



| ICAO

# INTERNATIONAL CIVIL AVIATION ORGANIZATION

A UN SPECIALIZED AGENCY



Aviation Safety and Air Navigation  
Global Developments



# What we will go over during the session

It would be an impossible challenge to present all the evolutions of AN and AS ! But we will focus on the specific points :

- The drone revolution is coming to maturity and ICAO and Member States are getting more deeply involved
- Aerodromes are also entering a phase of evolution with RPAS, total airport management and new categories
- Frequency spectrum management will be vital for civil aviation
- A focus on Search and rescue
- Aviation medicine has brought through COVID, but more is to come (and not only for future pandemics) !
- Two ongoing initiatives (True North, Wake Energy Retrieval) will be mentioned

# RPAS, a revolution in the making supported by ICAO member States

## Seamless ATM Integration of RPAS

- Loss of C2 Link
- Detect and Avoid (DAA)



# Aerodrome emerging issues

The ICAO Assembly has supported a resolution to work on Advanced Air Mobility (AAM). This also impacts aerodromes.

The Airport Collaborative Decision Making (A-CDM) can be extended to Total Airport Management (TAM)

# Aerodromes - Emerging issues



**Vertiports**



**Total Airport Management (TAM)**



**Water Aerodromes**



**Altiports**

# CNS issues

Frequency spectrum issues have become a reality, the impact for the whole sector is significant

Importance of the International Telecommunication Union (ITU) World Radiocommunication Conference 2023 (WRC-23) held in Dubai

The development of ICNSS

# Frequency Spectrum

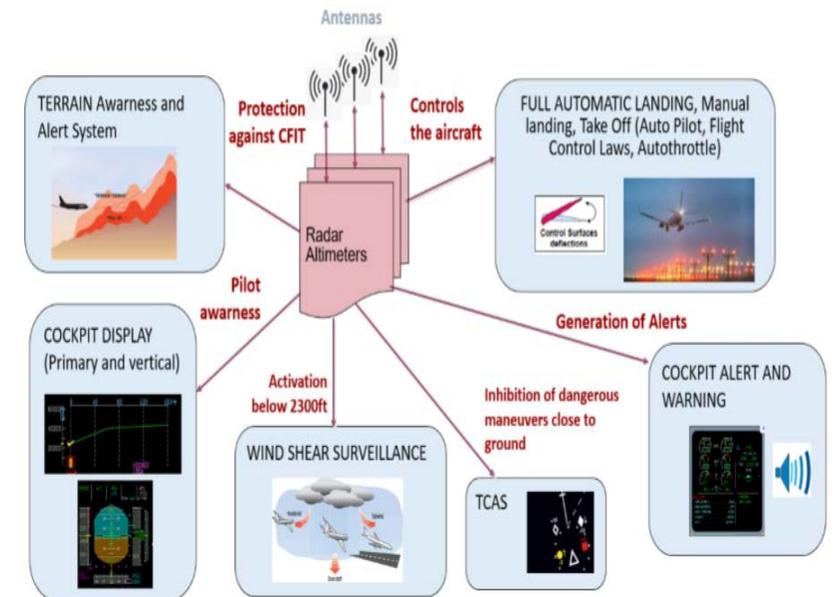
## To protect Radio Altimeters and other aeronautical systems

### A41 Outcome:

#### The assembly

- requested ICAO and its Member States to **continue taking necessary measures and efforts to ensure that radio altimeters and other aeronautical systems are free from harmful interference.**
- recognizing the criticality of radio frequency spectrum, encouraged States and regions to actively participate in spectrum defence activities and to endorse the ICAO position for WRC-23; and
- agreed to adopt the following resolution to supersede Assembly Resolution A38-6:

**Resolution 30/2: Support of the ICAO policy on radio frequency spectrum matters**



*Note.- regarding Radio Altimeter, Frequency Spectrum Management Panel (FSMP) is coordinating with MID Radio Altimeter (RADALT) Action Group (AG) and currently developing guidance, which will be published in Electronic Bulletin or Guidance Material in due course.)*

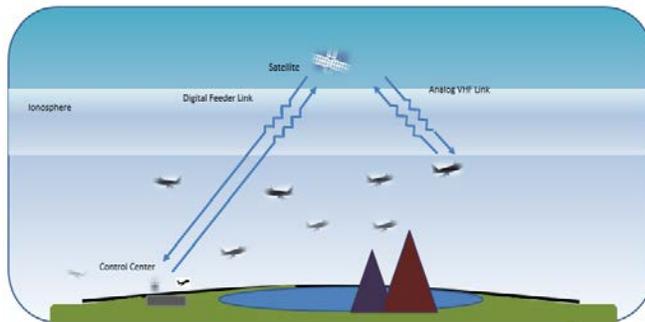
# Frequency Spectrum

- **Preparations for the International Telecommunication Union (ITU) World Radiocommunication Conference 2023 (WRC-23) are on track**

