

CANSO Global Programmes

# Safety and Operations Programmes Overview



**Mr. Bill Middleswart**

Safety Programme Manager

CANSO



# CAN SO SAFETY PROGRAMME

## Bill Middleswart - Manager

- Military – ATC & Airport Manager
  - Tower
  - Radar Approach
  - District & Regional Manger
- FAA – National ATC Programmes
  - Controller Training Contract
  - National Simulation Manager
  - Controller Hiring and Facility Staffing
  - Senior Advisor for Management Services
  - Deputy Director of Technical Training
  - Manager of Controller Training Policy & Development
- Email Address: **Bill.Middleswart@CAN SO.org**

# SAFETY PROGRAMME OVERVIEW

## 4 Task Forces/Workgroups:

- Cyber Safety Task Force (CSTF)
- Human Performance Management Work Group (HPM WG)
- Next Generation Safety Management Work Group (NXTGN WG)
- Safety Intelligence Work Group (SI WG)

## 1 Other Service:

- Safety Information Exchange Program (SIEP)
  - [Safety@CANSO.org](mailto:Safety@CANSO.org)

# CYBER SAFETY TASK FORCE (CSTF)

The Cyber Safety Task Force (CSTF)'s primary mission is to develop a cyber maturity model that focusses on how the ATM service provider prepares for, detects, responds and recovers from a cyber incident, helping to ensure that ATM services remain safe during and following a cyber attack.

This Standard of Excellence is based on a maturity model developed by EUROCONTROL and CAN SO Europe members and provides a means to assess, expand, and improve ATM safety and security.

## Leadership:

- Co-Chair – Morten Fruensgaard – Avinor ANS
  - Head of Security, Safety, and Crisis Management
- Co-Chair – Richard Derret-Smith - Egis
  - Principal Aviation Consultant
- Co-Chair – Andreas Gerstinger – Frequentis
  - Safety Manager

## Related Guidance Material:

- Standard of Excellence in Cybersecurity

## Outlook for 2022:

- Cybersecurity Risk Assessment Guide
  - Safeguarding Assets
  - Recommended Management Structure
  - Risk Matrix
  - Threat Landscape Collateral

# HUMAN PERFORMANCE MANAGEMENT WORKGROUP (HPMWG)

The Human Performance Management Workgroup (HPMWG) provides guidance to ANSPs that are carrying out HPM maturity assessments. Additionally, the workgroup shares best practice and lessons learnt to address current and future challenges in HPM such as automation, digitalisation, and new entries in the ATM airspace.

## Leadership:

- Chair – Open
- Co-Chair – Miguel Caparros - FTEJerez
  - Head of ATC Training

## Related Guidance Material:

- Standard of Excellence in Human Performance Management
- Monthly Blogs

## Outlook for 2022:

- Survey out on HP in ANSPs
  - Will be used to Shape Annex 1 of the SoE

# NEXT GENERATION SAFETY MANAGEMENT WORKGROUP (NXGN WG)

The Next Generation Safety Management Workgroup (NXGN WG) promotes new safety management concepts and methods to help CANSO members manage key challenges facing our industry. It provides safety management leadership on topics including integration of new airspace users, interdependencies between operations and safety in decision making, matching human and machine capabilities in higher levels of automation, SMS maturity and the organisational challenges that will impact the competence of staff and principles of just culture. In doing so it works closely with other CANSO workgroups in both the operations and safety programme areas.

## Leadership:

- Chair – Andre Sack-Nirschl – Austro Control
  - Director of Safety, Security, and Quality
- Co-Chair – Heather Henderson – NAV Canada
  - Director of Safety Strategy and SMS

## Related Guidance Material:

- Standard of Excellence in Safety Management System

## Outlook for 2022:

- Major re-write to SoE
- Major revamp to SMS questionnaire
  - Online completion
- SEANS – Fall/Winter 2022

# SAFETY INTELLIGENCE WORKGROUP (SIWG)

The Safety Intelligence Workgroup (SIWG) provides the platform for a more focused approach to the identification, measurement and addressing of global safety issues, hazards or risks, proposing the appropriate improvement/mitigation actions. The SIWG supports the development of processes to identify common areas of concern that can be targeted by CANSO as it advocates and positively influences global aviation safety. This is accomplished by the continual use of current methods to identify areas of concern, identifying gaps and proposing new approaches, as well as seeking to advance data analysis with the aim of “turning data/information into intelligence”, pushing the use of advanced analytical methodologies, tools and techniques.

