

# UNITED PARCEL SYSTEM

HEADQUARTERS: ATLANTA, GA

(WORLD'S LARGEST EXPRESS CARRIER & LARGEST  
PACKAGE DELIVERY COMPANY)

- 24/7 DELIVERY
- 4 HOURS “URGENT” DELIVERY
- 180 COUNTRIES
- PICK-UP W/I 60-90 MINUTES OF  
COMPUTER ORDER RECEIPT
- REAL-TIME TRACKING (BAR CODE/  
WIRELESS TRANSPONDERS-PDA)  
7 MIL. “ON-LINE” QUERIES PER DAY

# UPS RETAIL “STORE”

## (INPUT TO PACKAGE / PARCEL DELIVERY SYSTEM)



# UPS “FULL-SERVICE” PACKAGE / PARCEL RETAIL SYSTEM



## UPS ( CONTINUED)

- SYNCHRONIZED TRUCKS / PLANES/ TRAINS ( FOR CROSS-COUNTRY DELIVERY)

.CHRISTMAS WEEK (19 DEC.)

.18,000,000 PACKAGES(210per sec.)

.35% SURGE ( 13.6 M PER DAY AVG.)

.UPS AIR: 4.5M packages 24 DEC.

.ADDED 12 A/C TO 600 A/C FLEET

LD-3 & LD-4 CONTAINERS  
ENROUTE UPS 747 FOR  
LOADING



# UPS DAYLIGHT LOADING



# UPS 747 FREIGHTER WITH LD3 CONTAINERS



# UPS RETAIL DELIVERY



# 200,000 BROWN TRUCKS; 400,000 PEOPLE!\*



\* INCLUDES 60,000 SEASONAL WORKERS FOR CHRISTMAS RUSH



# FEDEX

HEADQUARTERS: MEMPHIS, TN

.EXPRESS DELIVERY TO 211 COUNTRIES

.REGIONAL “LESS THAN TRUCKLOAD” DELIVERY OF HEAVY WEIGHT FREIGHT

. NON-STOP “DOOR-TO-DOOR” DELIVERY OF TIME-CRITICAL SHIPMENTS

. FEDEX BOUGHT AMERICAN FREIGHTWAYS , RTS AND VIKING TO COMPETE WITH UPS FOR GROUND MARKET

# FEDEX “RETAIL” STORE



# FEDEX RETAIL “DROP-BOX”



# TIME-CRITICAL DROP-OFF SYSTEM



← 5:45PM CUT-OFF

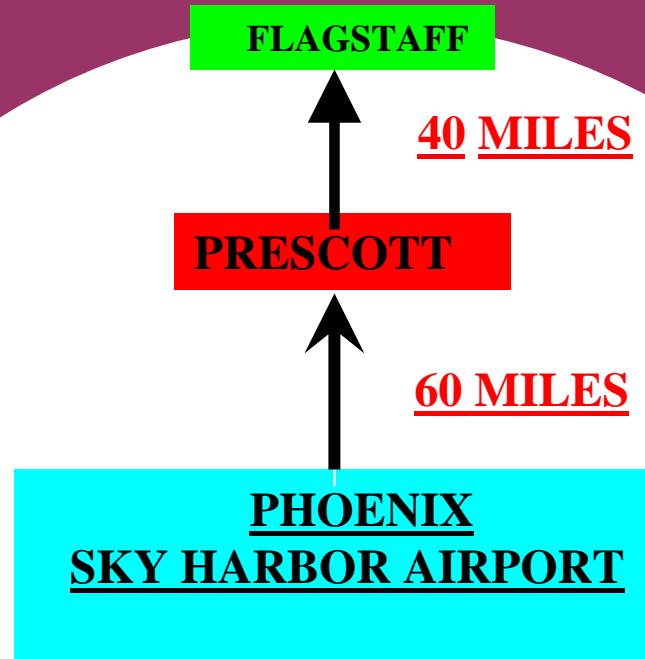
# FEDEX TRAILERS

## UNLOADING

### (SKY HARBOR AIRPORT-PHOENIX)



# MARKET CONSTRAINT



MARKET AREA CONSTRAINED  
BY “DRIVE TIME” FROM RETAIL  
PICK-UP BOX CONSOLIDATION TO AIRPORT !!



