

The Database of Cost References by Group—PDF#1

Prepared by Heuston Consulting, Inc., July 2009
Coldwarweaponsystemcosts.com

AIRCRAFT – MILITARY

Bombers

AM-0 -- Historical Summary

Bomber Aircraft Only (sample from a longer list)

Costs – Unit Costs by subsystems in 1957 dollars

Discussion – Bombers by Type

Type	Airframe \$	Installed Engine \$	Propeller \$	Electronics \$	Ordnance \$	Other incl Arname. \$	Total \$
B-25	75,797	30,078	\$4,266	\$8,670	\$5,645	\$21,805	\$146,261
B-36D	2,530,112	589,899	184,218	34,738	3,977	747,681	3,138,125
B-45	682,915	189,741		81,907	552	125,488	1,080,603
B-47B	1,767,094	283,082		43,835	5,336	350,109	2,449,456
B-50	684,894	193,503	65,946	71,369	5,524	123,060	1,144,296
B-52A	26,433,518	2,842,120		50,761	9,193	47,874	29,383,466
B-52F	3,696,756	1,85,326		60,110	3,016	963,725	6,608,933
B-57A	8,937,886	349,357		20,780	7,442	33,704	9,349,169
B-58A	50,340,613	2,736,975		145	49,325	51,165	53,178,223
RB-66A	14,547,896	719,500		122,215	1,557	125,043	15,516,211

If you need data for aircraft or models not listed, please contact us.

Source – T.O. 00-25-30, Unit Costs of Aircraft, Guided Missiles, and Engines, AMC, 10 September 1957, p 2, Published Under Authority of the Secretary of the Air Force.

Recorded – June 1963.

AM81 – B-26K Modification

Cost -- \$20 million

Discussion – negotiations at Ogden AMA, Hill AFB, Utah

Approximately 40 aircraft like the initial prototype modified by On Mark

Engineering would be purchased for counter-insurgency (COIN) warfare missions

Several companies bidding.
Source – Aviation Week, August 26, 1963, p 23.
Recorded – January 30, 1964.

AM62 – B-47 Phase Out

Cost – none give

Discussion – The B-47 phase down already has involved reduction of the fleet by about 900 aircraft from a peak of 1,300 in the mid and late 1950's.
The aircraft will be completely phased out of the USAF inventory by the end of FY 1965.

B-47's were flown from the Pacific island of Guam to Australia where they will be used as interim aircraft pending delivery of F-111A's.

Source – Aviation Week, November 18, 1963.

Recorded March 17, 1964.

AM106 – B/EB-47

Cost -- \$5.7 million Annual operating cost of 15 U.E. (Primary Prog El. Only)

Discussion – Recurring Investment = \$.053

Procurement – 3010 = \$.187

3080 = \$.236

O & M 3400 = \$2.506

Mil Pers. 3500 = \$2.819

Share of BOS \$3.276

Source – AFM 172-3, June 15, 1965, p 6.

Recorded – June 13, 1966.

AM63 – B-52 MOD

Cost -- \$100,000

Discussion – Aviation Week and Space Technology, May 13, B-52 Mod Retrofit.

B-47 mod = \$250,000.

Source – Senate Subcommittee of Appropriations Committee Hearings, 88th Congress, 1st Session, HR 7179, p 1227.

Recorded – November 13, 1963.

AM64 – B-52 Strengthening

Cost -- \$1.6 billion Air Force effort.

Discussion – so they can last into the 1970's.

Source -- Aviation Week, February 3, 1964.

Recorded – May 7, 1964.

AM105 – B-52 (w/ADM-20)

Cost -- \$12.412 Annual Operating Cost in millions (Primary Prog. El. Only)

Discussion – 15 U.E.

Recurring Investment -- \$7.393.

Procurement; 3010 = 1.079

3080 = .390

O&M 3400 = 5.133

Mil. Pers. 3500 = 5.810
Share of BOS = 7.128
Source – AFM 172-3, June 15, 1965, p 6.
Recorded – June 13, 1966.

AM157 – B-52 Sortie Raids on Targets in South Vietnam

Cost -- \$30,000 per B-52 sortie, or about \$1 million for a raid by 30 bombers.
Discussion – Aviation Week, August 16, 1965, p 25.
Recorded – September 16, 1965.

AM166 – B-52

Cost -- \$8 million unit cost
Discussion – Boeing B-52 and GD B-58 bombers ended their production cycle at the exact same time – October 26, 1962 when the Air Force took delivery on their last models.
The first production model of the B-52 was delivered to SAC's 93rd Bomb Wing at Castle AFB, June 29, 1955. This was a B-52B model. Boeing produced two prototype B-52's, 3 B-52As, 50 B-52B's, 35 B-52Cs, 170 B-52Ds, 100 B-52Es, 89 B-52Fs, and about 250 B-52Gs and H models for a total of 699.
Source – Aviation Week, December 13, 1965, p 27.
Recorded – January 19, 1966.

AM65 – B-58

Cost -- \$3.2 billion to build 116 aircraft or \$27.6 million each.
Discussion – 11 of the 116 crashed.
Only 80 of the remaining 105 are operational – but none in the full sense.
Budgeteers claim that because of structural and other limitations, the B-58 cannot do the vertical climb maneuver originally planned to loft the bomb onto the target and must instead rely on the old free fall system. Then they divide the 80 operational aircraft into the \$32 billion program cost and come up with a whopping unit cost of \$40 million.
Source – Aviation Week, January 6, 1964, p 25.
Recorded – May 20, 1964.

AM68 – B-58

Cost -- \$27.6 million per aircraft.\

Discussion – total cost of \$3.2 billion includes all costs involved in building the world's first and fastest supersonic bomber.
Two years ago, when the last of the B-58's were rolling off the production line, 228 more B-58's would have cost approximately \$1.0 billion or \$5 million per aircraft.
Source – Aviation Week, February 10, 1964, p 116.
Recorded – May 14, 1964.

AM161 – B-58 bomber

Cost -- \$14.5 million unit value.

Discussion –

Source – Aviation Week, November 30, 1964, p 13

Recorded – July 20, 1965.

AM199 – YRB-58A, Reconnaissance Version of the B-58

Cost -- \$37.4 million each

Discussion -- Aircraft with the highest value in the Air Force operational inventory is the Convair YRB-58A, the reconnaissance version of the B-58 Hustler, which has a value of \$37.4 million. In a list of the capital values of aircraft for survey purposes, Air Force assigns these figures;

Boeing B-52A = \$29.4 million

Prototype of Lockheed C-130A = \$16.4 million

B-52 = \$14.4 million

Republic F-105B = \$5.5 million

These values are the average for the particular models, and they do not include modifications or engineering change costs. These values include installed engines, avionics and other equipment.

Source – Aviation Week, November 30, 1964, p 13.

Recorded – July 20, 1965.

AM66 – XB-70

Cost -- \$1.5 billion

Discussion – 2 aircraft flight test program by end of 1965.

Included termination costs for No. 3 aircraft and completion of the No.2 aircraft.

March 3 – 6,000-6,500 nm at altitude of 65,000 ft or more.

Source – Aviation Week, June 1, 1964, p 91.

Recorded – October 15, 1964.

AM154 – XB-70

Cost -- \$1.48 billion

Discussion – about \$200 million less than originally estimated

Reduction is due to elimination of the 3rd aircraft from flight test program.

Source – Aviation Week, March 1, 1965,

Recorded – April 22, 1965.

AM109—XB-70A

Cost – about \$75 million each

Discussion – XB-70 Characteristics

Total wing area (including, 2,482.34 sq. feet covered by fuselage but not 33.53 sq. feet of wing ramp area)

Span – 105 feet.

Fuselage length (does not include instrumented boom) – 189 feet.

Wheel base 46.21 feet.

Source – Aviation Week, June 6, 1966, p 67.

Recorded – June 28, 1966.

AM4 -- B-1, North American Bomber

Cost – Unit cost \$30.8 million

Discussion – Air Force has increased its program cost estimate for the North American B-1 Bomber by \$800 million and the unit cost from \$29 million to \$30.8 million.

According to a Selected Acquisition Report submitted to the Senate Armed Services Committee, cost of the advanced strategic bomber as of last June 30 is expected to total \$10.1 billion instead of the \$9.3 billion cited in a Congressional testimony earlier in the year.

Source – Aviation Week, October 12, 1970. p 13.

Recorded – December 18, 1970.

AM16 – B-1, North American B-1 Manned Strategic Bomber

Cost – project unit cost = \$29.6 million

Discussion – comparison of the B-1 with GD's FB-111 bomber, whose take off weight is one third that of the B-1 and whose avionics are less complex. On that basis, the B-1 should cost at least triple the \$13 million unit price of the FB-111, or one-third more than the current estimate.

Source – Aviation Week, August 10, 1970, p 20.

Recorded – October 1, 1970.

AM11 – B-1, North American Rockwell B-1 Bomber

Cost – Unit cost of \$29 million for production.

Discussion – and \$38 million when research and development costs are included, for a total program cost of \$9.4 billion.

Source – Aviation Week, July 20, 1970, p 17.

Recorded – September 29, 1970.

AM12 – B-1, North American B-1 Advanced Strategic Bomber

Cost – Unit price -- \$60 million or more.

Discussion – Potential for cost growth, particularly in avionics could raise the unit price of the B-1 to \$60 million or more.

Source – Aviation Week, July 27, 1970, p 15.

Recorded – September 29, 1970.

AM19 – B-1, Air Force Variable Geometry Advanced Manned Strategic Aircraft

Cost – Target price of \$1.23 billion.

Discussion – for the production of 7 B-1 prototype airframes by North American Rockwell.

Estimated total cost will be \$1.35 billion if the firm gains its fee.

Total cost to support the development and procurement of 40 General Electric F101 advanced technology turbine power plants for the B-1 program is estimated at \$406.65 million, including the projected incentive fee.

Mockup review – June 1971

Completed contractual testing – December 1977.

Maximum speed, Mach 2.2 at altitude of 50,000 feet.

Maximum gross weight, 360,000 lbs., Weapon payload, 50,000 lbs plus.
Source – Aviation Week, June 15, 1970, p 13.
Recorded – July 2, 1970.

AM39 – B-1 Avionics

Cost -- \$4.5 – 5.0 million per aircraft
Discussion – USAF two stage avionics system configured for its new proposed B-1 strategic bomber.
Initial avionics system version will weight about 5,000 lbs with a per aircraft cost of \$4.5-5.0 million.
This is based on a traditional cost of \$900 – 1,000 per pound for military avionics equipment.
Present USAF time table calls for selecting the contractor to develop the B-1 by mid May. Within 3 months, the aircraft prime contractor is to pick its avionics system integrator.
IBM and North American Autonetics Div are expected to be strong contenders.
Source – Aviation Week, January 26, 1970, p 23.
Recorded – March 11, 1970.

AM37 – B-1A, Advanced Manned Strategic Aircraft

Cost – Latest Air Force estimate on development costs totals of \$320 million for engines and \$680 million for airframes.
Discussion – Estimated procurement unit costs now stand at \$650,000-750,000 per engine, based on production of 1,000 engines, and \$13-15 million per airframe, based on the purchase of 200 or more aircraft.
Source – Aviation Week, October 27, 1969, p 13.
Recorded – February 2, 1970.

AM15 – Soviet Bomber.

Cost -- \$5 billion
Discussion – Soviet variable-geometry supersonic-dash strategic bomber.
Production and development for a force of 200 aircraft.
Prototype aircraft already has been test flown.
Source – Aviation Week, August 10, 1970.
Recorded – October 1, 1970.

