



## F-35 Lightning II Program Fact Sheet Selected Acquisition Report (SAR) 2015 Cost Data

On 24 March 2016, the annual Selected Acquisition Reports (SAR) for 2015 will be delivered to Congress by the Undersecretary of Defense for Acquisition, Logistics, and Technology, to include the 2015 F-35 SAR. This report provides status on program cost, schedule, and performance as of December 2015, and reflects the procurement quantities approved in the 2017 US President's Budget. The SAR15 Total Program Costs are based on the latest F-35 Joint Program Office (JPO) cost estimates for Research, Development, Test, and Evaluation (RDT&E) and Procurement, the latest US Service estimates for Military Construction (MILCON), and an updated Office of the Secretary of Defense (OSD) Cost Analysis and Program Evaluation (CAPE) Operations and Support (O&S) estimate. While the SAR only reports on US costs, the estimates take into account the efficiencies gained through international partner and Foreign Military Sales contributions and quantities.

The overall Acquisition Cost (RDT&E, Procurement, and MILCON) of the program decreased by \$7B in base year 2012 dollars (BY12\$) and \$12.1B in then-year dollars (TY\$). The increase of \$16B (BY12) and \$95.2 (TY\$) to Total Program Cost is the net impact resulting from a transfer of \$300M to RDT&E, a \$7.5B decrease in Procurement, an approximately \$200M increase in MILCON, and a \$23B increase in O&S.

The RDT&E increase is the result of a transfer of money from the Procurement account to the RDT&E account to fund the modification of 24 Operational Test aircraft for Initial Operational Test and Evaluation, in accordance with Service guidance. This transfer out of Procurement into RDT&E had zero net effect on Total Program Cost.

The estimate for procuring F-35 aircraft over the life of the program for the US Services decreased by \$7.5B (BY12\$). This is consistent with the continuing trend of price reductions lot over lot and reflects continued cost reductions due to increasing quantities (economies of scale) and improving manufacturing costs. The average Unit Recurring Flyaway (URF) cost of the aircraft in BY12\$ decreased by \$1.8M for the F-35A, \$0.7M for the F-35B, and \$1.0M for the F-35C. The Average Procurement Unit Cost (APUC) for the program decreased by \$3.1M (BY12\$) and the Program Acquisition Unit Cost (PAUC) decreased by \$2.9M (BY12\$).

The estimated MILCON costs were revised based on Service inputs reflecting an increase of approximately \$200M. The F-35 JPO does not manage MILCON funds but reports the latest Service projections.

The 2015 SAR O&S estimate reflects real reductions in US Service annual sustainment costs and cost per flight hour. The JPO's estimate of annual operating cost decreased by an average of two percent and the estimated steady state cost per flying hour decreased by 2.2 percent for the F-35A, 3.3 percent for the F-35B, and 4.2 percent for the F-35C. These reductions were the result of improved maintainability and sustainability as the weapon system matures, the design stabilizes, and maintenance of the aircraft becomes more efficient and effective. These cost reductions were overshadowed by US Service changes to bed down assumptions which added approximately \$45B (BY12\$) to the O&S estimate. The United States Air Force (USAF) adjusted its assumption of flight hours per jet per year which resulted in an extension of the life of each F-35A by two years, adding six years to the overall life of the program (extending from 2064 to 2070). Additionally all three Services increased their total flight hours in their beddown assumptions, with the USAF adding 1.3M flight hours and the Department of the Navy adding approximately 300,000 flight hours. If not for these life extensions and flight hour additions, the O&S estimate would have shown a reduction of \$22B (BY12\$).



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|   | SAR YEAR | BY12 \$B              | TY \$B                 |
|---|----------|-----------------------|------------------------|
| <b>Acquisition Cost</b><br>(RDT&E + Procurement + MILCON)         | SAR 14   | \$320.3               | \$391.1                |
|   | SAR 15   | \$313.3               | \$379.0                |
|   | DELTA    | \$7.0 (2.2% decrease) | \$12.1 (3.2% decrease) |
| <b>Total Program Cost</b><br>(RDT&E + Procurement + MILCON + O&S) | SAR 14   | \$918.1               | \$1407.6               |
|   | SAR 15   | \$934.1               | \$1502.8               |
|   | DELTA    | \$16 (1.7% increase)  | \$95.2 (6.8% increase) |

### Research Development Test & Evaluation

|       | SAR 14<br>BY12 \$B | SAR 15<br>BY12 \$B | SAR 14<br>TY \$B | SAR 15<br>TY \$B |
|-------|--------------------|--------------------|------------------|------------------|
| RDT&E | \$59.2             | \$59.5             | \$54.9           | \$55.1           |

- **RDT&E:** \$300M (BY12) increase resulting from a transfer from Procurement account to RDT&E account for Operational Test aircraft modifications. Zero net change to overall program costs.

