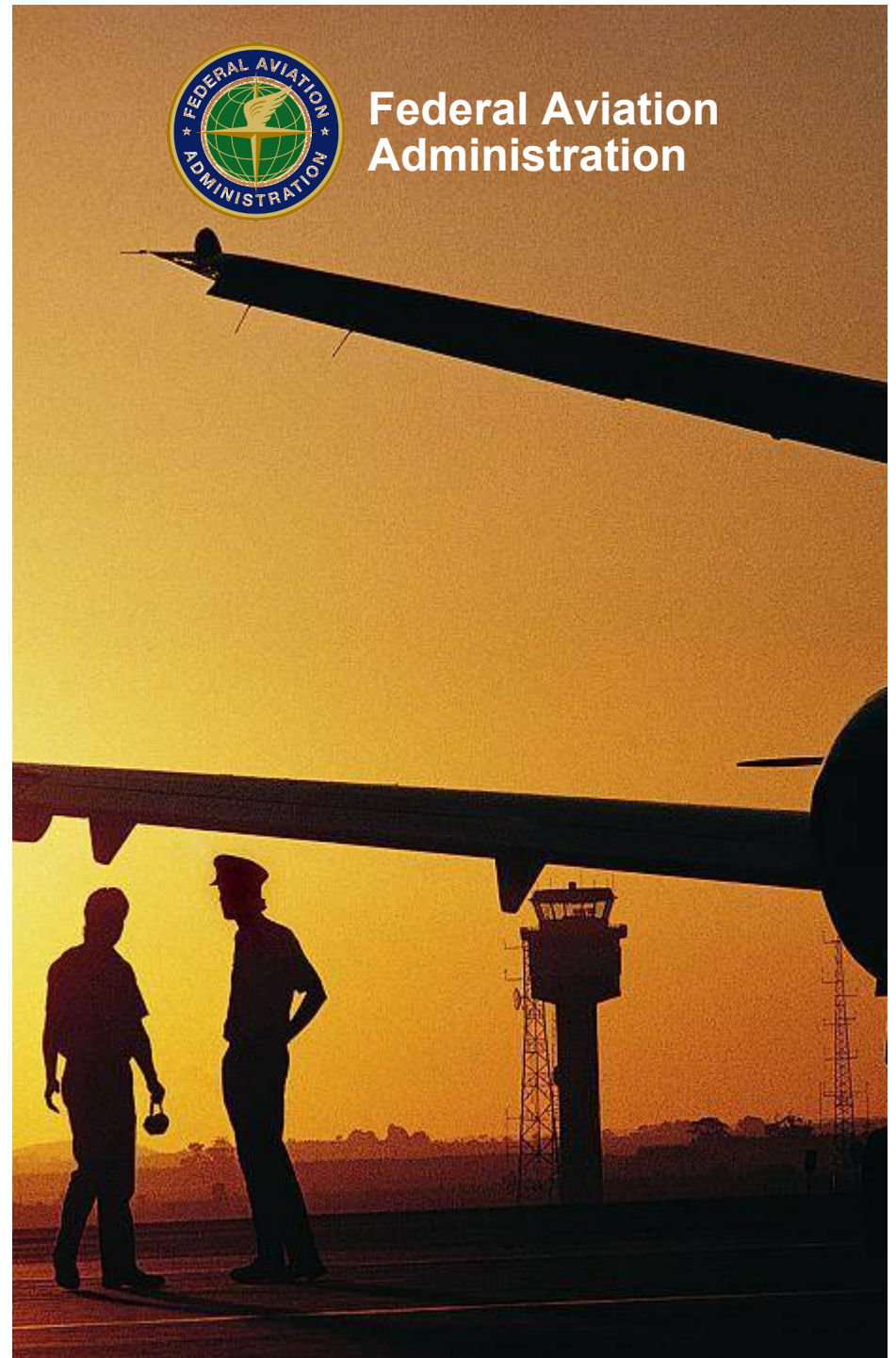


# Cost Allocation for Reauthorization: Air Traffic Organization FY05

**February 2007**



# Overview of Presentation

- Why FAA did an ATO cost allocation study
- Cost allocation methodology
- FY05 Cost allocation results



