Plenary meeting #1 UAS Coordination Technical Working Group

23 Sept. 2020

Brief intro by Matthias Boyen

- Thanks to the Foreign, Commonwealth & Development Office (FCDO) for their continuous support in this space. It is through their generous support that we are able to come together to further the work on the use of UAS in humanitarian operations, in a safe and sustainable manner.
- multitude of expertise on the call, entities from UN Agencies, INGOs, governments, academia and private sector.

Group picture

Opening remarks Jose Odini

- Quoting Mr. Bill Gates stating, "The advance of technology is based on making it fit in so that you don't really even notice it, so it's part of everyday life."
- We should think about it and make drones accessible, efficient and integrated.
- COVID creating biggest humanitarian and economic crises in a generation – doing more with less is our only option.
- Drones offer huge potential when we pool our resources and our knowledge.
- 25 organizations or more joining this initiative and know that we can build on this as we go.
- Not look for solutions for our drone's challenges working in isolated cells. Sooner than later we will need each other's support. Let us not wait for the need, let us work cooperatively in our humanitarian community and to achieve success hand-by-hand, from the start.

- recent years advancements in Hardware, Software, Batteries, Range, Payload, and Image Quality and Analysis.
- Every day more and more humanitarian organizations are starting to use drones.
- UAVs can now deliver medical supplies in hard-to-reach areas, support search and rescue missions, conduct mappings for small holder farmers, collect data for flood modeling, damage assessments after a disaster strikes, and probably more.

- However several challenges: from legal and operational issues, ethical research, procurement and partnerships, privacy and data protection, to transparency and community perception.
- Need of robust agreements on all these elements and among all humanitarian, governments, authorities and operators.
- It is important that we work together to get the best out from drones' technology as outlined previously, while at the same time we assure their appropriate integration into the existent aviation world.
- In March 2019, the Foreign Commonwealth & Development Office (FCDO), launched its multi-year support to help WFP to develop this for the entire humanitarian community. This includes the building of a dedicated global UAS team to support country level operations, and the development of global best practices.
- We need to build effective partnerships and develop and deliver a standardized, safe and ethical approach that's tailored to the very specific needs of the humanitarian sector.
- We need a collaborative, holistic approach that anticipates the risks as well as the opportunities throughout the operational lifecycle: from design and operation, to training and impact assessment, and from safety and security, to responsible data collection, analysis and sharing; to understand how drones can add real value and best fit alongside traditional activities.
- These are the big challenges for WFP and its partners in the Emergency and Telecommunications Cluster – and I suspect it will be the same for many of you.
- Prioritize 3 core activities around:
    - developing a global coordination cell;
    - prepositioning equipment for humanitarian interventions;
    - expanding the technical working group to achieve tangible outcomes in ethics, operations & regulations, imagery, and connectivity.

Round of introductions

See annex 1 for participant list.

Expectations from participants

What are your expectations of this technical working group?

Introduction to the Technical working group(s) by Gabriela Alvarado

- A lot of diversity that we have within the team. The more diversity in the team the better engagement in future sessions
- We will continue to grow as we advance in the various thematic areas
- Need to deploy technologies in a safe and secure manner
- Find ways to enhance the reliability
- Diverse thematic areas –
  - legal and operational issues
  - ethical procurement
  - partnerships within different entities
  - data privacy and protection
  - to transparency
  - community perception and collaboration.

- How can we continue to build on what has already been existing. On the use of drones but also the use of applications that can support the use of drones or areas or services.
- We need to make sure that what we do doesn't do any harm, is done in a sustainable manner and is done in a scalable manner as well.
- Ethics, Regulations and Operations, Imagery and Connectivity- different key areas we can contribute to, expanding the knowledge and expertise building on work that`s already been happening across multiple agencies over the last couple of years.
- How can we better learn from each other from the different scenarios that we`ve been deploying in?
- What are the standard operating procedures that we should be looking into?
- How can we learn from governments that have done this successfully? To continue replicating this in other countries.
- How do we make sure to make the technical standards, the guidelines, checklists available for public use

- Success of the working group is going to be the diversity we have in the team (private sector, academia, UN agencies, NGOs, aviation safety unit)

Introduction to sub-areas

Ethics by Christos Panayi

The Ethics sub area will explore the following issues:
- Data protection and privacy, in connection to data collected and processed by drones;
- Responsible data storage, processing and dissemination of drone data;
- Accountability to Affected Populations;
- Community sensitization and community engagement – to ensure that the work is in line with the highest internationally accepted data protection standards.

Further work with the ICRC on integrating the Handbook on Data Protection in Humanitarian Action. One of the participants in the Ethics TWG is Alexis Clere will be representing the ICRC and will hopefully be able to assist us in that pursuit.