# MD-900 EXPLORER UTILITY

## HELICOPTER (NOTAR)

- . CARGO DELIVERY

- TO OIL RIGS, REMOTE DRILLING SITES

- . CORPORATE DELIVERY  
OF HIGH PRIORITY DATA, PACKAGES, PARTS

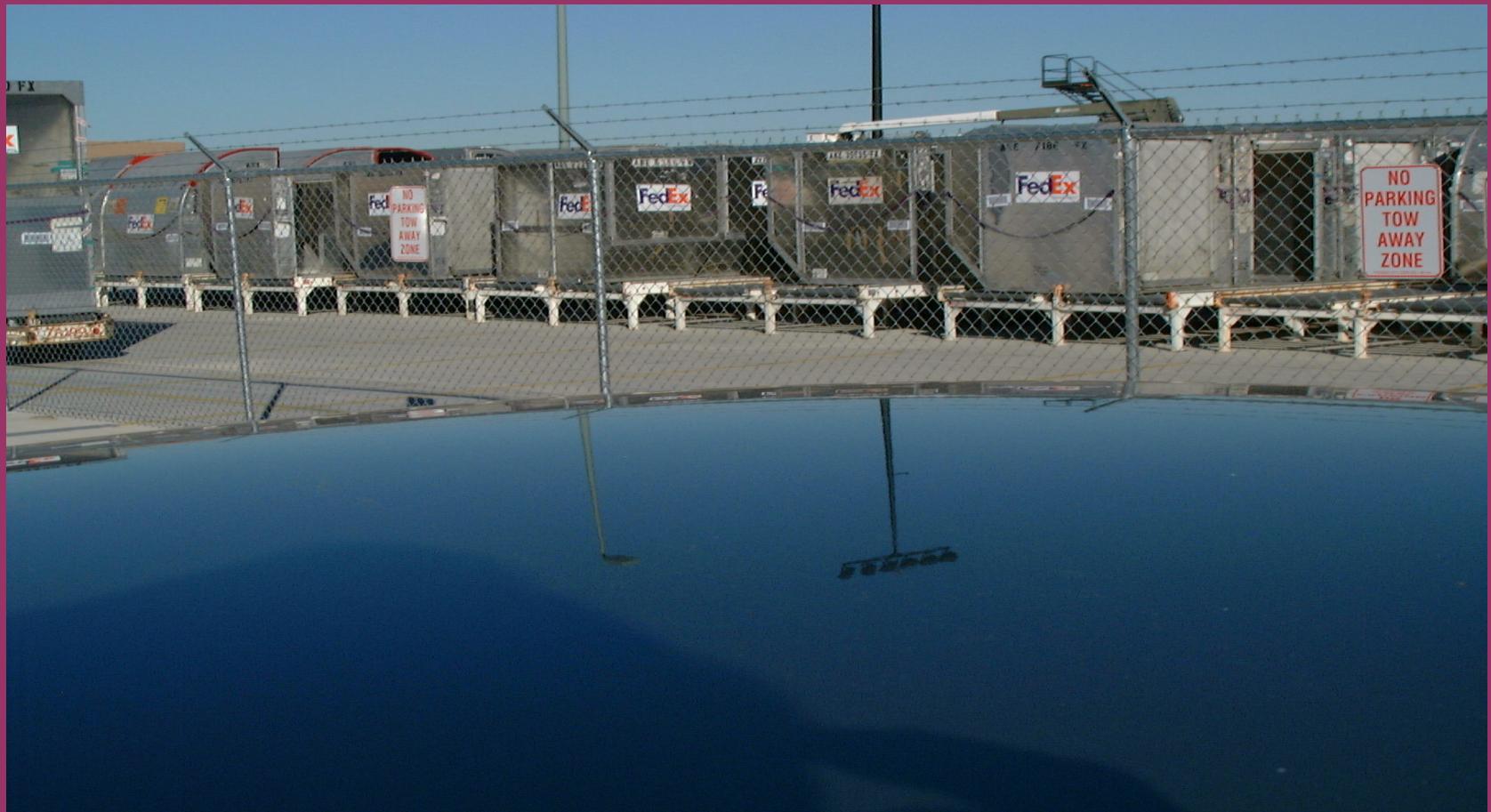
- . SMALL PACKAGE  
DELIVERY WAS A DESIGN CONSIDERATION



# MD-900 CARGO CAPACITY



# FEDEX LD-3s AWAITING LOADING



# FEDEX PARETO ANALYSIS

## OF “DELIVERY FAILURES”

- PERCENT OF PACKAGES NOT BEING DELIVERED BY “10 AM NEXT DAY” WAS ANALYZED (e.g. 1 1/2% )
- EACH FACTOR ANALYZED ( WRONG
- ZIPCODE, ROUTING MISTAKES, LOST PACKAGES, ETC.
- A FEDEX V.P. WAS ASSIGNED TO ELIMINATE EACH FAILURE CAUSE
- THE “SEE THROUGH” CONTAINER WAS THE SOLUTION TO SMALL PACKAGES “LOST” IN THE BOTTOM OF CONTAINERS!!

