UN Signals Academy update & Micro Unmanned Aircraft System (UAS) training

UAS Workshop
Virtual meeting Thursday 5th NOV 2020

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• UN Signals Academy programme update (10min)
• Micro-UAS training project & concept (10min)
• Q&A (10min)
The Office of Information & Communications Technologies (OICT)

Department of Operational Support

- Office of the Under-Secretary-General
- Support Operations
- Supply Chain Management
- Special Activities
- Administration New York

- Aviation Safety
- Client Support and Special Situations
- Headquarters Client Support
- Operational Planning
- Facilities and Commercial Activities
- Policy, Strategy and Governance
- Operations Support

- Performance and Analytics
- Human Resources Services
- Health-Care Mgmt. and Occupational Safety and Health
- Enabling and Outreach
- Logistics
- Support Partnerships
- Resource Planning and Analysis

- Capacity Development and Operational Training
- Procurement
- Uniformed Capabilities Support

- Kuwait Joint Support Office
- Regional Service Centre Entebbe

- Global Service Centre Brandis
- Global Service Centre Valencia

TDDPS
The UN Signals Academy, a C4ISR technology training hub


- Located at the UN Regional Service Center Entebbe (RSCE), UGA

- *Delivering C4ISR* & Camp Security technology training for military & police personnel (UN Missions & T/PCCs**)

- Managed by OICT. Workforce: 2x New York, 4x Entebbe. No permanent trainers to date!

- No regular budget! Relies on donations from Member States by using the Triangular Partnership model

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*C4ISR = Command & Control, Communications, Computers, Intelligence, Surveillance, Reconnaissance (limited to capabilities under OICT OSD responsibility)*

**T/PCC = Troop & Police Contributing Countries**
UN Signals Academy strategic goal is:

- Support Action for Peacekeeping (A4P) objectives
- Enhance preparedness of military & police C4ISR specialists during or prior to deployment in UN missions
- Support T/PCC capacity building
- Support objective to increase Women participation in UN Peacekeeping
Our partnering Member States and generous donors

- JAPAN (XBF)
- CANADA (XBF)
- DENMARK (XBF)
- GERMANY (In-Kind)

Partnerships in development with:
- UGANDA (Micro-UAS)
- FRANCE (Micro-UAS & CIS)
- NATO Communications & Information Academy (C4ISR courses)
- Francophonie (FRA language)
Our major achievements since 2016 (up to 30th June 2020)

➢ Capacity Building & Training: +6,500 uniformed personnel (12% female) from 112 Member States trained at UNSA or in Mission

➢ Distance learning: Development of a Learning Management System and E-courses

➢ Gender: 6 Women’s Outreach Course for female ICT uniformed officers. 177 officers from 57 countries. 23 graduates deployed to UN Missions.

➢ Main beneficiaries: UNSOS, MINUSMA, MINUSCA, MONUSCO
Our new level of ambition

➢ Develop our C4ISR & Camp Security training offer (incl. Situational Awareness, ISR Micro-UAS, C-RAM, ICT).
➢ Objective 25 technology courses by end 2021 (ENG + FRA = 50)
➢ Deliver a Learning Management System and distance learning. Accessible to UN Missions and T/PCCs.
➢ Deliver Situational Awareness (Unite Aware) application suite “scenario-based” training at the OPSCEN-STE* in Entebbe. Collaboration with ITS. Initial Operational Capability end 2020
➢ Technology training in other UN official languages (Priority FRA)
➢ Augment UNSA RSCE team with permanent technology instructors
➢ Academy rebranding [UN Field Technology Academy]

* OPSCEN-STE = Operation Centre - Simulated Training Environment, Entebbe
### Our new projects

- **A4P XBF project proposals to Member States issued in Sep2020**

<table>
<thead>
<tr>
<th>OICT Project Proposals</th>
<th>Budget requested (US$)</th>
</tr>
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<tbody>
<tr>
<td>ISR Micro UAS Procurement in support of Training</td>
<td>$169,500.00</td>
</tr>
<tr>
<td>UN Academy Staffing Recruitment Chief Technology Training (P4)</td>
<td>$339,000.00</td>
</tr>
<tr>
<td>UN Academy Course Development &amp; Delivery</td>
<td>$1,017,000.00</td>
</tr>
<tr>
<td>Unite Aware application suite Development &amp; Implementation</td>
<td>$1,638,500.00</td>
</tr>
<tr>
<td>Smart Camp 2</td>
<td>$575,170.00</td>
</tr>
<tr>
<td>Telemedicine capability development</td>
<td>$594,380.00</td>
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Interest in partnering with us, please contact: schifferlingp@un.org
Micro Unmanned Aircraft System Training Concept

Stephen O’Sullivan
Project Manager
C4 Intelligence, Surveillance, Reconnaissance Technology Development, Design and Planning Section
United Nations Global Service Center
Valencia, Spain
Micro UAS Training

AGENDA

• Background to the Micro UAS project
• Micro UAS Training Concept & Timeline
• Training delivered in Missions
• Course Design
### Classes of UAS in the UN

