

PMA's – Real Solution or Real Pain?

George Kelley – US Airways Propulsion Engineering

Gorham PMA-DER Meeting

March 24 – 27, 2009



Outline

- Operator Positions
- OEM/TCH Positions
- The Winner Is?

Operators – Why Do They Want PMA Parts

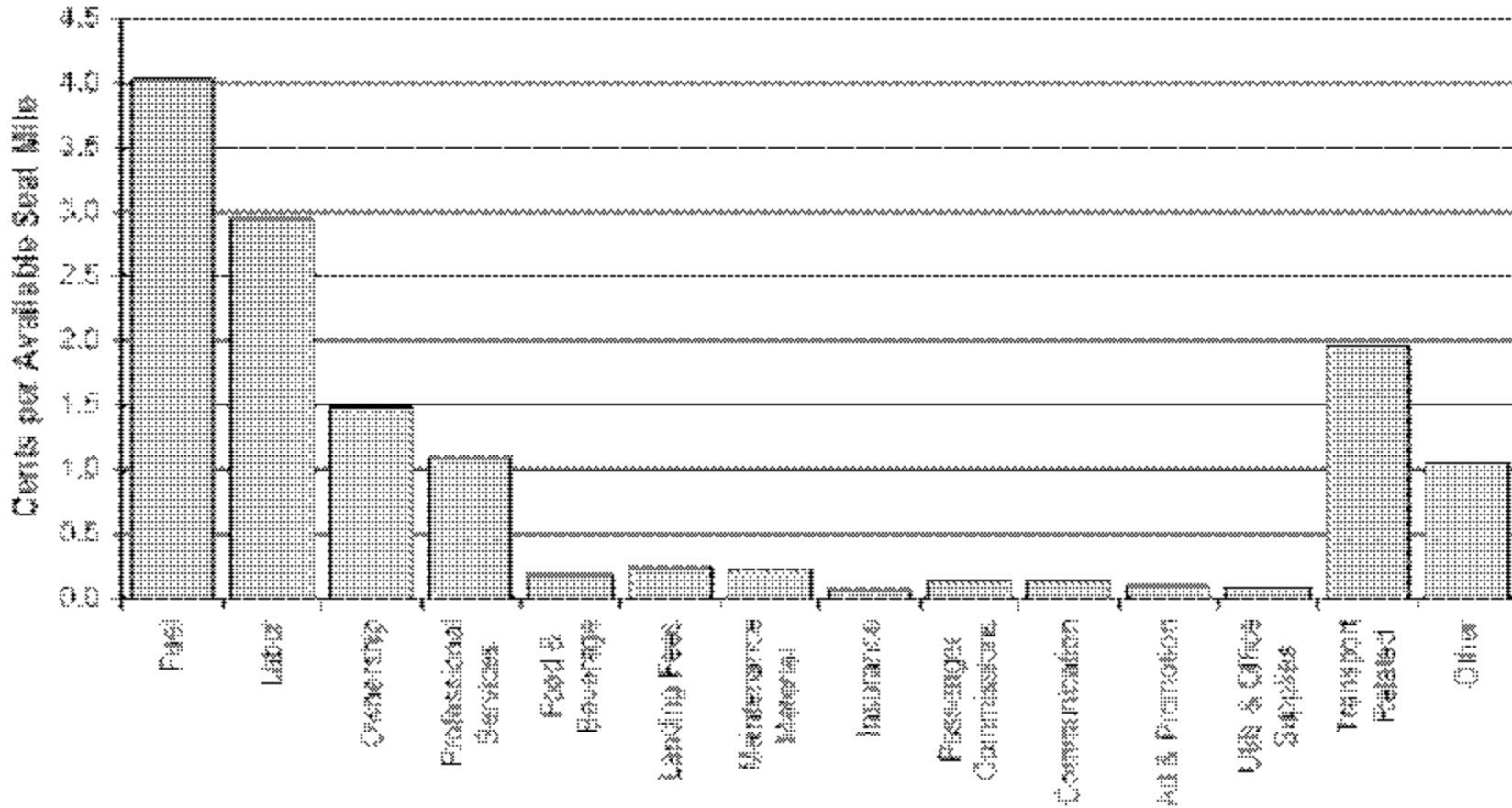
- PMA Parts can play a role in price control
- Fuel and some other costs are fluctuating wildly
- MTC costs are increasing (technology advancements, materials, MTC agreements)
- Environmental controls/management

Cost Savings

- Most recent six month period
- 92 PMA parts reviewed and approved
- Approximately \$440,000 in savings over the next year
- 9 more currently in the queue, one of these has the potential to save \$52K/year

