



# Assistance for Action

## Aviation and Climate Change Seminar

23 - 24 October 2012

ICAO Headquarters, Montréal, Canada



# Procurement Section, TCB/ICAO

Supporting Member States in their CO<sub>2</sub> emissions  
mitigation efforts

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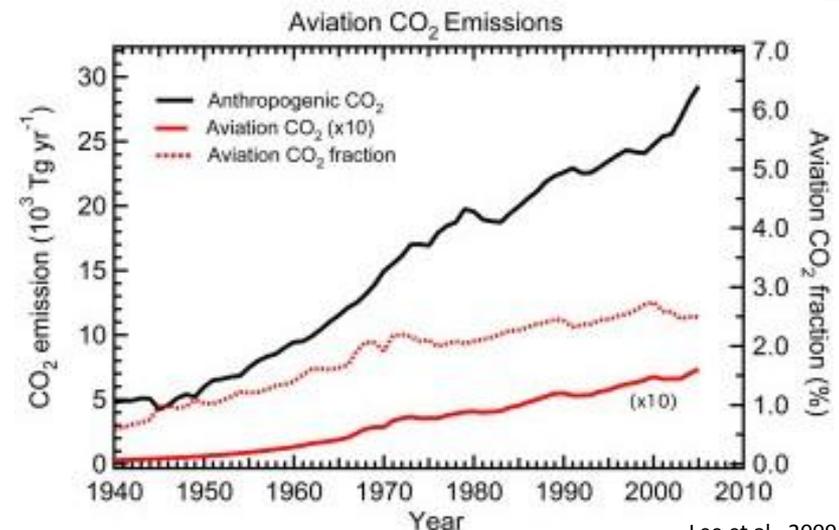


# A situation that requires combining efforts

- Aviation:
  - 2 % of globally produced CO<sub>2</sub>
  - 3 % of the total of the radiative forcing
  - 13 % of fossil fuels consumed by the transport
  - CO<sub>2</sub> projected to grow around 3 to 4% / year

