The graphs in this appendix provide added support to various statements made in the main text. For example, examining the operations of AMC’s organic assets was the main task of this study. When we analyzed a particular aspect of these assets’ operations, however, we generally showed only the graph of the C-5 while discussing the characteristics and trends of all aircraft in the main text. We then referred the reader to corresponding graphs in this appendix for aircraft other than those shown in the text.

STRATEGIC AIRLIFT CAPACITY

Figures A.1 and A.2 show the decline of strategic airlift capacity since 1992, whether the capacity was measured according to Air Force planning factors or Gulf War experience. This issue was discussed in Chapter Two.
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Figure A.1—Strategic Airlift Capacity Has Dropped Since 1992 (capacity based on Air Force planning factors)

Figure A.2—Strategic Airlift Capacity Has Dropped Since 1992 (capacity based on Gulf War experience)
U.S. MILITARY INSTALLATIONS AND PERSONNEL ABROAD

Figures A.3 and A.4 show that U.S. military involvement overseas declined sharply after the Cold War, as discussed in Chapter Two.

ANNUAL AIRCRAFT INVENTORY

Figure A.5 shows the annual aircraft inventory of the six organic aircraft described in Chapter Two.

ANNUAL FLYING HOURS PER AIRCRAFT

Figures A.6 to A.10 show annual flying hours per aircraft during peacetime for the C-14, C-17, C-130, KC-135, and KC-10, as discussed in Chapter Two. Data for the C-5 appear in the main text as Figure 2.6.

C-130s were transferred to the Air Combat Command during FY 1993 and back to AMC during FY 1997. Consequently, some of the data points during the 1990s are not included in the C-130 figures throughout the report because data under different commands may not be comparable.

Figure A.3—U.S. Military Installations Abroad Declined Rapidly After the Cold War

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Figure A.4—Military Active-Duty Personnel Abroad Declined Rapidly After the Cold War

Figure A.5—Annual Aircraft Inventory
NOTE: Data points for 1990, 1991, and 1994 were excluded from the determination of the trend line.

Figure A.6—C-141 Annual Flying Hours per Aircraft During Peacetime

NOTE: The data point for 1994 was excluded from the determination of the trend line.

Figure A.7—C-17 Annual Flying Hours per Aircraft During Peacetime
Figure A.8—C-130 Annual Flying Hours per Aircraft During Peacetime

Figure A.9—KC-135 Annual Flying Hours per Aircraft During Peacetime
Also, the large number of flying hours per aircraft during FY 1992, as shown in Figure A.8, calls for an explanation. The total flying hours for C-130s during FY 1992 declined to 88,500 hours from the Gulf War level of 146,000 hours during FY 1991. On the other hand, the number of C-130s under AMC declined from 246 in FY 1981 to 192 in FY 1991, or 22 percent over the decade. Yet the number dropped sharply to 112 during FY 1992, representing a 42 percent decline in a single year. When C-130s were transferred back to AMC in FY 1997, the number was further reduced to 84, where it remained throughout FY 1998 and FY 1999. The much sharper drop in the number of C-130s than in flying hours caused the annual flying hours per aircraft to rise to 790 (i.e., 88,500/112) in FY 1992, as compared to 762 in FY 1991.

KC-135 and KC-10 tankers have been under the control of AMC since FY 1992. They were previously under the Strategic Air Command. Throughout the report, we do not use data prior to FY 1992 in tanker figures because data under different commands may not be comparable.

The sharply higher value in KC-10s for FY 1996 (Figure A.10) was caused mainly by the resumption of attacks on Bosnian-Serb military targets under the provisions of Operation Deliberate Force, the humanitarian airlift (Operation Provide Promise) and peacekeeping mission in Bosnia, and air refuelings of B-52s for the military strike on Iraq in Operation Desert Strike.
MONTHLY FLYING HOURS PER COPILOT

Figures A.11 to A.15, along with Figure 2.7 for the C-5 in the text, form a set of graphs showing monthly flying hours per CP for the six organic aircraft.