**OICT owned and operated**

Air Transport Service (ATS) managed through Letters of Assist (LOA) or commercial contracts

<table>
<thead>
<tr>
<th>Class</th>
<th>Type</th>
<th>Weight range</th>
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<tbody>
<tr>
<td>Class I(a)</td>
<td>Nano</td>
<td>&lt; 200g</td>
</tr>
<tr>
<td>Class I(b)</td>
<td>Micro</td>
<td>200g &lt; 2 kg</td>
</tr>
<tr>
<td>Class I(c)</td>
<td>Mini</td>
<td>2 kg &lt; 20 kg</td>
</tr>
<tr>
<td>Class I(d)</td>
<td>Small</td>
<td>20 kg &lt; 150 kg</td>
</tr>
<tr>
<td>Class II</td>
<td>Tactical</td>
<td>150 kg &lt; 600 kg</td>
</tr>
<tr>
<td>Class III</td>
<td>MALE/HALE/Strike**</td>
<td>&gt; 600kg</td>
</tr>
</tbody>
</table>

- OICT manages the Class I (a) and (b) category (less than 2kg) for the UN. The UN owns and operates these systems through ‘UAS as a Service’ available on the UNGSC Business Service catalogue under Unite Aware ([Business Service Catalogue](#)).
- ATS manages the contracts for anything larger than Micro UAS.

* Brooks-Holland Classification

** Medium Altitude Long Endurance / High Altitude Long Endurance
Background to the Micro UAS project (1)

• **Cruz Report** & **Technology and Innovation in Peacekeeping (TIP) Report**

• **C4ISR & Force Protection technologies**
  
  • UAS as a Service
    • Consultancy and advisory service
    • Procurement
    • Training
    • Data Management
  
• **Counter - UAS**
The Micro UAS Instructor course is a specialized training for military & police personnel who are required to deliver Micro UAS training to personnel in UN Field Missions or T/PCCs.

The course is designed for Micro UAS instructors who will train Micro UAS operators to support missions with increased Intelligence-Surveillance-Reconnaissance, GIS, engineering surveying and safety & security capabilities.
Micro-UAS Training technical partnerships

• Technical partnership with Government of UGANDA (Ugandan People Defense Forces)
  • Delivery of Authorization-to-Operate micro UAS
  • Provision of practical training area in Entebbe

• Technical partnership with Government of FRANCE (Army UAS Centre of Excellence)
  • Partnership implementation pending MOU signature
  • Support to micro-UAS course development
  • Training-of-UN-Trainers in France
  • Support to UNSA capacity building
  • Provision of UAS trainers in Entebbe
  • Course delivery in English & French languages
Micro-UAS Training Concept

Target audience

- Senior stakeholders

Duration: 1 hour

Training modalities

- eLearning (Introduction to UAS)

Qualification

- eLearning quiz

Instructors

- Certified Technical Trainer

Duration: 10 days

- Lecture Series
- Practical flight training
- Mission specific Use-case tutorials

- Written and practical exam

Operators

- eLearning (Introduction to UAS)

Duration: 5 days

- Lecture Series
- Practical flight training
- Mission specific Use-case tutorials

- Multiple choice and practical exam
Micro-UAS Training delivered to date

• Training delivered (in the interim)

• 100 micro UAS Operators trained in the field since Dec 2019

• UN Missions: UNSOS, MONUSCO, MINUSMA, MINUSCA

• African Union: AMISOM, Somali National Army
**Micro-UAS Training targeted audience**

UNSA course targeted audience (in order of priority)

1. Military & Police personnel deployed on UN missions e.g. Military Observers, Camp Security team, Convoy escort

2. T/PCC Military & Police Pre-deployment training

3. Capacity Building in support Member States

4. UN deployed civilian personnel e.g. Field Technology Section, Engineering, Joint Mission Analysis Cell (JMAC)

5. UN entities e.g. UNDSS*, UNOCT*, UNMAS*.
Micro-UAS course design

- Aligned with International Civil Aviation Organisation (ICAO) best practice for commercial use UAS
- Aligned with UN ISR, Aviation Manual and C2 procedures.

**ICAO Content**
- Air law
- Theory of Flight
- Meteorology
- Human Factors
- Navigation
- Radiotelephony

**UN Specific Content**
- Electro Optical and Infrared Systems
- UN Specific regulations
- UN and Mission Specific Considerations
- Night Flying
- GIS Mapping
- Intelligence reporting
- Counter UAS
Micro UAS Use Cases (1)

- Forward Operating Base (FOB): Protection & Overwatch
- Battle Damage Assessment
Micro UAS Use Cases (2)

- Convoy / Patrol Support
- Geographic Information System Mapping
Conclusion – Take away

➢ UNSA new level of ambition aims to better support A4P

➢ Micro UAS instructor and operator course to be delivered in ENG & FRA language as soon as activity can resume in Uganda and in Missions (COVID-19)

➢ XBF required for Micro UAS equipment procurement
➢ XBF required for course development & delivery
➢ XBF for UNSA permanent Training staff

Thank you to our Partners for their invaluable support!
Join us!!
Thank you for your attention!

QUESTIONS?

More information: