Furthering The Introduction Of UAVs/ROA Into Civil Managed Airspace

UCARE PROGRAMME UPDATE

Peter van Blyenburgh
EURO UVS
86, rue Michel-Ange
75016 Paris
France
Tel.: 33-1-46.51.88.65
Fax: 33-1-46.51.05.22
pvb@euro-uv.s.org

www.euro-uv.s.org & www.ucare-network.org
**Report Documentation Page**

Public reporting burden for the collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to a penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.

<table>
<thead>
<tr>
<th>1. REPORT DATE</th>
<th>2. REPORT TYPE</th>
<th>3. DATES COVERED</th>
</tr>
</thead>
<tbody>
<tr>
<td>02 SEP 2003</td>
<td>N/A</td>
<td>-</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>4. TITLE AND SUBTITLE</th>
<th>5a. CONTRACT NUMBER</th>
<th>5b. GRANT NUMBER</th>
<th>5c. PROGRAM ELEMENT NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Furthering The Introduction Of UAVs/ROA Into Civil Managed Airspace UCARE Programme Update</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>6. AUTHOR(S)</th>
<th>5d. PROJECT NUMBER</th>
<th>5e. TASK NUMBER</th>
<th>5f. WORK UNIT NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)</th>
<th>8. PERFORMING ORGANIZATION REPORT NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td>EURO UVS 86, rue Michel-Ange 75016 Paris France</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)</th>
<th>10. SPONSOR/MONITOR’S ACRONYM(S)</th>
<th>11. SPONSOR/MONITOR’S REPORT NUMBER(S)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>12. DISTRIBUTION/AVAILABILITY STATEMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Approved for public release, distribution unlimited</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>13. SUPPLEMENTARY NOTES</th>
</tr>
</thead>
<tbody>
<tr>
<td>See also ADM001676, UAV 2002 Conference &amp; Exhibition., The original document contains color images.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>14. ABSTRACT</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>15. SUBJECT TERMS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>16. SECURITY CLASSIFICATION OF:</th>
<th>17. LIMITATION OF ABSTRACT</th>
<th>18. NUMBER OF PAGES</th>
<th>19a. NAME OF RESPONSIBLE PERSON</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. REPORT</td>
<td>unclassified</td>
<td>UU</td>
<td></td>
</tr>
<tr>
<td>b. ABSTRACT</td>
<td>unclassified</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. THIS PAGE</td>
<td>unclassified</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

|                       |                          |                     |                               |

*Standard Form 298 (Rev. 8-98) Prescribed by ANSI Std Z39-18*
EURO UVS submitted a proposal for the financing of a European Thematic Network (re: UAV Airworthiness & ATM) to the European Commission. This proposal federated:

- **50 Corporate Participants** - 12 countries
- **37 Observers** - 12 countries (European & non-European)

EURO UVS received a **negative** reply to its request for funding from the European Commission.

Based on the consensus arrived at during the preparation of the network proposal, and encouraged by the participants & observers, EURO UVS decided to continue the initiative as a multi-national EURO UVS programme (UCARE).
Develop recommendations with the aim to facilitate the establishment of rules & regulations allowing the introduction of civil/commercial & military UAVs/ROA into civil managed airspace, regardless of borders.

Federate the international UAV community within a dedicated framework to create the required basis for issuing a consensual policy & competence standards.

- Dual (military, civil/commercial) inputs/use;
- Incorporates recommendations from Eurocontrol, FAA, JAA, NATO, WEAO and national CAAs;
- Can be tasked by Eurocontrol, FAA, JAA, NATO, WEAO and national CAAs to deal with Specific Tasks;
- Incorporates findings of national Working Groups;
- Represents principal UAV stakeholders;
- Financed by the Participants;
- Multi-national & intercontinental approach not dominated by a single country, company or type of UAV.
### PARTICIPANTS

**Corporate Entities**

Industry, R&D organizations, organizations supplying services with or for UAVs), governmental entities (military & civil), industry associations, international organizations (military & civil, e.g. NATO, WEAO, Eurocontrol, FAA, JAA).