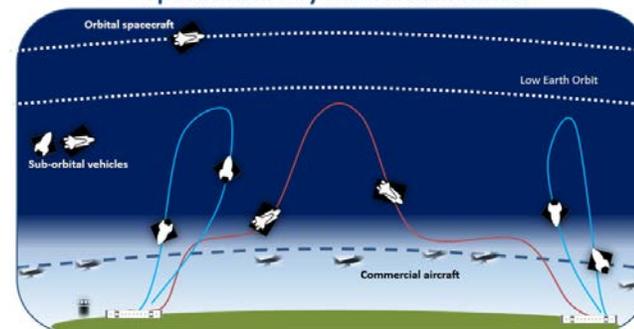
- The ICAO Position was approved by the ICAO Council and sent to all ICAO Contracting States/Int Orgs under cover of ICAO State letter (E 3/5-21/37 18 August 2021).
- WRC-23, held in Dubai in November 2023 will be busier than ever for aviation. WRC-23 Agenda Items include the following.

**WRC-23 Agenda Item 1.7:**

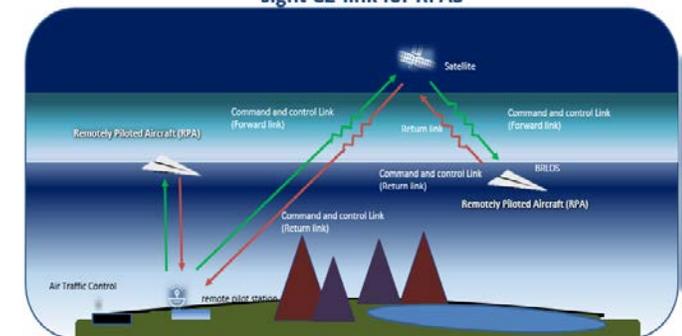
Potential facilitation of aeronautical VHF over satellite



**WRC-23 Agenda Item 1.6:**  
Spectrum use by sub-orbital vehicles



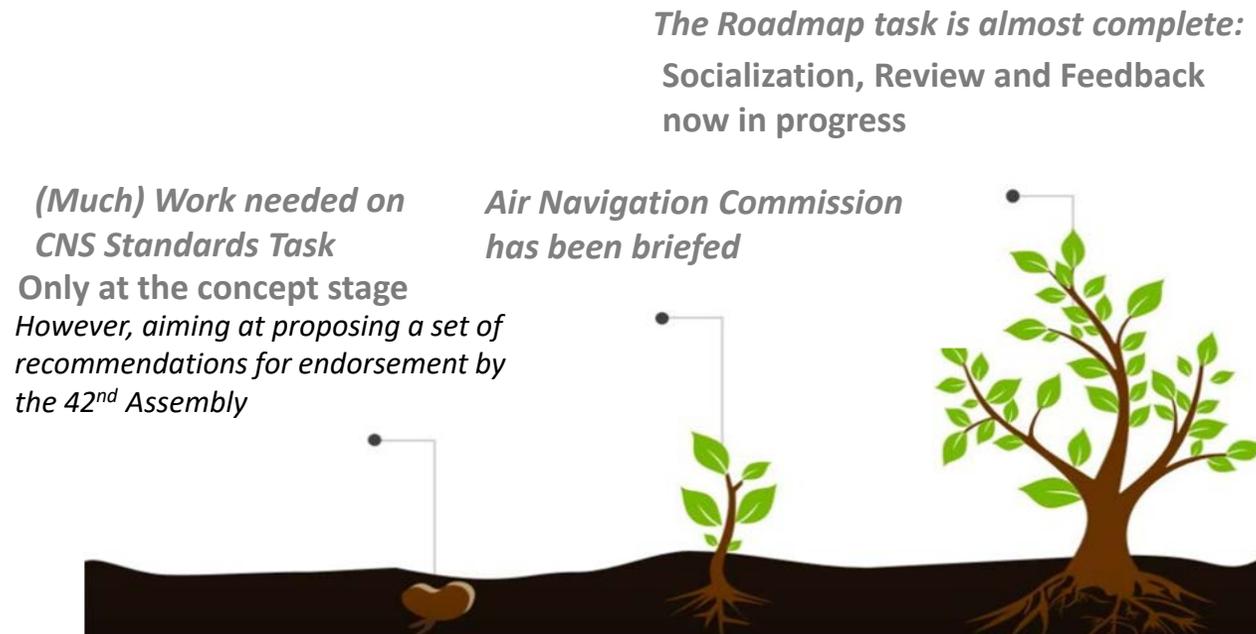
**WRC-23 Agenda Item 1.8:**  
Finalization of a satellite allocation enabling beyond-line-of-sight C2-link for RPAS



- Frequency Spectrum Managing Panel(FSMP) will organize WRC-23 preparatory workshop in MID region (Planned to be held on 28 Aug– 8 Sep 2022) to explain more details of aviation related agendas.
- **Active support from States** is deemed to be the only means to ensure that the results of the WRC-23 reflect civil aviation's need for spectrum.