# Why do an ATO cost allocation study?

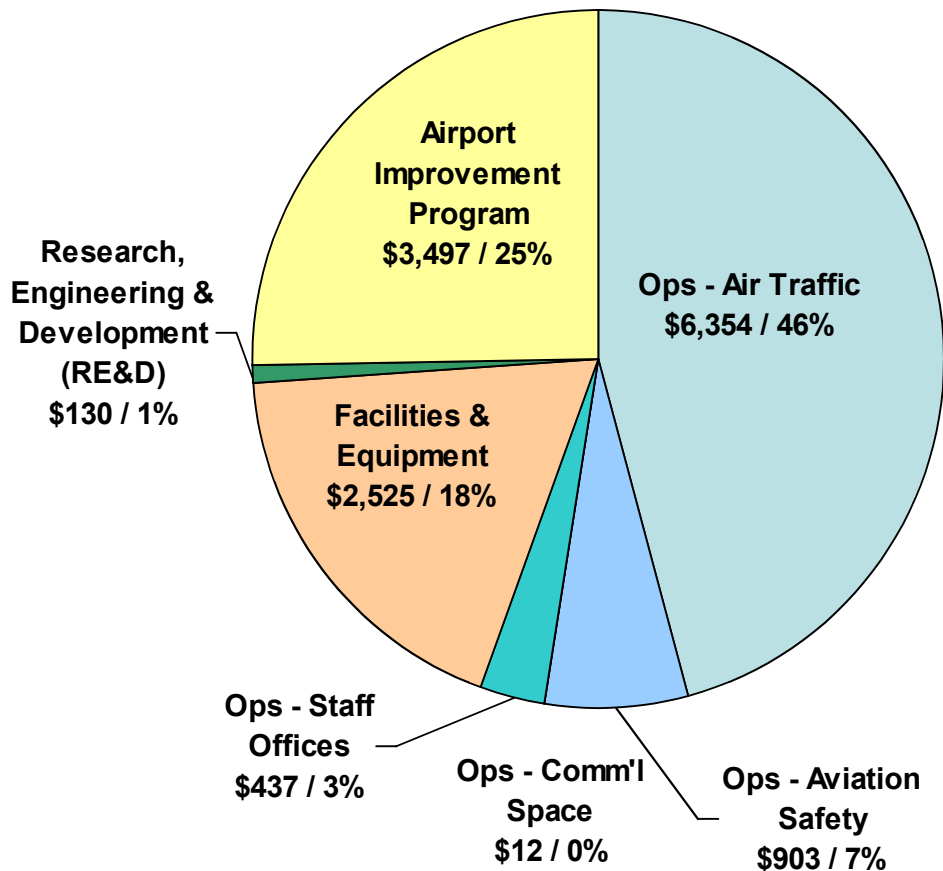
- Cost allocation for the ATO provides a comprehensive understanding of:
  - What and who drives ATO costs.
  - Cost accounting and activity data allow a detailed analysis.
- FAA's Cost Assignment Methodology for Estimating Resource Allocation (CAMERA) has these key objectives:
  - Simplicity
  - Transparency
  - Compliance with federal and international standards and practices
  - Full assignment of all costs to be recovered
  - Repeatability
- Cost allocation provides information for cost recovery decisions.
- Methodology was developed by PriceWaterhouseCoopers, LLC and executed by GRA, Inc., both under contract to the FAA.



