

How partnering with a compliant drone solution provider ensures safe, secure, and risk-free operations while maximizing business outcomes



Importance of Compliant Drone Solutions

The Drones Rules 2021, issued by the Ministry of Civil Aviation of India, have greatly liberalized the manufacturing, sales, and operations of drones in the country. It is imperative that drone manufacturers, operators, and end-users abide by these rules to further the adoption of this exciting technology. Non-compliance with these basic rules can lead to loss of trust with the regulator that can result in enforcement actions and stricter regulations in the long term. This can significantly limit the potential of this technology to make industrial operations better, faster, and safer. In this context, it is essential that industry users seeking to incorporate drone solutions into their operations, are able to get an assurance of regulatory compliance from their drone solution providers by getting answers to the following questions:

- 1. Are the drones operated on their premises or projects type-certified by the DGCA? A list of type certified drone models can be found at: https://digitalsky.dgca.gov.in/certified_rpas
- 2. Do the remote pilots flying the drones have the requisite pilot certificate?
- 3. Has the drone operator taken appropriate permissions for flying in Yellow/Red airspace zones?

It is critical for project success that the drone solution provider chosen for the project is able to demonstrate compliance by providing evidence against these regulatory requirements. Otherwise, the risk of regulatory audits and enforcement threatens to derail the project and its intended outcomes.

Asteria Aerospace has a long history of developing and deploying compliant drone solutions across sectors as diverse as agriculture, GIS, oil & gas, and telecom. Let's look at a specific case study to understand how Asteria provided compliant drone solutions.

Case Study: Asteria's Expertise in Providing Compliant Drone Solutions

One of the biggest oil & gas companies in India was looking to utilize drone technology to bring more efficiency into its process of monitoring and securing pipelines routes and capture critical data to make informed decisions. However, the safety, compliance and legal risks associated with operating drones made the company decide against taking this responsibility on its own shoulders. It turned to Asteria Aerospace to provide fully compliant drone solutions that can be deployed on its project.



Asteria combined its proprietary drone hardware, software, and analytics as well as its understanding of rules & regulations and best practices of drone operations to provide an end-to-end compliant drone-based solution. This enabled the oil & gas company to conduct its operations safely, risk-free, and derive maximum business value from drones. Here's how Asteria helped the oil & gas company with its compliant drone solutions:

- Deployed DGCA type-certified and registered drones for data collection, which is mandatory under the Drones Rules 2021.
- Drones that were used on the project had a Unique Identification Number (UIN) generated from the Digital Sky Platform.
- Performed airspace geo-zoning using Digital Sky platform based on the area details shared by the client to find out whether that area of drone operations comes under Green, Yellow, or Red zone.
- Requested MoCA for the details of the departments or establishments that have blocked an area for flight operations.
- For operating drones in locations that fall in Yellow or Red zones, Asteria obtained requisite permissions from the respective local and central authorities including Air Traffic Control and the Indian Air Force. Asteria used its Standard Operating Procedures derived from years of experience of flying safely to obtain the approvals.
- Asteria deployed only certified remote pilots that were trained in regulatory requirements and operational safety on the project. When operating in Yellow/Red zones, the pilots communicated effectively with the local Air Traffic Control agencies to perform drone flights safely.
- Before executing the project, a safety and risk audit was conducted to assess the operational workflow, identify risk areas, and mitigate the same through systems and processes.
- The confidentiality and safety of the client's data was ensured by processing, analyzing, and hosting all of the data captured by drones on Asteria's secure cloud-based platform, SkyDeck, without involving third-party data service providers.



While deploying drone technology and realizing its benefits, it is critical to choose drone solutions providers who thoroughly understand the drone rules & regulations and value their compliance to minimize risk and maximize the project outcomes.



Drones Rules 2021

Unmanned Aerial Systems & Solutions

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