As previously discussed, there are two sources of funds to support AMC pilots’ flying-hour requirements. The preferred source is TWCF. When AMC undertakes airlift missions for its customers such as the Army and the Air Force, its flying expenses are reimbursed by customers through TWCF. On the other hand, if AMC asks a commercial air carrier to perform the requested airlift service, most if not all of the fee paid by the customer goes to the commercial carrier, not to AMC. The other source of funding is derived from the Air Force’s allocation of its O&M fund to AMC. The AMC O&M fund not only supports operations at the headquarters and air bases but also pays for the flying hours necessary for aging and proficiency that are not reimbursed by customers. These flying hours can be for TTF or for JA/ATT—functions that are not performed during service missions for customers and are thus not reimbursed. Moreover, when AMC is short of pilot-training flying hours, it may fly missions without any customer cargo in order to generate flying hours. In such cases, the missions will not be reimbursed by customers, and the expenses will have to come from the O&M fund.

O&M and TWCF funds account for the bulk of AMC’s annual operating budget. In FY 1999, for example, these funds amounted to 91 percent of that budget.\(^1\) We therefore focus on these two sources of funds (see Figure 6.1). O&M and TWCF combined increased by 15 percent between 1984 and 1999 (see the left panel of Figure 6.1). However, the reimbursable component (the TWCF share of total funds) declined 1.8 percent per year over the past two decades (see the right panel of Figure 6.1).\(^1\) In 1984, TWCF accounted for 70 percent of total funds, but by 1999 this figure had declined to 51 percent. In other words, AMC’s internal funds supported only 30 percent of its expenses in 1984, whereas by 1999 such funds supported 49 percent of those expenses. Because

\(^1\)The remaining 9 percent included items such as the defense health program and military family housing. See *Command Data Book*, November 1999, p. 63.
AMC’s sole mission is to provide airlift to military and other government customers during both peacetime and war, one can argue that AMC should have its operating expenses reimbursed by its customers to the maximum extent possible. The decreasing share of expenses paid by customers, as reflected in the smaller TWCF share, is of concern.

AMC customers can bypass TWCF to obtain certain airlift services. In FY 1999, AMC and the General Services Administration (GSA) signed a Worldwide Express (WWX) contract for the international air delivery of small packages weighing up to 150 pounds. The intention was to remove small-package shipments from AMC’s ports, as commercial carriers could handle such shipments at a lower cost. Small-package shipments, however, account for roughly 40 percent of all pieces shipped while representing only 5 percent to 10 percent of the weight moving through AMC’s ports, and TWCF now loses this revenue. WWX supplements the already-existing GSA Express Small Package Program for the domestic air delivery of packages weighing up to 150 pounds to destinations more than 500 miles away. Tenders are also offered by CRAF carriers to provide transportation services; these are negotiated directly with AMC customers. Tenders are used for shipments exceeding 150 pounds to prevent competition with WWX.
Although AMC standardizes and approves a carrier’s tender prior to its use, the organization does not oversee these negotiations. Because tenders are not part of TWCF, however, they further decrease the share of TWCF for AMC. Direct Vendor Delivery (DVD) and Premium Service are two more types of contracts that lie outside TWCF. DVD is a commercial acquisition contract that involves the manufacture and delivery of products. Premium Service is a storage and transportation arrangement in which materiel is typically stored in a commercial storage depot that is collocated with a worldwide air parcel carrier hub such as that of FedEx. These contracts will continue to lower the revenues that could have gone to TWCF for AMC to share.

Airlift services provided by commercial air carriers to help meet AMC customers’ demand, procured through TWCF, represent commercial augmentation (and their funding is derived from commercial TWCF). Even in the post–Cold War era, there have been many peacetime contingencies that have provided business and incentives to CRAF members (see Table 6.1). AMC uses funds from three components to meet its customers’ airlift demand: military O&M, military TWCF, and commercial TWCF. During peacetime, the first two components fluctuated more than the third.