AM155 – AMSA, Advanced Manned Strategic Aircraft

Cost -- \$8.9 – 11.5 billion = 5 year
Discussion – cost of building and deploying
Would not match the Minuteman in survivability, reliability, and penetrability.
Source – Astronautics & Aeronautics, April 1965, p 99.
Recorded – April 26, 1965.

AM103 – AMSA, Advanced Strategic Aircraft

Cost -- \$1.5 billion for development

Discussion – Air Force estimates that the total development program at approximately \$1.5 billion. McNamara says he thinks that it would be “rather substantially more than” \$6 billion “before it went into production.”

Source – Aviation Week, May 2, 1966, p 23.

Recorded – May 26, 1966.

AM139 – AMSA, Advanced Manned Strategic Aircraft

Cost – development in any form under consideration, is expected to cost \$1-1.5 B.

Discussion –

Source – Technology Wee, September 5, 1966, p 3.

Recorded – September 15, 1966.

AM57 – AMSA, Advanced Manned Strategic Aircraft

Cost –

Discussion – It is estimated that a supersonic AMSA would cost 20% to 25% more than a subsonic AMS in terms of ten year total systems cost, including R&D, procurement and operating costs.

Source – Weekly News Summary, November 1968, p 11, Armed Forces Journal, November 23, 1968.

Recorded – December 13, 1968.

AM130 – AMSA, Advanced Manned Strategic Aircraft

Cost – Development cost about \$1.5 – 2 billion

Discussion – production between 100 and 200 at \$25 million each.

Total program lifetime cost to about \$10 billion, including spares.

Source – Technology Week, March 27, 1967, p 38.

Recorded – April 17, 1967.

AM205 – AMSA, Advanced Manned Strategic Aircraft

Cost – Development = \$1.5 billion

Discussion – The AF is pushing plans to develop a jet engine and electronic components

And construction of 200 of the aircraft would require another \$5 billion.

Source – Weekly News Summary, August 2, 1968, Newsweek, August 5, 1968.

Recorded – August 29, 1968.

AM138 – XB-70 Technical Data

Cost – not applicable

Discussion – Wing Area 6297.15 sq. ft.

Aspect ratio 1.751

Canard area 415.59 sq. ft.

Verticle Tail 225

Fuselage 179

Source – XB-70 Flight Test Flying Quantities Summary Report, October 1, 1966, NAA, NA-66-873, A67-597.

Recorded – March 2, 1967.

AM131 – XB-70 North American Flights
 Cost -- \$800,000 for each flight
 Discussion -- AF 7 NASA have computed
 NASA will be given management of the program shortly and plans eight flights during the next 12 months.
 Source – Aviation Week, February 27, 1967.
 Recorded – April 4, 1967.

AM51 – XB-70 Bomber
 Cost – Cost of the two was figured at \$1.4 billion.
 Discussion – The first XB-70 made its maiden flight on April 21, 1964 and 13 months later hit 2000 mph at 70,000 ft.
 The second plane, test flown July 7, 1965, was lost June 8, 1966, when it collided with a jet escort plane on its 46th mission.
 Source – Weekly News Summary, Washington Post, January 17, 1969, p 4.
 January 13, 1969.
 Recorded -- February 4, 1969.

AM67 – B-70 - FAA
 Cost -- \$3,000 per square foot.
 Discussion – Fabrication of skin section of B-70.
 Mr. Halaby, FAA
 Source – House Appropriations Committee, Hearings, 88th Congress, Part 3, p 16.
 Recorded – October 17, 1963.

AM96 – New Air Force Bomber
 Cost – Development at a cost of \$1.6 billion
 Discussion – Air Force Secretary Harold Brown believes a new bomber in addition to the General Dynamics FB-111 stop gap, must be developed at a cost of \$1.6 billion to replace the Boeing B-52G and H models expected to wear out by 1975. AMSA. Initial operational capability in 1974.
 Source – Aviation Week, February 21, 1966, p 26.
 Recorded – March 11, 1966.

Fighter Aircraft, Transport, Helicopters, and related aircraft

AM20 -- Historical Summary
 Fighter Aircraft Only (sample from a longer list)
 Cost – Unit Costs by subsystem in 1957 dollars.
 Discussion – as follows

Type	Airframe	Installed Engines	Electronics	Ordnance	Other Incl. Armament	Total
F-86L	\$316,360	\$214,612	\$6,831	\$17,117	\$27,573	\$582,493
F-94C	380,755	90,147	7,058	518	55,595	534,073

F-101A	2,379,765	439,448	25,248	15,300	75,727	2,935,490
F-101A	754,533	217,026	9,366	469	223,587	1,204,981
F-105B	4,373,619	320,739	139,711	33,156	189,840	5,057,065
YF-105A	11,919,500	163,892	29,278	85,123	23,173	12,222,966
F-106A	2,955,456	563,403	4,090	116	903,617	4,428,682
F-107A	32,108.021	1,290,500	61,119	10,596	36,169	33,506,405

If you need data for aircraft or models not listed, please contact us.

Source – T.O. 00-25-30, 10 September 1957, Unit Costs of Aircraft, Guided Missiles, and Engines, Published Under Authority of the Secretary of the Air Force, p 3.

Recorded – August 1958.

AM168 – F-3, All Weather Fighter, McDonnell Douglas – US Navy

Cost -- \$112 per flying hour; \$74,060 cost of rework

Discussion –

Source – Senate Subc. Of Appropriations Committee, Hearings, 88th Congress, 1st Session, HR 7179, November 1963, p 866.

Recorded – November 12, 1963.

AM169 – Fixed Wing Aircraft Operation – US Army

Cost -- \$5.54 per flying hour – FY62; \$10.76 per flying hour – FY63-64.

Discussion – Senator Saltonstall – Tactical aircraft budget project 2060, provides funds for the operation and organizational maintenance support of 68% of the Army's aircraft inventory and 67% of the flying hour program.

Gen. Abrams – rest in the 2100 program at the aviation school, -- Fort rucker, in budget program 2600 for the Army Reserve flying hour program, and in the O&M, Army National Guard.

Source – Senate Subc. Of Appropriations Committee, Hearings, 88th Congress, 1st Session, HR 7179, November 1963, p 788.

Recorded – November 12, 1963.

AM170 – F-4, All Weather Fighter – McDonnell Douglas– US Navy

Cost -- \$162.86 per flying hour; \$116,675 cost of rework

Discussion – fuel and all support costs for consumables, flight line repairable items or usable items.

Source – Senate Subc. Of Appropriations Committee, Hearings, 88th Congress, 1st Session, HR 7179, November 1963, p 866.

Recorded – November 12, 1963.

AM204 – RF-4E, McDonnell Douglas

Cost – Unit flyaway price for 88 off the shelf RF-4E's = about \$2.4 million

Discussion – system costs quoted include all sensors, ground stations, ground equipment, technical data, and assistance, simulators, maintenance training sets and spares for over two years operation.

Cost of complete system would thus be around \$400 million (DM 1.600 million)

Source – Interavia, June 1968, p 780.

Recorded – August 22, 1968.

AM190 – F-111A, Australian F-111A

Cost -- \$125 million for 24 aircraft is the estimated cost

Discussion – Gilpatric said the AF estimate of \$5.2 million per aircraft includes spare parts, engines, associated ground equipment and some training.

A firm estimate of development costs, Gilpatric said, will not be ready before next April.

Australia will pay \$20 million a year until ultimate cost of the F-111's is paid.

Source – Aviation Week, November 25, 1963, p 29.

Recorded – March 16, 1964.

AM166 – F-111A

Cost – production unit cost = \$11 million first F-111A

Discussion -- See next card for R&D costs

\$3 million on an order of 1,700 aircraft

Total order = 1,700 aircraft with Navy receiving 350 of the total

First F-111A to be tested in December 1964, and enter TAC inventory Oct 66.

First Navy B version enter fleet in May 1965.

Source – Aviation Week, October 19, 1964, p 28.

Recorded – November 20, 1964

AM167 – F-111A, USAF Variable Geometry Tactical Fighter

Cost – R&D = \$437.5, million for 23 aircraft (18 USAF 7 5 Navy)

Discussion – does not include cost of engines, spares or GSE

Speed – Mach 2.5 at altitude, supersonic on the deck. Lands at under 150 mph, take off = 130 mph.

Altitude = over 60,000 ft.

Length = 72 ft 1.6 inches, height = 17 ft 1.4 inches, wing span = 63 ft est.

(F-111B TFX) length 66 ft 9 inches, 15 ft, 9 inches, 70 ft.

Gross weight = 69,000 lbs.

2 Pratt & Whitney JTF10A-20 (TF30) turbo fan, 19,000 lb thrust each.

Fixed price incentive contract.

Source – Aviation Week, October 19, 1964, p 28.

Recorded – November 20, 1964.

AM165 -- F-111

Cost -- \$6.5 billion for 1,700 aircraft

Discussion –

Source – Aviation Week, November 23, 1964, p 21

Recorded – December 28, 1964.

AM194 – FB-111, USAF FB-111

Cost -- \$8.3 million unit cost

Discussion – McNamara said 210 FB-111's will be built. He estimated the cost at \$1.75 billion, including spares. This comes out to a unit cost of \$8.3 million, or

about the same as the \$8 million for the B-52. He said the \$1.75 billion cost of the FB-111 force would be less than modifying the B-52C through F models to last into the 1970s. the first FB-111's will become operational in 1968 and the last of the 210 in 1971 he said.

The FB-111 will replace the

B-52 series C through F. It will have twice the speed of those aircraft, approximation, with approximately the same range.

Design speed of the F-111A is mach 2.5 at altitude and slightly over Mach 1 on the deck.

The un-refueled ferry range of the F-111A, carrying two 450 gal wing tanks is 4,000 miles.

It will carry 50 750 lb high explosive bombs.

For the strategic roll, the FB-111 could carry 3 nuclear tipped short range attack missiles (SRAM) in the bomb bay and at least one on each wing.

Source – Aviation Week, December 20, 1965, p 21

Recorded – January 22, 1966

AM142 – F-111, General Dynamics

Cost -- \$1.85 billion contract for slightly less than 500 F-111As and Bs.

Discussion –

Source – Aviation Week, July 11, 1966, p 30

Recorded – August 24, 1966.

AM140 – F-111 Computers, IBM Computer for the F-111A and B Mark II Avionics

Cost -- \$23 million for 400-500 units.

Discussion – In all, IBM expects to produce around 1,700 of the computers at a cost of over \$70 million.

Source – Technology Week, August 15, 1966, p 3.

Recorded – September 12, 1966.

AM141 – F-111 Aircraft

Cost – Navy version = \$8 million

Discussion – Air Force version = \$5 million.

Navy version 7,000 lbs over original specifications

Air Force version original F-111 unit cost of \$3 million, based on a larger buy than is now anticipated.

Source – Technology Week, August 15, 1966, p 3.

Recorded – September 12, 1966.

AM90 – F-111, General Dynamics

Cost – per unit \$5.8 million

Discussion – price agreed upon when the British signed a firm order for 10 F-111's last year.

A further charge of \$1.1 million per aircraft will be made for inclusion of special items for the British version, including avionics and heavier landing gear supports.

Source – Aviation Week, February 27, 1967.
Recorded – April 4, 1967

AM118 – F-111K

Cost – \$7.4 million, General Dynamic's F-111K aircraft
Discussion – US and Great Britain have agree on a \$5.95 million unit flyaway cost for the basic F-111A, but that figure is expected to rise to \$7.4 million with spares and modifications necessary to meet royal Air force specifications in the F-111K configuration.
50 aircraft ordered by British.
Source – Aviation Week, April 10, 1967, p 34.
Recorded -- May 3, 1967.