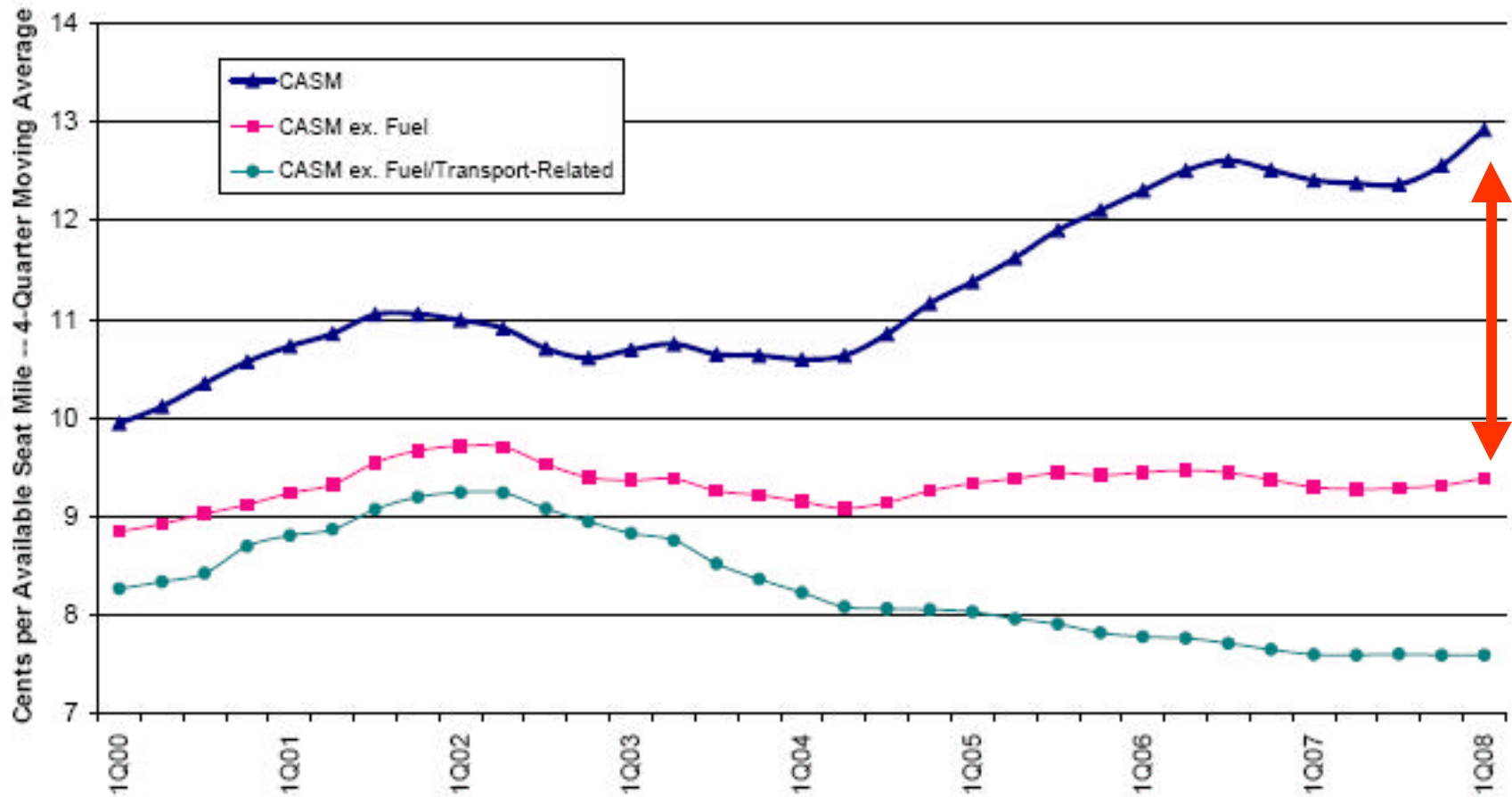
Fuel Prices (ATA Data)