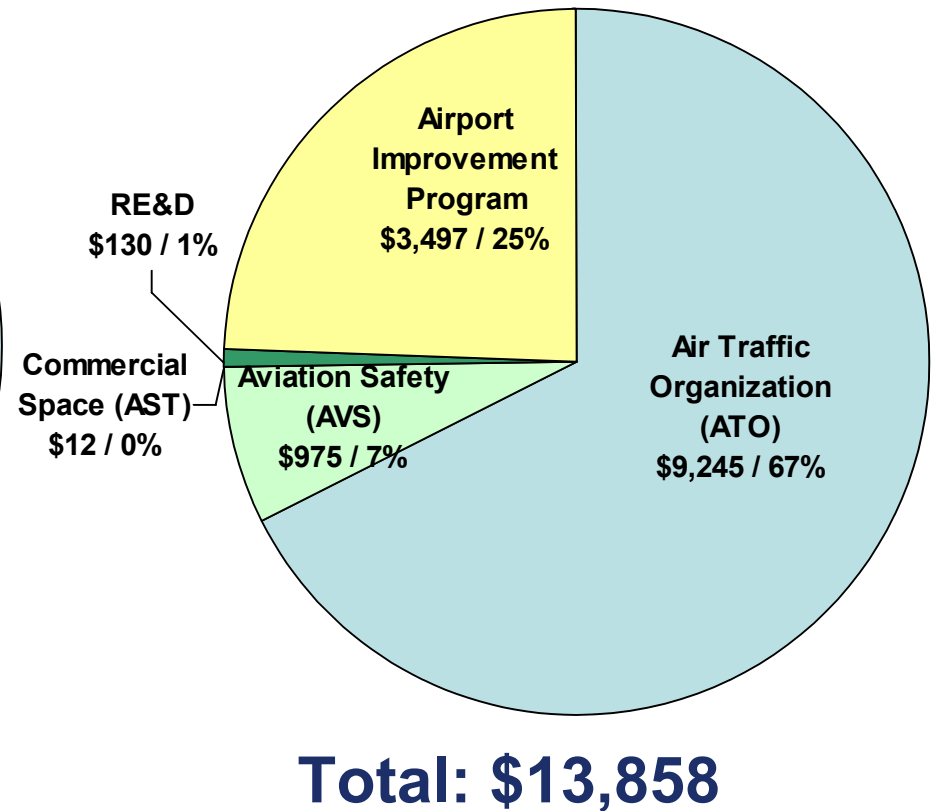
# Overview of FY 2005 FAA Budget

(\$ millions)