AM117 – F-111 versions

Cost – as follows
Discussion – various versions and its missile system now placed at \$5.5 billion through FY1968.
The Air Force version, the F-111A has a cost through FY68 of \$4.4 billion
Navy's F-111B through FY68 will cost \$697 million and the Hughes Phoenix missile system outlay through that period is \$402million.
Source – Aviation Week, May 15, 1967, p 19
Recorded – May 25, 1967.

AM201 – FB-111, Strategic Bomber, F-111

Cost – Flyaway cost to be \$7.26 million
Discussion – Lt. Gen. R. G. Ruegg, USAF Deputy Chief of Staff for Systems and Logistics revealed:
Unit price to be \$7.995 (as of last January)
Flyaway cost of the F-111 fighter is \$6.5 million compared to the unit cost of \$7.1 million.
Cost for the two engines in the fighter last year was \$1.14 million and \$1.25 million for the bomber. By January these had risen to \$1.5 million and \$1.64 million.
Source – Weekly News Summary, Int. Info. Div., Office of Information, OSAF, "Armed forces Management," August 1968.
Recorded – August 26, 1968.

AM2 – F-111.

Cost – of the Air force program as of December 31, 1969 = \$9.2 billion.
Discussion – was estimated by the Defense Department.
Or \$16.6 million for each of the 554 aircraft, including development.
Originally 1,704 aircraft were to have cost approximately \$5.1 billion for production. By the end of 1969, the production cost was \$4.7 billion for 491 aircraft.
Source – Aviation Week, December 21, 1970. p 20.
Recorded – February 10, 1971.

- AM35 – F-111 A/C/D/E, General Dynamics,
Cost – Revised cost of \$7.3 billion
Discussion – representing a \$4 billion escalation from the original 1963 estimate.
Source – Aviation Week, December 8, 1969, p 25.
Recorded – January 28, 1970.
- AM48 – F-111 Brain
Cost – \$1.5 million for each plane
Discussion -- Complex Electronic Gadget for the F-111 fighter bomber
An increase of at least 46% in the cost of the electronic unit.
Known as the Mark II avionics.
Source – Weekly News summary, March 7, 1969, Washington Star, March 6, 1969, p 1.
Recorded – April 16, 1969.
- AM97 – F-111 General Dynamics for British
Cost -- \$7 million unit cost
Discussion – initial order for 10 aircraft.
Option for at least 40 more
Dollar payments spread into the late 1970's.
Source – Aviation Week, February 21, 1966, p 23.
Recorded – March 11, 1966.
- AM125 – Stretched FB-111
Cost – Development cost has been estimated at \$300-500 million.
Discussion – and adding AMSA engines.
Source – Technology Week, March 27, 1967, p 37.
Recorded – April 18, 1967.
- AM43 – MRCA, Multi-role Combat Aircraft
Cost -- \$2.5 million.
Discussion – Unit flyaway cost will not exceed \$2.5 million.
European industrial consortium has agreed on a twin-engine variable geometry fighter design to meet tactical air requirements of the 1975-1990 period.
The price excludes research and development, which the British, Dutch, German, and Italian governments will be urged to underwrite as the cost of achieving a new European competence in aerospace.
Four companies in the Panavia consortium – British Aircraft Corp., Fiat, Fokker, and Entwecklungsring Sud.
Source – Aviation Week, April 7, 1969, p 23.
Recorded – June 6, 1969.
- AM3 – MRCA, European Multi-role Combat Aircraft.
Cost – development estimated at \$768 million
Discussion – unit costs at about \$3.6 million.

Source – Aviation Week, August 17, 1970, p 15.
Recorded – October 5, 1970.

AM9 – MRCA, Multi-role Combat Aircraft

Cost -- \$768 million development cost

Discussion – If MRCA development costs ... increased more than 10%, Germany would consider dropping out of the program.

Unit prices are estimated between \$3.36 million and \$3.9 million, depending on avionics.

Source – Aviation Week, July 20, 1970, p 15.

Recorded – September 29, 1970.

AM23 – MRCA – Multi-role Combat Aircraft

Cost -- \$768 million for development. Unit cost of \$3.6 million.

Discussion – Panavia, the industrial consortium managing the MRCA program will tell the German and British governments that standardization will reduce development costs to \$768 million from the \$985 million that it would have cost for two versions.

German decision to move ahead is not expected until after May 17.

Source – Aviation Week, May 4, 1970, p 18.

Recorded – June 25, 1970.

AM26 – MRCA – Multi-role Combat Aircraft

Cost – Development costs originally estimate at \$600 million.

Discussion – By developing only one version (2 seat version in the interdiction/strike configuration), Panavia, the international consortium managing MRCA, is attempting to trim 30-40% from development costs originally estimate at \$600 million. The number of prototypes will be reduced from the 13 originally planned but the new number has not been determined.

Source – Aviation Week, April 27, 1970. p 103.

Recorded – June 23, 1970.

AM7 – MRCA – European Multi-Role Combat Aircraft

Cost -- \$560 million – Latest cost estimate for development.

Discussion – and \$3.92 million per unit.

These estimates do not include Rolls-Royce RB-199 engine development costs, which were estimated at \$300 million when the engine was selected.

Source – Aviation Week, February 8, 1971, p 13.

Recorded – April 14, 1971.

AM38—MRCA, Multi-role Combat Aircraft

Cost -- \$600 million was given for development and \$2.9 million per unit in December

Discussion – West German Parliament has injected a note of doubt in its previously strong backing.

The most recent estimates are \$675 million for development and \$4.4 million per aircraft on a 1,000 unit order.

Motoren and Turbien Union (MTU) the newly organized German engine company is worried that the three spool RB-199 may be too tough technically. Present schedule calls for development to start may 1 to meet the 1976 production date. This involves ultimate production of 13 prototype and pre-series aircraft. Source – Aviation Week, February 16, 1970, p 19.
Recorded – March 13, 1970.

AM5 – F-530, Northrop F-530 Fighter, being proposed to European Countries

Cost – Flyaway cost is projected at approximately \$2 million each.

Discussion – twin engine Mach 2,

A versatile air-to-air fighter capable of handling aerial threats during the 1975-85 time period.

Because of the magnitude of the cost of such a program, estimated by industry to be on the order of \$350-\$400 million for the non-recurring expense excluding engine development, any European group of 4 countries probably would have to include West Germany.

Overall wing span, roughly 33 ft., Aircraft length 51 ft.

Powered by a pair of GE turbojets with afterburners derived from the J97 engine.

Take off weight without any external stores with 7,200 lb fuel = 25,000 lb.

The total maintenance and operating cost per flight hour is estimate to be \$535 compared with \$321 for the F-5. this included \$164 for depot cost, \$102 for base material cost, \$165 for base labor cost and \$104 for fuel, oil, and lubricants.

Source – Aviation Week, February 1, 1971, p 20.

Recorded – April 14, 1971.

AM6- X-1 Program

Cost -- \$9 million

Discussion –

Source – Aviation Week, June 22, 1970, p 68.

Recorded – July 13, 1970.

AM8 – F-8, Model Crusader Jet Fighter

Cost -- \$1-2 million each.

Discussion – State Department has granted permission to LTV Aerospace Corp. to make a presentation to Israeli Air force concerning the sale of 50, early model F-8 ... now mothballed as surplus aircraft at Davis-Monthan AFB, Arizona.

Cost... depending on the amount of refurbishment necessary.

Source – Aviation Week, July 20, 1970, p 11.

Recorded – September 28, 1970.

AM10 – X-15 Program

Cost -- \$300 actual cost.

Discussion – originally was thought to cost \$25 million, when the program got underway the bill looked like \$50 million.

Source – Aviation Week, June 22, 1970, p 68.
Recorded – July 13, 1970.

AM27 – F-15, McDonnell Douglas F-15 Fighter

Cost – Target is \$7.35 billion

Discussion – The total includes \$1.78 billion for research, development, test and engineering, \$5.1 billion for procurement, including 20 RDT&E aircraft and \$470 million in spares.

Source – Aviation Week, April 27, 1970. p 15.

Recorded – June 23, 1970.

AM13 – F-15 – McDonnell Douglas Tactical Fighter

Cost – Unit price \$12 million

Discussion – only 320 aircraft would (thus) be available for a \$5 billion expenditure.

Development of a lighter and cheaper F-15 without long range missile capability was recommended. Such an aircraft would have a unit cost of approximately \$5 million.

Source – Aviation Week, July 27, 1970, p 16.\

Recorded – September 29, 1970.

AM17 – F-15, Advanced Single-place F-15 Air Superiority Fighter

Cost – Not to exceed ceiling price for 107 aircraft, max of \$15.3 million/a/c.

Discussion – Air force hopes to gain eventual Defense Department presidential and Congressional approval to purchase a total of 700 ...to meet the Soviet challenge through the mid-1980s.

Thus far, the Def. Dept. has approved an Air Force procurement of a initial increment of 107 F-15s provided system as a whole meets performance and cost estimates.

1st contract calls for McDonnell Douglas to proceed with the engineering, design and fabrication of 20 aircraft for development testing of the concept at a target price of \$1.15 billion, including spares and the necessary equipment to support the program.

USAF estimates that the not to exceed ceiling price for 107 aircraft will reach a max of \$15.3 million per aircraft. This does not include engine, avionics or armament costs.

If the F-15 buy goes to 700 aircraft, as AF now hopes, USAF estimates the target price at \$11.5 million per a/c.

The not to exceed cost at \$13.7 million, including amortization for research and development.

Source – Aviation Week, January 5, 1970, p 19.

Recorded – April 10, 1970.

AM40 – F-15 Avionics

Cost -- \$1 million to \$2 million.

Discussion – F-15 Avionics Suppliers Selection Nears

- Each of the new air-superiority fighters is expected to be outfitted with more than \$1 million in avionics equipment and the figure might run as high as \$2 million, if avionics flight controls and instruments are included.
Source – Aviation Week, January 19, 1970, p 72.
Recorded – March 11, 1970.
- AM18 – Buffalo STOL
Cost -- \$60 million, including spares and support for 16 aircraft.
Discussion – de Havilland of Canada Buffalo STOL Transport Peruvian order.
Source – Aviation Week, March 2, 1970.
Recorded – April 1, 1970.
- AM20 – AX – Close Support Aircraft
Cost -- \$1.2 million per aircraft
Discussion – USAF is aiming for a maximum price of \$1.2 million per aircraft.
In quantity production
Operate from short forward run ways with ordnance payloads approaching 8,000 lbs, to a combat radius of a much as 250 nautical miles.
Source – Aviation Week, May 4, 1970, p 25.
Recorded – June 25 1970.
- AM21 – A-4 M -- MacDonnell Douglas A-4M Skyhawk
Cost – approximately \$1.2 million cost of the aircraft
Discussion – is with a standard compliment of avionics installed in the A-4F and does not include costs of the new laser weapon delivery system.
Backbone of the Marine Corps visual attack fleet of the 1990's.
Source – Aviation Week, April 27, 1970, p 107.
Recorded – June 23, 1970.
- AM22 – CH-53 – Sikorsky Helicopters
Cost – Program cost of \$375 million/
Discussion – to be procured for the West German Army. Initially, 135 were to be Co-produced by Sikorsky and the German Dutch firm of VFW-Fokker.
Source – Aviation Week, May 11, 1970. p 15.
Recorded – June 1970.
- AM24 – Dual-role Trainer/close support aircraft
Cost – Development cost of the aircraft will be about \$275 million, and the unit cost excluding the engine about \$775,000.
Discussion – Germany is arguing that the General Electric J85 engine should power the aircraft, while France wants the power plant to be the Snecimai-Turbomeca M49 Largic.
Competitors are the Breguet/Dassault-Dornier Alphajet and the SNIAS-Messarschmitt-Boelkow-Blohm Eurotrainer.
German's military aircraft.

