

---

**COMPLETE ACTD COST AND SCHEDULE**

---

In this appendix we compare the initial ACTD plan to the estimates at completion as of August 30, 2000. This gives us a top-level picture of what the DARPA/DARO program office had in mind in late 1994 and what actually occurred in the ensuing six-plus years, first under DARPA management and then under Air Force management. A short description of the financial outcomes for the participating contractors is included at the end of this appendix.

The first complete program estimate for the HAE UAV ACTD is from the November 8, 1994, HAE UAV joint program office briefing to JROC. The \$912 million total and its annual distribution shown in that briefing are the baseline for the program. These same figures are shown in the initial HAE UAV ACTD management plan draft version 1.0 dated December 15, 1994. The funding split between programs is the only difference between the JROC brief and the draft. The Tier II+ total decreased from \$695 million to \$644 million, and the Tier III- total increased from \$217 million to \$268 million. The figures from the management plan draft are shown in Table D.1.

The shift in funding was motivated by the program office's decision to select one contractor instead of the previously planned two for Tier II+ Phase II. The HAE UAV program office stated that it was able to both retain competition in the Tier II+ program and inject competition into the Tier III- program by competing the air vehicle development programs against each other. The funding shift facilitated the inclusion of Tier III- in the so-called Phase III fabrication and field demonstration phase. Under the program construct and fund-

**Table D.1**  
**HAE UAV ACTD Funding as of December 15, 1994**  
 (millions of TY dollars)

HAE UAV ACTD	FY 1994	FY 1995	FY 1996	FY 1997	FY 1998	FY 1999	Total
<b>Tier II+</b>							
Phase I: design	11	32					43
Phase II: develop/system performance test		62	117	98			277
Phase III: fabricate/field demo				40	142	142	324
<b>Tier II+ total</b>	<b>11</b>	<b>94</b>	<b>117</b>	<b>138</b>	<b>142</b>	<b>142</b>	<b>644</b>
<b>Tier III-</b>							
Phase I: classified design studies and efforts							N/A
Phase II: develop/system performance test	42	50	68				160
Phase III: fabricate/field demo			5	57	23	23	108
<b>Tier III- total</b>	<b>42</b>	<b>50</b>	<b>73</b>	<b>57</b>	<b>23</b>	<b>23</b>	<b>268</b>
<b>HAE UAV ACTD total</b>	<b>53</b>	<b>144</b>	<b>190</b>	<b>195</b>	<b>165</b>	<b>165</b>	<b>912</b>

ing split in the December 1994 draft, both programs would field aircraft to be assessed for military utility.

Table D.2 summarizes the December 1994 ACTD funding plan and shows the estimated cost to the government for the ACTD as of August 30, 2000. Because government costs are listed separately in the current estimate but are embedded in the phase figures of the December 1994 plan, only the total for each air vehicle development effort can be directly compared to its original plan. The cost growth shown for the HAE UAV ACTD is approximately 5.6 percent.

The December 1994 plan showed the completion of activity sometime in the fourth quarter of CY 1999. The ACTD completion date is difficult to specify, as D&E flights ended in June 2000; Phase III flights ended in July 2000; the MUA was released in September 2000; and activities associated with Phase III continued through February 2001. Any of these dates could reasonably be considered the completion date for the ACTD. Depending on which are used as beginning and

**Table D.2**  
**HAE UAV ACTD Funding (millions of TY dollars)**

HAE UAV ACTD	Agreements August 2000	ACTD Total December 1994
<b>Tier II+</b>		
Phase I: design	20	43
Phase II: develop/system performance test	238	277
Phase IIB: Fabricate and develop flight test	134	
Phase III: fabricate/field demo	109	324
<b>Tier II+ total</b>	<b>501</b>	<b>644</b>
<b>Tier III-</b>		
Phase I: design studies and efforts	Classified	Classified
Phase II: develop/system performance test	220	160
Phase IIB: fabricate and develop flight test	104	
Phase III: fabricate/field demo		108
<b>Tier III- total</b>	<b>324</b>	<b>268</b>
Gov't costs, AFOTEC, AFFTC <sup>a</sup>	138 <sup>b</sup>	Included above
<b>HAE UAV ACTD total</b>	<b>963</b>	<b>912</b>

<sup>a</sup>AFOTEC = Air Force Operational Test and Evaluation Center; AFFTC = Air Force Flight Test Center.

<sup>b</sup>Derived from the January 22, 1999, HAE UAV joint program office briefing to Jacques Gansler, USD(A&T).

ending dates, the ACTD lasted between 6 and 17 months longer than was called for in its original schedule.

## FISCAL OUTCOMES FOR THE CONTRACTORS

The government's original intent was that what it paid to the contractors participating in this program would by and large cover their actual costs—in terms of the value of resources expended—plus a modest profit. What actually happened during the course of the ACTD was quite different. In Phase I of the Tier II+ program, some of the contractors may have spent more than what they were paid. This is customary in early competitive stages of programs with the potential for lucrative future business. For Phase II, both Ryan and the

LMSW/Boeing team eventually agreed to share cost overruns associated with certain activities. Subsequent phases brought modest profits for both prime contractors. The result at the completion of the ACTD was that Ryan forwent much of its profit, and the LMSW/Boeing team spent more of its own funds than the total profit it earned throughout the course of the ACTD. The DarkStar team's losses were substantial. Throughout its involvement in the ACTD, it is believed that RayES earned modest profits from its CGS work.