## FY2005 Funding by Account



## FY2005 Funding by Line of Business



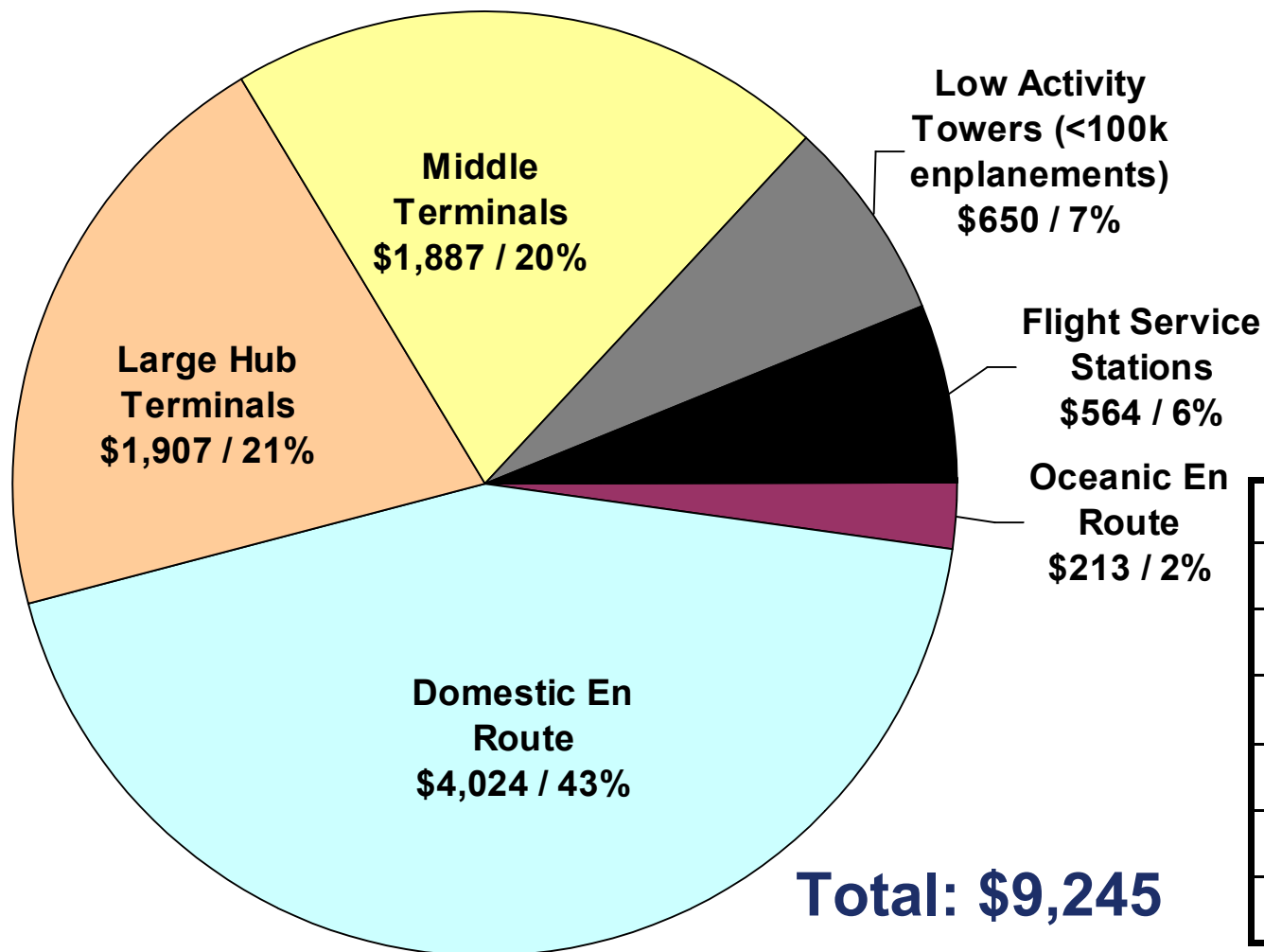
# Overview of Approach

- Do different air traffic services have different costs?
  - YES: Domestic and oceanic en-route centers, different size terminals, and flight service stations all have different cost bases and types of use. Cost accounting and activity data were divided into six pools for these services.
- Do different types of aircraft or aircraft operations affect air traffic costs differently?
  - YES: primary difference is between high performance/turbine and piston engine aircraft types, which fly at different altitudes and speeds.
  - All helicopters are included in the piston group due to their performance similarities to piston users.
- Do costs vary according to activity volume?
  - SOMETIMES: Cost accounting projects were examined and categorized into 3 tiers according to their variability with activity. Different activity measures were used for different services: mileage for en route services and operations for terminal services.



# ATO FY 2005 Service Category Breakdown

(\$ millions)



Category	Facilities
Oceanic	5
Dom. En Route	21
Large Hub	30*
Middle Terminals	175*
Low Activity Towers	286*