- Source – Aviation Week, May 4, 1970. p 17.
Recorded – June 25, 1970.
- AM25 – Bo-105, Messerschmitt-Boelkow-Blohm's Bo-105 Light Rigid-rotor Helicopter
Cost – Price tag \$175,000.
Discussion – Could become a key hardware item in West Germany's aerospace resurgence.
Source – Aviation Week, April 27, 1970. p 108.
Recorded – June 23, 1970.
- AM28 – A-4N, McDonnell Douglas's another version of the Skyhawk attack aircraft
Cost -- \$1.2 million, including avionics.
Discussion – Would be basically the same as the A-4M version procured by the Marines.
Price compares with more than \$3 million for the LTV Aerospace A-7E with which the A-4N would compete.
Source – Aviation Week, April 20, 1970, p 11.
Recorded – June 17, 1970.
- AM49 – C-5A, Lockheed Heavy Logistic Transport
Cost – \$4.3 billion,
Discussion – Development and production costs for its planned buy of 120 C-5A's will reach approximately \$4.3 billion, or 25% more than the original 1965 projections.
Excluding spares.
120 flyaway aircraft
1968 plan was to purchase 120 aircraft at a cost of \$3.62 billion. This would include the 2 production runs of 58 and 57 aircraft with initial spares, plus 5 development types.
Source – Aviation Week, January 27, 1969, p 16.
Recorded – April 3 1969.
- AM50 – C-5A, contract with Lockheed Aircraft Corp. & General Electric
Cost -- \$3.1 billion.
Discussion – USAF has estimated the cost overrun on the initial contracts for 58 aircraft powered by the General Electric TF 39 engine at \$1.25 billion, raising the \$2 billion cost negotiated in 1965 to \$3.25 billion.
Source – Aviation Week, December 2, 1968, p 21.
Recorded – March 3, 1969.
- AM51 – C-5A, Super Transport Aircraft
Cost -- \$4.348 billion, The current predicted cost for 120 aircraft (6 squadrons).
Discussion – which is \$882 million or 25% more than the 1964 estimate made at the beginning of the program.
Economic inflation amounting to more than \$500 million compared to 1964 constant dollars has been the biggest single cause for this increased cost.

Source – Weekly News Summary, January 17, 1969, p 3, Washington Star,
January 16, 1969.

Recorded – February 4, 1969.

AM162 – C-5A

Cost -- \$15 million unit price for cargo mode, approx. 100 units

Discussion – Lockheed

Max design gross weight 712,000 lbs.

\$20 million unit price for passenger version, if developed.

Overall length – 236 ft – 34 in.

Empty weight – 300,000 lbs.

Cruise speed – 550 mph

Wing span – 222 ft 10.9 in.

Source – Aviation Week, October 11, 1965, p 26.

Recorded – November 23, 1965.

AM110 – C-5A, Lockheed

Cost -- \$18 million for high-density configuration capable of carrying 900
passengers.

Discussion – All cargo capable of carrying 242,000 lbs non stop over 3,000 n. mi,
at a cost of approximately 10 cents per ton mile. This version would sell for
approximately \$16 million.

Source – Aviation Week, May 23, 1966, p 43.

Recorded – July 5, 1966.

AM202 – C-5A, Galaxy

Cost – Flyaway cost = \$15.5 million

Discussion – Unit cost \$16.8 million.

Total planned is 120 aircraft.

Source – Weekly News Summary, Int. Info. Div., Office of Information, OSAF,
“Armed Forces Management,” August 1968.

Recorded – August 26, 1968.

AM203 – C-5A, Transport

Cost – government will pay \$5,602,400,000 for the 120 planes to be built.

By the Lockheed Aircraft Corp.

An increase of \$62.7 million for additional space parts and the inclusion of a
previously omitted item of \$14.5 million for facilities like decks and hangars.

Source – Weekly News Summary, April 18, 1969, p 5, Philadelphia Inquirer,
April 13, 1969.

Recorded – April 1969.

AM29 – C-5A, Lockheed C-5A, Heavy Logistics Transport

Cost -- \$5.1 billion

Discussion – Total cost of 120 aircraft plus initial and replenishment spares and
other support costs.

Source – Aviation Week, August 4, 1969, p 29.
 Recorded – August 26, 1969.

AM14 – C-5A. Lockheed C-5A Jet Transport

Cost -- \$125 million , if purchased off-the-shelf.
 Discussion – British Royal Air Force is evaluating use of as many as 5.
 Source – Aviation Week, August 3, 1974, p 11.
 Recorded – September 29, 1970.

AM30 – Seaborne Wing, Including Escort and Support Costs

Cost – Approximately \$500 million a year.
 Discussion – No greater than that for a land-based tactical wing.
 Detractors of the concept point out that the Navy in Vietnam has had to deploy an average of 5 carriers to keep a maximum of 3 on combat station at any one time. A combat deployed attack carrier, they add, spends about 60% of its time on station, when the wing is deployable, the remaining 40% in port or en-route between stations.
 Source – Aviation Week, August 25, 1969, p 17.
 Recorded – September 3, 1969.

AM31 – JASDF—XT-2, Japanese Air Self-Defense force Mach 1.6 Trainer, XT-2

Cost – for Development of the aircraft alone is estimate at \$18 million.
 Discussion – to replace Lockheed T-33 and North American F-86F.
 Will be modified later as a ground support/attack fighter.
 Japans Air Force plans to order 100 of this version, designated SF-X. A photo-recon. Version, the R7-2 also is under study.
 Maximum range, 1,550 miles.
 Weight = 20,000 lbs.
 Source – Aviation Week, August 25, 1969, p 21.
 Recorded – September 3, 1969.

AM32 – OV10A, North American Rockwell, OV-10A Observation Aircraft

Cost – Unit flyaway cost is \$506,000.
 Discussion – Compared with less than \$100,000 for the Cessna O-2A.
 Source – Aviation Week, September 8, 1969, p 13.
 Recorded – September 23, 1969.

AM33 – DoD Cost Growth Analysis for Weapon Systems

Cost – see below
 Discussion –

System	Current Total Program Cost Est.	Growth to Date	System Performance Change	Schedule Change	Engineering Change	Economic Change	Est. Revisions
C-5A	\$4,832	\$1,462	--	--	\$380	\$500	\$582
F-15	\$7,700	\$1,662	\$50	--	\$250	\$540	\$821

- Source – Aviation Week, December 8, 1969, p 25.
Recorded – January 28, 1970.
- AM34 – AH-56A, Lockheed AH-56A Armed Helicopter
Cost -- \$203.9 million, total research, development, test, and engineering estimate
Discussion – Original estimate + \$125.9
Source – Aviation Week, December 8, 1969, p 25.
Recorded – January 28, 1970.
- AM36 – Draken, Saab J35 XD
Cost -- \$61 million
Discussion – Denmark has bought 20 Draken fighter-bombers, equipped at a cost of \$61 million (AS7ST, April 1, 1968, p 16)
Sweden and Denmark have signed a \$600,000 agreement under which Sweden will train Danish pilots and technicians
Source – Aviation Week, January 19, 1970, p 13.
Recorded – February 2, 1970.
- AM37 – Consortium Trainer
Cost – not to exceed unit price of \$1 million
Discussion – Two Franco-German consortiums – joint trainer program
The competitors in the trainer project have been asked to provide prices and capabilities for building four prototypes, one static, and one dynamic test model, six pre-series flight models and two basic production rates, one for eight aircraft per month and the other for 16, each with one and two assembly lines.
Competitors ... are Breguet/Dassault-Dornier Alphajet and SNA-Messerschmitt-Boelkow-Blohm Eurotrainer. It is anticipated Vereinigte Flugtechnische Werke also will submit.
Source – Aviation Week, December 22, 1969, p 21
Recorded – February 17, 1970.
- AM39 – A-7E. NavyLTV A-7E Corsair 2
Cost – Unit price of the A-7E is estimated a t close to \$3 million.
Source – Aviation Week, February 16, 1970, p 39.
Recorded – March 13, 1970.
- AM41 – AH-56, Advanced Cheyenne High-speed Compound Helicopter.
Cost – Unit price of over \$2 million for a total order of 375.
Source – Aviation Week, April 21, 1969, p 18.
Recorded – June 19, 1969.
- AM42 – OX-1 Quiet Observation Aircraft
Cost -- \$8.4 million, 28 Wren 460 QB aircraft.
Source – Aviation Week, April 7, 1969, p 15.
Recorded – June 6, 1969.

- AM44 – Mk-2, Advanced avionics packages for General Dynamics, F-111 D
Cost -- \$145 million, F-111D Variable Geometry-interdiction Fighter.
Discussion – The Mk-2 contract began life with a fixed-price incentive total package award to General Dynamics. This included costs for research and development plus the production and integration of 210 sets into the F-111 airframe – 96 for the F-111D and 114 for the FB-111. The contract was re-negotiated at a base price of \$196 million.
Source – Aviation Week, March 3, 1969, p 17.
Recorded – June 5, 1969.
- AM46 – Wren OX-1
Cost – Unit price of about \$300,000 per aircraft.
Discussion – Wren Aircraft Corp. 460 QB quiet observation aircraft.
The Air force’s funding request for Wren calls for a unit price of \$300,000, including approximately \$267,000 worth of sensor equipment, avionics and spares. Wren 460 QB is highly modified version of the commercial Wren 460B, itself a conversion of the Cessna 182. The military version is powered by a specially-muffled Continental GIO-470-A engine, rated at 350 hp., driving an 88-in Hertzell propeller.
Source – Aviation Week, March 17, 1969, p 17.
Recorded – June 5, 1969.
- AM47 – YO-3A, Lockheed,
Cost -- \$500,000 per unit
Discussion – expected to be chosen by the Army and Navy.
Air Force estimates indicate – would cost \$500,000 per unit.
For quiet observation aircraft.
Source – Aviation Week, March 17, 1969, p 17.
Recorded – June 5, 1969.
- AM52 – RF-4E, McDonnell Douglas,
Cost -- \$500 million procurement
Discussion – West German parliamentary budget committee has approved.
Source – Aviation Week, December 9, 1968, p 26.
Recorded – March 3, 1969.
- AM53 – CH-53 Sikorsky Medium Transport Helicopters
Cost -- \$380 million
Discussion – West German parliamentary budget committee approved a \$380 million procurement and co-production program for 135 CH-53.
Source – Aviation Week, November 25, 1968, p 19.
Recorded – January 7, 1969.
- AM54 – C-5A, Air Force Heavy Logistics Transport
Cost -- \$4.3 billion

- Discussion – Air Force estimates cost for full 120 aircraft fleet at \$4.3 billion.
As compared with a 1965 projection of \$3.1 billion.
Should this price hold, it would place the unit cost at approximately \$35.8 million per aircraft.
Source – Aviation Week, November 25, 1968, p 22.
Recorded – January 7, 1969.
- AM73 – RF-4, Reconnaissance Version of F-4 Phantom Jet
Cost -- \$6 million each
Discussion – The West German parliamentary defense committee has approved the purchase of 88 reconnaissance versions of the aircraft at a cost expected to exceed \$500 million.
Source – Weekly News Summary, November 8, 1968, p 6, Philadelphia Inquirer, 3 November 1968.
Recorded – November 20, 1968.
- AM74 – Mark II Avionics System Development by Autonetics Division of N. American
Cost – Unit cost will approach \$1 million.
Discussion –
Source – Weekly News Summary, November 1968, Business Week, October 24, 1968. p 4.
Recorded – November 19, 1968.
- AM55 – RF-4E, McDonnell Douglas Procurement
Cost -- \$500 million.
Discussion – Procurement of 88 RF-4E's for the Luftwaffe at a cost of nearly \$500 million. West German parliamentary defense committee approved.
Source – Aviation Week, November 4, 1968, p 22.
Recorded – January 7, 1969
- AM56 – RF-4E, West German Order from McDonnell Douglas
Cost -- \$900 million
Discussion – for an order of 176 aircraft would cost more than \$900 million. The Luftwaffe had budgeted \$5.75 million for each RF-4E, but this was based on a US manufactured aircraft.
Source – Aviation Week, October 28, 1968, p 26.
Recorded – December 31, 1968.
- AM58 – F-14, Successor to the Navy's F-111B fighter.
Cost -- \$5 million per plane, of the airframe alone might run in the neighborhood
Discussion – will use large quantities of titanium which costs more than 3 times as much as aluminum, to conserve on weight
Engines, electronic equipment and other gear could, according to some estimates, push the cost in the \$10 million to \$15 million category.
Source – Weekly News Summary, 29 November 1968, p 6, Washington Star, November 24, 1968.

