

## Call for Abstracts (deadline 08, April 2018) 'Drones and the tension between military and civil applications'

Unmanned aircrafts, so-called 'drones', are used today in very different areas and for both military and civilian purposes. Research and development in the field of modern drones is essentially driven by advances in the field of information technology and results in increasingly automated systems.

Military drones have become well known to the public, in particular through the use of unmanned aerial vehicles (UAVs) in the conflicts of the Middle East, e.g. the targeted killing of insurgents or terrorists in Afghanistan, Pakistan, or Yemen. UAVs have been an integral part of military operations since the 1960s; however, armed UAVs have only been playing an increasing role since the early 2000s. Key countries such as the USA, China and Russia will give military drones a high priority in the future. At the same time, it is warned against the "potentially catastrophic consequences" (UN Under-Secretary-General and High Representative for Disarmament Affairs Izumi Nakamitsu) of future autonomous weapon systems. Human rights organisations (e.g. Human Rights Watch coordinates the 'Stop Killer Robots' campaign) call for a ban on autonomous weapon systems since they would be in contradiction with international humanitarian law as well as because their introduction could result in the risk of arms races and increase the likelihood of military conflicts.

However, drones also offer significant potential for commercial applications. The use of drones as means of transport or for transporting smaller loads, e.g. in parcel services, is the subject of intense discussion. Especially for the so-called 'last mile' of delivery, for very urgent goods or for delivery in remote areas, drones have considerable potential. In addition, drones can also be used to obtain low-cost aerial imagery or high quality real-time monitoring, e.g. for research purposes, police operations, or in the real estate market. In agriculture, drones are seen as a central component of precision farming, which aims to increase crop yields while simultaneously reducing the use of fertilisers and pesticides. In this context, the use of UAVs for mapping farmland, data collection on soil condition, the survey of plant status, and similar applications, as well as the monitoring of herds, will be given priority. Last but not least, drones are becoming a popular toy.

However, such applications raise numerous legal questions, for example in the areas of aviation law and aviation security, data protection and privacy, environmental protection and sustainability, as well as with regard to the potential for misuse of such technologies. It is precisely this abusive use that bridges the gap between civilian and military drones: consumer drones are comparatively inexpensive but also quite powerful, they could potentially be used as weapons.

### **Contributions requested**

From the point of view of technology assessment, it makes sense to examine the scope of the current and future use of UAVs and their implications. In order to achieve that, probable paths of further technological development, relevant stakeholders and their interests, potential of future (new) applications as well as their dual-use potential

must be analysed in more detail. This also raises questions about the potentially destabilizing effect of drone technology, its proliferation or avoidance of proliferation, the need for arms control with regard to drones, or the regulation of their use.

For the TATuP theme ‘Drones and the tension between military and civil applications’, we seek contributions that deal with the issues outlined above from the point of view of technology assessment and technology evaluation, e. g. the following areas of research:

- current and future development of drone technology,
- scenarios of civilian and military deployment,
- economic potential, the dual-use problem,
- sustainability aspects,
- legal issues,
- potential misuse,
- policy implications concerning national security,
- possible or necessary regulatory measures,
- and – last but not least – ethical considerations with regard to the consequences of the use of drones.

At the same time, different stakeholder perspectives should always be taken into account.

## **Editors of this TATuP theme**

Karsten Weber (OTH Regensburg), Bernhard Rinke (Universität Osnabrück), Christian Alwardt (IFSH) and Heinz Bernhardt (TU München).

## **Submissions**

Please submit your abstract by E-Mail to: [redaktion@tatup.de](mailto:redaktion@tatup.de)

## **Timeline**

08, April 2018: Deadline for submitting your abstracts.

End of April 2018: decisions on which authors will be invited to submit a full manuscript.

End of July 2018: Deadline to submit your full manuscript.

As of mid-September 2018: Feedback from the peer review process and authors’ corrections.

December 2018: Publication.