



REMOTELY PILOTED AIRCRAFT SYSTEMS SYMPOSIUM 23-25 March 2015

RPAS Panel

Leslie Cary, RPAS Programme Manager, ICAO
Randy Willis, RPAS Panel Chairman

RPAS Panel Objective

- **Facilitate the safe, secure and efficient integration of RPA into non-segregated airspace and aerodromes**
 - maintain existing level of safety for manned aviation
 - Develop Standards and Recommended Practices (SARPs), procedures and guidance
 - Focal point and coordinator of all ICAO RPAS related work

RPAS Panel Scope

- **Instrument Flight Rules (IFR) operation in controlled airspace**
 - minimum weight
 - minimum altitude
 - not excluding visual line-of-sight (VLOS)
 - but low priority

Scope will evolve as needed

Panel Composition

Members (34):

Australia, Austria, Brazil, Canada, China, Czech Republic, Finland, France, Germany, Israel, Italy, Japan, Netherlands, New Zealand, Republic of Korea, Russian Federation, Singapore, South Africa, Spain, Sweden, Turkey, United Kingdom, United States, CANSO, COCESNA, EASA, EUROCONTROL, IAOPA, IATA, IBAC, ICCAIA, IFALPA, IFATCA, RAeS

Observers (7):

Denmark, Switzerland, AUVSI, EUROCAE, NATO, RTCA, UVSI

100+ participants, including advisors

RPAS Panel Work Programme

RPASP Activities

WG 1 **Airworthiness**

WG 2 **Communications**

WG 3 **Detect and Avoid**

WG 4 **Licensing**

WG 5 **Operations**

WG 6 **ATM**

ICAO Expert Groups

Flight Operations
Meteorological
Fatigue Risk Management
Facilitation
Performance-based Navigation
Aerodromes
ATM Operations
Separation & Airspace Safety
Personnel Competency
Human Performance
Airworthiness
Legal
Communications
Environmental
Surveillance
Aviation Security
Flight Recorders
Safety Management
Frequency Spectrum
ATM Requirements & Performance