Recorded – December 13, 1968.

AM59 – C-5A, Giant New Jet Cargo Plane

Cost -- \$3.25 billion

Discussion – First 58 C-5s, now expected to cost \$3.25 billion, including R&D. Up \$950 million from what Air Force now says was its previous projection.

In March Air force officials told a House subcommittee that Lockheed's original contracts for research, development, and production, of these 58 planes would total only \$1.4 billion, \$900 million less than the \$2.3 billion that the air force now says was its original cost estimate.

Air Force currently negotiating production contracts with Lockheed for 62 additional C-5 cargo planes.

Will cost \$1.05 billion makes the total purchase price of 120 planes about \$4.3 billion, including development charges.

Eight months ago, Air Force told Congress these planes would cost only \$3.3 billion, yesterday's announcement said this original estimate should have been \$3.1 billion.

Source – Weekly News Summary, November 22, 1968, Wall Street Journal, November 20, 1968, p 1.

Recorded – December 6, 1968.

AM60 – HH-53C's, the new rescue helicopter

Cost -- \$2.198 million flyaway and \$2.457 million unit cost.

Discussion –

Source – Interavia, July, 1968, p 1118

Recorded – November 20, 1968.

AM189 – Mirage 3V Fighter, Dassault

Cost -- \$8 million per aircraft

Discussion – currently in prototype stage

According to French Defense Minister Pierre Messmer.

He note that this unit cost figure is six times greater than the Mirage 3F strike fighter, the latest Mirage version.

Therefore, we won't be building many of these

The Defense Minitster added that such an expensive aircraft would be meaningless militarily if it weren't armed with nuclear weapons.

Source – Aviation Week, November 18, 1963, p 37.

Recorded – March 17, 1964.

AM61 – Mirage 5, Dassault

Cost – 74 million BFr/ 1.4 million

Discussion – the Belgium Government formally confirmed its intention to purchase the Dassault Mirage 5 on July 31, announcing that a total of 88 aircraft is to be purchased at a total cost of BFr 6,600 million (\$132 million), spread over 5 years.

Source – Interavia, July 1968, p 1118

Recorded – November 20, 1968.

AM62 – RB-57F, Modification by General Dynamics, Fort Worth

Cost -- \$1.5 million each

Discussion – versatile diagnostic aircraft designed to handle world-wide aerial policing of the nuclear test ban treaty, air sampling, upper air weather data collection, and multi-sensor-reconnaissance.

Does not include the specialized equipment with which they are fitted, which is GFE.

Entails a complete new wing-span 122 ft instead of 64 ft. of the B-57B, which is model reworked.

Three spar-bonded honeycomb sandwich skin.

New vertical tail

Two P&W TF-33-P-111 turbo fan engines.

Source – Aviation Week, July 13, 1964, p 24.

Recorded – October 14, 1964.

AM63 – HH-3E, Rescue Helicopters

Cost -- \$1.5 million flyaway and \$1.253 million unit cost

Discussion – 39 HH-3E, the final purchase.

Source – Interavia, July 1968, p 1118

Recorded – November 20, 1968.

AM64 – T-38 Trainer

Cost -- \$739,000 flyaway and \$842,000 unit cost

Discussion --

Source – Interavia, October 1968, p 1118.

Recorded – November 20, 1968.

AM65 – T-37B Trainer

Cost -- \$207,000 flyaway and \$300,000 unit cost.

Discussion – of which 510 have been bought

Source – Interavia, September 1968, p 1118.

Recorded – November 20, 1968.

AM66 – C-9A, Medium Evacuation Aircraft

Cost -- \$3.53 million flyaway and \$3.56 million unit cost.

Discussion –

Source – Interavia, September 1968, p 1118

Recorded – November 20, 1968.

AM67 – C-5A

Cost -- \$15.5 million flyaway and \$16.8 million unit cost

Discussion – Ruegg revealed the cost of the 120 C-5A transports.

Source – Interavia, September 1968

Recorded – November 20, 1968.

AM97 – C-5A Fleet

Cost -- \$3.4 billion

Discussion – 10 year cost of the C-5A fleet will be \$3.4 billion, counting development and operating costs as well as production.

Cost of delivering cargo from the West Coast to Southeast Asia will be \$50/ton for the C-5A and \$74/ton for the C-141, with development cost counted for the C-5A, but not for the C-141.

Last year at this time McNamara planned to procure 84 C-141's in FY66 and a final buy of 31 in FY67, but those numbers have been raised to 100 and 34 respectively.

Or an additional 16 for FY66 and 3 for FY67.

With these additions, McNamara predicts the Air Force will have 14 squadrons of C-141's flying throughout 1968-71. The USAF C-141 fleet will number about 227.

Source – Aviation Week, March 7, 1966, p 89.

Recorded – March 18, 1966.

AM70 – C-5A, Galaxy Military Transport

Cost -- \$15.5 million each ex-works, and \$16.8 million with all systems included.

Discussion – Lockheed developed

Powered by four General Electric TF-39 fan jet engines.

Source – Interavia, September 1968, p 1095.

Recorded – November 20, 1968.

AM-188 – F-111,

Cost -- \$125.4 million for 27.

Discussion – Australian purchase of 27 USAF/General Dynamics F-111A (TFX) Tactical Fighter Bombers.

The US price was about 40% less than cost of 27 TSR.2's, according to Townley. TSR.2 Great Britain strike reconnaissance aircraft).

His agreement, he said, included provisions for spare parts, such as engines, for a year, plus the training of RAAF crews in the US.

Source – Aviation Week, November 18, 1963, p 34.

Recorded – March 17, 1964.

AM98 – FB-111

Cost – Total cost of program is estimated at \$2.5 billion.

Discussion -- \$1.75 billion of this for the actual procurement of the 210 aircraft (8.33 million each).

DoD is asking congressional approval to re-program \$26.2 million to begin modification development work on the FB-111. Another \$8.7 million for this purpose is scheduled to be taken from the Defense Secretary's emergency fund.

The FY67 requests include \$202 million for the FB-111

First deliveries are scheduled for 1968, and all should be in hand by 1972.

Source – Aviation Week, March 7, 1966, p 81.

Recorded – March 17, 1966.

AM99 – RF-111

Cost – Estimated total development cost fo \$50 million.

Discussion – Approximately \$12.5 million for this purpose is being re-programmed in the FY 66 budget and another 412.5 million is being requested in FY67.

A production decision has not yet been made, however.

Source – Aviation Week, March 7, 1966, p 72.

Recorded – March 17, 1966.

AM145 – F-111, General Dynamics

Cost – Average price of \$3.7 million per airplane

Discussion -- GD is committed on this 4 year buy, covering FY65 through FY68 with the last 62 airplanes costing approximately \$2.7 million.

Source – Aviation Week, November 13, 1967, p 34.

Recorded – December 8, 1967.

AM68 – F-111A, Fighter

Cost – Flyaway cost in now \$6.5 million

Discussion – while unit cost is \$7.1 million

Ruegg also reported. The later represents an increase of \$913,000 during year.

Because of a cutback in total production, a higher estimate of the cost of Mark 2 avionics and a jump in price of engines.

Cost of the 2 Pratt & Whitney TF30 engines last fiscal year was \$1.14 million for the fighter and \$1.25 million for the bomber. By the year's end, these had risen to \$1.5 million and \$1.64 million respectively, while at the same time, the airframe cost rose to \$5.19 million from \$4.44 million.

Source – Interavia, September 1968, p 1118

Recorded – November 20, 1968.

AM69 – FB-111A, The strategic bomber version of the F-111 fighter design to replace

Cost -- \$7.26 million, replaces the B-52.

Discussion – The unit cost which includes special ground support equipment, technical data and publications, etc., will be \$7.995 million each for the 75 being purchased in fiscal year 1969.

The Air Force is buying 253 in all, for a 210 bomber ready force.

Air Force Lt. General Ruegg, Deputy Chief of Staff for System & Logistics told the House Appropriations Defense Subcommittee that the flyaway cost of the...

Source – Interavia, September 1968, p 1118.

Recorded – November 20, 1968.

AM77 – F-111B, general Dynamics

Cost -- \$8.97 million

Discussion – A February memo from the command (Navy Sir Systems Command) declared that a hypothetical composite of the replacement aircraft

proposed by industry would have a unit cost of \$8.97 million not counting research and development costs.

The aircraft would be made of 40% titanium, 30% aluminum and steel, 5% boron, and 25% other materials with the airframe weight of 24,000 lbs excluding wheels and other external components. The cost figure is based on procurement of 232 aircraft.

With the research and development increment, flyaway cost would reach \$10.45 million.

Source – Aviation Week, March 11, 1968, p 16.

Recorded – August 22, 1968.

AM71 – UH-1H Rotor Blades

Cost – about \$3,240 each

Discussion – the Army is acquiring 524 UH-1H rotor blades at a cost of \$1,700,385.

Source – Interavia, September 1968, p 1025

Recorded – November 20, 1968.

AM116 – F-111

Cost -- \$1.8 billion for 493 aircraft for delivery through 1970.

Discussion – Defense Department signed definitive production contract.

The price given by the Pentagon is for basic airframe only and does not include the cost of engines, avionics, weapon systems, or airframe modifications, which have been agreed on but not yet negotiated. Other additional costs include the Mk 2 avionics package, which was substituted last year for the Mk 1, and the more powerful Pratt & Whitney TF 30-P-12 engine for the F-111B.

Actual flyaway cost of the 493 aircraft will be about double the amount announced for the GD contract, which replaces a letter contract.

Source – Aviation Week, May 15, 1967, p 73.

Recorded – may 25, 1967.

AM113 – F-111 for Australia

Cost – cost of 24 F-111C's has risen from just over \$5 million a piece to nearly \$10 million.

Discussion – Navy's F-111B will cost \$8 million, plus about \$3 million in ground support equipment.

Source – Missiles & Space Daily, August 23, 1967, p 184.

Recorded – October 25, 1967.

AM72 – RF-111D, Reconnaissance Aircraft

Cost – an estimated \$7.53 million per unit.

Discussion – almost half of this attributable to electronics.

The present avionics and sensor package will cost \$2.2 million (and if a new one is developed, this estimate will increase) while the fire control system will cost \$700,000 per aircraft.

Source – Interavia, September 1968.

Recorded – November 20, 1968.

AM95 – FB-111A, 210 (U.E.)

Cost – Total Investment Cost of \$1.9 billion

Discussion – to procure a force of 210 (U.E.) FB-11A's configured as closely as possible to the fighter version so that, it would indeed, be a dual purpose aircraft, strategic and tactical, and this is what we propose to do at a total investment cost of about \$19 billion.

Some \$26 million of FY66 funds are being utilized to include the necessary development work this year and \$202 million has been included in the FY67 budget to continue development and procure the first few aircraft, including initial spares and advance procurement of long lead time items.

Source – Statement of Secretary of Defense McNamara before Senate Subcommittee on DoD Appropriations, FY67-71 1967 Budget.