As of FY 1999, commercial augmentation accounted for $900,000 of the $2.9 billion TWCF, and organic airlift expenses accounted for the remaining $2.0 billion. O&M expenses stood at $2.8 billion. Over the years, the TWCF share of the overall budget (TWCF and O&M combined) not only has diminished (as shown in Figure 6.1) but has been increasingly captured by the commercial air carriers, leaving even less for AMC. Figure 6.2 shows an increasing share of the TWCF going to commercial providers (23 percent in 1981 as compared to 32 percent in 1999). When more funds are allocated to commercial augmentation, fewer are available to support AMC peacetime operations. This is troubling when AMC does not have enough flying hours for its own pilots.

AMC prefers channel cargo missions for pilot training because they are both stable and sizable and can be planned well in advance. However, the commercial carriers have captured an increasing share of these missions over the past

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2Ken Reynolds, RAND, internal trip notes, April 17–19, 2000.
3See Figure A.47 in the appendix.
4If there were fewer TWCF funds to support the flying-hour requirement, AMC would have to rely more on the O&M fund. To us, these two sources of funds are very different, because we believe that AMC customers should pay for AMC operations as much as possible, with Air Force subsidies used as a last resort.
Table 6.1
Participation of Commercial Air Carriers in Peacetime Contingencies

<table>
<thead>
<tr>
<th>Location</th>
<th>Operation</th>
<th>Year Operation Began</th>
<th>Cargo Delivered (tons)</th>
<th>Passengers Delivered</th>
</tr>
</thead>
<tbody>
<tr>
<td>Philippines</td>
<td>Fiery Vigil</td>
<td>1991</td>
<td>2,412</td>
<td>16,882</td>
</tr>
<tr>
<td>Northern Iraq</td>
<td>Provide Comfort&lt;sup&gt;a&lt;/sup&gt;</td>
<td>1991</td>
<td>2,898</td>
<td>18,294</td>
</tr>
<tr>
<td>Former Soviet Union</td>
<td>Provide Hope</td>
<td>1992</td>
<td>4,895</td>
<td>100</td>
</tr>
<tr>
<td>Bosnia</td>
<td>Provide Promise</td>
<td>1992</td>
<td>145</td>
<td>2,345</td>
</tr>
<tr>
<td>Somalia</td>
<td>Restore Hope</td>
<td>1992</td>
<td>463</td>
<td>52,136</td>
</tr>
<tr>
<td>Rwanda</td>
<td>Support Hope</td>
<td>1994</td>
<td>2,138</td>
<td>548</td>
</tr>
<tr>
<td>Cuba</td>
<td>Sea Signal V</td>
<td>1994</td>
<td>848</td>
<td>29,524</td>
</tr>
<tr>
<td>Panama</td>
<td>Panama Haven/Safe Haven</td>
<td>1994</td>
<td>NA</td>
<td>4,647</td>
</tr>
<tr>
<td>Haiti</td>
<td>Phoenix Shark</td>
<td>1994</td>
<td>1,823</td>
<td>33,546</td>
</tr>
<tr>
<td>Cuba</td>
<td>Safe Haven/Safe Passage</td>
<td>1994</td>
<td>0</td>
<td>4,050</td>
</tr>
<tr>
<td>Persia Gulf</td>
<td>Vigilant Warrior</td>
<td>1994</td>
<td>1,389</td>
<td>12,010</td>
</tr>
<tr>
<td>Bosnia</td>
<td>Joint Endeavor&lt;sup&gt;b&lt;/sup&gt;</td>
<td>1995</td>
<td>7,300</td>
<td>41,000</td>
</tr>
</tbody>
</table>

<sup>a</sup>As of August 1995.
<sup>b</sup>As of January 1997.

two decades, with that share rising from 24 percent in 1981 to 46 percent in 1999, or 5 percent per year.\(^5\)

In Figure 6.3, the commercial share of the TWCF fund (shown in Figure 6.2 as the reimbursable fund) is broken down into mission categories.\(^6\) By 1999, airlifting cargo for channel missions, AMC’s favorite mission, accounted for $330 million and represented the largest fraction of the fund allocated to commercial augmentation. The next two categories, “other passengers” and “channel passengers,” together represent the expenses for transporting passengers and accounted for $400 million, even higher than the amount spent for channel cargo. Without a dedicated passenger-carrying aircraft fleet, AMC

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\(^5\)Data on commercial channel cargo and mail are segregated, while they are aggregated under “channel cargo” for military airlifters. We have therefore added “mail” to “commercial channel cargo” in Figures A.48 and A.50. Had “mail” not been added, the increase per year would have been even higher, at 9 percent as opposed to 5 percent shown in Figure A.48.