# “SEE-THROUGH” CONTAINERS



# FEDEX “VIRTUAL INVENTORY SYSTEM”

- PIONEERED SOFTWARE TO PROVIDE  
“SEAMLESS” INTERFACE FROM:
- PRODUCT DESIGN
- ORDER PLACEMENT
- RAW MATERIAL P/U & DELIVERY
- FINISHED PRODUCT PICK-UP &
- DELIVERY TO END CUSTOMER

FEDEX PROVIDES ALL PICK-UPS AND  
DELIVERIES WORLD-WIDE

COMPANY CAN OPERATE WITH ZERO INVENTORY!!!

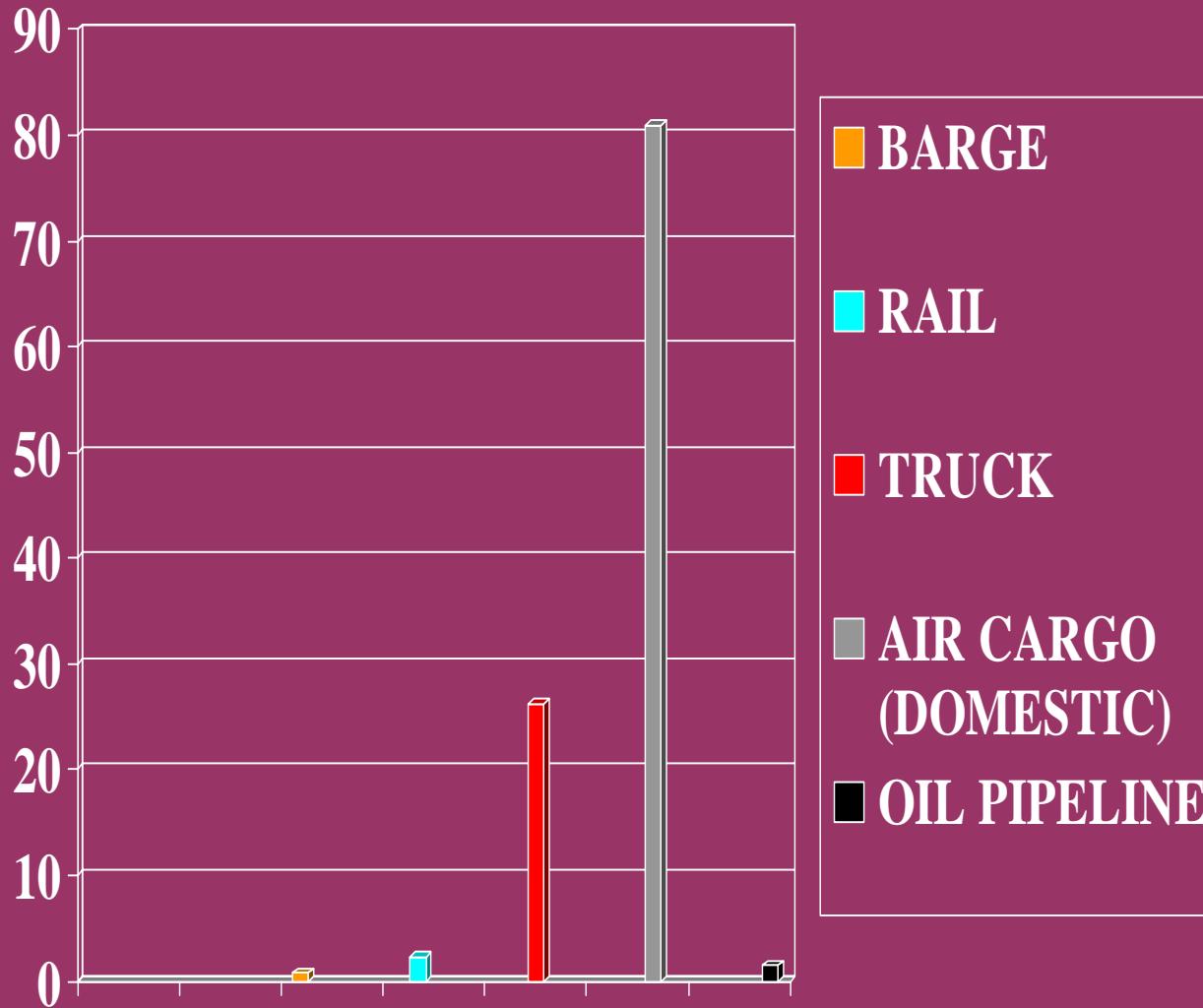
# FEDEX: SUPPLY CHAIN SOLUTIONS

- PROVIDE WAREHOUSING AT MEMPHIS FOR CUSTOMERS WANTING TO OFFER 1 or 2 DAY DELIVERY OF CRITICAL ITEMS WORLD-WIDE (**CATERPILLER TRACTOR**)
- OFFER CUSTOMS BROKERAGE, INTERNATIONAL OCEAN FREIGHT FORWARDING, TRADE FACILITATION