## Leadership:

- Co-Chair – Patrick Gontar - DFS
  - Head of Safety Intelligence
- Co-Chair – Bruno Ochín – NAV Canada
  - Manager of Corporate Safety Performance

## Related Guidance Material:

- Contributors to Annual Benchmark Report

## Outlook for 2022:

- Complete CONOPS for the use of the Incident Report Datamart
- Develop a CANSO Global Risk Register



**Mr. Scott Leis**

Operations Programme Manager

CANSO

# CAN SO OPERATIONS PROGRAMME

## Scott Leis - Manager

- U.S. Peace Corps:
  - Education and Natural Resources Conservation and Development Volunteer in The Federated States of Micronesia (Yap Island and Ulithi Atoll)
- FAA:
  - AIM Specialist and Cartographer
  - Air Traffic Specialist for the Caribbean Region
  - Airspace and IFR Procedure Specialist
  - National Airport Data Collection Program Manager
- Email Address: **Scott.Leis@CAN SO.org**



# OPERATIONS PROGRAMME OVERVIEW

## 11 Task Forces/Workgroups:

- Unmanned Aircraft Systems (UAS) Traffic Management Task Force (UTM TF)
- UAS and Emerging Technologies Workgroup (UAS/ET WG)
- System-Wide Information Management Workgroup (SWIM WG)
- Smart Digital Towers Task Force (SDT TF)
- Performance-Based Navigation Workgroup (PBN WG)
- Operational Performance Workgroup (OP WG)
- Environmental Workgroup (ENV WG)
- Data Link Implementation Task Force (DLI TF)
- CANSO ATFM Data Exchange Network for Cooperative Excellence Task Force (CADENCE TF)
- Air Traffic Flow Management/Airport-Collaborative Decision Making Workgroup (ATFM/A-CDM WG)
- Aeronautical Information Management Workgroup (AIM WG)

# UAS TRAFFIC MANAGEMENT TASK FORCE (UTM TF)

## Leadership:

- Co-Chair – Ms. Angela Kies
  - Head of the Unmanned Aircraft Systems Program for DFS Deutsche Flugsicherung GmbH
- Co-Chair – Mr. Larry Ley
  - Senior Portfolio Manager, Airspace & Operational Efficiency for Boeing

## Related Guidance Material:

- ANSP Considerations for RPAS Operations
- 3-Part, Regional Focus Webinar on the Emergence of Remotely Piloted Aircraft Systems Integration, Benefits and Hazards in Africa
  - Located at myCANSO → Resources:  
<https://canso.org/insight/regional-focus-emergence-of-remotely-piloted-aircraft-systems-integration-benefits-and-hazards/>

## Outlook for 2022:

- Will provide input (such as Best Practices) to 2022 ICAO Drone Enable Event (Nov 2022)
- Plans to reissue an updated questionnaire to members.
- Explore UTM / ATM integration roles and responsibilities based on collaboration with RPAS/Emerging Technologies WG
  - Drone detection on and around airports
  - ATM Cost-recovery for UTM services
  - Vertiport operations

# UAS/EMERGING TECHNOLOGIES WORKGROUP (UAS/ET WG)

## Leadership:

- Co-Chair – Mr. John Page
  - FAA – UAS Policy Team
- Co-Chair – Mr. Lance King
  - Northrop Grumman Corp.

## Related Guidance Material:

- ANSP Considerations for Unmanned Aircraft System (UAS) Operations
- 3-Part, Regional Focus Webinar on the Emergence of Remotely Piloted Aircraft Systems Integration, Benefits and Hazards in Africa
  - Located at myCANSO → Resources:  
<https://canso.org/insight/regional-focus-emergence-of-remotely-piloted-aircraft-systems-integration-benefits-and-hazards/>

## Outlook for 2022:

- Will provide more information/guidance to ANSPs:
  - Updated UAS Training Packet
  - Commercial space webinar (likely in July 2022)
  - Regional Training Sessions (As requested)
  - Updating ANSP considerations for UAS Operations Document (In Progress)
- Increased coordination with:
  - ICAO
  - UTM TF
  - CANSO Safety Programme
  - CANSO Regional Directors

# SYSTEM-WIDE Information MANAGEMENT WORKGROUP (SWIM WG)

## Leadership:

- Co-Chair – Mr. David Leow
  - Head of ATM Software Engineering, CAAS
- Co-Chair – Mr. Mark Libant
  - Manager, Flight and ATM Services, Nav Canada
- Co-Chair Mr. Wayne Osse
  - Chief Architect, Global Aviation and Transportation, Solace

## Related Guidance Material:

- CANSO White Paper on System Wide Information Management (SWIM)