\(^6\)During the Gulf War, AMC greatly increased commercial augmentation in two categories: other passengers and channel cargo. Because AMC does not have airlifters dedicated to passenger carrying, it had to contract commercial carriers for delivering soldiers to the theater. The destinations at the theater are not necessarily the channel APODs, and thus the volume for the category “other than channel passengers’ surged. At the same time, the demand for both channel cargo and theater cargo delivery increased during this period. AMC thus had to divert aircraft that had previously been delivering channel cargo to deliver cargo into the theater. It contracted commercial carriers to fill the gap and meet the heightened demand for channel cargo missions.
NOTE: Data points for 1990, 1991, and 1994 were excluded from the determination of the trend line.

Figure 6.2—Commercial Carriers Accounted for an Increasing Share of the Reimbursable Fund

NOTE: Both channel cargo and other passenger rose to about $900 million each in FY 1991.

Figure 6.3—Annual Commercial Augmentation
cannot take back much of this business. Thus, an option currently available to
AMC for retaining more flying hours for its own pilots is to keep more cargo as
opposed to passenger missions in house.

In channel passenger miles,\(^7\) the commercial air carriers continued to dominate
this business at 90 percent.\(^8\) For channel cargo in ton-miles, the commercial
providers captured an increasing share: from 16 percent in 1981 to 41 percent
in 1999, or 7 percent a year.\(^9\) Thus, AMC has long been unable to compete with
commercial air carriers for passengers and is losing cargo delivery business to
the private sector.

**FREE TRAVEL SUBSIDY**

When there are empty seats in organic or chartered AMC flights for channel
missions, military personnel and civilian personnel working for the military can
travel free, as can their dependents. Although this trend had been decreasing,
65 percent of the passengers on AMC organic flights, or 132,000 passengers,
were still nonpaying customers in 1999 (see the “military free” line in Figure
6.4).\(^{10}\) On the other hand, the share of nonpaying passengers in AMC-chartered
commercial channel flights showed an upward trend, increasing from 11 per-
cent in 1989 to 29 percent, or 110,000 nonpaying passengers, by 1999. In
essence, then, AMC is paying for the services’ fringe benefit of free travel. If the
services were made to pay for their share, AMC would be reimbursed for this
travel.

\(^{7}\)In data provided to the *Command Data Book*, AMC uses miles for paying passengers only. Miles
for nonpaying passengers are not included.

\(^{8}\)See Figure A.49 in the appendix.

\(^{9}\)See Figure A.50 in the appendix. The increases measured in ton-miles are higher than those mea-
sured in dollars, as shown in Figure A.48 in the appendix. This implies that the dollar-per-ton-mile
rate charged by AMC became less competitive with that of commercial carriers during 1981–1999.

\(^{10}\)We focus here on passengers carried during channel missions. While AMC organic assets and
commercial air carriers also carry passengers during other missions such as SAAMs, those passen-
gers are not included. In FY 1999, AMC carried 70,500 paying passengers and 132,000 nonpaying
passengers on C-141s, C-5s, C-130s, KC-10s, KC-135s, and C-17s during channel missions. In the
same year, AMC also contracted commercial chartered flights to carry 257,000 paying and 107,000
nonpaying passengers during channel missions. Thus, the commercial percentage in terms of
number of paying passengers was 78 percent in FY 1999, while that in terms of passenger miles was
a comparable 86 percent (see Figure A.49 in the appendix). Moreover, based on these channel
numbers here and in Figure A.49, we calculated that DoD paying passengers averaged 3800 miles
per trip in FY 1999.
NOTE: Data points for 1990, 1991, and 1994 were excluded from the determination of the trend lines.

Figure 6.4—Percentage of Nonpaying Channel Passengers