**WHERE IS THE MARKET**  
**FOR AIR CARGO**  
**EXPECTED TO GO?**

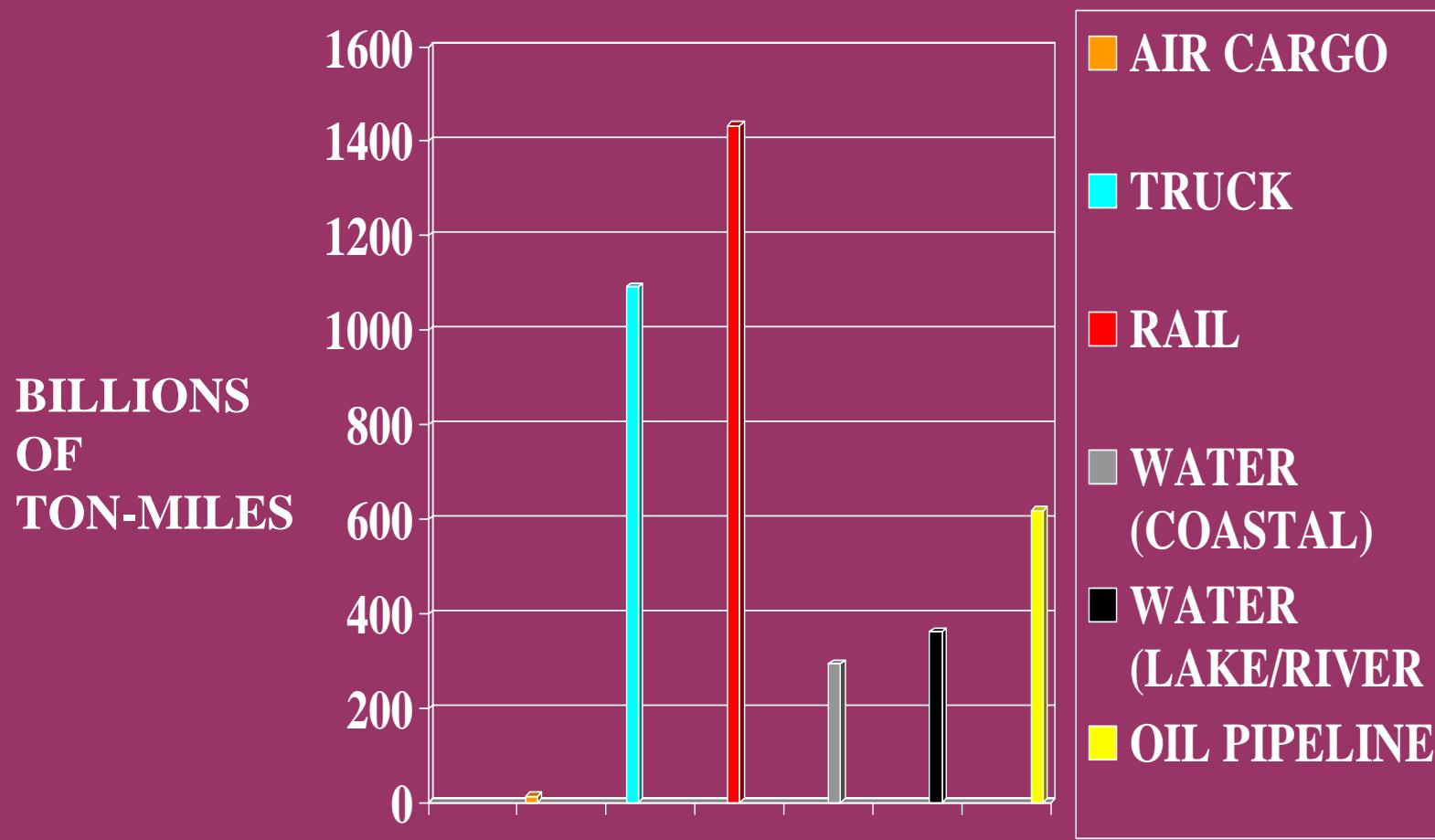
# AVERAGE FREIGHT REVENUE PER TON MILE

CENTS  
PER  
TON-MILE



SOURCE: U.S. DEPARTMENT OF TRANSPORTATION, BUREAU OF TRANSPORTATION STATISTICS, 1985-1999; "TRANSPORTATION IN AMERICA, 2000"-2001