Unit Operating Cost by Category

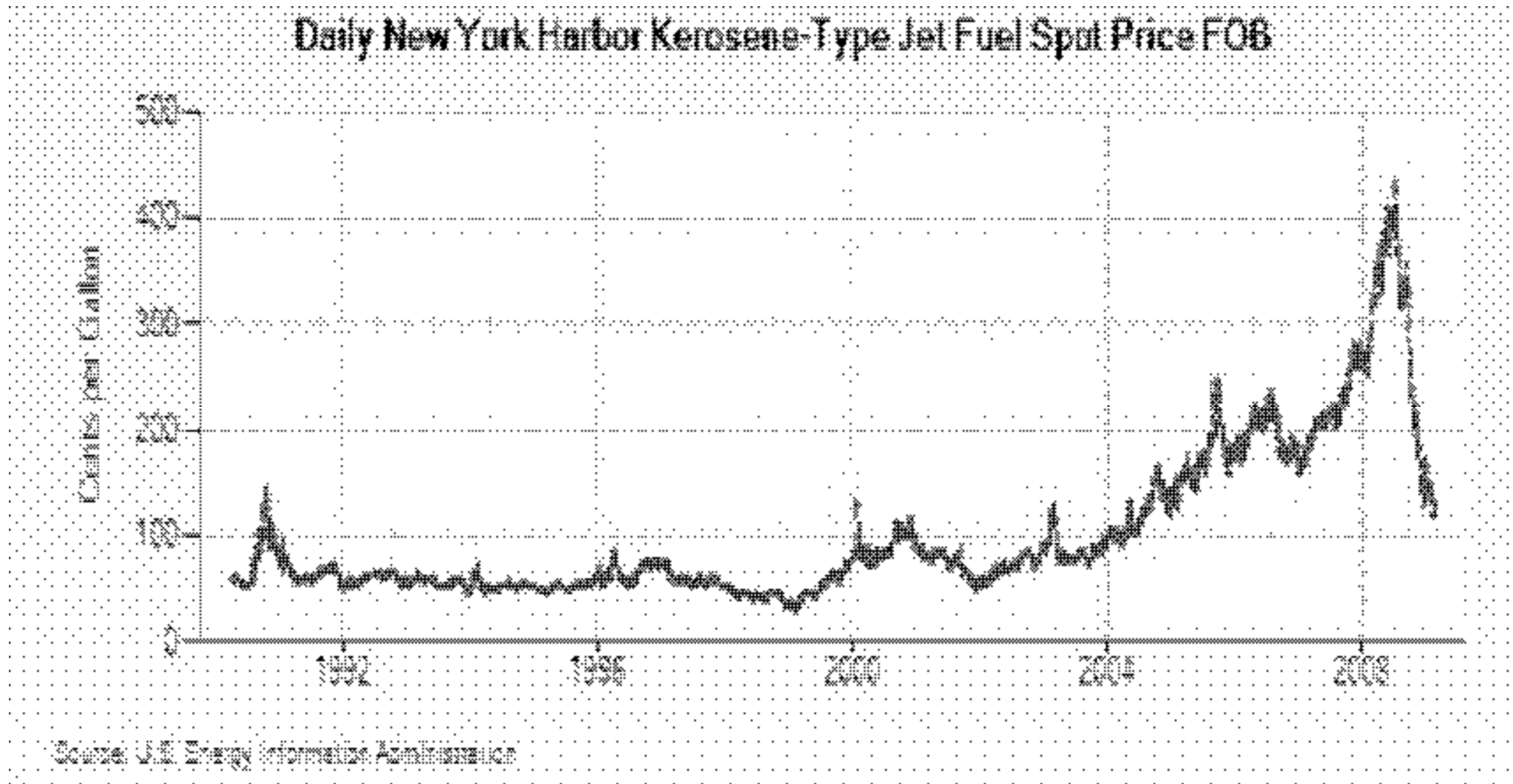


Fuel Prices (ATA Data)

Unit Operating Cost Trend



Fuel Prices (US Government Data)



