OTAQ Aviation Activities

Mobile Sources Technical Review Subcommittee
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Overview

- Aviation sector background
  - Local air quality: NOx, PM & lead in general aviation fuel
  - GHGs: inventory and projected growth
- OTAQ Activities
  - Recent activity on local air quality
  - GHG initiatives
  - Significant challenges lie ahead
  - Upcoming Actions
- Q&A

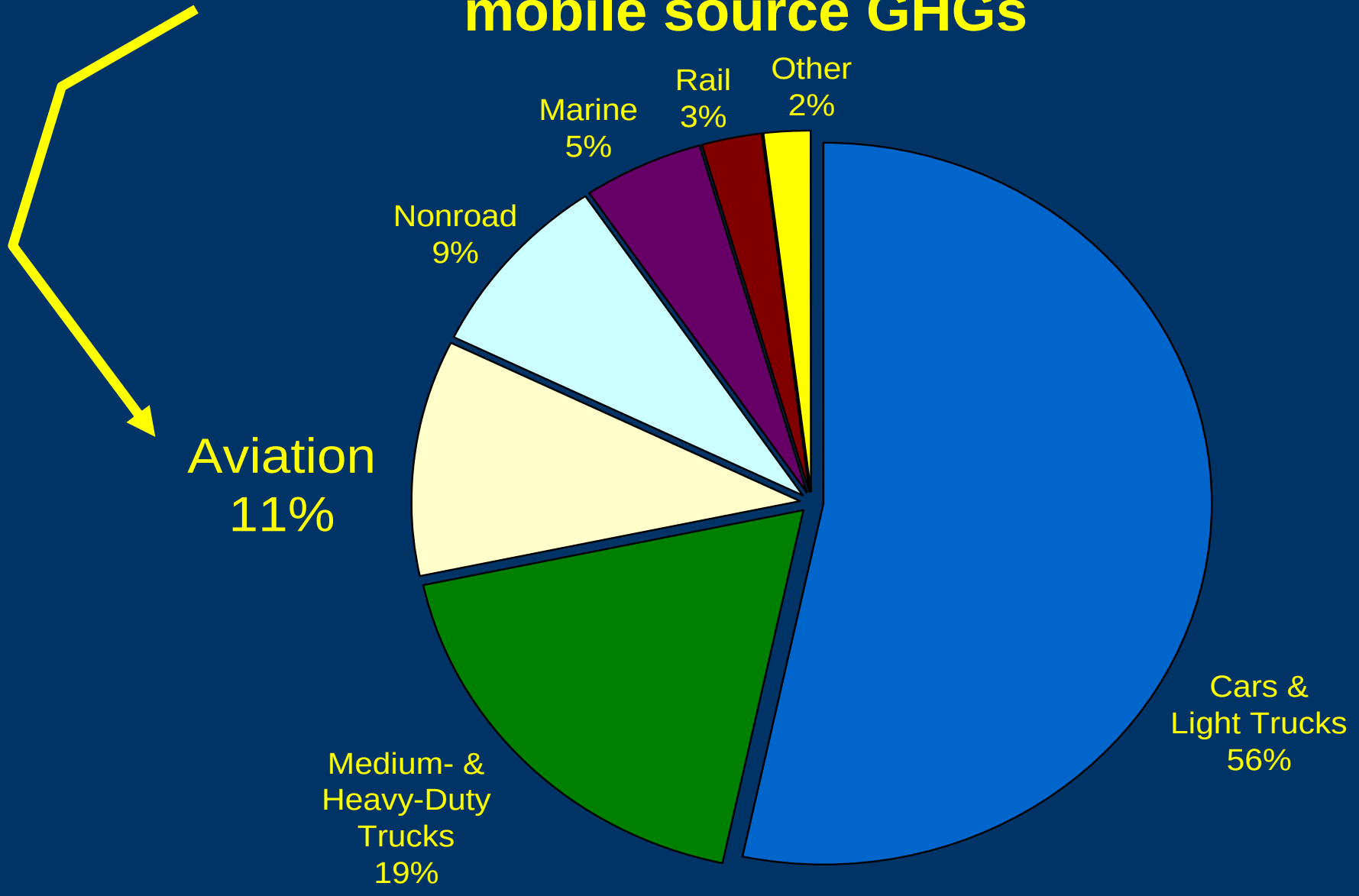
Local air quality

- NOx, PM, and lead in general aviation fuel
  - These are of special concern near airports
  - A particular issue for certain non-attainment areas
  - Without further action, these emissions will track growth in fuel use
    - See Fuel Burn Growth bullet in next slide

Aviation GHG Inventory

- Inventory
  - Aviation is 3% of U.S. GHG from all U.S. sectors
  - U.S. domestic operations account for 24% of global aviation GHGs
  - U.S. is top country in aviation fuel burn
  - U.S. flagged carriers account for 40% of global operations
- Fuel burn growth: business-as-usual scenario
  - U.S. = 2.1% per year; doubling in 34 years
  - Global = 3.2% per year; doubling in 22 years

Aviation sector contributes ~11% of U.S. mobile source GHGs



Source: Inventory of U.S. Greenhouse Gases and Sinks: 1990- 2007

Engaging with FAA and Other Stakeholders

- Leveraging Expertise
  - We've established working relationships with FAA at a number of levels
  - We are fully engaged in the interagency process (IGIA) to develop the U.S. positions at ICAO
  - We are coordinating resources for assessing aviation local air quality and GHG
- Results
  - Excellent outcomes and decisions for future work from ICAO's February 2010 CAEP/8 meeting, next slides
  - Recently published endangerment ANPR on lead in general aviation fuel
  - Stakeholders recognize EPA's initiative in aviation and are engaging with us
  - Recent high-level stakeholder meetings have resulted in constructive dialogues with OTAQ

Achievements at CAEP/8

- Local Air Quality Achievements
  - NO_x reductions
    - Finalized the NO_x "production cutoff"
      - Cutoff requires that new in-production engines meet the current NOx standard
      - This was a U.S. led effort (FAA and EPA)
    - Finalized a new NO_x standard stringency (a 15% reduction) for the end of 2013
      - After significant debate this U.S. position prevailed
  - PM mass reductions
    - Agreed to develop nonvolatile PM mass certification requirement by 2013
      - This is an important step toward a first-ever aircraft PM standard
  - More work is needed
    - CAEP/8 production cutoff
    - PM mass standard

Achievements at CAEP/8

- Aviation GHG **The Big Challenge**
  - ICAO has agreed to develop CO_2 standards for new aircraft
    - This will be a complex process due to technology challenges and developing country issues
  - ICAO has agreed to pursue the U.S.'s aggressive 3-year timetable
  - EPA is co-leading ICAO's CO_2 standard task group
    - U.S. EPA has stepped up to be part of an international solution
    - Task Group kick-off meeting occurred in early March, unprecedented participation
    - Stakeholders and government agencies have been very active
  - OTAQ is working to build on our aviation team and specialized expertise
  - Other stakeholders are bringing significant resources to the table as well

OTAQ Actions for 2010

- NPRM to adopt NO_x production cutoff and the current and future NO_x standards
- Facilitate progress toward PM emissions certification requirement
  - Develop PM test procedures by testing aircraft; in cooperation with USAF and FAA
- Lead ICAO's CO_2 Standard Task Group
  - An aggressive 3-year schedule lies ahead
- Continue our coordination and team building with FAA and State Department
  - Work toward global aviation agreement at ICAO Assembly
- Work collaboratively with stakeholders
  - More outreach is scheduled
  - We would like to encourage additional stakeholder participation

Questions?