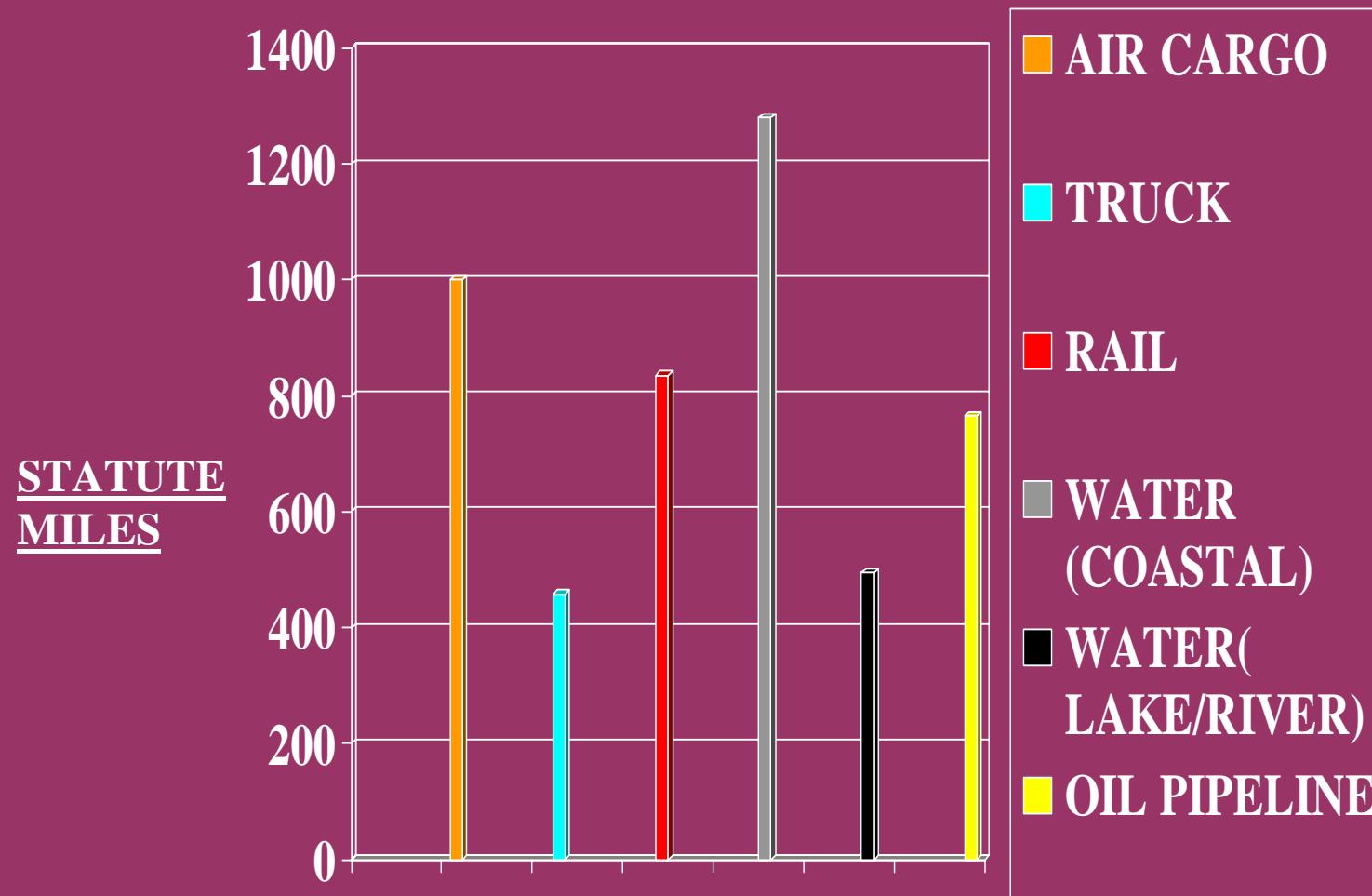
# U.S. TON-MILES OF FREIGHT



SOURCE: NATIONAL TRANSPORTATION