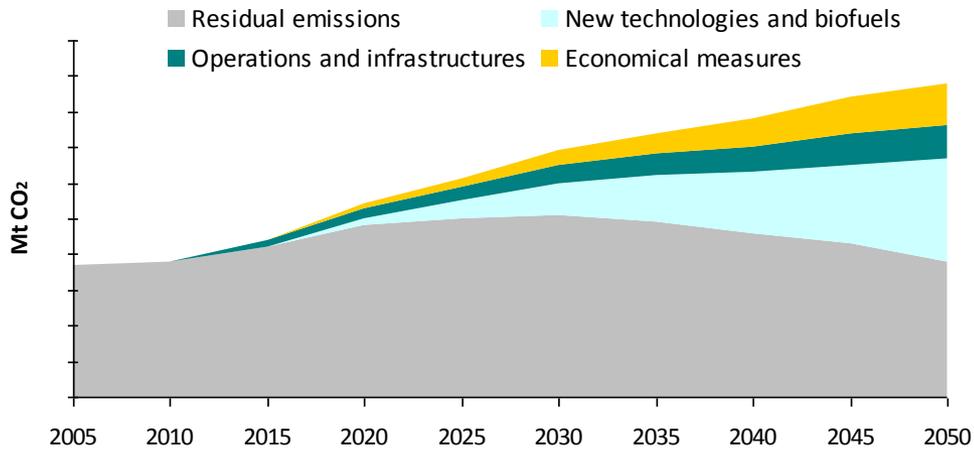
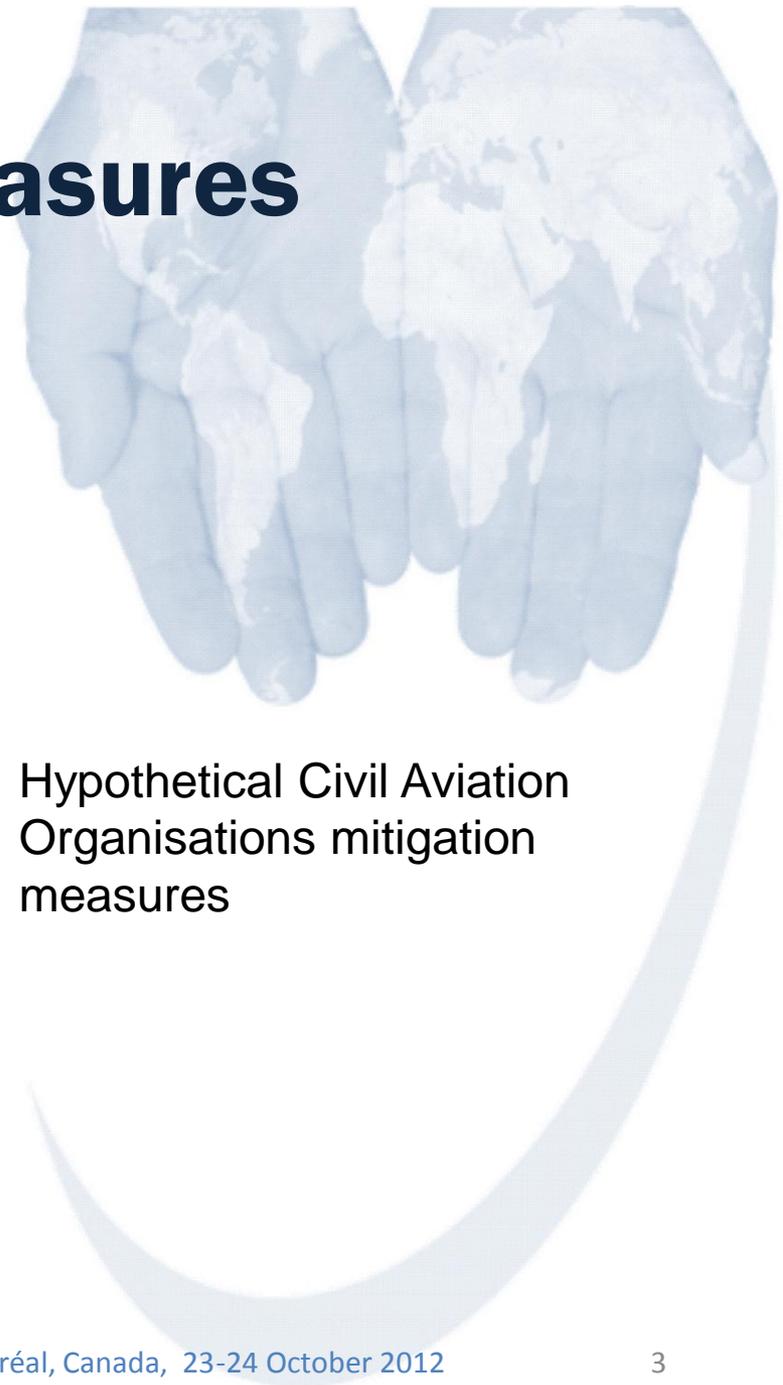
IPCC updated information on aviation  
in 4th Assessment Report (AR4) 2007

The growth rate of CO<sub>2</sub> emissions from aviation is more than the growth rate of total fossil-fuel CO<sub>2</sub> emissions.





