

# Discussion on the Absence of Legal Regulation of Aerial Photography Act of Chinese Unmanned Aerial Vehicle

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**Abstract.** With the rapid development of Chinese unmanned aerial vehicle (UAV) technology, aerial photography technology has been widely used in various fields of society, and it brings a series of spiritual enjoyment and economic benefits. At the same time, frequent and disorderly aerial photography acts also have great security hidden peril, and some even endanger national security. Therefore, aerial photography acts are legislated, and the corresponding legal norms and punitive measures are drawn up, the occurrence of disordered aerial photography events can be fundamentally prevented.

**Keywords:** unmanned aerial vehicle (UAV); aerial photography; national security; legal regulation; absence of law.

## 1. Introduction

The unmanned aerial vehicle (UAV) was born in the 1920s and originated from the target plane for air force training shooting. With the development of science and technology, the scouting aeroplane appeared, and the scouting aeroplane is a kind of military aircraft. It mainly captures the ground scene from the air, thus obtaining useful military information for military purposes, without the need for human pilot, if its own program control device, it can run. Due to its low operating cost, flexible control of reconnaissance area, and high ground target resolution ratio, it is widely used in commercial operations, geological exploration, scientific experiments, agriculture and forestry plant protection, military training, forest defense operations, public security investigation, and maritime anti-smuggling etc. However, the disorderly development of aerial photography, and the adverse events caused by aerial photography occurred from time to time, some loopholes in aerial photography have become more and more prominent.

## 2. Harmfulness of Disorderly Act of UAV Aerial Photography

UAV aerial photography technology is a new technology that is favored by many aerial photographers. Due to the lack of legislation and governmental regulation, the use purposes of UAV have both legal and illegal use, and they are basically in an orderly management state. With the opening of low-altitude fields and the development of Chinese UAV technology, remote shooting has become possible, if there is no legislation, no end of trouble for the future, this paper calls on the state to make relevant laws as soon as possible and end the disorderly phenomenon of UAV aerial photography. The hazards of disordered aerial photography are summed up as follows.

### 2.1 Endanger National Security

Because the lack of aerial photography laws and regulations cause UAV free to fly, many aerial photography aerobats fly on the edge of legal and illegal scope, some fly near military bases, some fly near airports and borderlines, and others fly in state-protected government bodies, nuclear power plants, oil refineries, key water control project, etc. They don't know that these flight activities must report to the air traffic control department; this aerial photography has jeopardized the security of the country.

### 2.2 Endanger Public Security

Disorderly aerial photography activities also bring hidden dangers to public security. In life, civil UAVs have endangered public security incidents, for example, UAVs shoot electrified railway line, and UAVs interfere the navigation, and UAVs hurt people. Since January 2017, large-scale UAV

formations have invaded the airport clearance area near an airport in southwestern China, which cause multiple flights to be alternated, returned or delayed.

### **2.3 Infringe Commercial Interests**

Once aerial photographers obtain images of trade secrets, it is easy to use the big data on the Internet to disclose secrets to the public, and it results in leakage of trade secrets and endangers the normal operation of the enterprises. The protection objects of commercial secret include: the protection of confidentiality in enterprise operations and the protection of intellectual property in enterprise buildings. Any photographer does not get permission of the commercial operating entity; aerial photography technology should not be used to shoot the scene within exterior walls of commercial buildings, including the roofs and inner courtyards of commercial buildings, and only shoot parts outside the exterior buildings.

### **2.4 Violate Personal Privacy**

UAV aerial photography is very easy to violate personal privacy. On the eastern beaches of Sydney, Australia in 2015, a UAV snapped female tourists who were enjoying a sun bath. The media reported that female model houses were tracked by UAV. These aerial photography activities are violations of citizens' privacy rights. The constitution of our country stipulates that the personal rights of citizens are inviolable, personal privacy is a part of personal rights, without the permission of others, the unauthorized use of aerial photography of citizens' private life is a manifestation to violate privacy of others.

## **3. Absence of Legal Regulation on UAV Aerial Photography**

From the market survey, many operators engaged in aerial photography do not know engage in aerial photography flight activities, they need to apply for a flight license and report flight plans, and do not know which aerial photography laws have which regulations, which acts are illegal acts, illegal aerial photography acts will bear what kind of legal responsibility.