STATISTICS, U.S. GOVERNMENT, BUREAU OF TRANSPORTATION STATISTICS, 2002

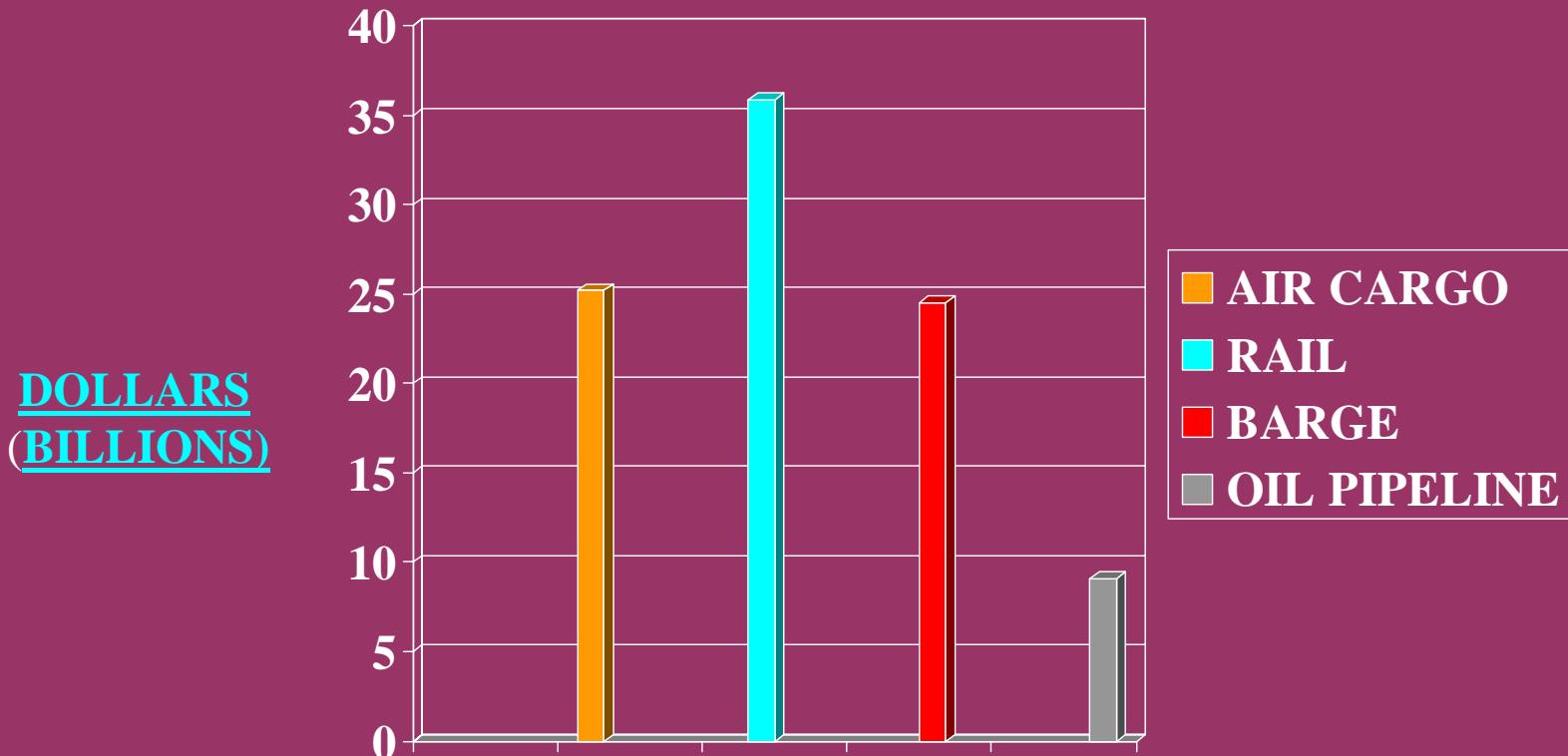
# AVERAGE LENGTH OF