## Outlook for 2022:

- SWIM Kit Concept Development
  - Outline has been developed
    - Stage I: SWIM Registry Guidance
    - Stage II: SWIM Information Services Guidance
  - Must be digestible in size and scope (10-15 pages)
  - Objective is to provide ANSPs with the minimal information necessary to make decisions regarding the implementation of SWIM
  - Once in final draft form, the Kit will be validated by ANSPs
- Increased coordination with:
  - CANSO ATFM/A-CDM WG
  - CANSO AIM WG
  - ANSPs
  - ICAO

# SMART DIGITAL TOWERS TASK FORCE (SDT TF)

## Leadership:

- Co-Chair – Mr. Niclas Gustavsson
  - SAAB
- Co-Chair – Ms. Elizabet Pavlova
  - Think Research Limited

## Related Guidance Material:

- CANSO Guidance Material for Remote and Digital Towers
- 3-Part, CANSO Academy Webinar Series on Remote Towers
  - Located at myCANSO → Resources:  
<https://canso.org/insight/canso-academy-improving-efficiency-through-remote-and-digital-towers-part-3-2/>

## Outlook for 2022:

- Updating guidance material for remote and digital towers that was published in December 2020. Target date for updated publication is August 2022.
  - Present new implementation use cases
  - Discuss new lessons learned
  - Introduce new technological advances and concept applications
  - Expand discussion on safety improvements to support controllers
  - New section on digital tower lifecycle
  - Additional information on change management and human factors
- Developing CANSO Digital Towers position paper alongside the guidance material update

# PERFORMANCE-BASED NAVIGATION WORKGROUP (PBN WG)

## Leadership:

- Co-Chair – Mr. Dieter Guenter
  - Senior Vice President, Aerospace, Tetra Tech AMT
- Co-Chair – Mr. Diego Gamboa
  - Planning Manager, EANA S.E., ANSP Argentina (OSC).

## Related Guidance Material:

- Use of PBN for Noise Management
- PBN for ANSPs: Concept 2030
- Performance-Based Navigation – Best Practice Guide for ANSPs

## Outlook for 2022:

- Continue support for regional projects
  - Working on possible terminal airspace redesign webinar for delivery in 2022
- Develop guidance material on Minimum Operational Network (MON) for NavAids
  - Planning will be the near-term focus for this WG
  - Started development of CAN SO Minimum Operating Network (MON) Document
- Research/Evaluate V-RNP concept development
- Research interest in potential high-level guidance material on proper application of various PBN navigation specifications
- Research Key Performance Indicators (KPIs) for PBN

# OPERATIONAL PERFORMANCE WORKGROUP (OP WG)

## Leadership:

- Chair – Mr. Valeriy Khavanov
  - Deputy Head of ASEC (Azeraeronavigation), Air Traffic Department, A-ZANS

## Related Guidance Material:

- Recommended KPIs for Measuring ANSP Operational Performance
- NEW – Published their Report of Performance Metrics Survey (ROPMS)

## Outlook for 2022:

- Complete an analysis of KPIs currently used in different regions and publish results- DONE
- Continue researching potential new KPIs relating to capacity, flight efficiency and predictability
- Collaborate with other CAN SO WGs such as:
  - The Global Benchmarking Workgroup (GB WG)
  - ENV WG to identify potential KPIs related to environmental sustainability

# ENVIRONMENTAL WORKGROUP (ENV WG)

## Leadership:

- Co-Chair – Mr. Pascal Hochstrasser
  - Head of TWR and APP Geneva, skyguide
- Co-Chair – Mr. Paul Dunholter
  - CEO Bridgnet division Tetra Tech

## Related Guidance Material:

- Measuring Environmental Operational Performance
- ANSP Carbon Footprinting: A Best Practice Guide
- Use of PBN for Noise Management

## Outlook for 2022:

- Finish development of CAN SO Environmental Accreditation Programme
  - Based on Standard of Excellence Model - focus is on measuring maturity of environmental management processes
  - Currently working with ANSPs to test and refine the accreditation program
  - Launch program (mid-2022)
- Continued Validation of Global Environmental Efficiency Goals
  - Update long terms goals
  - Identified Efficiency Studies
  - Reviewed and discussed uncertainty of past studies
  - Discussed Efficiency/Capacity Interrelations

# DATA-LINK IMPLEMENTATION TASK FORCE (DLI TF)

## Leadership:

- Chair – Ms. Lisa Bee
  - Director of Air Traffic Services, Inmarsat Aviation

## Outlook for 2022:

- Launch series of three (3) Data Link webinars that will be released in alignment with the 2<sup>nd</sup> Edition of the ICAO Global Operational Data-Link (GOLD) Manual (Carry-over from 2021)
- 2022 Work Plan
  - Task 1: Assist ANSPs that have not yet implemented CPDLC and/or ADS-C
  - Task 2: Facilitate ANSPs in providing efficiency benefits through the use of data link
  - Task 3: Determine interest in and topics for regional webinars
    - Supporting 2-part LAC Regional Webinar on CPDLC Implementation in collaboration with SITA.

