Reentry Package - NAS1-1945

Original estimate
Contract price at award (No spares)

4,890K
5,000K

Contract provided for cost sharing by RAC as follows:

First 500K over-Government 50% RAC 50% All over 500K Government 25% RAC 75%

At end of contract cost was
Government share 8,353K
RAC share 3,419K

Some reasons

RCA overrun (1,348K to 1,789K) 441K
Farrand - Radiometer ≈ 300K
Note a large but undetermined cost in most other systems occurred as a consequence of the delays due to failure of Farrand to deliver.
This is a story in itself.

Out-of-scope changes 451K
In-scope changes 1,887K

The first indication of overrun came with the first 533. Main reason was that engineering group bid s/c without consulting their manufacturing people. The first cut of tooling and manufacturing people on construction indicated 750K overrun on manufacturing alone.

Other cost items - Between first and second flights there was additional study and change to increase assurance on second flight.

In qualification tests, the pyrofuse link failed one test. Large amount of extra testing to assure this would work added to cost.

Delay (partial work stoppage) prior to second launch.
Original estimate 2,870K
Original contract 2,560K

Note - Also to be purchased were the X-259 motors (Scout third stage)
Costs based on the existing Scout level QA and assumed that Scout components (e.g., Guidance, Control circuitry, Attitude control, etc.) were fully qualified. This turned out not to be the case and major upgrading was necessary throughout.

Final value of contract 5,470K
GFE (X-259 motors, etc.) 175K
Spin balance Ops. & equipment including DOD support 78K

Other reasons

Overrun 1,087K

LTV met schedule & had to have contract extended
to times of other contractors 777K
Total of 60 CCN's 1,255K

CCN's for work and equipment not forseen at outset of project. Much of this for upgrading LTV QA Program and for costs involved in integration.

L/V

Original estimate 6,400K
Final cost (January 29, 1965) 9,158K

Also required & not in original estimates of project
AGE & facility modifications
AF-04(694)-196 685K
Systems integration NAS1-3122 with GD/A
(originally estimated at 1,100K and negotiated
at 986K)
Includes - Guidance equations
Software - Independent check of same, reliability
analysis, interface monitoring, analysis of
AGE requirements, design review, range
safety analysis, etc.
Final cost

\[ \approx 2,115K \]

Reasons for increase - Lewis program to
improve QA and design details. Storage of
second launch vehicle. Practice launch (\(\approx 1,000K\)),
etc.

T&DA

Telespectrograph - not included in first
estimate. Estimated to cost 340K at outset.
Final cost

\[ \approx 1,631K \]