Flight Service	61

\* Plus associated approach control

Reflects FY05 CAS adjusted for F&E budget; excludes RE&D



# Three Tiers of Costs

CAMERA assigns all costs into one of three tiers:

- **Tier 1** costs are those that can be directly assigned to one user group that accounts for virtually all of the cost for the item in question.
- **Tier 2** costs have fixed and variable components. The variable portion is allocated between high performance and piston user groups based on percentage use, while the fixed component is assigned entirely to the principal user (in most cases, high performance users).
- **Tier 3** costs cannot be assigned to a principal user or apportioned among users based on activity. These are allocated between the user groups based on the dollars assigned in Tiers 1 and 2.



# Examples of Tier Assignments

## Domestic Enroute

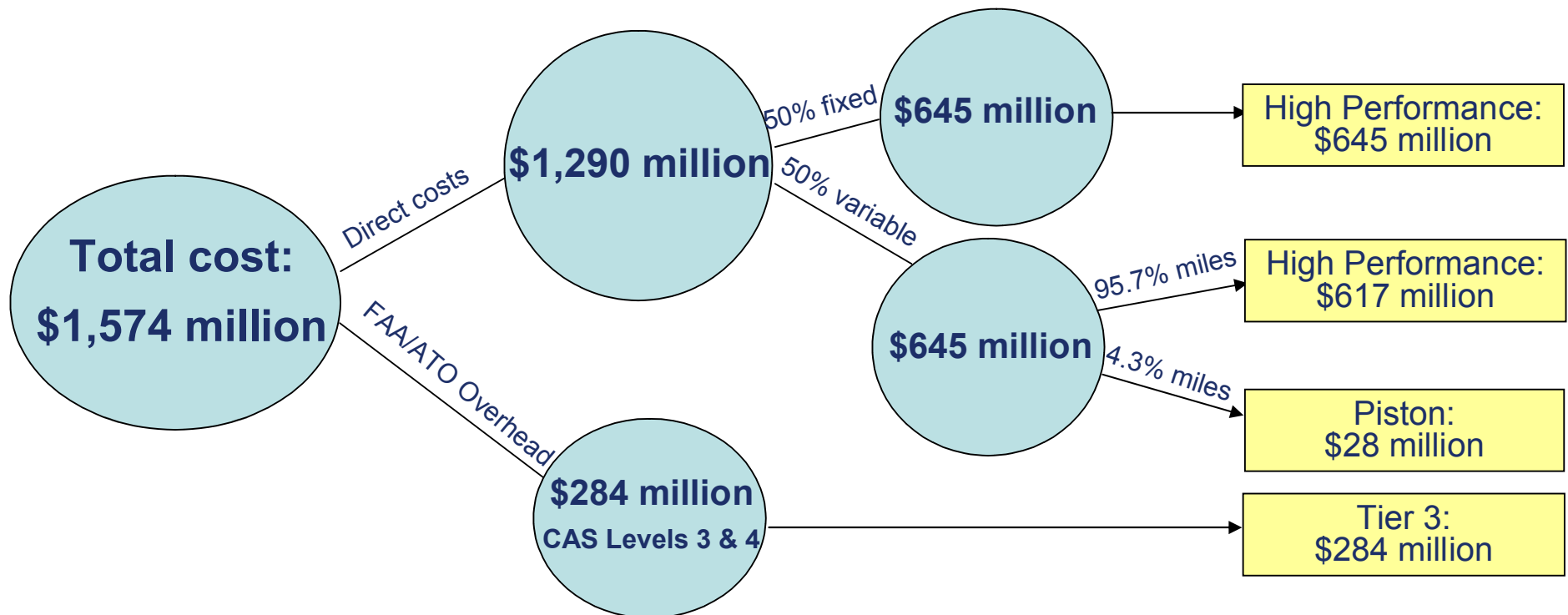
- **Tier 1 projects:**
  - Radar Data Display, Host Computer
- **Tier 2 projects:**
  - Air Traffic Labor, Air / Ground Communications
- **Tier 3 projects:**
  - Logistics support services, Child Care Facility
  - Tier 3 costs also include all Level 3 (ATO Overhead) and Level 4 (FAA Overhead) Cost Accounting System costs from Tier 1 and Tier 2 projects





