ENV02 — Airport Collaborative Environmental Management

Download Progress Report

Implement or identify existing formal working partnership arrangements between ANSP, Airport and Aircraft Operators at individual airports to address and assess the environmental challenges at and around the vicinity of the airport. These challenges can be a significant constraining factor to efficient and sustainable operations.

Topics include but are not limited to:
• minimising noise and atmospheric emissions in particular CO2 and NOx (including fuel burn);
• introduction of new operational changes such as airspace design to include new entrants such as UAM, Hybrid and or hydrogen aircraft, different approach or departure procedures including CDO/CCO and PBN implementation, new airport infrastructure
• Compliance with airport-related legislation and environmental certification requirements
• Management of aircraft and airfield de-icing resulting from combined aircraft operations at the terminal airspace and ground.
• Adaptation to Climate Change (risk to infrastructure, de-icing strategies, water);
• Facilitate implementation and uptake of Sustainable Aviation Fuels;
• Contribute to robust community engagement dialogue and relations with local authorities.

CEM working arrangements will enable a greater understanding and awareness of interdependencies and facilitate jointly agreed solutions for sustainable environmental operational performance improvements that can benefit joint operations as well as local community engagement and relationships with local authorities.

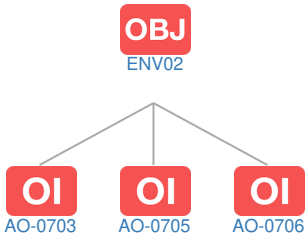
NOTE FOR MILITARY AUTHORITIES: It is the responsibility of each military authority to review this Objective IN ITS ENTIRETY and address each of the SLoAs that the military authority considers RELEVANT for itself. This has to be done on top and above of the review of "MIL" SLoAs which identify actions EXCLUSIVE to military authorities.

NOTE: A CEM Online tool is available at the link below with the purpose of providing a common platform to assist key operational stakeholders at airports in setting up a CEM Working Arrangement and to demonstrate compliance with the CEM Specification's Requirements: https://www.eurocontrol.int/portal/collaborative-environment-management-online

Edition	2022
Stakeholders	Air Navigation Service Provider / Airport Operator / Airspace Users
Type	SESAR
Scope	Local/Airport
Status	Active

Context

Related Elements



Applicability Area(s) and Timescales

Applicability Area:

Timescales	From	By	Applicable to
FOC used for Analytics functioning only - not for implementation planning	31-05-2018	-	Applicability Area
FOC used for Analytics functioning only - not for implementation planning	-	01-01-2030	Applicability Area

Links to ATM Master Plan Level 2

OI Operational Improvment Steps

Code	Title	IOC	FOC	Related Elements
AO-0703	Aircraft Environmental Impact Management and Mitigation at and around Airports	31-12-2008	31-12-2014	EN OBJ
AO-0705	Reduced Water Pollution	31-12-2008	31-12-2012	EN OBJ
AO-0706	(Local) Monitoring of Environmental Performance	31-12-2008	31-12-2012	EN OBJ

SOL Links to SESAR Solutions

Code	Title	Program	Related Elements
No record found			

PCP Links to PCP ATM Sub-Functionalities

Code	Title	Related Elements
No record found		

ICAO Block Modules: No associated data

References

Applicable legislation
Regulation (EU) 2018/1139 of the European Parliament and of the Council of 4 July 2018 on common rules in the field of civil aviation and establishing a European Union Aviation Safety Agency, and amending Regulations (EC) No 2111/2005, (EC) No 1008/2008, (EU) No 996/2010, (EU) No 376/2014 and Directives 2014/30/EU and 2014/53/EU of the European Parliament and of the Council, and repealing Regulations (EC) No 552/2004 and (EC) No 216/2008 of the European Parliament and of the Council and Council Regulation (EEC) No 3922/91: Annex VIII, paragraph 3.2'the EATMN, its systems and their constituents shall support, on a coordinated basis, new agreed and validated concepts of operation that improve the quality, sustainability and effectiveness of air navigation services' Regulation (EU) 598/2014 of the European Parliament and of the Council of 16 April 2014 on the establishment of rules and procedures with regard to the introduction of noise-related operating restrictions at Union airports within a Balanced Approach and repealing Directive 2002/30/EC. EC Directive 2002/49/EC, dated 25.06.2002 relating to the assessment and management of environmental noise. EC Directive 2008/50/EC, dated 21.05.2008 on ambient air quality and cleaner air for Europe. Regulation (EC) No 1221/2009 of the European Parliament and of the Council of 25 November 2009 on the voluntary participation by organisations in a Community eco-management and audit scheme (EMAS). Annexes I, II and III amended by Commission Regulation (EU) 2017/1505 of 28 August 2017 amending Annexes I, II and III to Regulation (EC) No 1221/2009 of the European Parliament and of the Council on the voluntary participation by organisations in a Community eco-management and audit scheme (EMAS) Annex IV amended by Commission Regulation (EU) 2018/2026 of 19 December 2018 amending Annex IV to Regulation (EC) No 1221/2009 of the European Parliament and of the Council on the voluntary participation by organisations in a Community eco-management and audit scheme (EMAS) Directive 2001/81/EC of the European Parliament and of the Council of 23 October 2001 on national emission ceilings for certain atmospheric pollutants Directive 2002/49/EC of the European Parliament and of the Council of 25 June 2002 relating to the assessment and management of environmental noise. Directive 2008/50/EC of the European Parliament and of the Council of 21 May 2008 on ambient air quality and cleaner air for Europe.
Applicable ICAO Annexes and other references
ICAO Annex 16 "International standards and recommended practices, Environmental protection", Volume I , "Aircraft Noise" and Volume II "Aircraft engine emissions"
Deployment Programme 2022
-
Operating Environments
Airport