Recorded – March 21, 1966.

AM149 – F-111

Cost – Initial Pentagon estimates were that it would cost \$6 billion for 1700 F-111's.

McClellan says it would cost more than \$12 billion to produce 1300 planes; including \$2 billion for research and development.

Source – Astronautics & Aeronautics, May 1968, p 81.

Recorded -- May 8, 1968.

AM75 – F-111 Fighter Bomber

Cost -- \$7 million

Discussion – Enthoven contends the rising cost of the \$7 million fighter bomber makes it too expensive for use in blocking enemy supply lines.

Source – Weekly News Summary, November 1, 1968, Business Week, October 24, 1968, p 4.

Recorded – November 19, 1968.

AM100 – F-104J, Lockheed Mach 2 Jet Fighter

Cost -- \$1.37 million each

Discussion—Japanese Defense Agency is ordering 30 additional Lockheed F-104J Mach 2 Jet fighters as a follow-on to the 200 aircraft already produced under license by Mitsubishi Heavy Industries, Ltd.

Value of the new contracts with Mitsubishi is \$41.3 million.

Approximately 64% of the components and parts for the 30 F-104j's will be produced in Japan as compared with 43% under the initial program.

Production and delivery of the new aircraft is scheduled to begin in January 1967.

Source – Aviation Week, February 21, 1966, p 30.

Recorded – March 11, 1966.

AM76 – F-104G -- Lockheed Starfighter

Cost -- \$1 million per aircraft

Discussion – 20 to 25 to be purchased by West Germany from Dutch government.
Surplus to Royal Netherlands Air Force.
Source – Aviation Week, July 15, 1968, p 18.
Recorded – July 20, 1968.

AM78 – F-100 IRAN

Cost -- \$20,000, Inspection and Repairs as necessary by CASA.
Discussion – by Construcciones Aeronauticas, S.A.
CASA has delivered 4,161 renovated aircraft to USAF in Europe.
Standard F-100 IRAN takes 60 days, involves about 6,000 man-hours and is accomplished for about \$20,000.
Source – Aviation Week, March 11, 1968, p 47.
Recorded – July 22, 1968.

AM80 – G-91, Fiat – the new Italian Strike/Recon. Aircraft

Cost – offered fully equipped, at a competitive price of \$1.1 million
Discussion – Weight empty – 8,375 lbs, normal takeoff – 17,200 lbs
Performance – operation radius at S/L – 466 miles
Dimensions – Length – 38.3 ft, wing span 29.5 ft, Height 14.5 ft.
Power plant – 2 GE J85-GE-13A engines.
20 pre-production aircraft on order for the Italian Air Force
Are to delivered early next year.
Source – Interavia, August 1968, p 964.
Recorded – August 1968.

AM81 – MRA – 75, Multi-role aircraft for 1975

Cost -- \$2 to 2.5 million per unit
Discussion – gross take off weight of no more than 25,000 lbs.
Source – Aviation Week, May 6, 1968, p 29.
Recorded – May 17, 1968.

AM82 – F-12

Cost – F-12 based force, 10 year program cost = \$13.7 billion.
Discussion –
Source – Aviation Week, April 22, 1968, p 19
Recorded – April 27, 1968.

AM83 – FX/VFAX, Air Force and Navy

Cost -- \$1 billion to \$1.5 billion.
Discussion – common development would result in total development cost of...
As apposed to more than \$2 billion if aircraft were to be developed separately.
Source – Aviation Week, April 27, 1968, p 25.
Recorded – April 27, 1968.

AM84 – F-106

Cost – \$12.3 billion 10 year program cost, based system.

Discussion –
Source – Aviation Week, April 27, 1968, p 19.
Recorded – April 27, 1968.

AM198 – Jaguar Fighter Aircraft

Cost -- \$2 million per unit

Discussion – Modifications agree to buy the French and British governments on the Jaguar fighters program respectively threaten to double the costs of the aircraft.

Pierre Clostermann, French Deputy and influential member of the Assembly's Defense Committee, claims the twin-jet fighter will now cost France \$300 million for 150 aircraft, or \$2 million per unit. Clostermann said the original cost of the aircraft before the British entered the program, worked out to roughly \$1.1 million.

Take off weight on typical mission = 20,900 lbs.

Source – Aviation Week, November 8, 1965, p 29.

Recorded – December 20, 1965.

AM136 – Jaguar, French Jaguar Aircraft

Cost – Unit cost of the aircraft was now estimated at \$2.9 million.

Discussion – Under the initial French program, before the British requirements were tacked on, the unit price had been estimated at \$1 million.

France plans to order 300 Jaguars, 150 in 1967 and an additional 150 after 1970.

The British initial order for 150 aircraft is slated to be placed in 1970.

At present costs, French deputies noted, the money needed to pay for the 300 French Jaguars – about \$850 million – just about eliminated the possibility of the French Ministry ordering any other aircraft.

Source – Aviation Week, October 31, 1966, p 39.

Recorded – December 2, 1966.

AM85 – Jaguar, Multi purpose trainer/attack aircraft

Cost -- \$1.5 million price category

Discussion –

Source – Aviation Week, April 22, 1968, p 20.

Recorded – April 27, 1968.

AM86 – SAAB J35XD Draken dual purpose fighter bomber/recon aircraft

Cost -- \$33.4 million, Cost of first 23 aircraft.

Discussion – Cost of the second, if purchased before 1 July will be \$26.6 million Danish government has agreed to purchase

Off set terms offered by Sweden,

Reported reduction of \$10 million in the original price of \$70 million quoted for the aircraft and spares.

Northrop F-5 competed at \$73 million range and Dassault's Mirage 5 at \$72 million.

Source – Aviation Week, April 1, 1968, p 16.

Recorded – April 19, 1968.

AM87 – Belgium Mirage 5

Cost – valued at \$150 million

Discussion – Belgium orders French March 22 Mirage 5

Belgium order is for 88 Mirage 5's with an option for another 18 aircraft, which will be either Mirage 5's or Anglo-French Jaguar fighters now under development

Source – Aviation Week, February 26, 1968, p 16.

Recorded – June 2, 1968.

AM88 – IMI, Improved Manned Interceptor

Cost -- \$200-300 million, Development costs estimated at between ...

Discussion -- \$2-3 billion for production of between 100-200 aircraft.

Source – Technology Week, March 27, 1967, p 38.

Recorded – April 17, 1967.

AM89 – Helicopter Maintenance

Cost – as follows for Army, Navy, and Air force

Discussion – see table below

Army	Helicopter	Manhours for base level maint/flying hr.	Maint. Cost/flying hour 1963	Average time between overhauls	Average flying hours between overhauls
	H-13	9	37	-	-
	H-23	9	45	-	-
	H-19	7	95	-	-
	HU-1	11	120	-	-
	H-21	19	120	-	-
	H-34	19	110	-	-
	H37	40	300	-	-
Navy					
	HSS	26	344	26/mo.	983
	HOK	17	282	25	638
	HO4S	15	144	30	1,674
	HR2S	30	686	25	957
	HRS	23	248	30	786
	HUK	23	333	25	583
	HUP	15	176	25	850
	HUS	21	191	26	918
	HUL	20	165	25	900
	HTL	9	55	25	1,263
Air Force					
	H-13	11	52	2 years(4)	(5)

	H-19	19	77	3 years (4)	-
	H-21	25	105	3 years (4)	-
	H-43A	(6)	(6)	(7)	-

(1) Maintenance cost includes all military and civilian labor used for organizing, field and depot level maintenance.

Includes overhaul of airframe and cost of consumable parts.

(2) Prior to 1961, each Army aircraft was over hauled every 3 years. Since, on an individual condition basis.

(3) Insufficient aircraft overhauled to determine average.

(4) After January 1961, Air force deleted requirements for cycling helicopters to depots for inspection and repairs on a calendar time intervals.

(5) Not applicable

(6) Phased out in FY62,

(7) H-43 never had fixed time intervals.

Source – DoD 1964, House Hearing, Subcommittee of Appropriations Committee, 88th Congress, 1st Session, Part 4, p 209.

Recorded – November 15, 1963.

AM91 – SF-5, Spain’s Licensed Production of Northrop’s F-5

Cost – Flyaway cost of SF-5 will be about \$610,000.

Discussion – the SF-5 contract is valued at \$64,5 million, of which \$42,6 million is the direct manufacturing costs.

Total unit price, including the aircraft in a flyaway configuration, spares, license fees and tooling cost, is \$750,000.

Construcciones Aeronautics (CASA)

20,500 tools, weighing 540 tons valued at \$9.5 million in the SF-5 project.

Source – Aviation Week, February 26, 1968, p 42.

Recorded – June 2, 1968.

AM92 – RF-4E, McDonnell Douglas RF-4E reconnaissance Aircraft

Cost -- \$5.05 million

Discussion – West German Defense Minister acquire 88 at a cost of \$445 million

The US estimates that it costs \$700-800 million annually to maintain forces in West Germany.

Source – Aviation Week, May 20, 1968, p 29.

Recorded – June 29, 1968.

AM93 – RA5C, North American

Cost – Flyaway cost = \$6.22 million

Discussion – AGE to support the aircraft is \$1.42 million.

Source – Aerospace Interoffice Correspondence, Duff to Hunter, April 7, 1966,

Costs for RA5-C A/C

Recorded – April 7, 1966.

AM94 – Hughes Helicopters

- Cost – Unit flyaway cost to the Army for second and succeeding lots
Discussion – Initial lot of 714 with an option for 357 more, initial cost of \$40,000.
Hughes airframe charge for future orders will rise to \$25,000-30,000 from the \$19,860 charge of the first lot.
Source – Aviation Week, March 21, 1966, p 23.
Recorded – April 6, 1966.
- AM95 – A-7A, USAF Version of Ling-Tempco Vought A-7A Light Attack Aircraft
Cost – Somewhat above the present Navy figure of \$1.24 million/aircraft
Discussion – The modifications are designed to improve the A-7A's basic performance and cut down on weight, as well as tailor it to a land based, as opposed to carrier operations.
Example modification include
Replacement of the CP-74/A weapons release computer with an analog bombing computer.
Substitution of the 14,000 lb thrust Pratt & Whitney TF 30-P-S turbine engine for the present 6 installation
Substitution of the M-61 20 mm internal guns for the Mk-12 mm cannon.
Source – Aviation Week, February 21, 1966, p 29
Recorded – March 11, 1966.
- AM98 – Soviet Mi-4 Helicopters
Cost -- \$4.5 million for 40
Discussion – India last week purchased...
The 10 passenger helicopter can be converted to a cargo carrier and has a 3,000 Lb. payload.
Source – Aviation Week, March 21, 1966, p 23.
Recorded – April 7, 1966.
- AM99 – AAFSS, Aerial Fire Support Systems
Cost -- \$12.7 million for 10 AAFSS prototype helicopters
Discussion – Lockheed received an initial increment of \$12.7 million.
Aviation Week, March 28, 1966, p 37.
Recorded – April 8, 1966.
- AM100 – DB-265, Generally termed the Superb VC-10, project
Cost -- \$264 million, entire cost of the airframe and engine.
Discussion – The ministry said the British government could no support the DB-265.
Source – Aviation Week, May 16, 1966, p 41.
June 10, 1966.
Recorded – June 10, 1966.
- AM101 – VFW- 614, Vereinigte Flugtechnische Werke, Twin Turbo Fan
Cost – purchase price = 1.15 million with standard equipment
Discussion – short haul transport.

Source – Aviation Week, May 9, 1966, p 28.
Recorded -- May 27, 1966.

AM102 – F-111B, General Dynamics

Cost – Total development costs will be \$255.1 million.

Discussion -- \$54 million over earlier predictions, Navy Sec. P.H. Nitze said.

