

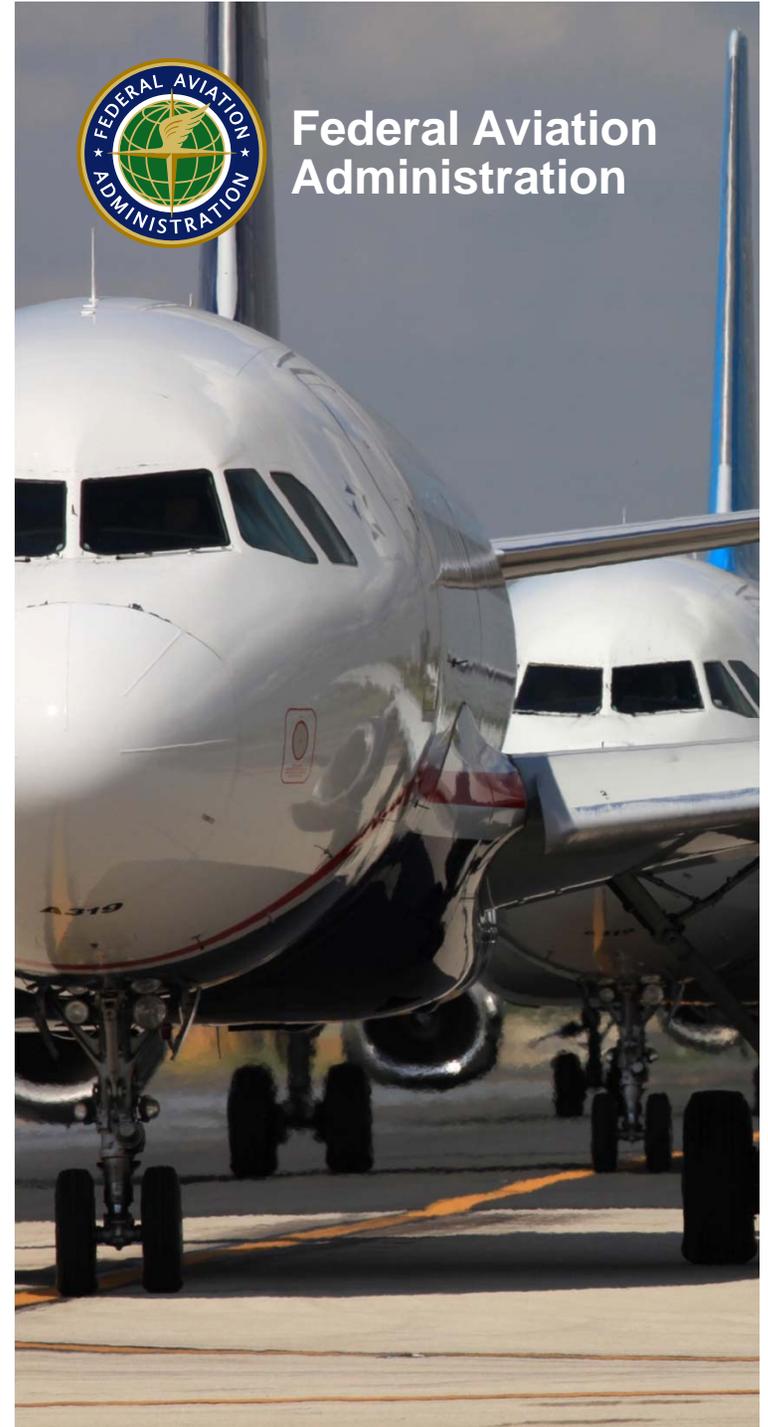
Continuous Lower Energy, Emissions and Noise (CLEEN) II

Overview

Presented to: CLEEN Consortium

By: Arthur Orton

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Outline

- **Environmental Rationale**
- **Criteria for CLEEN II**
- **High Level Requirements**
- **CLEEN II Timeline**



Aviation Environmental Goals and Solutions

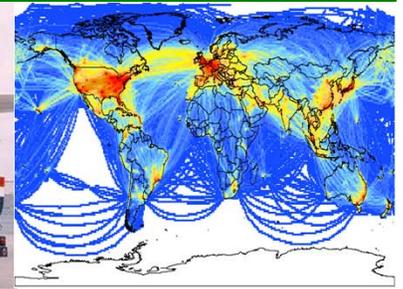
NOISE

AIR QUALITY

WATER QUALITY

ENERGY

GLOBAL CLIMATE



NextGen environmental goals

- Absolute reduction of significant community noise and air quality emissions impacts
- Reduce significant aviation impacts associated with water quality
- Improve NAS energy efficiency and, supply of and access to, alternative fuel sources
- Achieve carbon neutral growth by 2020 compared to 2005 baseline

5-Pillar approach to develop solutions

P1 Improve science and modeling

P2 Accelerate maturation of new aircraft technologies

P3 Advance use of renewable fuels

P4 Accelerate Operational Improvements and Efficiencies

P5 Use Environmental Management System approach for new Policies, Standards and Market Based Measures



Federal Aviation
Administration

Criteria for CLEEN II



High Level Requirements

- **Industry contributes at least 50% industry cost share**
 - Accelerates technology industry thinks is ready for transition
 - Leverages previous gov't & industry R&D investment
- **Technologies can be demonstrated at TRL 6-7 by 2019**
- **Industry must show path to commercial product**
 - Technology is certifiable
 - Proposed entry into service 2020-2023



CLEEN II Timeline

May 2013	Issue request for information (RFI) for new technologies
Jul-Sep 2013	Draft CLEEN II request for proposals (RFP)
Oct 2013	Issue draft RFP for public comment
Nov 2013	Hold Industry Day with CLEEN Consortium
May 2014	Issue solicitation (SIR) for CLEEN II
Aug 2014	Source selection
May 2015	Award CLEEN II agreements