# CAN SO ATFM DATA EXCHANGE NETWORK FOR COOPERATIVE EXCELLANCE (CADENCE TF)

## Leadership:

- Co-Chair – Mr. Joe Hof
  - CGH Technologies, Inc.
- Co-Chair – Ms. Midori Tanino
  - FAA, Air Traffic Organization (ATO)

## Existing Guidance Material:

- Regional Focus Webinar: Introducing the CADENCE Operational Information System in Africa
  - Located at myCAN SO →Resouces:  
<https://canso.org/insight/regional-focus-introducing-the-cadence-operational-information-system-in-africa/>
- Regional Focus Webinar: Introducing the CADENCE Operational Information System in Asia Pacific
  - Located at myCAN SO →Resouces:  
<https://canso.org/insight/regional-focus-introducing-the-cadence-operational-information-system-in-asia-pacific/>

## Outlook for 2022:

- Conduct outreach to regional and functional groups to inform them about the availability of CADENCE and the CADENCE Operational Information System (OIS) to support of ATFM/CDM needs
  - Middle East & Africa
    - ICAO MIDAN PIRG IP
    - ANSP testing
    - Briefings and demos at workshops/conferences
- TF will assist with regional deployment and development of associated procedures
- Conduct Regional Webinars (As requested)

# ATFM/A-CDM WORKGROUP (ATFM/A-CDM WG)

## Leadership:

- Co-Chair – Mr. Sugoon (Kin) Fucharoen
  - Senior ATM Officer, AEROTHAI
- Co-Chair – Mr. Stuart Ratcliffe
  - Business Development Director, Specialist on ATFM/A-CDM, Metron Aviation
- Co-Chair – Mr. Fredrik Lindblom
  - Sales Director and ATM Specialist, SAAB ATM

## Related Guidance Material:

- CANSO Guide on ATFM/A-CDM Integration
- Guidelines on Airport-Collaborative Decision Making (A-CDM) Key Performance Measures
- Implementing Air Traffic Flow Management and Collaborative Decision Making
- Airport Collaborative Decision Making – Optimization through Collaboration

## Outlook for 2022:

- Develop and publish Long Range ATFM Concept White Paper
  - Q2, 2022 Target Pub Date
- Develop Case Studies Collection for Special Events Planning. Will include examples from:
  - Olympics
  - Air Shows
  - Military Exercises
  - World Cup
  - Multi-lateral Conferences
  - Large-Impact Weather
  - Industrial Actions
- Conduct regional A-CDM webinars (As requested)

# AERONAUTICAL INFORMATION MANAGEMENT WORKGROUP (AIM WG)

## Leadership:

- Co-Chair – Mr. Aleksandr Estrov
  - Chief, Aeronautical Information Center, A-ZANS
- Co-Chair – Mr. Kevin Haggerty
  - VP, International Collaboration & Global Aviation Solutions, CGH Technologies, Inc.

## Related Existing Guidance Material:

- Aeronautical Information Management (AIM) Quality Management Development Guidance Material
- AIM Training Guidance Material

## Outlook for 2022:

- Elect Industry Co-Chair - DONE
- Identify regional AIM needs through WG participation and member survey
- Develop regionally targeted webinars for specific AIM needs
- In collaboration with OP WG, develop KPIs for AIM
- Develop 2023 Work Plan to support CANSOs Complete Air Traffic System (CATS) vision
- Support CANSOs ICAO Information Management Panel (IMP) activities

# CANSO Outreach and Support Material

## Other CANSO *Operational* Guidance Material Not Previously Mentioned:

- Automation Interface Between Flight Information Regions: Best Practice Guide for ANSPs
- Best Practice Guide for Crossing Flight Information Region Boundaries
- ANSP Guidelines for Implementing ATS Surveillance Services Using Space Based ADS-B
- CANSO Emergency Response Planning Guide (Safety)
- Many other Safety related publications
- Many Strategy and Integration related publications

**All CANSO Publications are available at:**  
<https://canso.org/publications/>

## CANSO Webinars and Presentations:

- Search for “CANSOcomms” on YouTube
- Or look under “Resources/Videos” on myCANSO



# QUESTIONS AND ANSWERS

# CONTACT US



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**Operations**

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# THANK YOU