HAUL

## DOMESTIC FREIGHT



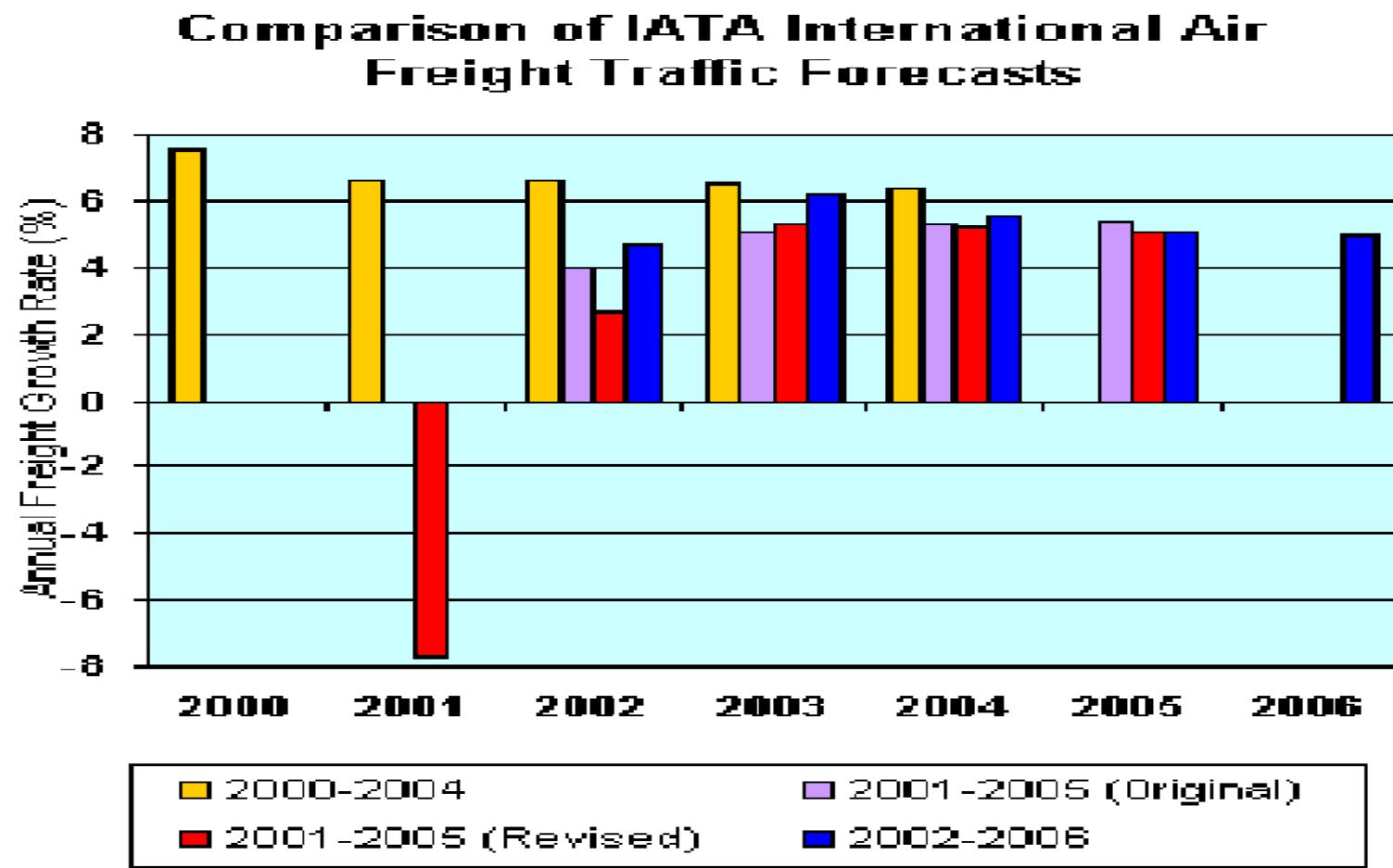
SOURCE: "TRANSPORTATION IN AMERICA-2000", 2001