### **3.1 There is no Specific Law to Regulate Aerial Photography Acts**

Faced with the continuous emergence of aerial "sneak shot" incidents, it is not the confusion and crisis caused by aerial photography technology, but the lack of legal norms lead to the abuse of technology. As far as aviation legislation is concerned, the Civil Aviation Law of the People's Republic of China passed in 1995, and it is the basic law in the field of civil aviation, it is mainly used to regulate public aviation and general aviation activities, UAV management aspect is only some administrative regulations, and some are local administrative provisions, but the aerial photography problem is almost blank. The current UAV regulations are mainly made by industry associations or civil aviation administration; its regulations are relatively rough and poor in operability and execution. Due to the lower legal effect of such regulations, low mandatory law, and low cost of illegal aerial photography, it cannot deter and punish illegal aerial photography acts.

### **3.2 Aerial Photography Regulator is not Clear**

At present, the UAV management is decentralized, the UAV is jointly managed by the air force and the civil aviation administration, the air force is responsible for managing the airspace, and the civil aviation administration is responsible for the management of civil aircraft, including UAV. Governments and public security organs are responsible for social public security problems in the region, and control UAV temporarily. Since the government departments' supporting policies on UAV lag far behind the development and demand of the industry, and the UAVs are managed by the civil aviation department and the air traffic control department, when applying for aerial photography missions or applying for flight plans, because there are too many restrictions and fetters, it is difficult to obtain approval, and the approval time is long, which delays the normal operation process. Therefore, the 'black flight' phenomenon in the UAV industry is very common.

### **3.3 Aerial Photography Lacks Strict Approval System**

In China, there are no strict requirements for civil aviation shooting, it cause people to shoot or cannot shoot something, the concept is very vague, and there is no unified management channel and program. The flight plan must be reported to the local civil aviation competent department and accept control, delimit the airspace range and time of aerial photography, the corresponding punishment measures should be formulated for 'black flight'.

The state should urgently make strict UAV aerial photography laws, stipulate the internal regulatory processes of the aerial approval authority, and clear the scope of aerial photography and the use of images. Breaking the current disorderly management mode of aerial photography, and shooting restricted or prohibited aerial space, it is necessary to make detailed and specific regulations on application, division of aerospace space, approval authority, and use of aerial shooting.

### **3.4 No one Supervise Aerial Photography Content and Scope of Use**

With the opening of low-altitude airspace, both enterprises and individuals can use aircraft for aerial photography activities, without definite evidence, it is difficult to distinguish whether this act is illegal or not. However, today, some people intentionally or unintentionally distribute aerial photographs and videos, harm the interests of the state, the collective and the individual, and cause extremely bad effects. Considering the existence of illegal acts, we should awaken to peril until it is almost too late, special legislation should be made immediately to stipulate the aerial photography supervisory authority and its responsibilities, supervise the content, purpose and scope of aerial photography, and report to the higher authorities for the record, to end the gaps or loopholes in the supervision as soon as possible.

## **4. Significance of Regulating UAV Aerial Photography Act**

At present, (UAV) aerial photography chaos needs to be regulated urgently, which hinders the development of UAV industry, only by strengthening UAV aerial photography supervision and bringing it into the path of legalization, and based on guaranteeing national security and public interests, UAV aerial photography freedom can be fully realized.

### **4.1 It is Conducive to National Security and Public Security**

National security and public security are the basis of personal security. Every citizen must set up the idea that national interests and public interests are above everything. The aerial photographer should know the shooting scope, time and use, the illegality of UAV used in espionage and damage to public order, and the harmfulness of illegal shooting of state secrets and military secrets. Therefore, the law should clear legal responsibility by using UAV aerial photography technology to engage in such unlawful acts.

### **4.2 It is Conducive to Protect Business Secrets and Personal Privacy**

Business interests of enterprises and personal privacy of citizens are the objects protected by law. The law should make it clear that it is illegal for UAV to obtain commercial secrets and personal privacy. Facing the arrival of UAV era, the state must pay attention to the information protection of many interest subjects. In order to ensure network information security, the state must strengthen anti-illegal aerial photography supervision, and prevent such illegal aerial photography from arbitrarily infringing on the legitimate rights of various interest subjects.