# Mitigation measures

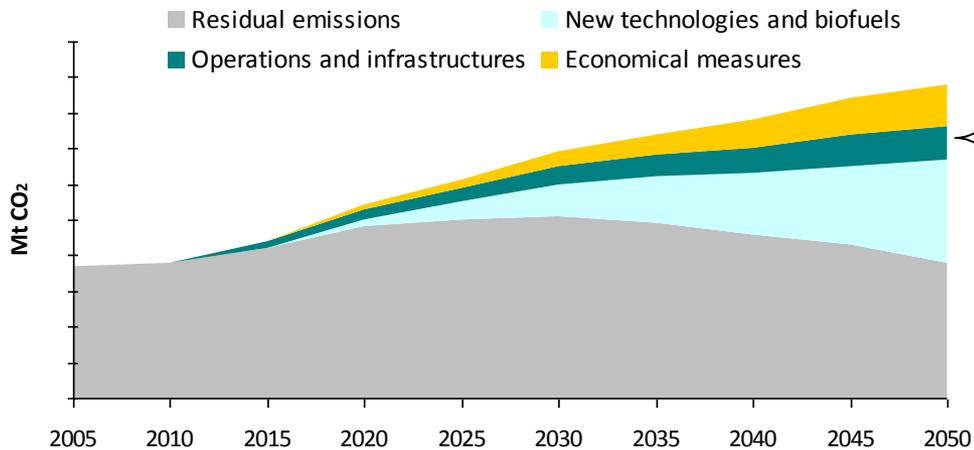


Adapted from ICAO Environmental report 2010 – Aviation contribution to climate change

Hypothetical Civil Aviation Organisations mitigation measures



# Mitigation measures

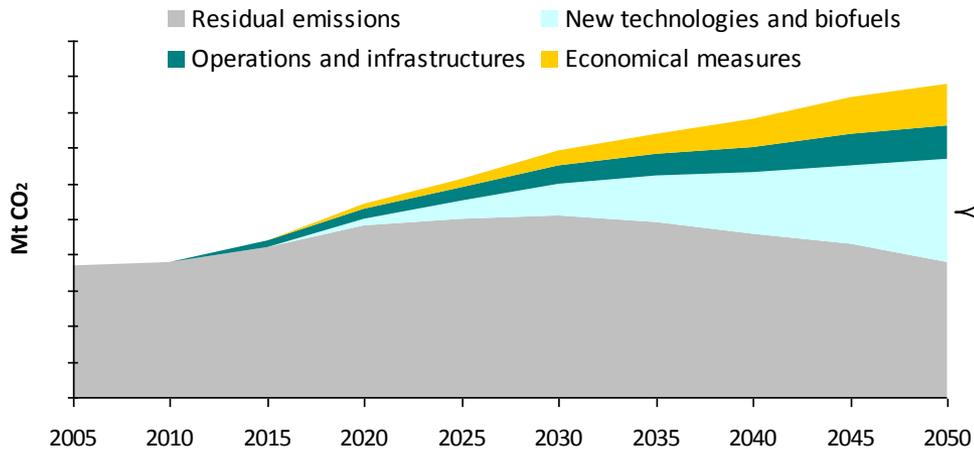


Adapted from ICAO Environmental report 2010 – Aviation contribution to climate change

- Optimize flight operations
- Optimize ground operations
- Reduce aircraft weight (baggages, cargo)
- Increase airport efficiency



# Mitigation measures



*Adapted from ICAO Environmental report 2010 – Aviation contribution to climate change*

- New aircraft technologies;
- New ground vehicles technologies;
- Low energy consumption infrastructures



# TCB / Procurement support

State Member Civil Aviation Organization

## TCB / Procurement of ICAO

- Standards and Recommended Practices knowledge
- Technology expertise and extensive experience
- Turnkey solutions, performance based and implemented through project management
- Economy of scale

- Optimize flight operations
- Optimize ground operations
- Reduce aircraft weight
- Airport efficiency
- New aircraft technologies
- New vehicles technologies
- Low energy consumption infrastructures