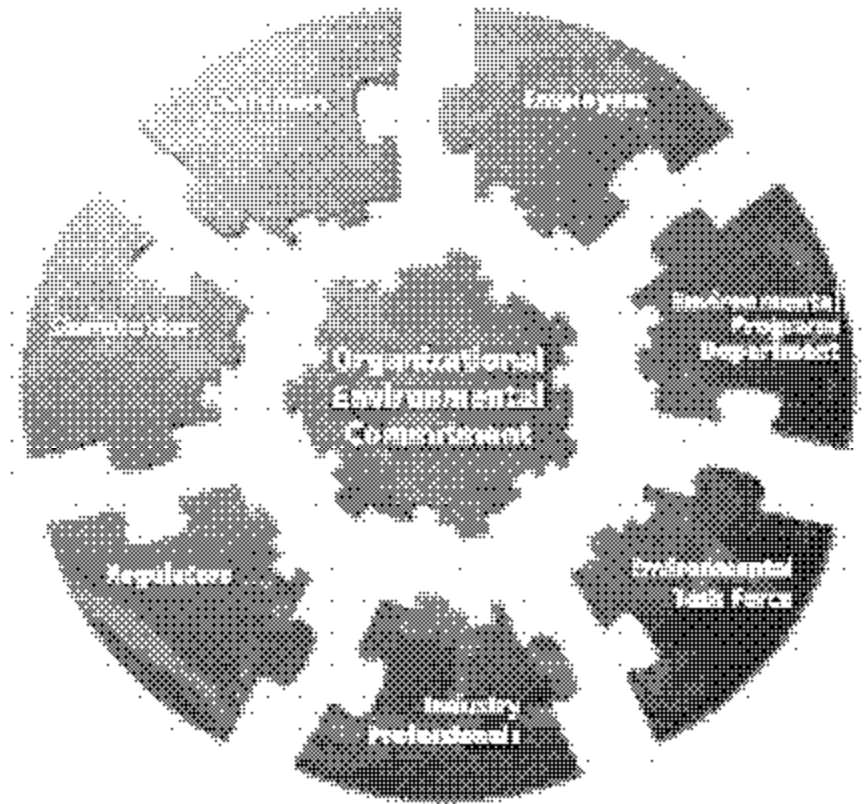
Maintenance Costs

- US Airways MTC costs jumped 11% in 2007
- Avionic NFF costs increasing
- New technology is not free
- Spare part prices are increasing
- MTC contract prices are increasing, more restrictive terms

Environmental Issues

- Corp Envir Report
- Greenhouse gases
Taxes/carbon trading
- Fuel conservation
Biofuels
- Noise emissions

Strategic Environmental Planning



Operators – Why Do They Not Want PMA Parts

- Extra work to review PMA technical substantiation packages
- Extra work to incorporate the PMA into IPC's, AMM's, purchasing systems
- Extra liability for the operator
- Continued technical support concerns of components with PMA parts installed
- Lessor financial concerns with PMA

OEM/TCH - Why Do They Not Want PMA Parts

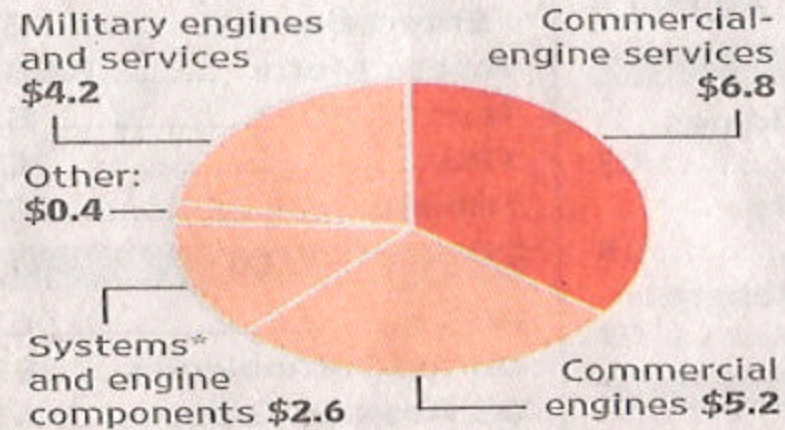
- Price control
- New engine designs are huge multi-year projects with no guarantee of success
- OEM sponsored FHA contracts provide a steady source of income
- Liability issues if an engine fails with PMA parts installed
- Technical support of an component with PMA parts installed

FHA Contracts

Flight Check

GE aviation unit,
2008 revenue, by segment

Total: **\$19.2 billion**



*Includes flight management, avionics and electronics systems

Source: the company

- Wall Street Journal, 3March09

OEM/TCH – Why Do They Want PMA Parts

- FHA contracts provide a steady source of income
- Reverse engineering PMA parts on competitors' engines similar to new design work OEM/TCH engineers handle
- Manufacturing processes already in place
- Revenue stream created when PMA parts are sold

OEM Sponsored PMA/STC Parts

Pratt & Whitney Launches CFM56 Parts Business

Contact:

Pratt & Whitney Public Relations

EAST HARTFORD, Conn. - February 15, 2006 –

Pratt & Whitney, a United Technologies company (NYSE:UTX), today launched Global Material Solutions, a new business that will offer CFM56 engine operators a competitive, lower-priced choice in new parts. The company also announced that United Airlines has signed on as the new business's launch customer, with a long-term parts agreement for its fleet of 98 CFM56-powered Boeing 737s. Terms of the agreement were not disclosed.



Who Wins – How to Control

- Ensure PMA parts are substantiated and documented (including lifing analysis if required) FAA PMA letter not enough!
- Ensure manual supplements are available to mesh with existing manuals and provide ICA guidance
- Ensure liability and insurance concerns are met

Who Wins – How to Control

- Work closely with operators to address technical and financial issues during purchase and during operation
- Long term approach similar to some operator – OEM/TCH relationships

Questions?



 **U·S AIRWAYS**