**Figure A.11—C-141 Monthly Flying Hours per Copilot**

\[ y = -0.51x + 1,044.31 \]
\[ t = 2.1 \text{ l.s.} = 0.05 \text{ } r = -1.3\% / \text{year} \]

**Figure A.12—C-17 Monthly Flying Hours per Copilot**

\[ y = 4.2x - 8,381.0 \]
\[ t = 10 \text{ l.s.} = 0.00 \text{ } r = +16\% / \text{year} \]

NOTE: Data points for 1990, 1991, 1994, and 2000 were excluded from the determination of the trend line.

NOTE: The data point for 2000 was excluded from the determination of the trend line.
Additional Graphs Showing Various Aspects of Peacetime Air Mobility Operations

**Figure A.13—C-130 Monthly Flying Hours per Copilot**

```
y = -0.42x + 860.45
t = 6.0  I.s. = 0.00  r = -1.3%/year
```

**Figure A.14—KC-135 Monthly Flying Hours per Copilot**

```
y = 0.030x - 29.490
t = 0.1  I.s. = 0.96  r = +0.1%/year
```
MONTHLY FLYING HOURS PER AIRCRAFT COMMANDER

Figures A.16 to A.21 show the monthly flying hours per AC discussed in Chapter Two. For ease of comparison with CP flying hours, we leave the line indicating the CPs’ aging requirement in these AC graphs even though ACs do not have to meet this requirement.
Additional Graphs Showing Various Aspects of Peacetime Air Mobility Operations

**Figure A.16—C-5 Monthly Flying Hours per Aircraft Commander**

- Required
- Actual

NOTE: Data points for 1990, 1991, and 1994 were excluded from the determination of the trend line.

\[ y = -0.039x + 107.729 \]
\[ t = 0.4 \quad l.s. = 0.73 \quad r = -0.1\%/year \]

**Figure A.17—C-141 Monthly Flying Hours per Aircraft Commander**

- Required
- Actual

NOTE: Data points for 1990, 1991, and 1994 were excluded from the determination of the trend line.

\[ y = -0.059x + 1,207.84 \]
\[ t = 3.5 \quad l.s. = 0.00 \quad r = -1.6\%/year \]
Figure A.18—C-17 Monthly Flying Hours per Aircraft Commander

\[ y = 1.3x - 2,485.1 \]
\[ t = 1.5 \ \text{I.s.} = 0.23 \ \frac{y}{r} = +4.1\%/\text{year} \]

Figure A.19—C-130 Monthly Flying Hours per Aircraft Commander

\[ y = -0.32x + 668.67 \]
\[ t = 3.4 \ \text{I.s.} = 0.01 \ \frac{y}{r} = -1.1\%/\text{year} \]
NOTE: The data point for 1994 was excluded from the determination of the trend line.

Figure A.20—KC-135 Monthly Flying Hours per Aircraft Commander

Figure A.21—KC-10 Monthly Flying Hours per Aircraft Commander
CHANNEL, ENGAGEMENT, AND O&M FLYING

Figure A.22 shows that channel flying declined the fastest in the 1990s, as discussed in Chapter Two.

Figure A.22—Channel Flying Declined Faster than Engagement and O&M over the Past Two Decades
ANNUAL FLYING HOURS IN THREE MISSION CATEGORIES

Along with Figure 2.12 for the C-5, Figures A.23 to A.25 form a set of airlifter graphs for annual flying hours in three mission categories.

![Graph showing annual flying hours in mission categories]

NOTE: Data points for 1990, 1991, and 1994 were excluded from the determination of the trend lines.

Figure A.23—C-141: Growing Engagement Missions and Declining Channel Missions
NOTE: Data points for 1994 were excluded from the determination of the trend lines.

Figure A.24—C-17: Percentages of Annual Flying Hours in Three Mission Categories

NOTE: Data points for 1990 and 1991 were excluded from the determination of the trend lines.

Figure A.25—C-130: Growing Engagement Missions and Declining Channel Missions
ACTUAL AND AUTHORIZED CP/AC RATIOS

Figures A.26 to A.30, along with Figure 3.2 in the text for the C-5, constitute a set of graphs for actual and authorized CP/AC ratios.