# Tier 2 Example

- Domestic en route air traffic labor
  - High performance users are primary beneficiary and cost driver, but piston users impose an incremental cost when they fly in the en route system.
  - Variable component of 50% is split based on each user group's share of domestic en route miles (96% to high performance and 4% to piston).
  - Fixed component of 50% is entirely assigned to high performance users.



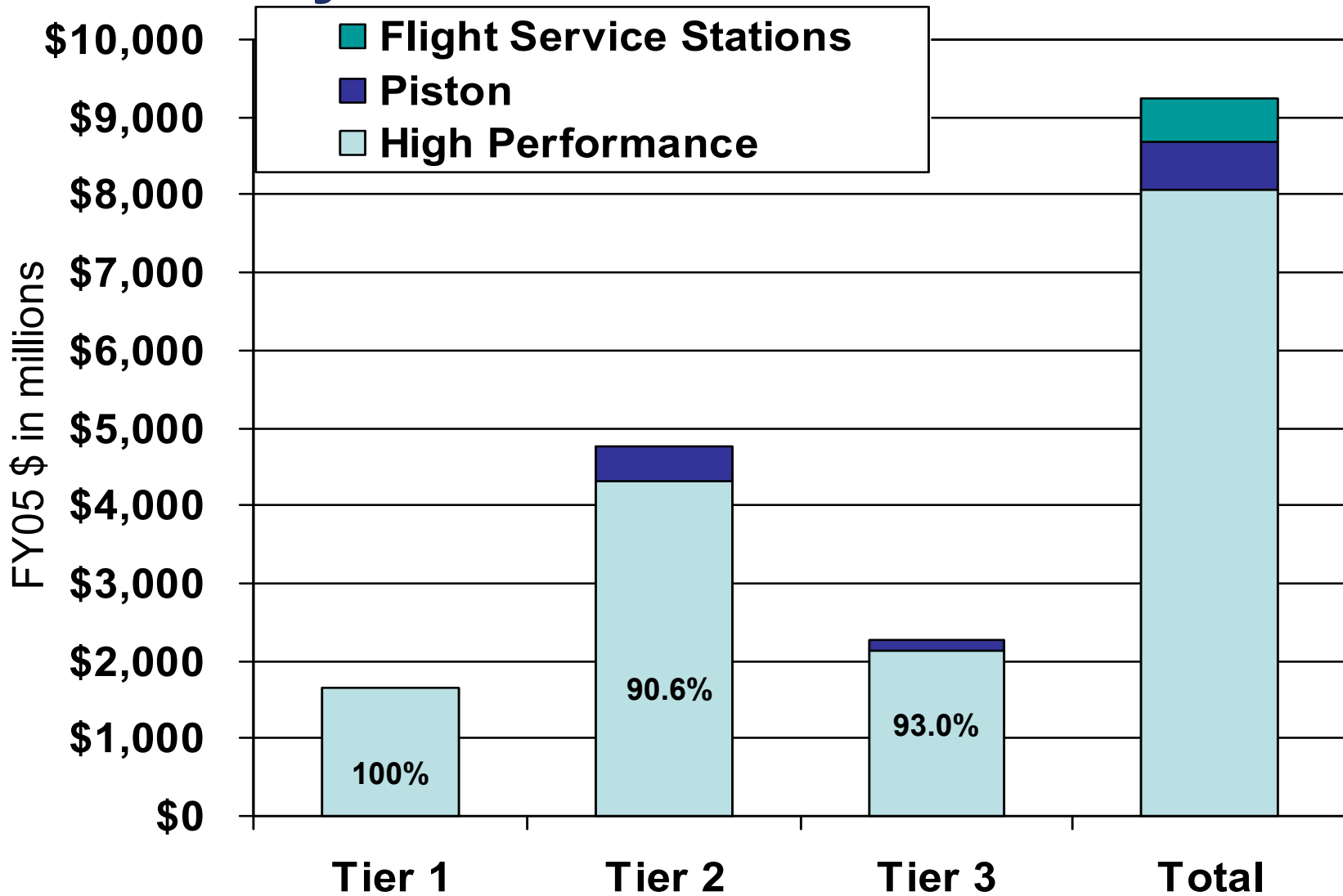
# Summary of FY05 Tiers

<i>FY05 \$ in millions</i>	Tier 1		Tier 2		Tier 3		Total		
	<u>HP</u>	<u>Piston</u>	<u>HP</u>	<u>Piston</u>	<u>HP</u>	<u>Piston</u>	<u>HP</u>	<u>Piston</u>	<u>Grand Total</u>
<b>Oceanic En Route</b>	\$68	\$0	\$89	\$0	\$56	\$0	\$213	\$0	\$213
<b>Domestic En Route</b>	\$519	\$0	\$2,411	\$38	\$1,043	\$14	\$3,972	\$52	\$4,024
<b>Large Hub Terminals</b>	\$474	\$0	\$910	\$22	\$493	\$8	\$1,876	\$30	\$1,907
<b>Middle Terminals</b>	\$425	\$0	\$801	\$165	\$437	\$59	\$1,663	\$224	\$1,887
<b>Low Activity Towers</b>	\$159	\$0	\$100	\$221	\$92	\$79	\$350	\$300	\$650
<b>Flight Service Stations (FSS)</b>	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$564
<b>Total</b>	<b>\$1,644</b>	<b>\$0</b>	<b>\$4,310</b>	<b>\$447</b>	<b>\$2,120</b>	<b>\$159</b>	<b>\$8,074</b>	<b>\$607</b>	<b>\$9,245</b>
<b>Total excluding FSS</b>	<b>\$1,644</b>	<b>\$0</b>	<b>\$4,310</b>	<b>\$447</b>	<b>\$2,120</b>	<b>\$159</b>	<b>\$8,074</b>	<b>\$607</b>	<b>\$8,681</b>

HP = High Performance  
Piston = Piston/Helicopter



# Summary of Initial FY05 CAMERA Results



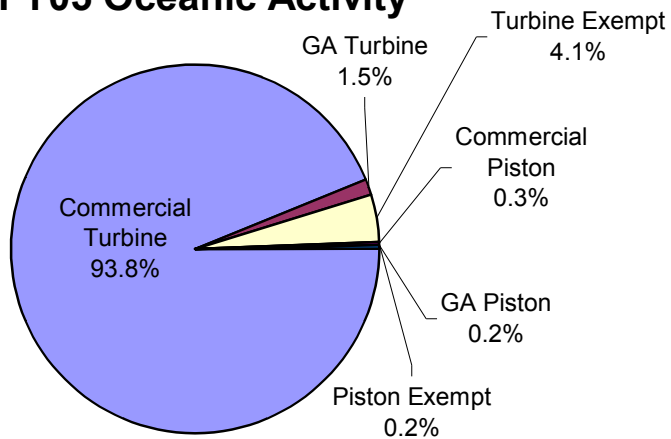
# Further User Group Allocations

- The initial allocation divides costs between piston and high performance users based on different aircraft operating characteristics.
- Within each broad group, costs can be further allocated to more specific user groups based solely on average cost per activity. This subdivision facilitates the use of different recovery mechanisms for different groups.
- Three specific user groups:
  - Commercial/fractional operations
  - General aviation (non-fractional) operations
  - Military / public / air ambulance users  
(called “Exempt” because they are exempt from existing taxes)