**From**

Australia, Austria, Canada, France, Germany, Italy, Israel, Japan, South Africa, Spain, Sweden, Switzerland, UK, USA

### CONTRIBUTORS

**Non-Corporate Entities**

Representatives of military & civil gvmnt organizations (incl. Min. of Def. agencies, departments, services), international military organizations (NATO & WEAO), national civil aviation authorities, international organizations e.g. DG Transport, Eurocontrol, FAA, JAA, International Federation of Airworthiness, universities & governmental R&D organizations, that can significantly contribute.

**From**

All countries
WHY THESE COUNTRIES?

Europe
- France
- Germany
- Italy
- Spain
- Sweden
- Switzerland
- UK
- The EURO UVS Power-Base.
- The driving force behind UCARE.
- Significant national UAV industry.
- Desire to fly UAVs in civil managed airspace.
- Significant national UAV industry & EURO UVS membership.
- Experience flying military UAVs for commercial purposes in civil managed airspace.
- Positive attitude of CASA Australia.

Israel
- Elbit is teamed with Thales Defense, UK
- Experience flying military UAVs

Far East
- Australia
- Japan
- Significant national UAV industry & EURO UVS membership.
- Experience flying UAVs for commercial purposes in civil managed airspace.
- Positive attitude of CASA Australia.

Africa
- South Africa
- Significant national UAV industry & EURO UVS membership.
- Experience flying military UAVs for non-military purposes in civil managed airspace.

N. America
- USA
- Canada
- Partnership agreement with AUVSI.
- Significant national UAV industry & EURO UVS membership.
- Desire to fly UAVs in civil managed airspace.
WHAT ARE THE DELIVERABLES?

*Consensual* International Recommendations Relative to a UAV Regulation Concept, Technical Proposals, Publications, Web Site

WHO ELABORATE THE DELIVERABLES?

UCARE Participants

WITH INPUTS FROM WHO?

Participants, Contributors, national civil & military aviation authorities, Eurocontrol, FAA, JAA, NATO & WEAO

WHO FORMATS THE DELIVERABLES?

EURO UVS + UCARE Steering Group + UCARE Steering Committees
HOW ARE THE DELIVERABLES ARRIVED AT?

- National Working Groups & Multi-National Discussion Forums
- International Work & Discussion Forums on “restricted” web site
- Accomplishing Tasks & Sub-Tasks, Special Tasks, and Specific Tasks (by Participants & Contributors)
- Exchange of information between national Working Groups during recommendation formulation
- 2 Yearly Work Meetings at RMA in Brussels, Belgium
- 1 Yearly General Meeting in Paris, France (back-to-back with EURO UVS’ yearly UAV conference)
- Publication of all recommendations on “open” UCARE web site

Necessity: Free flow & wide dissemination of information
WHO RECEIVES THE DELIVERABLES?

- Eurocontrol
- Joint Aviation Authorities (JAA)
- FAA
- National Military Authorities
- National Civil Aviation Authorities
- DG Transport
- NATO
- WEAO

Invited to join UCARE as Contributors

Participants & Contributors

HOW ARE DELIVERABLES DISSEMINATED?

- By email to tasking authorities
- EURO UVS & AUVSI Publications
- EURO UVS & AUVSI Web Sites & Direct Emailing
- EURO UVS & AUVSI Conferences
WHO FINANCES?

**GENERAL**
- Organization & Coordination (infrastructure & time)
- EURO UVS (thru membership & participation fees, sponsors)

**WEB SITE**
- Creation & maintenance (infrastructure & time)
- EURO UVS (thru membership & participation fees, publicity)
- Inputs (time)
- Discussion Forum (time)
- Participants & Contributors

**WORK MEETINGS**
- Meeting venue = Royal Military Academy (RMA), Belgium
- Made available to EURO UVS by RMA
- Travel, hotel, substance, time
- Participants & Contributors

**TASKS & SPECIAL TASKS**
- Time
- Participants

**SPECIFIC TASKS**
- The authority tasking UCARE

**GENERAL MEETING**
- Travel, hotel, substance, time
- Participants & Contributors
- Meeting venue, logistics, substance & cocktails
- Sponsorship of the yearly UAV conference & exhibition by international UAV industry (see: www.euro-uvvs.org)
- General Meeting & UAV conference delegate fees
Initially Suggested Core Group

