Jeff Poole, CANSO DG, remarks to ICAO Remotely Piloted Aircraft Systems Symposium

Introduction: Collaborating to enable safe operations
- The title of this session sums up CANSO's approach
- Safety is always our number one priority
    - Focusing on the safe separation of aircraft
- Collaboration is a key element of partnership, one of the three pillars of CANSO's strategic plan for air traffic management – Vision 2020
- The two go hand in hand to ensure safe and efficient operations
- CANSO's role is to act as the global voice of ATM on key issues such as RPAS
- That is why I am here today and you will also be hearing from each of the co Chairs of the CANSO RPAS and Emerging Technologies Workgroup on Thursday
- And that is why we have CANSO representatives on the various ICAO, European and other committees and groups that are tackling the difficult issue of how to integrate RPAS safely into airspace

Context
- I would like to start by putting RPAS into context
- The last ten years have seen huge growth in non-traditional entrants to airspace such as
    - Commercial space vehicles
    - Balloons, including those operated by CANSO member Google Loon to provide Internet access
    - High altitude solar powered aircraft operated by CANSO member, Facebook, also to provide Internet access
    - And of course remotely piloted aircraft systems
- Our approach is the same for all those that want to use airspace
    - Understanding the business and requirements of each user
    - Collaborating to ensure everyone can safely use airspace without impacting unduly on other users
    - And working with regulators and all stakeholders to make this happen
- We therefore welcome RPAS users, manufacturers and UTM providers and we are collaborating with them
- For ATM, there are three key questions
    - How do we continue to ensure safety
    - How do we make airspace accessible for all
    - And how does legacy ATM work alongside and/or integrate with UTM
- Importantly, we must not be a barrier to progress but we must balance this against safety requirements

Safety
- Safety is, rightly, the aviation industry's number one priority
- Recreational drones are becoming one of the biggest hazards to manned aviation
- So to ensure safety we first need to understand the scale and scope of the unmanned industry

Jeff Poole, CANSO DG, remarks to ICAO Remotely Piloted Aircraft Systems Symposium

Unmanned aerial vehicles
- There are many different types of UAVs from very low level recreational drones to military and commercial RPAS to near space RPAS
- The challenge is that they are very different to traditional airspace users
    - They have different performance characteristics, climb rate, manoeuvrability and speeds
    - An aircraft takes years to be designed, developed, tested, certified and go into production and then they are in service for 30 years or more
        - Drones take weeks!
    - Different separation standards are needed
        - Clearly 3 NM separation is not appropriate for a drone the size of a desk
    - And of course UAS operators do not necessarily have the training or safety mindset of traditional pilots

Integration or separation?
- While UTM operators and ATM operators need to work together, the operations could be both integrated and separated
- RPAS must comply with current equipage requirements for the airspace they will operate in regardless of size
- But we need to separate in the vicinity of airports to prevent unauthorised use in the airspace
    - Some States are introducing no drone zones around sensitive areas including airports
- Perhaps we also need to consider developing new classes of airspace

ATM and UTM
- What is the difference between ATM and UTM?
- Objectives are the same - keeping airborne vehicles safe on their journey - but they are different
    - Currently ATM is very people oriented and requires significant infrastructure to operate effectively
    - UTM is much more automated and less people oriented
- Information is the key – data sharing through System Wide Information Management is essential to success
- Companies are already offering UTM services and it is likely a competitive market will develop
- E.g. Unifly, a CANSO Member, provides software applications that facilitate drone traffic in the very-low-altitude airspace
- UTM should not be developed in isolation from ATM
- But UTM services need to be provided under a clear regulatory framework
- We, the industry, need to help the regulators with the right capabilities and expertise to make this happen

Jeff Poole, CANSO DG, remarks to ICAO Remotely Piloted Aircraft Systems Symposium

Regulation
- We would like to see globally harmonised regulations to ensure all States adopt the same standards and give certainty and simplicity for operators
- Regulators should not over-regulate but take a risk-based and performance-based approach
  - To allow the overall performance of ATM and UTM to flourish safely
- CANSO urges regulators and States to innovate, move fast and work with industry rather than being the gatekeeper of yesterday's operations
- Specifically we believe
  - Registration should be compulsory for every UAS / RPAS
  - There should be certification and training for UAS users
  - There should be public awareness campaigns for UAS users

What is CANSO doing?
- RPAS and Emerging Technologies Workgroup covers both low level and operations above FL600
  - It published RPAS guidance for ANSPs with a particular focus on training
  - It is producing small UAS operations guidance including operational approvals, UTM concept and checklists
  - It is preparing a best practices document on how ANSPs can accommodate drones
  - And it is exploring management of traditionally uncontrolled airspace in the upper altitude strata
- In Europe we are supporting the development of a regulatory framework to accommodate UAS to the European aviation system, working closely with EASA
- We contribute to the work of JARUS
- We participate in the ICAO RPAS panel to develop harmonised SARPs and PANs and technical work on lost link issues
- We Co Chair the ICAO UAS Advisory Group
  - Which has produced web material on State regulations, educational flyers, toolkit for UAS pilots
  - And has been tasked to develop a global framework for UTM

Conclusion
- I will finish where I started – we must all collaborate to ensure safe operations
- The ATM and RPAS/UTM communities can benefit from and learn from each other
- But collaboration must not slow things down in a fast developing area
- The secrets of effective collaboration are understanding each other, being flexible, and recognising that we have to do things differently
- The stakes are high, we must get this right, if we are to keep aviation as the safest form of transport