# TOTAL U.S. FREIGHT EXPENDITURES



NOTES: 1. INCLUDES INFRASTRUCTURE COSTS, TAXES, SUBSIDIES, AMTRAK  
SOURCE: "TRANSPORTATION IN AMERICA-2000", 2001

# IATA INTERNATIONAL AIR FREIGHT FORECASTS

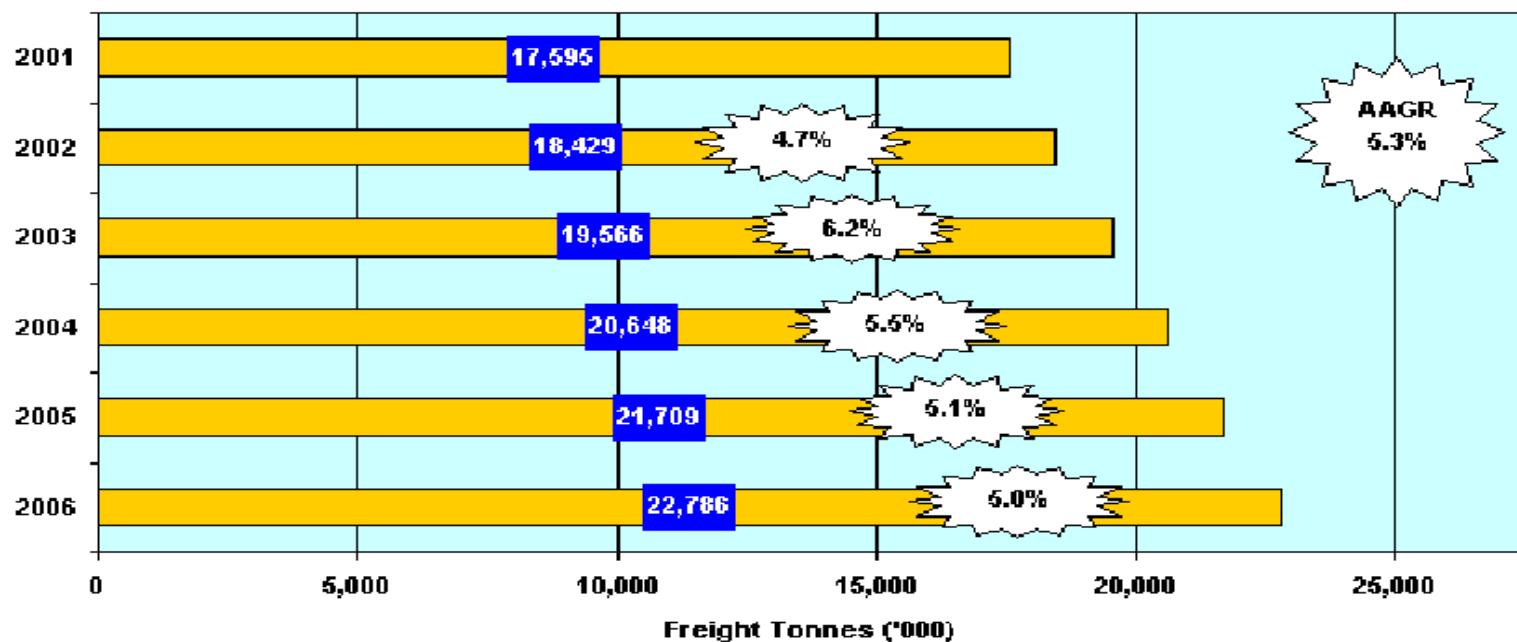


# INTERNATIONAL AIR

# CARGO FORECAST

**Forecast International Air Freight Traffic**

Forecast Growth Rates & Freight Tonnages



# ICAO AIR CARGO FORECAST

## FOR THE YEAR 2010

### WORLDWIDE

	<u>ACTUAL</u>	<u>ACTUAL</u>	<u>FORECAST</u>	<u>AVERAGE GROWTH RATE</u>	
	<u>1989</u>	<u>1999</u>	<u>2010</u>	<u>1989-1999</u>	<u>1999-2010</u>
<u>FREIGHT TONNE - KM - MILLIONS</u>	57,215	108,043	202,650	6.6%	6.0%
<u>NOTE:</u> EXCLUDES CIS <u>SOURCE:</u> ICAO FORECAST (2002)					

# ICAO REGIONAL FORECAST OF AIR

## CARGO FOR 2010

(FREIGHT TONNE -KILOMETRES IN MILLIONS)

	<u>1989</u>	<u>1999</u>	<u>FORECAST</u>	<u>RATE OF GROWTH</u>	<u>RATE OF GROWTH</u>
			<u>2010</u>	<u>1989-1999</u>	<u>1999-2010</u>
AFRICA	1,176	19,693	3440	5.3%	5.0%
ASIA-PACIFIC	15,634	37,564	83,000	9.2%	7.5%
EUROPE	19,246	31,193	52,120	4.9%	4.5%
LATIN AMERICA	2626	4221	6950	4.9%	4.5%
NORTH AMERICA	15,962	29,028	51,000	6.2%	5.0%

SOURCE:  
ICAO 2010 FORECAST

# OUTLOOK FOR AIR CARGO

- WORLD AIRLINE PAX TRAFFIC FORECAST TO GROW 1999-2010 @ 4.5%
- WORLD AIR FREIGHT GROWTH 1999-2010 FORECAST @ 6.0%
- ASIA-PACIFIC REGION EXPECTED TO DOMINATE AIR FREIGHT GROWTH MARKET
- UNIT COSTS ( OPERATING COST PER AVAILABLE TONNE-KILOMETERS) (ATK) DECLINED AT AN AVERAGE ANNUAL RATE OF 3.0% FOR PERIOD 1960-1999)

LARGER, MORE EFFICIENT FREIGHTERS ARE  
MAKING AIR FREIGHT MORE COMPETITIVE!

# CONCLUSIONS

- AIR CARGO MARKET IS TIED TO WORLD GDP; ALMOST A LEADING ECONOMIC INDICATOR
- USED PAX AIRCRAFT CONVERTED TO FREIGHTERS ARE COST-EFFECTIVE!
- CORPORATE FOCUS ON “LEAN” HAS DRIVEN INTERNATIONAL AIR CARGO GROWTH
- AIR CARGO IS RAPIDLY GROWING NICHE IN TOTAL CARGO MARKET!!!