OVERALL COORDINATOR = EURO UVS

**EURO UVS MEMBERS**

**Australia**
Aerosonde, BAE Systems

**France & Spain**
Dassault, EADS, EDT, INTA (Spain), Sagem, Thales (2)

**A & CH & D**
Autoflug, BGT, EADS, EADS-Dornier, ESG, IABG, Limbach, RUAG Aerospace (CH), Schiebel (A), STN Atlas Elektronik

**Japan**
Fuji Heavy Industries, Kawada, Yamaha Motors, Ministry of Transport, Ministry of Agriculture-Aviation

**S. Africa**
ATE, Kentron, Thales Advanced Engineering

**Sweden**
Aerotech Telub, Civil Aviation Authority (LFV), Defense Materiel Admin. (FMV), Defense Research Inst. (FOI), Saab, Scandicraft

**UK & Israel**
BAE Systems, Remote Group, Stasys, Thales Defense, UAV Engines Ltd, Elbit-Silver Arrow (IL)

**USA**
AAI Corp., AeroVironment, BAI Aerosystems

**USA**
Adroit Systems, Boeing, General Atomics, Goodrich, Lockheed Martin, NASA, Northrop Grumman, NMSU

**To Be Ancd**

**EDT**

**UAV-WG**

**Yamaha**

**ATE**

**FMV/Saab**

**UAVS**

**AUVSI (ISG)**
- Corporate AUVSI Members
Current Participants & Contributors

OVERALL COORDINATOR = EURO UVS

**PARTICIPANTS**

- **Australia**: Aerosonde, BAE Systems
- **France & Spain**: Blyenburgh & Co, CAC Systèmes, Dassault, EADS, EDT, INTA (ES), Sagem, Thales Airborne Systems, Thales Communications
- **A & CH & D & NL**: BGT, EADS MABU, EADS-Dornier, ESG, Dutch Space (NL), RUAG Aerospace (CH), Schiebel (A), STN Atlas Elektronik
- **UK & Israel**: BAE Systems, Remote Group, QinetiQ-AT&E, Stasys, Thales Defence, UAV Engines Ltd, Elbit-Silver Arrow (IL), University of Glasgow, UAVS Trade Association
- **South Africa**: Armscor, ATE, Kentron, Thales Advanced Engineering
- **Sweden**: Defence Materiel Administration (FMV), Saab
- **Japan**: Fuji Heavy Industries, Yamaha Motors, Japan UAV Association
- **USA & Canada**: AAI Corp., AeroVations (C), BAI Aerosystems, Sierra Nevada Corp
- **France & Spain**
- **South Africa**
- **Sweden**
- **UK & Israel**
- **Australia**
- **Belgium**
- **Canada**
- **France**
- **Japan**

**CONTRIBUTORS**

- **Australia**: Civil Aviation Safety Authority
- **Belgium**: Royal Military Academy
- **Canada**: Transport Canada (CAA)
- **France**: Ministry of Defence (DGA), Civil Aviation Authorities (DGAC)
- **Japan**: Ministry of Transport

- **Netherlands**: Royal Netherlands Air Force, Royal Netherlands Army
- **Switzerland**: Swiss Air Force
- **USA & Canada**
- **USA**: Federal Aviation Administration (NASA-ERAST), USAF Flight Standards Agency
- **UK**: Ministry of Defence-DPRG, Ministry of Defence-DPA
Support this EURO UVS-Instigated International Initiative

The International UAV Community Is Called On To:

- Form & Participate in National Working Groups

- Contribute with your Expertise & Experience to Formulate Multi-National Consensual Opinions

International Co-operation: a Prerequisite for Success
EURO UVS
86 rue Michel-Ange
75016 Paris, France
Tel.: 33-1-46.51.88.65
Fax: 33-1-46.51.05.22
pvb@euro-uvso.org
www.euro-uvso.org
www.ucare-network.org

Voice of & Forum for the International UAV Community