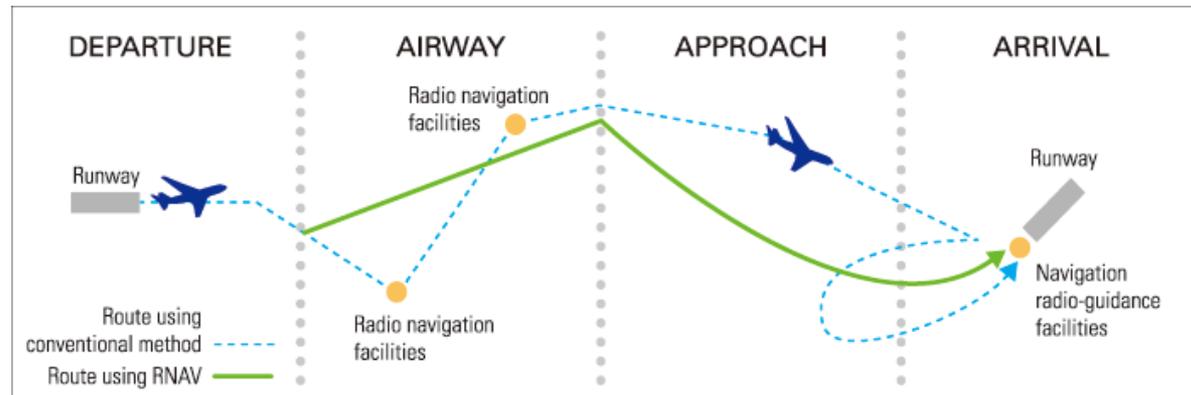
Emissions reduction targets



# Example

- SARP's knowledge
- Technology expertise and extensive experience
- Turnkey solutions, performance based and implemented through project management
- Economy of scale

## Air Traffic Management Systems



Ana.co.jp



# Example

## TCB / Procurement of ICAO

- SARP's knowledge
- Technology expertise and extensive experience
- Turnkey solutions, performance based and implemented through project management
- Economy of scale

## Air Traffic management systems

- Satellite based navigation system;
- Enhanced communication system (data link);
- Enhanced surveillance system;
- CPDLC;
- EFSS;
- ...





# Example

## TCB / Procurement of ICAO

- SARP's knowledge
- Technology expertise and extensive experience
- Turnkey solutions, performance based and implemented through project management
- Economy of scale

## Air Traffic Management Systems

- MSSR and PSR for Addis Ababa International Airport and ADS-B in Ethiopia;
- Multiple MSSRs, ADS-B, enhanced communication and state-of-the-art ATC center in Peru;
- ADS-C capability implemented in Somalia and Argentina;
- AMHS communication system in Macao, Ethiopia, Pakistan, Venezuela;
- 11 MSSR, 11 ATM, 5 ACC upgrade for ASECNA;
- ...





# Example

## TCB / Procurement of ICAO

- SARPs knowledge
- Technology expertise and extensive experience
- Turnkey solutions, performance based and implemented through project management
- Economy of scale

## Airport efficiency and infrastructure



[aviationglossary.com/apron-airport/](http://aviationglossary.com/apron-airport/)

- Power generation
- Heating or cooling plants
- Energy efficient buildings
  
- Minimizing taxiing distances
- Back up to APU utilization (pre-conditioned air, etc.)
- Lighting (LED)
- ...



# Example

## TCB / Procurement of ICAO

- SARPs knowledge
- Technology expertise and extensive experience
- Turnkey solutions, performance based and implemented through project management
- Economy of scale

## Day-to-day operations



- IT equipment - computers and monitors;
- Cleaning products and services;
- Stationery – paper for office use;
- Freight forwarding services;
- ...