# An Assembly WP on ICNSS

A41-WP/58 TE/5 discusses the progress made by the Integrated CNS and Spectrum Task Force to date, and provides a link to a Draft of the **ICNSS Global Concept** document.



[Pages - Integrated CNSS Project \(icao.int\)](https://www.icao.int)

## A41 Outcome related to ICNSS: Assembly

- Noting that the ultimate objective was to propose a set of recommendations for endorsement by the 42<sup>nd</sup> Assembly, expressed its satisfaction with the efforts underway and encouraged States/Int Orgs/other stakeholders **to support the continued development and implementation of a medium to long-term roadmap for the evolution of ICNSS and a new streamlined framework for CNS and frequency spectrum standardization.**
- agreed that the **efforts to streamline the Standards making process as well as to implement performance based Standards should continue.**

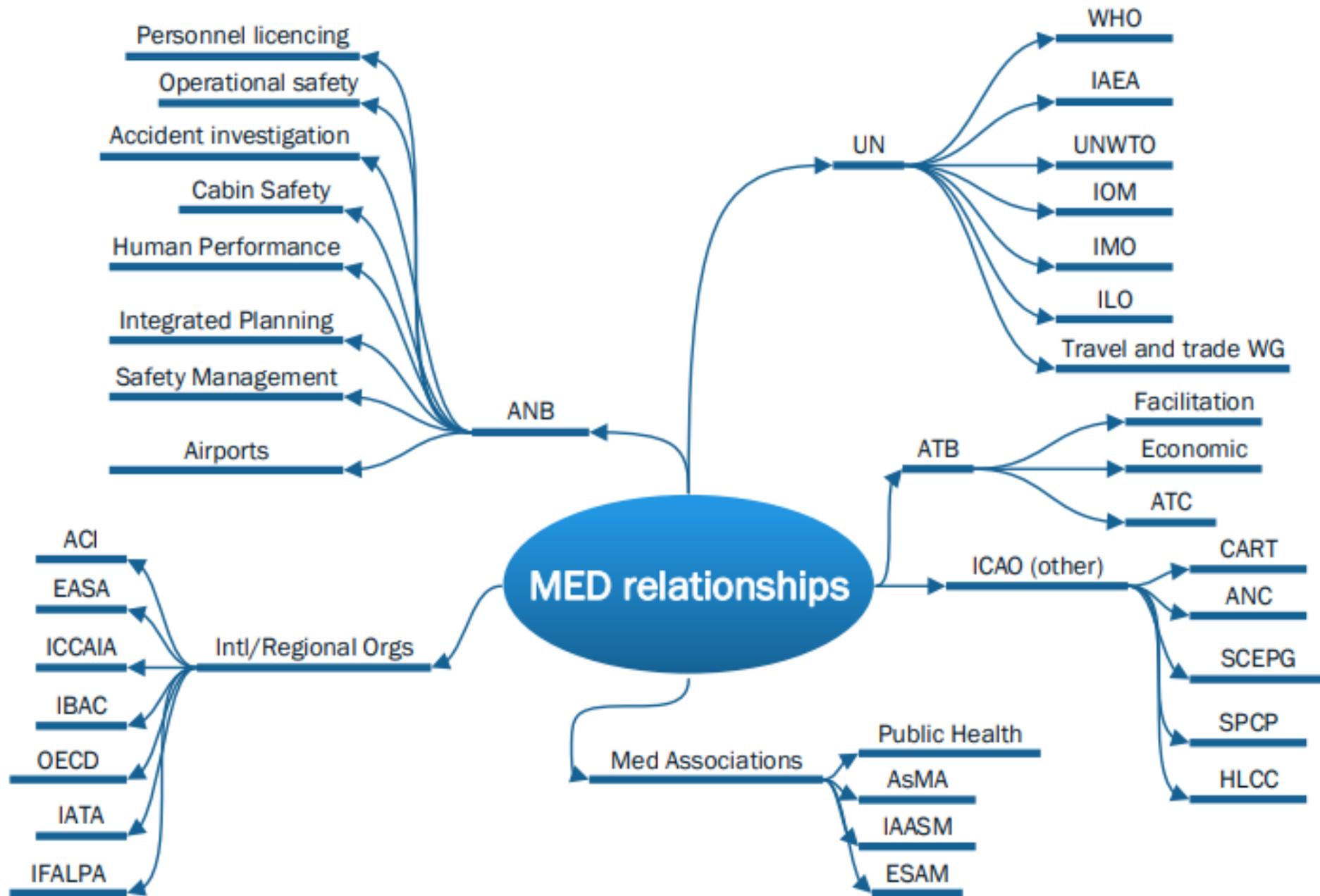
# COVID 19 and the evolution of aviation medicine