The outputs expected from the ethics TWG are the following:

- Data protection and privacy guidelines;
- Guidelines on data storage, sharing and disposal of raw data;
- Advocacy campaigns to sensitized communities in countries where WFP and partners are planning to launch drone operations.
- Dissemination of UAViators Code of Conduct and integration into Operations manual

Next meeting:

- nominate and establish a co-chair for the group
- have an initial discussion based on the Handbook on Data Protection in Humanitarian Action
- UAViators Code of Conduct.

Regulations and Operations by Jo Gillespie

- Jo Gillespie from WFP aviation safety.
- An initial aim is to identify some common frameworks for airworthiness operations and pilot competency.
- Drafted some short objectives to share with the Regulations and Operations group ahead of the first meeting

Imagery by Matthias Boyen

- It will be beneficial if humanitarian stakeholders can come together to discuss developments in this rapidly evolving drone use case.

Main purposes of the Imagery sub-area:

- to get a better understanding what other stakeholders are doing out there. We will do this through deep dives to learn from each other`s projects.
- We will develop best practices and standards on how to best collect data.
- Focus on open-source centered solutions such as open street map, open aerial map, QGIS, Inasafe and others.
- brainstorm on setting up suitable methodologies building on experiences our participants have had in emergency responses.
- investigate how we can crowd-source maps through drone collected data.
- aim to create an enabling environment for data sharing.
- connect pilots with emergency coordinators and responders, mappers and academia, to smoothen out workflows between these groups.
- bring manufacturers to the meetings for Q&A sessions about the newest developments on cameras and processing software.
- will share updates with each other to keep abreast with the newest developments in artificial intelligence.

Connectivity by Patrick McKay

- Patrick McKay: based in WFPs Johannesburg regional office, Southern African region UAS co-ordinator, WFP UAS connectivity focal point,
- licensed drone pilot from the SACAA
- UAS co-ordinator for the first deployment of drones by WFP during Cyclones Idai and Kenneth in Mozambique in 2019.

- In this TWG looking into all the different ways we can use drones to provide connectivity. We're call these solutions COWs, Connectivity on Wings.
- Potential solutions include:
  - Using a tethered drone as flying WiFi hotspot to provide connectivity over a much larger than normal area.
  - Using a tethered drone in the form of a flying cellphone tower which restore connectivity for a mobile phone service operational in the country.
  - using untethered drones for connectivity. One potential solution- using a VTOL drone carrying a wifi hotspot over a city in a patterned flight, providing connectivity to people within range of it to briefly to allow them to get messages in and out,
  - also supporting our friends in the imaging TWG by collecting imagery simultaneously.
- Many more solutions out there, hoping the skills and experience of the community in the connectivity TWG meetings will help realise them.

Next steps

- Next month the sub-areas will start meeting: every week on Wednesdays there will be one sub-group-meeting.

Ethics: 1st Wednesday of the month

Regs and Ops: 2nd Wednesday

Imagery: 3rd Wednesday of the month

Connectivity: on the fourth Wednesday of the month.

- Alternate time slots to facilitate every time zone.
- For every meeting there will be meeting minutes, recordings and if available slide-decks, shared in a repository.

Questions

Additional questions can be send to wfp.drones@wfp.org

Annex I: Participants

Name	Organisation
Alessio Calantropio	Politecnico di Turino
Alexandre Castellano	ECHO
Angel Buitrago	WFP
Antonio Beleza	INGC (Mozambique national emergency operation centre)
Arturo Ojeda	OICT
Chandu Chaudhary	FCDO
Christina Vasala Kokkinaki	IOM
Christopher Todd	AIRT
Christos Payani	WFP
Conor Graham	Queens University Belfast
Cristiano Giovando	World Bank/HOTOSM
Dan Joseph	American Red Cross
Daniel Cyr	Global Medic
Fabrice Lauper	ICRC
Filiberto Chiabrando	Politecnico di Turino
Gabriela Alvarado	WFP
Harrison Wolf	WEF
Hugo Duplessis	WFP
Ieva Lebediene	WFP
Irshad Khan	IFAD/WFP
JeanClaude Laouwayi	WFP
Jo Gillespie	WFP
Jonathan Chambers	COOPI
Jose Odini	WFP
Jowett Wong	Global Medic
Marco Codastefano	WFP
Matthias Boyen	WFP
Michael Manalili	WFP
Michael Scheibenreif	UNICEF
Mikael Costa Pinto	GlobHe
Oleg Aleksandrov	WFP
Olivier Defawe	VillageReach
Omar Namaoui	WFP/ETC
Patrick McKay	WFP
Paul Schickler	American Red Cross
Rahul Tiwari	Spooky Action
Sarah Steingruber	GIZ
Scott Dubin	USAID
Sebastian Ancavil	IOM
Stephen Mather	Open Drone Map
Steve Allcock	Elistair

Tarah Friend	FCDO
Tautvydas Juskauskas	UNICEF
Zuheb Usiddiqui	UNICEF