\$41 million of the increase stems from engine and airframe modifications

\$13 million from the contractor's overrun.

Source – Aviation Week, May 9, 1966, p 25.

Recorded – May 27, 1966.

AM104 – FX (Fighter Experimental) Mach 3 Ground Attack & Interceptor Aircraft

Cost – Air Force is hoping for a \$1.5-1.7 million unit price.

Discussion -- USAF fears that DoD will reject any proposal involving a higher price.

Source – Aviation Week, May 2, 1966, p 19.

Recorded – May 26, 1966.

AM108 – RC-135

Cost -- \$11.562, million Annual Operating Cost for 10 U.E. (Primary Prog. El. Only) million

Discussion – Recurring Investment - \$2.200

Procurement 3010 = \$.298

3040 = \$.100

O & M 3400 = \$5.378

Mil. Pers. 3500 = \$5.786

Share of BOS \$6.304

Source – AFM 172-3, June 15, 1965, p 6.

Recorded – June 13, 1965.

AM197 – C-135 Modification, Retrofitted for Communications

Cost -- \$27,320,199 contract to modify 8 C-135s

Discussion – Douglas' Tulsa branch

To provide communications to the 3 man Appollo spacecraft during critical earth orbital lunar trajectory and reentry phases of the mission

All 8 aircraft to be in place by late 1967

Bendix to refit with new electronics (cost of Bendix not included)

Major mod. Is to add a bulbous radome on the nose of each C-135 to house a 7 ft parabolic dish. The dish will weigh 800 lbs, including the pedestal for the antenna system.

Previous purpose of ARIA modification are (1) permit voice communications during injection into earth orbit.

Main requirement for the four planes expect to fly in a single mission is to cover any single phase of each flight.

ARIA normally will fly a selected pattern anticipation communications with the Appollo spacecraft for 30 min. during orbial missions.

The 8 C-135's will have a Douglas flight crew of 4 with an additional operating crew of at least 7. Total work space available can accommodate 22 persons. Using all available cargo area in the aircraft.

There will be 6 operating consoles

Other antennas added, see article for details

Source – Aviation Week, November 15, 1965, p 77.

Recorded – December 20, 1965.

AM111 – SAR Search & Rescue Aircraft (Navy)

Cost – as follows

Discussion –

Type	Investment	Direct Yearly Operating
UH-23	\$830,000	\$160,000
UH-34D&J	\$400,000	\$151,000
HU-16	\$600,000	\$250,000

Source – “A Cost Effectiveness Evaluation of 3 Alternative Boats for the Navy Land Based SAR function,” US Navyal weapons System Analysis Office, Marine Corps Air Station, Quantico, J.J.Belloski, June 1965

Recorded – July 5, 1966.

AM112 –Mirage Fighters, Dassault Mirage Fighters

Cost -- \$1 million each

Discussion – the proposal involves the sale of 100...to the Belgian Air Force at a cost of \$1 million each.

A total of 75% of this cost would be offset by Belgian participation in production of the Dassault F-1 fighter and Anglo-French Jaguar fighter-trainer aircraft.

Source – Aviation Week, June 5, 1967, p 24.

Recorded – June 15, 1967.

AM113 – C-141 Retrofit, Lockheed

Cost -- \$80 - \$100 million

Discussion – Retrofit the entire fleet of 250 Lockheed C-141's with the Aircraft Integrated Data Systems (AIDS).

Would save \$60-\$70 million annually in reduced plane-side test equipment, unnecessary maintenance and increased availability of the aircraft.

Source – Aviation Week, August 14, 1967, p 3.

Recorded – September 15, 1967.

AM114 – OV-10A

Cost – North American OV-10A Counter Insurgency Aircraft

Discussion – Basic airframe price will be reduced to about \$160,000.

With government furnished equipment costing up to \$185,000.

Depending on avionics options, the total figures will be close to the \$300,000

Target for an export sales price.

Unit cost of the aircraft now is about \$450,000.

Source – Aviation Week, June 5, 1967, p 19.
Recorded – June 15, 1967.

AM115 – SST, US Supersonic Transport (SST)

Cost -- \$15 billion

Discussion – Total value for 500 transports

FAA's official estimate limited to sonic-boom-over-water operations.

If the SST solves the sonic-boom problem and is used for overland flights, the estimate rises to \$1,200 at a cost of \$31 billion.

FAA arrived at a unit price of \$40 million per SST based on a 500 aircraft market.

This includes \$21.4 for the airframe and the \$5.5 million for the 4 engines.

Source – Technology Week, May 22, 1967.

Recorded – June 2, 1967.

AM122 – AX Attack Aircraft

Cost – Target price is believed to be between \$1 – 1.2 million.

Discussion –

Source – Technology Week, March 27, 1967, p 46.

Recorded – April 20, 1967.

AM120 – AX, AF proposed AX close-air-support aircraft

Cost – about \$1 million per copy

Discussion – AF target cost of \$850,000-1,200,000

If an estimate of 4400,000 is assumed for the airframe, according to one official,

About \$250,000 could be left for the avionics equipment.

Source – Aviation Week, April 3, 1967, p 29.

Recorded – May 2, 1967.

AM121—AH-56A, Army's Armed Helicopter

Cost – about \$2 million per copy

Discussion – under development by Lockheed Aircraft

Source -- Aviation Week, April 3, 1967, p 29.

Recorded – May 2, 1967

AW122 – IMI/AWACS, Improved Manned Interceptor (IMI) for continental defense

Cost – Further development fo modify F-2 and F-111 = \$200-300 million/

Discussion – production program would cost \$2-3 billion according to DoD, for a force of 100-200 aircraft.

Source – Technology Week, March 27, 1967, p 41.

Recorded – April 18, 1967.

AM123 – VTAJX, Advanced Jet Trainer

Cost – Unit price of \$750,000-800,000 class

Discussion – an estimated 500 aircraft

Source – Technology Week, March 27, 1967, p 39

Recorded – April 18, 1967.

- AM124 – CX, Aeromedical Evacuation Aircraft (CX)
Cost -- \$35 million will be spent for about 7 new aircraft
Discussion – to speed domestic movement of battle casualties.
Source – Technology Week, March 27, 1967, p 38
Recorded – April 18, 1967.
- AM126 – ECM Aircraft
Cost -- \$5 million each
Discussion -- aimed at replacing ECM version of B-66 for theater operations.
About 100 aircraft at an estimated cost of \$5 million each.
Source – Technology Week, March 27, 1967, p 38.
Recorded – April 18, 1967.
- AM127 – ASW (VSX)
Cost – Development cost is expected to be at least \$500 million.
Discussion – production of 290-500 aircraft at about \$2.5 million each should push the total program toward the \$2 billion mark.
Source – Technology Week, March 27, 1967, p 38.
Recorded – April 18, 1967.
- AM128 – AX, Low Cost Attack Aircraft
Cost -- \$1 – 1.2 million each
Discussion – Air Force program to replace aging A-1
Expected to result in a buy of 400 – 500 aircraft.
At a target price of \$1 – 1.2 million each.
Development cost is estimated at between \$20-100 million by the Air Force, depending upon complexity of design and amount of electronics on board.
Source – Technology Week, March 27, 1967, p 38.
Recorded – April 18, 1967.
- AM129 – FX (VFAX) Advanced Air Superiority Fighter
Cost – Development for both Air Force and Navy use is expected to cost at least \$500 million.
Discussion – Very large anticipated production could push the program to more than \$10 billion.
Source – Technology Week, March 27, 1967, p 38.
Recorded -- April 17, 1967.
- AM132 – OH-6A Light Observation Helicopters in 1965.
Cost -- \$19,860 (without power plant)
Discussion – Hughes Tool Co. submitted a unit bid to the Army.
Price of commercial version of the OH-6A currently is about \$78,000, including power plant.
Source – Aviation Week, February 27, 1967, p 15.
Recorded – April 4, 1967.

AM133 – LOH, Light Observation Helicopter

Cost – as follows

Discussion – Hughes Tool Co. officials testified that the \$19,800 per copy bid on the LOH contract was made with a loss of \$10,000 a copy in mind, “in order to get into the helicopter business.”

Army and Hughes, who were suggesting prices of \$45,124 versus, \$49,500 respectively.

Hughes in house estimated cost for production of the LOH on the initial contract – in which with options could run to as many as 1,071 helicopters – was \$30,000 per copy, Hooper said.

In explaining the jump in price to \$49,500 a copy for a proposed additional Army order of 121 aircraft.

Hooper said that this figure was reached through cost information on the first 300 helicopters to come off the line. The 121 order was to have been produced at the same time the original order was serviced, requiring more staffing and equipment, Hooper indicated.

The FH-1000m the commercial version of the Hiller LOH design called the OH5, he said, is being sold to the government at \$100,000 a copy including spares.

Hiller officials pointed out, that the commercial version of the OH-5, with no spares runs about \$85,000.

Source – Technology Week, March 6, 1967, p 19.

Recorded – March 30, 1967.

AM134 – X-15, as a Reusable Space Vehicle

Cost – 27 flights were accomplished in 1969 at a total cost of \$16,268,000.

Discussion – an average cost of more than \$602,000 per flight.

Total initial program cost was \$162.80 million in terms of 1957-1959 buying power.

Unit costs per lb.

	Total	No. of Units	Unit empty wt.	Cost/lb
X-15 airframe	73.41 million	3	12,650	1,930
Engine	53.83	10	915	5,900
Stability augm. System	1.40	4	65	5,400
Inertial Flight data system	1.40	6	120	4,700
Aux. power unit	2.70	16	45	3,750
Flow-direction sensor	.60	6	78	1,300
B-52 Airplane	62.02	2	177	170

3% of cost of a new X-15 for each flight.

Cost of a New X-15 Airplane Cost, million of \$
 Airframe & basic subsystem 7.50

Engine	1.00
Flow direction sensor	.08
Inertial system	.15
Misc.	.27
Total	9.00

Typical X-15 Refurbishment (1964)	Cost in million of \$
Shop support, 7 men at \$10,000 per year, NASA –	0.070
Airframe spares	1.334
Airframe parts repair or replacement, contractor	1.287
Airframe engineering support, contractor	2.482
Total	7,288

Average cost for 27 flights -- \$270,000

Source – ‘Summary of Operations & Cost Experience of the X-15 Airplane As a Reusable Space Vehicle,’ November 1966.

Recorded – March 30, 1967.

AM172 – X-15, Modification, NASA

Cost -- \$5 million before the work being done by NAA is through.

Discussion – aircraft about 1300 miles/hour faster

2 feet longer

Capable of carrying 13,500 lbs of propellants to extend engine burning time from 86 to 195 seconds.

Source – Missiles and Space Daily, vol. 3, No. 42, p 252, October 30, 1963.

Recorded – November 11, 1963.

AM137 – X-15 Program Costs

Cost -- \$162.8 million based on 1957-59 buying power.

Discussion – Airframe development, manufacturing and flight test represented 45% of the total.

The Thiokol YLR99 rocket engine costs were one third of the total.

In its study of costs NASA used cost/pound of equipment as a rule of thumb for estimation purposes, noting that components with similar type construction or function are likely to have a similar costs.

For example, the unit cost per pound - \$6,670 - of the inertial flight data system developed in 1963 for the Boeing X-20 Dyna-Soar Compares favorably with the cost - \$4,700 for the X-15.

Unit costs/# of selected X-15 systems at initial procurement include:

Airframe	\$1,930
Engine	\$5,900
Stability augmentation syst.	\$5,400
Aux. power unit	\$1,300

Boeing B-52 aircraft, which was used for launching the X-15 \$170

The order of magnitude difference between costs of the X-15 airframe and the entire B-52 most likely results from the difference in design mission and state of the art technology during development.

