, is critical to building a relationship with your buyer. Consider the following:

Function—What's their title? What role do they play in the organization? Who do they report to? Manage?

Motivations—What are their motivations? For instance, technology leaders within organizations are typically motivated to introduce innovative solutions that improve business processes and profitability (that's how they earn bonuses and promotions).

Challenges—What obstacles are preventing them from successfully completing their job duties? For example, facility managers are often challenged by a lack of accurate and timely data about the facilities they manage.

Responsibilities—Ultimately, what are the people in this role responsible for? At their annual performance review, what measures are their boss using to determine if they deserve a raise?

Learning—What social networks, publications, and events do they use to stay on top of their industry and job function?

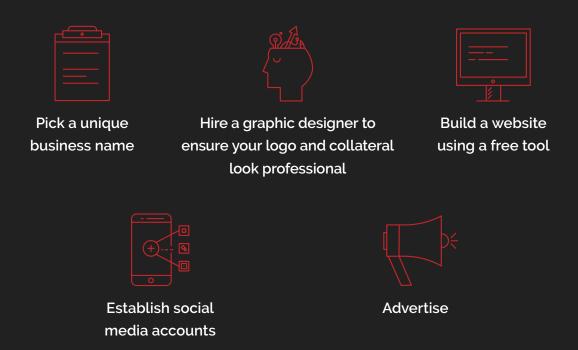
Ultimately, understanding your customer is key to marketing your services well, as building trust with your prospects is paramount. You do that by showing you understand their motivations and challenges and speaking their language. Prospects care about how drones can help them better do their job (more than they care about how fancy your hardware is).

Still clueless about where or to whom to start marketing your business?

Review the Applications section of this guide for ideas. Also, talk to successful drone service providers. You can use local meet-up groups, online blogs, industry trade shows, and national conferences to keep abreast of industry developments and build professional relationships. Here's a list of the top drone events of 2018.

SALES AND MARKETING TACTICS

There are hundreds of free resources that will teach you sales and marketing tactics.



But, only do these things after you've defined your target customer, as discussed before. By knowing where your buyers go to research solutions to their problems, such as specific trade shows or industry publications, you've already identified platforms where you have the best chance of connecting with customers. It's in those places that you should spend your time and money on marketing efforts. Ignore the rest (only wedding photographers should have Pinterest pages).

COMMERCIAL PILOT NETWORKS

Joining a commercial drone network is a great way to find projects and connect with potential customers. *PrecisionHawk's Droners.io platform has a network of more than 15,000 commercially licensed drone pilots,* making it the largest network of its kind. The site is dedicated to connecting certified drone pilots directly to customers.

Browse job postings, pilot profiles, and portfolio reels by visiting the **website** and joining the network today.

DRONERS.IO

Introducing: Droners.io, PrecisionHawk's Drone Pilot Network–giving independent drone operators access to flight servicing opportunities from the world's leading enterprises.

High-quality Drone Missions Accomplished

Grow flight opportunities from a single source—From individual consumer postings to engagements emerging from the world's leading enterprises, a large inventory of commercial opportunities are available to drone pilots. This includes opportunities from PrecisionHawk's enterprise clientele.

Improve portfolio quality and variety—Many of the opportunities posted to PrecisionHawk's Drone Pilot Network involve cutting-edge applications. PrecisionHawk helps leaders in insurance, construction, energy, agriculture, and government pioneer new practices in drone-based aerial intelligence.

Get the support to accomplish missions—Independent pilots participating in the Drone Pilot Network and using PrecisionHawk hardware and software can contact the support team. Those contracted by PrecisionHawk receive the support of the company's Mission Success team, including training and operational assistance.





PRICING

To competitively price your services, there are a number of factors you need to consider including scope of services, location, and competition. According to Droners.io, **drone pilots charge between \$100 to \$150 an hour on average**, but rates will vary depending on the project requirements and industry.

You'll want to answer the following questions before proposing a project rate to a client:

- How quickly does the client need the deliverables?
 You can charge a premium for projects with a quick turnaround time.
- How much will it cost to travel and perform the service?
 You should account for any atypical travel expenses.
- What are the industry standards?
 Keep in mind that the price point for your services will fluctuate across industries.
- What is the quality and quantity of the final deliverables?
 You can charge more based on image size, resolution and volume.
- What expertise do you have?
 Clients will generally pay more to work with experienced pilots or pilots with an understanding of their industry.
- Does the client need any special insurance coverages?
 You'll want to include any added expense for uncommon insurance requests.
- What are your software costs?
 You can charge more for advanced data analysis or editing.
- Any payment processing fees?
 You'll want to tie in any banking or payment processing costs.

"

"Don't undervalue yourself. You're doing yourself and the industry a disservice."

DARYL WATKINS -

VP ENTERPRISE INSURANCE SOLUTIONS AT PRECISIONHAWK

HAPPY FLYING!

Hopefully, having read this guide, you're ready to get out there and claim your piece of that \$13 billion market opportunity. After all, a wide range of industries need your services. From builders wanting to better manage their projects, to insurers aiming to accelerate their claims process, there are hundreds of ways you can earn an income flying drones.

Having the right set of hardware and software tools is just the start. Running a commercial drone operation requires obtaining the appropriate certifications and insurance, as well as building a safety protocol. Not to mention all the business basics of ownership, staffing, and executing a sound marketing strategy.

If you still have questions about how to build a successful drone business, we're here to help.

Contact us at

http://www.precisionhawk.com/contact



ADDITIONAL RESOURCES

Regulatory Information

- Unmanned Aircraft Systems FAA
- · How to Become a Pilot
- Where to Fly

Website Builders

- WordPress
- Squarespace
- Wix
- Weebly

PrecisionHawk Offerings

- Drones
- Sensors
- Software

Drone Pilot Network

Droners.io

Business Plan Tools

• Small Business Administration

Helpful Articles

How to Start a Drone Business

Safety Compliance

· OSHA



ABOUT US

PRECISIONHAWK

PrecisionHawk is a leading provider of drone technology for the enterprise. PrecisionHawk's client list includes Fortune 500 companies and market leaders in 150 countries, spanning a range of industries, including agriculture, energy, insurance, government and construction. To date, PrecisionHawk has raised more than \$100 million from leading venture capital firms including Third Point Ventures and Millennium Technology Value Partners, with strategic investments from enterprise customers and partners including Comcast Ventures, DuPont, Intel Capital, NTT Docomo, and Yamaha Motor. The company, founded in 2010, is privately held and headquartered in Raleigh, NC.

WHAT WE DO

PrecisionHawk provides an enterprise platform that uses advanced drone technology to collect and analyze data to improve business intelligence. The platform includes automated flight planning, tracking, data collection, and analytics. PrecisionHawk's technology is used across multiple industries including agriculture, construction, energy, insurance and by the government. PrecisionHawk also serves as a key leader in shaping regulations and policies that promote the safe and rapid adoption of drones both through its work under the FAA Pathfinder program and development of its LATAS drone safety platform.

