

IDEA-0412-67
Copy 7 of 8

12 June 1967

MEMORANDUM FOR THE RECORD

SUBJECT : U-2R Gross Weight Status

1. On 23 May 1967 the undersigned met with [redacted] LAC, to review all of the U-2R gross weight changes which have taken place since the original U-2R proposal of 27 December 1965. Attachment I is a summary of the overall weight status. Attachment II is a detailed breakdown of the evolution of the empty weight from the proposal to the present and Attachment III is a similar presentation of the useful load weight.

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2. In summary, the original model specification empty weight represented an increase of 50 pounds over the proposal empty weight resulting totally from LAC configuration changes and design engineering refinements. The current empty weight reflected in the 5 May 1967 preliminary revision to the model spec shows an increase of 909 pounds over the original spec. Of this 909 pound increase, a total of 265 pounds has resulted from configuration changes or additions by the customer with the remainder being LAC responsibility. The fluctuation in the useful load weight from the proposal to the model spec to the preliminary revision to the model spec results both from differences in the systems included in the payload and from refinements in the various system weight estimates.

USAF review(s) completed.

SIGNED

[redacted]
ASD/R&D/OSA

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ASD/R&D/OSA [redacted] gd (12 June 1967)

Distribution:

- Cy 1 - ASD/R&D/OSA 6 - chrono
- 2 - D/R&D/OSA 7 - RB/OSA
- 3 - DD/SA 8 - CMD/COMPT/OSA
- 4 - D/M/OSA
- 5 - IDEA/OSA

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GROUP 1
Excluded from automatic
downgrading and
declassification

U-2R GROSS WEIGHT

STATUS REPORT

| | SP-937 PROPOSAL 27 DEC 1965 | SP-1125 MODEL SPEC 28 NOV 1966 | SP-1125 PRELIMINARY MODEL SPEC REVISION 5 MAY 1967 |
|--------------------|-----------------------------------|--------------------------------------|---|
| EMPTY WEIGHT | 15950 | 16000 | 16909 |
| USEFUL LOAD | 1450 | 1800 | 1525 |
| ZERO FUEL WEIGHT | 17400 | 17800 | 18434 |
| FUEL WEIGHT | 12730 | 12900 | 12900 |
| NORMAL T.O. WEIGHT | 30130 | 30700 | 31334 |

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ATTN: I TO
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U-2R EMPTY WEIGHT

STATUS REPORT

Empty Weight As of 27 Dec 1965

15950

Configuration Changes by LAC:

| | |
|--|------|
| SR-71 Seat In Lieu of U-2 Seat | +115 |
| Cockpit Width & Length Increase | 35 |
| Increase Dive Speed From 240-260 Knots | 50 |
| Tail Fairing Enlarged & Extended Forward | 20 |
| Fin Area Increased By 20% | 35 |
| Added Leading Edge Stall Strip | 30 |
| Removed Drag Chute | - 30 |

TOTAL

+255

Design Engineering Refinements By LAC:

| | |
|------------------|------|
| Wing | - 21 |
| Tail | - 30 |
| Fuselage | + 8 |
| Landing Gear | + 6 |
| Surface Controls | - 62 |
| Hydraulics | -105 |
| Electronics | + 15 |
| Air Conditioning | -107 |
| Paint | + 91 |

TOTAL

-205

Empty Weight As Of 28 Nov 1966

16,000

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Configuration Changes or Additions By LAC:

| | |
|--------------------------------------|------------|
| Nose Latches In Lieu of Bolts | 5 |
| Air Data Computer Requirement | 22 |
| Plastic Leading Edge On Fin For H.F. | 16 |
| Radio In Lieu of Wire Antenna | |
| Fuel System Cross Transfer Lines | 2 |
| Thru Lower Longeron | |
| Cockpit Side Console External Access | 13 |
| Flight Test Revisions Contingency | 100 |
| TOTAL | 158 |

Configuration Changes Or Additions By Customer:

| | |
|--|------------|
| Added ILS Requirement | 35 |
| Added UHF Provisions For Fog Aircraft | 5 |
| Added Tacan Requirement | 47 |
| Moved System 9 to Aft Fuselage | 20 |
| ARC 51 In Lieu of ARC 34 | -15 |
| Emergency Extension of Lift Spoiler | 6 |
| DOPPLER/NAV System Requirement | 123 |
| Dual 50 A/H Battery In Lieu of Single 25 A/H | 39 |
| To Permit [] During Dead Engine | |
| Max Range Descent | |
| Wing Pylon Structural Provisions | 5 |
| TOTAL | 265 |

Design Engineering Refinements By LAC:

| | |
|------------------|------------|
| Wing | 210 |
| Tail | 9 |
| Fuselage | 140 |
| Landing Gear | 19 |
| Surface Controls | 37 |
| Propulsion | 55 |
| Hydraulics | 11 |
| Electronics | -25 |
| Furnishings | 30 |
| TOTAL | 486 |

Empty Weight As Of 5 Apr 1967 Approved For Release 2004/08/31 : CIA-RDP68B00724R000200190079-4

16909

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U-2R USEFUL LOAD

STATUS REPORT

| | 27 DEC 1967 | 28 NOV 1966 | 5 MAY 1967 |
|----------------------------------|-----------------------|---|--|
| USEFUL LOAD | 1450 | 1800 | 1525 |
| <u>PAYLOAD</u> | 655 | 701 40 180 87 25 175 70 (20+22) | 533 39.9 58.93 81.19 41.27 141.43 |
| | 60 34 176 20 | + { 17 | 32 9.04 |
| | 945 | 1295 | 21.75 89.50 |
| | | | 1048 |
| PILOT, OXYGEN, OIL, TRAPPER FUEL | <u>505</u> | <u>505</u> | <u>475</u> |

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25X1

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APT, III TO
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