Expected Performance Benefits

Safety	-
Capacity	Airports may see a gain in capacity if noise restrictions are lowered
Operational efficiency	Reduction of noise, fuel burn and CO2. Contributing to cost and Noise/CO2 savings for airlines and airports. Airports may see a gain in capacity if noise restrictions are lowered.
Cost efficiency	-
Environment	Reduction of fuel use, noise, emissions and de-icing water pollution resulting from a structured collaborative approach that jointly identifies effective sustainable operational solutions for implementation and monitoring.
Security	-

Stakeholder Lines of Action

Code	Title	From	By	Related Enablers
ASP01	Initiate and participate actively in formal collaborative working arrangements with the Airport and Aircraft Operators. Deliverable to identify and prioritise joint actions to minimise environmental impacts of air traffic procedures in and around the airport			EN
ASP02	Train and raise awareness of controllers on the environmental impacts of aircraft operations and ways to improve performance			
APO01	Initiate and participate actively in formal CEM working partnership arrangements with the ANSP and Aircraft Operators to minimise the environmental impact of air traffic procedures in and around the airport			EN
APO02	Ensure appropriate and relevant performance data availability at Airports			EN
APO03	Ensure appropriate Airport policy and procedures and, if required, relevant infrastructures needed to manage and mitigate pollution due to de-icing activities			EN
APO04	Train and raise awareness of controllers on the environmental impacts of aircraft operations and ways to improve performance			
USE01	Initiate and participate actively in formal working partnership arrangements with the ANSP and Airport to manage and minimise environmental impacts of air traffic procedures in and around the airport			EN
AGY01	Provide assistance and guidelines to assist airports in setting up formal partnership arrangements between ATSP, Airport and Aircraft Operators for achieving control of environmental impact mitigation	FINALISED		

Supporting Material

Title	Related SLoAs
EUROCONTROL - CDO refresher course for ATCs https://trainingzone.eurocontrol.int/ilp/pages/coursedescription.jsf?courseId=8117329&catalogId=232380	ASP02
EUROCONTROL - CEM Online https://www.eurocontrol.int/portal/collaborative-environment-management-online	APO01, APO02, APO03, APO04, ASP01, ASP02, USE01
EUROCONTROL - Collaborative Environmental Management (CEM) animation https://youtu.be/nUIMYw28mrQ	APO01, APO02, APO03, APO04, ASP01, USE01
EUROCONTROL - Environmental Awareness Training Package https://trainingzone.eurocontrol.int/ilp/pages/coursedescription.jsf?courseId=6220451&catalogId=896425	APO01, APO02, APO04, ASP01, USE01
EUROCONTROL - European CCO / CDO Task Force web pages https://www.eurocontrol.int/concept/continuous-climb-and-descent-operations	ASP02
EUROCONTROL - European CCO/CDO Action Plan https://www.eurocontrol.int/publication/european-continuous-climb-and-descent-operations-action-plan	ASP02, USE01
EUROCONTROL - SPEC-156 - EUROCONTROL Specification for Collaborative Environmental Management (CEM) - Edition 1.1 / 08/2018 https://www.eurocontrol.int/publication/eurocontrol-specification-collaborative-environmental-management-cem	APO01, APO02, APO03, APO04, ASP01, ASP02, USE01
ICAO - Doc 9184-Part 2 - Airport Planning Manual - Part 2 - Land Use and Environmental Control - Edition 4 / 01/2018 https://store.icao.int/en/shop-by-areas/capacity-and-efficiency/aerodromes	APO01, APO02, APO03, APO04, ASP01, ASP02, USE01
ICAO - Doc 9613 - Performance-based Navigation (PBN) Manual - Edition 4 / 03/2013 https://store.icao.int/en/performance-based-navigation-pbn-manual-doc-9613	ASP02
ICAO - Doc 9646 - Engine Exhaust Emissions Databank - First Edition / 12/1995 http://www.icao.int/publications/Pages/catalogue.aspx	APO01, APO02, APO03, APO04, ASP01, ASP02, USE01
ICAO - Doc 9829 - Guidance on the Balanced Approach to Aircraft Noise Management - Edition 2 / 10/2010 https://www.icao.int/environmental-protection/Pages/noise.aspx#NoiseAbatement	APO01, APO02, APO03, APO04, ASP01, ASP02, USE01
ICAO - Doc 9889 - Airport Air Quality Manual - Edition 1 / 01/2012 https://www.icao.int/publications/Documents/9889_cons_en.pdf	APO01, APO02, APO03, APO04, ASP01, ASP02, USE01
ICAO - Doc 9958 - Assembly Resolution A37-18: Consolidated statement of continuing ICAO policies and practices related to environmental protection - General provisions, noise and local air quality 10/2010 https://store.icao.int/	APO01, APO02, APO03, APO04, ASP01, ASP02, USE01
ICAO - Doc 9993 - Continuous Climb Operations (CCO) Manual - Edition 1 / 11/2013 https://cfapp.icao.int/tools/ATMiKIT/story_content/external_files/10260008117raft_en_CCO.pdf	ASP02

Consultation & Approval

Working Arrangement in charge	Airport Operations Team (AOT)
Outline description approved in	-
Latest objective review at expert level	05/2016
Commitment Decision Body	Provisional Council (PC)
Objective approved/endorsed in	07/2003
Latest change to objective approved/endorsed in	07/2013