*Coordination
&
Collaboration*

Work Programme Deliverables



Working Papers



Amendment proposals



Update manual



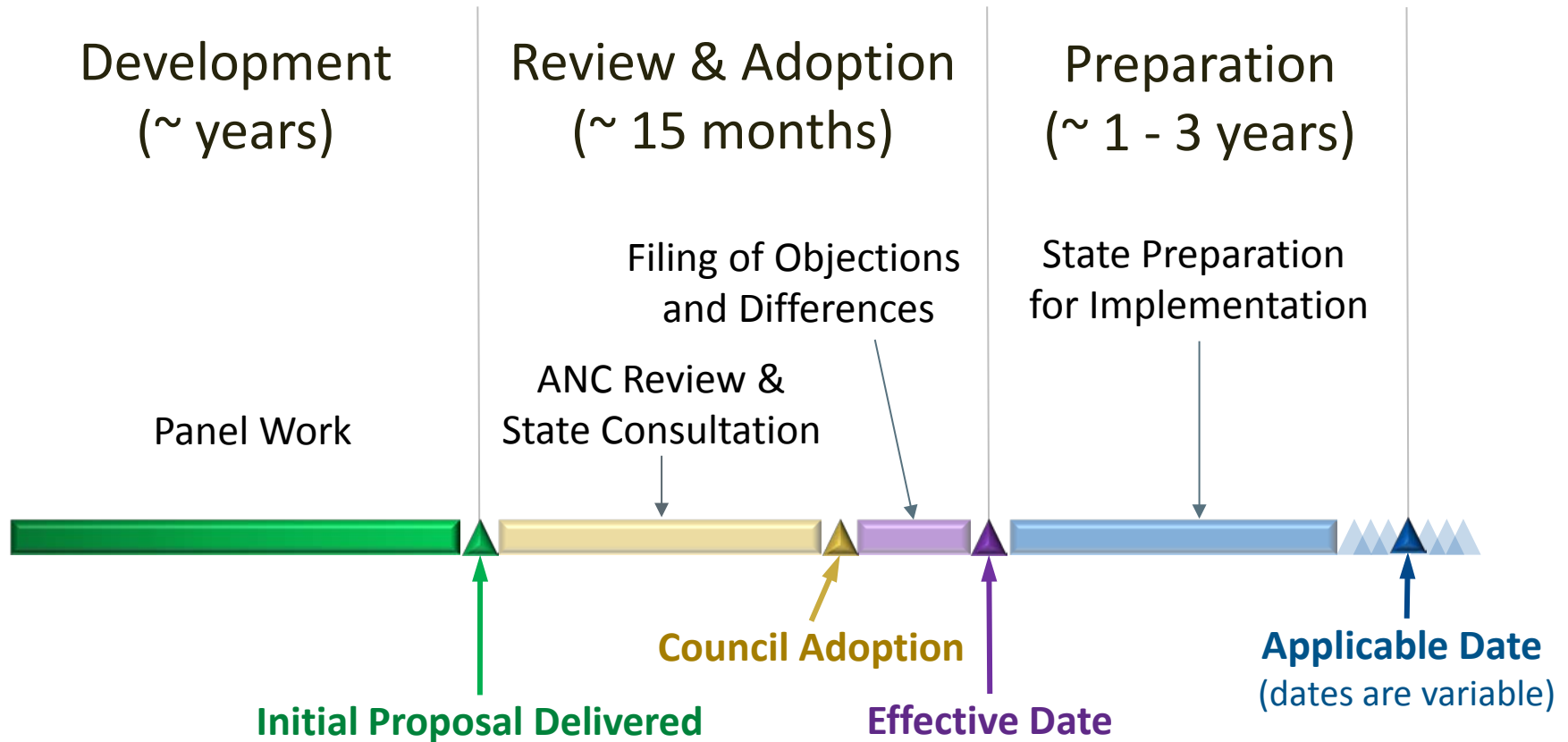
Annexes 1, 2, 7, 8, 10, 11, 12 & 14 (integration & new chapters)

Annex 6, Part IV

**PANS-ATM
PANS-TRG**



ICAO Standards Process





Chicago Convention complexities

- **Pilots of pilotless aircraft**
- **Special authorization**
- **Documents on board aircraft**
- **Certificates of airworthiness**



Key Challenges

- **Interaction of non-aviation and aviation cultures**
- **Applicability of manned aviation requirements**
- **Lack of data to support decision making for Standards**
- **High variability of systems**
- **Rapid evolution of technologies / concepts**



RPAS SYMPOSIUM

Day 2 – Technical Workshops

- **Workshops presentations cover:**
 - ICAO guidance
 - Doc 10019 material
 - real world examples
 - State, operator, manufacturer, service providers, etc.
 - best practices
 - Civil and military

Day 2 – Technical Workshops

- **10 workshops**
 - Airworthiness – Operations: **CR 1**
 - ATM Integration – Civil / Military: **CR 2**
 - Technology – National Regulations: **CR 3**
 - Licensing – Safety Management – Security – Legal: **CR 5**

See the symposium programme for details

Day 3 – Way forward

- **Integration session:**
 - key issues from workshops
 - Current status

- **Next steps and conclusions:**
 - how to proceed at the industry, national, regional and global levels



ICAO

North American
Central American
and Caribbean
(NACC) Office
Mexico City

South American
(SAM) Office
Lima

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Headquarters
Montréal

Western and
Central African
(WACAF) Office
Dakar

European and
North Atlantic
(EUR/NAT) Office
Paris

Middle East
(MID) Office
Cairo

Eastern and
Southern African
(ESAF) Office
Nairobi

Asia and Pacific
(APAC) Sub-office
Beijing

Asia and Pacific
(APAC) Office
Bangkok



THANK YOU