See on-line procurement resources:

[www.greeningtheblue.org](http://www.greeningtheblue.org)

[www.ungm.org](http://www.ungm.org)



# The Procurement Process at ICAO

## TCB / Procurement of ICAO

- SARPs knowledge
- Technology expertise and extensive experience
- Turnkey solutions, performance based and implemented through project management
- Economy of scale

- UN principles of best value for money, integrity, accountability, fairness, transparency, effective competition;
- US \$14.8 billion (2010) for the UN, approximately US \$100 millions/year for ICAO;
- ISO 9001:2008 Certified Process;
- Implementation through Project Management Principle



# The Procurement Process at ICAO for Field Projects



## Main Purpose with the Phase

<p>Initiate the procurement project</p> <p>Determine requirements</p> <p>Determine Bidders' list</p>	<p>Conduct the tender, evaluate and select the supplier</p>	<p>Prepare and negotiate the contract</p> <p>Get the signature of the Contract</p>	<p>Get the FAT approval and the equipment ready to ship</p>	<p>Get the SAT approval</p>	<p>Organise the after sale service</p> <p>Close the file</p>
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## Main Activities in the Phase

<ul style="list-style-type: none"> <li>• Develop the technical specifications</li> <li>• Establish budget</li> <li>• Determine the optimum bidders' list</li> </ul>	<ul style="list-style-type: none"> <li>• Prepare the tender and send it to bidders</li> <li>• Organise the possible site survey</li> <li>• Conduct the technical and commercial evaluations of tenders</li> <li>• Summarise the evaluations and select the supplier(s)</li> </ul>	<ul style="list-style-type: none"> <li>• Build the overall planning of the project</li> <li>• Prepare the contract</li> <li>• Circulate the contract (country, LEB, ...)</li> <li>• Negotiate with supplier</li> </ul>	<ul style="list-style-type: none"> <li>• Arrange the down payment</li> <li>• Write regret letters</li> <li>• Review the SDD</li> <li>• Review the FAT procedures</li> <li>• Attend FAT</li> <li>• Check the shipment</li> </ul>	<ul style="list-style-type: none"> <li>• Check the delivery</li> <li>• Facilitate the customs clearances</li> <li>• Review the SAT procedures</li> <li>• Attend SAT on site</li> <li>• Organize progress review meeting if needed</li> </ul>	<ul style="list-style-type: none"> <li>• Finalize the payment</li> <li>• Specify the warranty period</li> <li>• Follow the claims and their resolution during the warranty period</li> <li>• Assess customer satisfaction</li> </ul>
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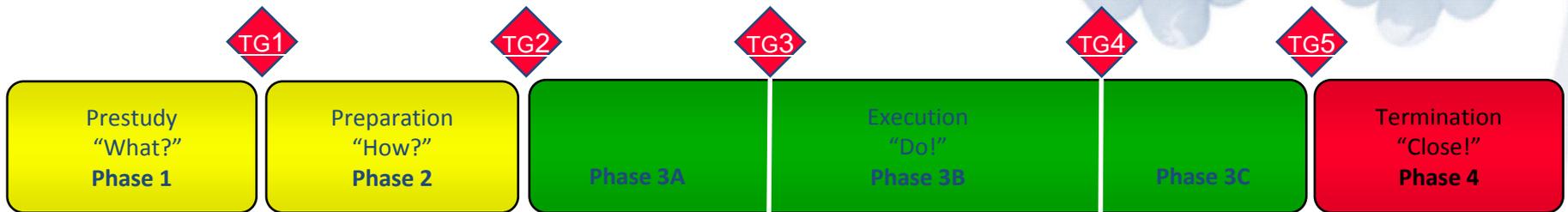


# The Quality Assurance Process

- Efficiency constantly monitored and subject to improvement;

TCB / Procurement of ICAO

- SARPs knowledge
- Technology expertise and extensive experience
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- Economy of scale



**3 to 4 months**

- Member State user satisfaction rating > 85 %



# TCB / Procurement support

State Member Civil Aviation Organization

## TCB / Procurement of ICAO

- The procurement power of the UN with the appropriate leverage for environmental sustainability;
- well proven and efficient procurement process

- Involvement at any stage of the procurement process (establishment of the requirement, tendering process, evaluation and contractual negotiation; project management);
- Can request one or more steps of the process or the whole procurement as turn key;
- Always the ultimate decision maker.

An efficient combination to reduce the emissions



# THANK YOU!



**procurement @icao.int**