### **4.3 It is Conducive to the Development of Aerial Photography Industry.**

Based on maintaining national interests and public safety, making aerial photography technology better serve the development of commerce, including film and television industry and journalism industry, and let more people share entertainment experience and convenience in life brought by the development of science and technology. It makes order and freedom coexists, meets the needs of

commercial interests and personal freedom, and is also conducive to the development of UAV aerial photography industry and stimulates the development of aerial photography science and technology.

## **5. Legislative Direction of Legal Regulations on UAV Aerial Photography Act in China**

UAV aerial photography should be brought into the legal track, high-order laws should be enacted, the Civil Aviation Law of the People's Republic of China should be revised quickly, and the legal regulation of UAV aerial photography should be brought into the law as a chapter, or the civil aviation administration should promulgate special UAV management regulations, make clear provisions on aerial photography, prevent the phenomenon of decentralized management and non-uniform legal provisions from emerging, the legislative direction of UAV aerial photography legal regulation is mainly manifested in the following points.

### **5.1 Improve and Perfect the Examination and Approval System of Aerial Photography**

Before aerial photography acts is carried out in the designated aerial photography prohibited or restricted areas, aerial photography organizations or individuals submit aerial photography applications to the local UAV aerial photography examination and approval authorities and supervision departments, after approval, aerial photography acts can be carried out. The content of aerial photography application should include: aerial photography unit; aerial photography nature; name and number of aerial photographers and controllers; type and number of aerial photography UAV; aerial photography space; estimated starting and ending time of aerial photography; and the use of aerial photography, etc.

The UAV aerial photography examination and approval organs and supervision departments have strict examination and approval and supervision of aerial photography acts in accordance with relevant laws and regulations. There are three basic elements of examination and approval: first, the limit of index; second, the examination and approval authority have power to make decision; third, the final examination, make uniform regulations on pre-shooting review, supervision during shooting and the use of post-shooting images.

### **5.2 Make Clear the Scope of Shooting Prohibited of UAV**

The scope of aerial photography should be stipulated. However, there is no provision in our country which area can be photographed or cannot be photographed. Therefore, the law should stipulate that the security of the state, the collective and the individual should be put in the first place in aerial photography, therefore, the scope of aerial photography should be clearly defined, such as the military restricted zone, the seat of state government organs, near the airport, the densely populated area, the place of personal privacy, the place of commercial secrets, etc., no aerial photography without permission.

### **5.3 Regulate the Legal Liability of UAV Aerial Photography**

Making clear condition without obtaining the subject qualification of aerial photography and engaging in aerial photography act against the safety operation rules of UAV aerial photography; do not listen to state organs or other legitimate subjects' warning, make trouble out of nothing, try to pick a quarrel, and forcibly shoot the situation concerning national security, public interests, commercial interests and personal privacy; do not submit application for temporary airspace and flight plan to the state flight control department, or UAV fly in violation without approved flight plan, all of them belong to illegal acts and should be punished accordingly. The public security organs jointly investigate and treat with the relevant departments according to law, the people who constitute a violation of public security management, give public security management punishment according to law, if the circumstances are serious enough to constitute a crime, criminal responsibility shall be investigated.

#### **5.4 Regulate Other Aspects of UAV Aerial Photography**

In order to prevent the damage of aerial photography to the natural environment, aerial photography acts in nature reserves should be restricted or prohibited. In addition, after the aerial photography aircraft disappeared and crashed; how to search and prevent the dissolution of batteries in the UAV in the soil and it lead to the pollution of the local land and water resources.

### **6. Conclusion**

Everything has its advantages and disadvantages at the same time, how to make best use of the advantages and bypass the disadvantages is one of the objects which lawyers pay close attention to, under the background of society ruled by law, any human activity should be brought into the legalization path, and aerial photography is no exception. Any freedom is under the law and fully protects individual freedom without harming the interests of the state, the collective or the individual. Without supervision, there is no freedom, only formulating the legal norms of UAV aerial photography and strictly implementing it, aerial photography this high technology can better serve the country and benefit the people.

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