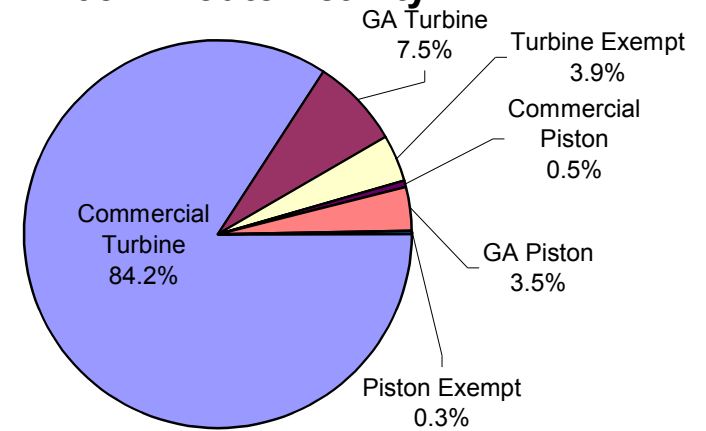


# FY05 Activity (Great Circle Miles)

## FY05 Oceanic Activity

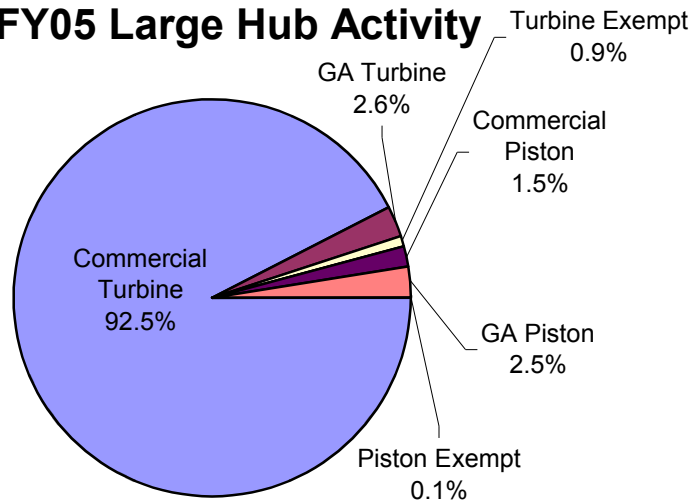


## FY05 Enroute Activity

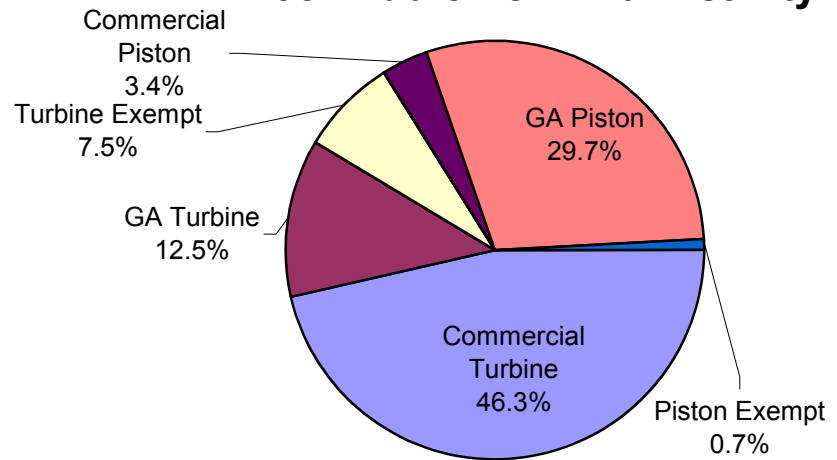


# FY05 Activity (Flights)

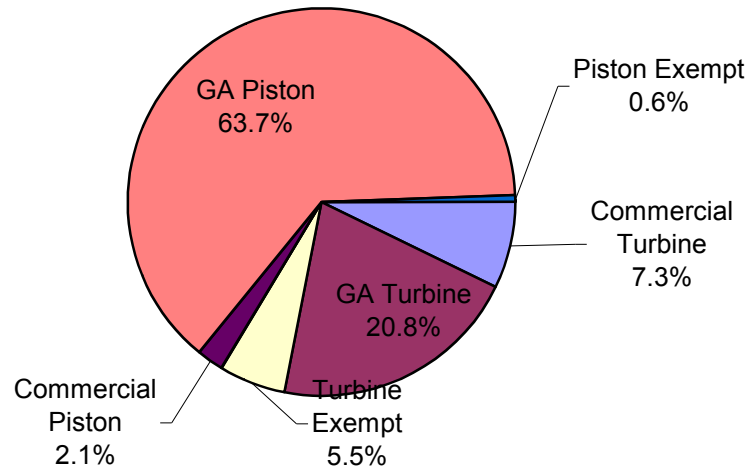
**FY05 Large Hub Activity**



**FY05 Middle Terminal Activity**



**FY05 Low Activity Tower Activity**



# Summary of Methodology

- Determine appropriate “fully-loaded” cost for ATO
  - Includes capital and share of staff offices
- Group costs by ATO service category (6 groups)
  - Two En Route Groups (Oceanic and Domestic)
  - Three Terminal Groups (large, medium and low activity)
  - Flight Service Stations (not allocated to users)
- Allocate each en route and terminal cost accounting project between two principal user groups
  - High performance (turbine) and piston/helicopter