### Procurement

|             | SAR 14<br>BY12 \$B | SAR 15<br>BY12 \$B | SAR 14<br>TY \$B | SAR 15<br>TY \$B |
|-------------|--------------------|--------------------|------------------|------------------|
| Procurement | \$257.2            | \$249.7            | \$331.6          | \$319.1          |

- **PROC:** \$7.5B (BY12) Procurement reduction due to decrease in actual aircraft pricing, adjusted inflation indices, and improved manufacturing costs. Estimate includes labor rate projections, added Electronic Warfare (Band 2/5) capability, and updated procurement profiles.

### Military Construction

|        | SAR 14<br>BY12 \$B | SAR 15<br>BY12 \$B | SAR 14<br>TY \$B | SAR 15<br>TY \$B |
|--------|--------------------|--------------------|------------------|------------------|
| MILCON | \$3.9              | \$4.1              | \$4.6            | \$4.8            |

- **O&S:** \$23B (BY12) CAPE increase and \$43 (BY12) JPO increase in O&S costs due to Service assumptions that added approximately 1.6 million flight hours and a 6-year extension (from 2064 to 2070) to the life of the program. The changes to estimating assumptions overshadowed cost reductions in annual sustainment costs and cost per flight hour of 2-4 percent. These O&S cost reductions were the result of improved maintainability and sustainability as the weapons system matures, the design stabilizes, and the maintenance of the aircraft becomes more efficient and effective.

### Operating & Support Costs

|          | SAR 14<br>BY12 \$B | SAR 15<br>BY12 \$B | SAR 14<br>TY \$B | SAR 15<br>TY \$B |
|----------|--------------------|--------------------|------------------|------------------|
| CAPE O&S | \$597.8            | \$620.8            | \$1016.5         | \$1123.8         |
| JPO O&S  | \$535.8            | \$579.1            | \$859.0          | \$1026.4         |

### Unit Delivery Cost Estimates (Aircraft & Engine & Fee):

Unit Recurring Flyaway (URF) Cost Estimate  
(Weighted avg. price over life of program)

| Variant (QTY) | SAR 14<br>BY12 \$M | SAR 15<br>BY12 \$M | SAR 14<br>TY \$M | SAR 15<br>TY \$M | LRIP 8<br>SAR TY \$M | LRIP 8<br>Neg. TY \$M |
|---------------|--------------------|--------------------|------------------|------------------|----------------------|-----------------------|
|               | F-35A (1763)       | \$76.8             | \$75.0           | \$102.7          | \$100.6              | \$110                 |
| F-35B (340)   | \$105.1            | \$104.4            | \$126.1          | \$122.9          | \$131                | \$134                 |
| F-35C (340)   | \$89.1             | \$88.1             | \$115.4          | \$110.7          | \$129                | \$129                 |

- **URF:** Reduction in average Unit Recurring Flyaway (URF) costs for all three variants is a result of continued decrease in actual prices lot over lot. Actual negotiated prices continue to be below SAR estimates.

### PAUC and APUC (Composite Values)

|      | SAR 14<br>BY12 \$M | SAR 15<br>BY12 \$M | SAR 14<br>TY \$B | SAR 15<br>TY \$M | APB<br>Threshold<br>(BY12\$) |
|------|--------------------|--------------------|------------------|------------------|------------------------------|
| APUC | \$105.3            | \$102.2            | \$135.7          | \$130.6          | \$109.1                      |
| PAUC | \$130.4            | \$127.5            | \$159.2          | \$154.3          | \$134.4                      |

- **APUC - Average Procurement Unit Cost** (Procurement/Procurement Quantity)
- **PAUC - Program Acquisition Unit Cost** (RDT&E+Procurement+MILCON/ Total Quantity); Total quantity includes RDT&E jets
- APUC & PAUC decreases reflective of procurement price reductions, steady RDT&E costs, and steady total Quantity estimates.
- APUC & PAUC remain well below the APB threshold.