



UAV-ASIGN

Software solutions to share UAV photos and videos while in-flight. For emergency responders, security, civil services and mission-critical users.



Communicate Anywhere, Anytime

Communicate UAV imagery while in-flight through any available bandwidth, including SatCom.



Fast Situational Awareness

Increase situational awareness, save time and take better-informed decisions through.



Private Data Storage

Private data storage and end-to-end encryption for secure communication.

The Issue: Communicating UAV observations in real-time

When UAV pilots embark on missions for clients or decision makers, the communication of UAV photo and video contents may be time-critical as the observations can influence urgent decisions and the efficiency of the mission.

Search and rescue operations, reconnaissance, post-disaster survivor identification or structural assessment are all scenarios in which the fast and precise communication of UAV imagery can have a real-life effect on response-time and mission success.

For optimal coordination, observations would ideally be captured and sent out of the field even while the UAV is in flight. Therefore, in time-critical missions, the ability to quickly send precise UAV imagery out the field becomes paramount. In such situations however, one may be confronted by unreliable communication networks which significantly slow or prevent data communication. Difficulties in getting crucial imagery out of the field not only affects overall situational awareness and decision making but can also prevent expert feedback needed to guide UAV pilots in the collection of specific observations.

The Solution: UAV-ASIGN

With these challenges in mind, AnsuR has developed UAV-ASIGN, a mobile application and companion to the ASIGN server. UAV-ASIGN enables pilots to, through their smartphone, capture precise geo-tagged visual UAV contents and then communicate it in real-time all while in-flight.

Given the low bandwidth which may be available in the field, UAV-ASIGN has been developed to work anywhere, anytime, through limited networks and satellite communication.

UAV-ASIGN allows for interactive communication by sending imagery previews up to 100x faster than traditional methods. Remote experts or clients can then pull relevant photos or video in full precision and communicate needs in real-time. This enables a continuous feedback loop between the pilot flying the UAV in the field and an expert who may be hundreds of kilometres away.

Streamlining communication between UAV pilot and remote expert results in a faster and more efficient mission completion. For the client, receiving precise information in near real-time allows for better oversight and resource allocation, while shortening response time.

UAV-ASIGN use case with the United Nations

UAV-ASIGN features have been developed with the aim to support time-critical activities including post-disaster interventions or search & rescue missions. Field users send collected observations from UAV-ASIGN or other ASIGN applications directly to the UN server, which in combination of satellite images, aids experts in situational assessment.

With UAV-ASIGN, the UN can now remotely direct UAV pilots to the most relevant locations. The interaction between the pilots and remote experts with UAV-ASIGN is near real-time, allowing for the efficient capture of photos and videos with direct effect on humanitarian operations.

While smartphone and web-based tools are attractive, commonly used cloud-based solutions are not suitable in severe disaster situations as one cannot rely on a stable broadband connection. UAV-ASIGN has been created with this issue in mind and has integrated protocols and tools for low data rates. The project with the UN proved that a UAV pilot in Sri Lanka and an expert in Geneva could communicate live



Compatibility

Supports popular DJI drones and drones with smartphones in the control station. Special DJI Interface compatible with Models: SPARK, MAVIC, PHANTOM



Information Management

With the ASIGN server, filter and analyse incoming data and communicate in real-time with remote field users.



Integration

Manage and combine data from multiple sources, including UAV-ASIGN, ASIGN PRO & UN ASIGN. Integrate data onto GIS system of choice.



UAV-ASIGN Specifications

UAV-ASIGN is a smartphone application available for iPhone and Android, enabling fast observation communication while the UAV is in flight.

- Transfers precise imagery using up to 99% less bandwidth, enabling pilots to send observations and receive feedback in near-real time.
- UAV-ASIGN offers substantial benefits to those utilizing Satellite communication – reducing the use of bandwidth proportionately reduces satellite communication costs.
- Advanced security protocols, including end-to-end encryption and private secure storage both on the UAV-ASIGN and the ASIGN Server.

ASIGN Online Server

The ASIGN information management server has been designed to give the mission control centre maximum visual awareness while streamlining the communication between pilot and expert.

- Picture and video previews from the field arrive at the ASIGN Server 100x faster than with traditional transfer methods. Allows for a better situational overview and shorter reaction time.
- Incoming data points can be filtered and are geo-tagged and time stamped, shown in real-time on ASIGN Server's interactive map.
- Data can be stored on AnsuR Servers or alternatively on a private server for full ownership.

Acquiring UAV-ASIGN

UAV-ASIGN is a monthly subscription service which can be purchased through our website: www.ansur.no/
Contact AnsuR directly at contact@ansur.no for the set-up of ASIGN within a private server.