Figure A.26—C-141: Actual and Authorized CP/AC Ratios

NOTE: Data points for 1990 and 1994 were excluded from the determination of the trend lines.
Figure A.27—C-17: Actual and Authorized CP/AC Ratios

NOTE: Data points for 1990 were excluded from the determination of the trend lines.

Figure A.28—C-130: Actual and Authorized CP/AC Ratios
NOTE: Data points for 1994 were excluded from the determination of the trend lines.

**Figure A.29—KC-135: Actual and Authorized CP/AC Ratios**

**Figure A.30—KC-10: Actual and Authorized CP/AC Ratios**
ACTUAL AND PROGRAMMED ANNUAL FLYING HOURS

Figure 5.1 for the C-5 and Figures A.31 to A.35 are a set of graphs for the six organic assets showing their actual and programmed annual flying hours.

Figure A.31—C-141 Annual Flying Hours
Figure A.32—C-17 Annual Flying Hours

Figure A.33—C-130 Annual Flying Hours
Figure A.34—KC-135 Annual Flying Hours

Figure A.35—KC-10 Annual Flying Hours
FLYING HOUR DEVIATION FROM PLANNED

Figures A.36 to A.38 are the graphs associated with Figure 5.4, showing the flying hour deviation from planned for the four airlifters.

NOTE: Data points for 1990, 1991, and 1994 were excluded from the determination of the trend lines.

Figure A.36—C-141 Flying-Hour Deviation from Planned
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Figure A.37—C-17 Flying-Hour Deviation from Planned

NOTE: The data point for 1994 was excluded from the determination of the trend line.

Figure A.38—C-130 Flying-Hour Deviation from Planned

NOTE: Data points for 1990 and 1991 were excluded from the determination of the trend lines.
PEAK GREATER-THAN-PLANNED FLYING HOURS PER AIRCRAFT

Figures A.39 to A.42 show the peak GTP flying hours per aircraft for the airlifters, as was discussed in Chapter Five.

NOTE: Data points for 1990, 1991, and 1994 were excluded from the determination of the trend line.

Figure A.39—C-5 Peak GTP Flying Hours
NOTE: Data points for 1990, 1991, and 1994 were excluded from the determination of the trend line.

Figure A.40—C-141 Peak GTP Flying Hours

NOTE: The data point for 1994 was excluded from the determination of the trend lines.

Figure A.41—C-17 Peak GTP Flying Hours
LENGTH OF GREATER-THAN-PLANNED FLYING

Figures A.43 to A.46 show the length of uninterrupted monthly GTP flying hours for the airlifters, as was discussed in Chapter Five.
Figure A.43—C-5 Length of Uninterrupted Monthly GTP Flying Hours

Figure A.44—C-141 Length of Uninterrupted Monthly GTP Flying Hours
Figure A.45—C-17 Length of Uninterrupted Monthly GTP Flying Hours

Figure A.46—C-130 Length of Uninterrupted Monthly GTP Flying Hours
AMC BUDGET

Figure A.47 shows the AMC budget in three components: military O&M, commercial TWCF, and military TWCF, as discussed in Chapter Six.

Figure A.47—AMC TWCF and O&M Budget
COMMERCIAL AUGMENTATION

Figures A.48 through A.50 show the commercial share of channel cargo in dollars, channel passengers in passenger-miles, and channel cargo in ton-miles, as discussed in Chapter Six.

NOTE: Data points for 1990, 1991, and 1994 were excluded from the trend line.

Figure A.48—Commercial Carriers’ Share of Channel Cargo Is Increasing
NOTE: Data points for 1990, 1991, and 1994 were excluded from the determination of the trend line.

Figure A.49—Commercial Augmentation Has Continued to Dominate Channel Passenger Miles

NOTE: Data points for 1990, 1991, and 1994 were excluded from the determination of the trend line.

Figure A.50—Increasing Share of Commercial Augmentation in Ton-Miles for Channel Cargo