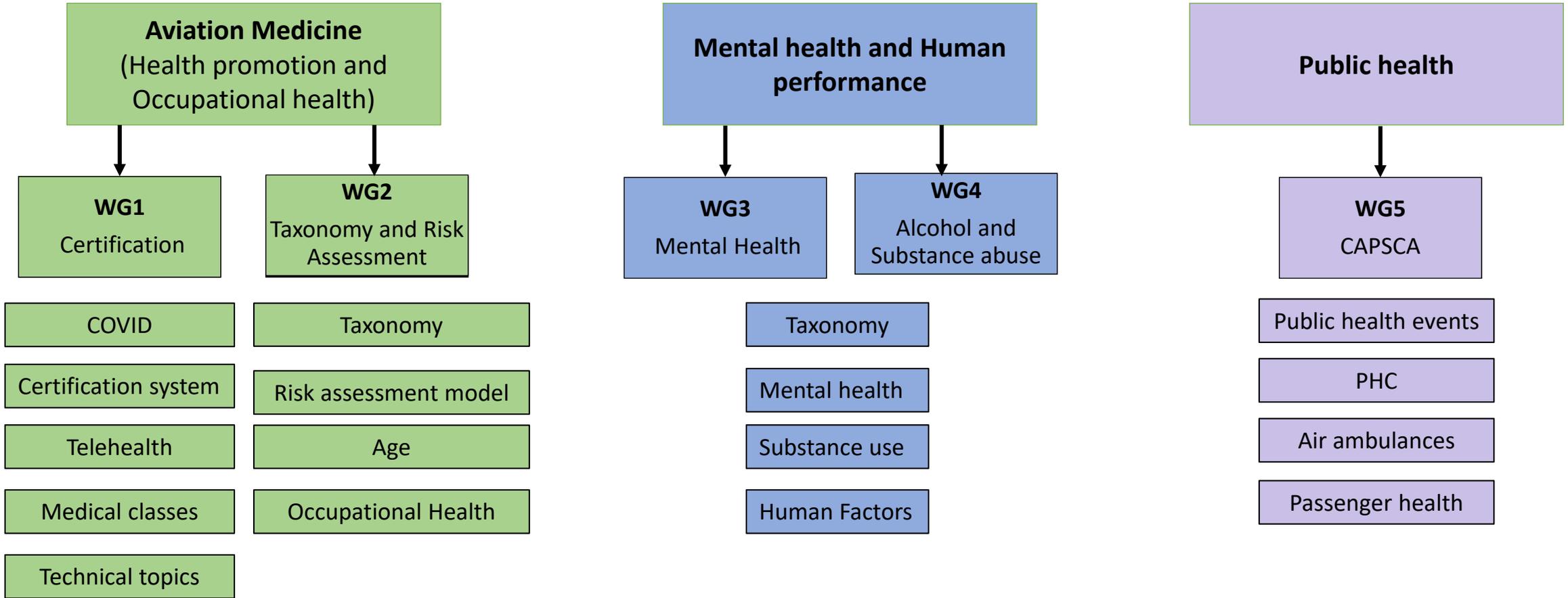
COVID 19 has put medicine on the forefront of aviation

The aviation sector has proven resilient

Several areas require better preparation and coordination for possible future potential pandemics (prevention measures, consistency, vaccination and testing mutual recognition)

Future developments in aviation medicine go beyond pandemics (notably mental health)





# MED WORKING GROUPS

# Future strategy

## Aviation Health Management Plan

Expand CAPSCA web-based information repository

Consolidated repository - all aviation health related material

SARPs, guidance material and best practices

## Strengthen CAPSCA

CAPSCA strategy

Formal agreements

Funding and resource support

Comprehensive framework aligned to the Sendai risk framework

Quick response mechanism

## PANS Health & digital platform

Exchange information

Update aviation procedures

Aligned to relevant specialist medical disciplines

Several modules

# Two specific projects to be noted

True North project : moving from magnetic north references to true north references

Wake energy retrieval : saving fuel (and possibly payload) while being environmentally friendly



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**THANK YOU!**