**Table 4:Trade Study of Manufacturing Support Configurations**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Parameter | Lift to Drag | Payload Suitability | Empty Weight | Ease of Manufacturing | Control Authority | Volume Efficiency | Overall Score |
| Config/Weight | 0.2 | 0.2 | 0.1 | 0.2 | 0.15 | 0.15 | 1 |
| Convectional | 3 | 3 | 3 | 3 | 5 | 4 | 2.85 |
| Blended Fuselage | 4 | 4 | 5 | 2 | 3 | 4 | 2.95 |
| Flying Wing | 4 | 1 | 5 | 2 | 2 | 1 | 2.4 |
| Box Wing | 4 | 3 | 3 | 4 | 4 | 4 | 3.1 |

**Table 5: Trade Study of Tail Configurations for Manufacturing support**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Parameter | Weight | Interference | Drag | Overall Score |
| Config/Weight | 0.3 | 0.4 | 0.3 | 1 |
| Conventional | 4 | 3 | 4 | 3.6 |
| T-Tail | 3 | 3 | 4 | 3.3 |
| H-Tail | 3 | 4 | 4 | 3.7 |
| V-Tail | 4 | 3 | 4 | 3.6 |
| No Tail | 5 | 3 | 5 | 4.2 |

**Table 6: Trade Study of Production Aircraft Configurations**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Parameter | Lift to Drag | Payload Suitability | Empty Weight | Ease of Manufacturing | Control Authority | Volume Efficiency | Overall Score |
| Config/Weight | 0.2 | 0.2 | 0.1 | 0.2 | 0.15 | 0.15 | 1 |
| Convectional | 3 | 3 | 3 | 3 | 5 | 4 | 2.85 |
| Blended Fuselage | 4 | 4 | 5 | 2 | 3 | 4 | 2.95 |
| Flying Wing | 4 | 1 | 5 | 2 | 2 | 1 | 2.4 |
| Box Wing | 4 | 3 | 3 | 4 | 4 | 4 | 3.1 |

**Trade Study of Tail Configurations for Production Aircraft**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Parameter | Weight | Interference | Stability | Volume Efficiency | Drag | Overall Score |
| Config/Weight | 0.2 | 0.2 | 0.25 | 0.25 | 0.1 | 1.0 |
| Conventional | 3 | 3 | 4 | 2 | 3 | 3 |
| T-Tail | 3 | 3 | 4 | 1 | 3 | 2.75 |
| H-Tail | 3 | 4 | 4 | 3 | 4 | 2.55 |
| V-Tail | 4 | 4 | 4 | 4 | 4 | 4 |
| No Tail | 5 | 5 | 1 | 5 | 5 | 4 |