  - Fixed costs allocated entirely to primary user
  - Variable costs split based on activity at relevant service delivery points
  - Overhead and other costs without clear primary user allocated based on shares of fixed and variable costs
- Secondary split within each principal user group
  - Commercial, general aviation, and public/exempt
  - Split solely based on activity shares in each service category



# FY05 Cost Allocation Results

**Total FY05 \$9,245**

**High Performance (HP) Total  
\$8,074 (87%)**

**HP GA  
9.7%**

**HP Exempt  
4.7%**

**Flight Svc  
6.1%**

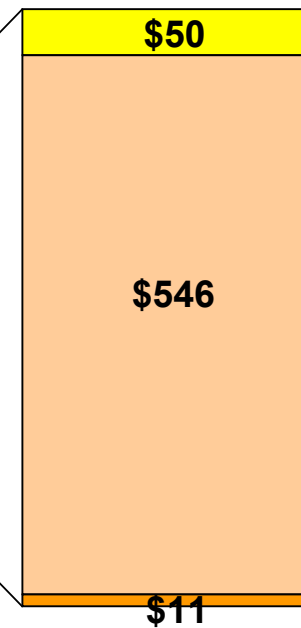
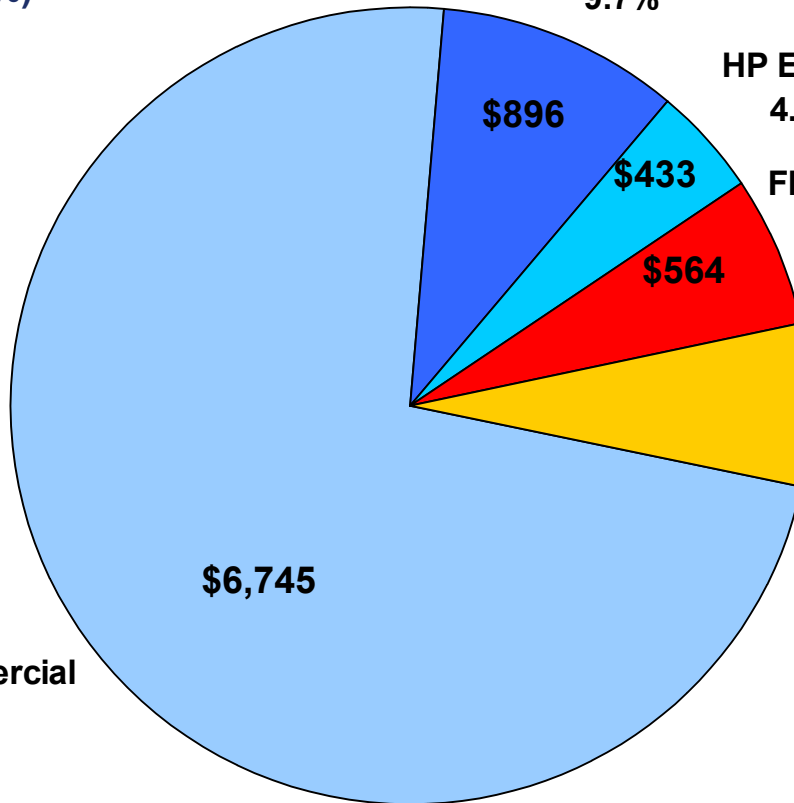
**Piston  
6.6%**

**Piston Commercial  
0.5%**

**Piston GA  
5.9%**

**Piston Exempt  
0.1%**

**HP Commercial  
73.0%**



**Piston Total \$607**

*FY05 \$ in millions*