Average refurbishment cost per flight for 27 successful flights in 1964 was \$270,000 or about 3% of the cost of a new X-15, (includes shop support, space parts, engineering, misc. support)

Source – Aviation Week, January 9, 1967, p 67.

Recorded – February 24, 1967.

AM135 – LOH, OH-6A Light Observation Helicopter

Cost – fixed cost of \$19,860 per unit

Discussion -- from Hughes tool Co's Aircraft Division.

Army's contract with Hughes covers 3 fiscal years ending with 1967. Under its terms, the Army agrees to buy 714 helicopters, with an option to procure an additional 357 at a fixed unit cost of \$19,860. the contract is for the airframe only.

Source – Aviation Week, November 21, 1966, p 25.

December, 15, 1966.

AM143 – SK-5, Navy/Bell SK-5 Ground Effects Machine

Cost – 3 SK-5's to the navy under a \$2.6 million contract.

Discussion – Bell delivered.

Source – Aviation Week, August 1, 1966, p 24.

Recorded – September 8, 1966.

AM144 – ASW Trainer, Navy

Cost -- \$7 million contract.

Discussion – will go into operation at the Pacific Fleet ASW School in San Diego later this year.

The computer controlled system, which was developed designed and installed by Lockheed Electronics Co --- is said to be capable of simulating the entire actions of an ASW task force.

The trainer device, 14A6H, will create "real-time" exercises for as many as 250 personnel.

Lockheed delivered a similar trainer to Navy at Norfolk last month.

Source – Technology Week, July 11, 1966, p 11.

Recorded – August 22, 1966.

AM145 – Mirage 5, French

Cost – has been cut to about \$1 million.

Discussion –

Source – Aviation Week, December 25, 1967, p 23

Recorded – January 3, 1968.

AM146 – OV-1B, Mohawk Battlefield Surveillance Aircraft

Cost – per unit cost of about \$1 million.

Discussion – an a firm price dependent upon avionics requirements.

Source – Aviation Week, December 25, 1967, p 13.

Recorded – January 3, 1968.

- AM147 – FX, German Battle Aircraft for the mid 1970's.
Cost – Unit cost of under \$2.5 million
Discussion – designated Neue Kampffugzeng (NKF) is regarded as a hedge against feared abandonment of the German American US/FRG V/STOL combat aircraft.
Advanced STOL capability
1,000-1,200 ft range at full gross takeoff weight Mach 0.9 at sea level.
Source – Aviation Week, December 11, 1967, p 26.
Recorded – January 10, 1968.
- AM148 – AH-56A, Armed Helicopter Program
Cost – Once source estimates the unit price will be \$1.2 million or more.
Discussion –
Source – Aviation Week, January 15, 1968, p 40.
Recorded – March 14, 1968.
- AM150 – VFX, Navy Readies VFX Proposal
Cost – could approach \$6 or \$7 million per aircraft compared to the \$8.1 per aircraft for F-111B.
Discussion – estimates place the fully loaded weight at 60,000 lbs., compared to an estimated fully loaded weight for the F-111B of 80,000 lbs.
Source – Aerospace Technology, May 6, 1968, p 14.
Recorded – June 4, 1968.
- AM151 – YRB-58A, Convair
Cost -- \$37.4 million unit value.
Discussion –
Source – Aviation Week, November 30, 1964, p 13.
Recorded – July 20, 1965.
- AM152 – C-130A, Lockheed
Cost -- \$16.6 million unit value.
Discussion –
Source – Aviation Week, November 30, 1964, p 13.
Recorded – July 20, 1965.
- AM153 – RB-66A, Douglas
Cost -- \$15.5 million unit value.
Discussion –
Source – Aviation Week, November 30, 1964, p 13.
Recorded – July 20, 1965.
- AM156—A-1 Skyraider, Douglas
Cost -- \$15,000 in 1959.

- Discussion – French bought 146 A-1 piston-engine strike fighters at a bargain price.
 Source – Aviation Week, September 16, 1965, p 25.
 Recorded – September 16, 1965.
- AM158 – Douglas A-1 Aircraft
 Cost -- \$800,000 per aircraft in a 300 unit order.
 Discussion – this compares to \$175,000 - \$200,000 cost of original version.
 Source – Aviation Week, August 2, 1965, p 23.
 Recorded – August 31, 1965.
- AM159 – XV-5A, USAF Scramjet Hypersonic Flight Program
 Cost – vehicle itself is expected to cost \$100 – 150 million to build.
 Discussion – over all program will cost about the same as the X-15 program.
 Launched from a B-52 mother ship or from a B-70
 Flying by 1971 or 1972.
 Mach 12 or later to Mach 20.
 Source – Aviation Week, July 12, 1965, p 53.
 Recorded – August 31, 1965.
- AM163 – Sweden’s 35X
 Cost -- \$1 million and 18 months delivery time.
 Discussion – 35X Export Version of its J35F Draken mach 2 Interceptor
 Sweden’s Saab Aircraft Company
 Proposed sale to Austria and Venezuela
 Export version would not have Hughes Falcon Air to Air Missiles and special Swedish Stril 60 ground environment systems avionics, but at the customers option Saab will install other electronics such as L.M. Ericsson fire control radar and the Saab BT-9 toss-bombing computer.
 Source – Aviation Week, September 13, 1965, p 30.
 Recorded – November 23, 1965.
- AM164 – XV-5A, V/STOL Aircraft – Army
 Cost -- \$5 million each.
 Discussion – GE prime contractor and developer of XV-5A lift-fan power plant
 Ryan Aeronautical Corp., built airframe
 Republic Aviation Corp, which is flight testing
 They are pressing for funds to build a squadron
 Present program of 2 XV-5A’s costs about \$17 million according to Army.
 Source – Aviation Week, November 23, 1964, p 33.
 Recorded – December 28, 1964.
- AM166 – COIN, North American COIN Development
 Cost -- \$18 million
 Discussion – includes engines
 Unit cost of the seven prototypes about \$2.5 million

Unit production cost expected to be about \$300,000 compared with the original Target cost for a COIN aircraft of about \$100,000.

Grumman claims it could build a stripped down version of its Mohawk for counter insurgency role for about \$450,000 in an order for 500 aircraft.

Source – Aviation Week, August 24, 1964, p 24.

Recorded – November 4, 1964.

AM167 – C-130E, USAF

Cost -- \$2.3 million

Discussion – delivered price

Senator Monroney – C-141-E probably would be in the neighborhood of \$5 million plus

Senator Fiedman – less in future, we project down around 4 or 4 and ½ on the learning curve.

Source – Senate Subc. Of appropriations Committee Hearing, 88th Congress, 1st Session, HOC 7179, p 1232.

Recorded – November 13, 1963.

AM171 – A-3, Sky Warrior, Attack Type – US navy

Cost -- \$132 per flying hour; \$109,570 cost of rework

Discussion –

Source – Senate Subc. Of Appropriations Committee Hearing, 88th Congress, 1st Session, HR7179, p 866.

Recorded – November 12, 1963.

AM171 – A-5, Vigilante, Attack Type – US Navy

Cost -- \$158.60 per flying hour; \$189,488 for rework.

Discussion –

Source – Senate Subc of Appropriations Committee Hearing, 88th Congress, 1st Session, HR7179, p 866.

Recorded – November 12, 1963.

AM173 – Rotary Wing Aircraft

Cost -- \$18.51 per hour

Discussion – included only POL and organizational maintenance

Col. McGiffert – fixed wing \$10.76.

Source – DoD 64, House Hearings Subco. Of Appropriations Committee, 88th Congress, 1st Session, Part 4, p 152.

Recorded – November 15, 1963.

AM174 – TFX

Cost -- \$7 billion program – DDR&E.

Discussion – Dr. Brown – the total number of planes now programmed is about 1,700 plus.

The estimated cost is in the neighborhood of \$7 billion. They could be higher by 10%.

It includes development plus about \$6 billion for procurement.
Source – DoD 64, House Hearings Subc. Of Appropriations Committee, 88th
Congress, 1st Session, Part 6, p 72.
Recorded – November 14, 1963.

AM175 – TFX

Cost – \$1 billion for the package – Development – DDR&R
Discussion – Dr. Brown – Estimated cost of the development, including fire control and radar system, which is common and does not depend on the airplane, it is on the order of \$1 billion.
The cost of the airplane alone is something like \$600 million. There are about \$200 million for the engine and another \$200 million for the fire control and radar system so in that case you would have spent \$200 million extra, and unless you decided to go ahead with the airplane, which already has been chosen you also would be introducing a 2 or more year delay.
Alternatively you could go ahead with both programs full scale, that is full system. In that way you would not lose time but you would spend not \$200 million extra, but \$600 or \$700 million extra.
Source – DoD 64, House Hearings Subc. Of Appropriations Committee, 88th
Congress, 1st Session, Part 6, p71.
Recorded – November 14, 1963.

AM176 – RS-70

Cost – DDR&E, \$1.35 billion
Discussion – Dr. Brown, The expenditures to date total about \$1.15 billion, perhaps \$1.2 billion. The amount, which the Secretary of Defense has approved altogether for the program is \$1.35 billion.
Source – DoD-64, House Hearings, Subc. Of Appropriations Committee, 88th
Congress, 1st Session, Part 6, p 84.
Recorded – November 14, 1963.

AM177 – Caribou II, US Army

Cost -- \$22.5 million
Discussion – Gen. Beach – The money we have will get us 5 aircraft. We are paying \$7.5 million for these 5 aircraft out of US funds. The Canadian Government, is paying \$7.5 million and the de Havilland Co. of Canada is paying \$7.5 million.
Of that &.5 million, \$5 million is in Government furnished equipment, General. Electric engines and other US equipment.
Source – DoD-64, House Hearings Subc. Of Appropriations Committee, 88th
Congress, 1st Session, Part 6, p 312.
Recorded – November 14, 1963.

AM178 – QH-50C, Gyrodyne OH-50C drone anti-submarine helicopter (DASH)

Cost -- \$125,000 target unit cost.
Discussion – 25 of the 92 delivered to the Navy so far have crashed, most at sea.

- Program calls for 400.
Source – Aviation Week, November 11, 1963, p 23.
Recorded – April 9, 1964.
- AM179 – Mirage 3V
Cost -- \$8 million per unit
Discussion – 8 Rolls-Royce RB-162's
Long range, low-level intruder fighter
A sort of French TFX.
Source – Aviation Week, February 17, 1964, p 31.
Recorded – May 14, 1964.
- AM180 – TFX
Cost – R&D -- \$7 to \$10 billion
Discussion – 5 year system package also has to include operation and maintenance money. That could double the R7D plus production figure, so even if the \$7 billion is accurate, the package might total \$14 billion.
Source – Aviation Week, September 9, 1963, p 25.
Recorded – January 30, 1964.
- AM181 – Navy A-7A VAL Light Attack Aircraft
Cost -- \$1 billion for development
Discussion – Ling-Tempco-Vaught
Modified L-T-V F-8E Crusader airframe
Powered by a subsonic version of Pratt & Whitney TF-30 engine being developed for supersonic variable sweep-winged GD F-111 (7FX)
VAL will replace Douglas A-4E Skyhawk.
Source – Aviation Week, February 17, 1964, p 27.
Recorded – April 14, 1964.
- AM191 – Apollo Aircraft, Range Instrumented Aircraft (ARIA)
Cost -- \$27 million for 8 AF C-135 aircraft modified
Discussion – Douglas – Bendix team.
Source – Missiles and Rockets, January 24, 1966, p 24.
Recorded – February 9, 1966.
- AM192 – Lockheed SR-71 Mac 3 Reconnaissance Aircraft
Cost -- \$9 million
Discussion – Standard SR-71
107.4 ft long
Wing span is 55.6 ft.
Height from ground to the top of the vertical stabilizer is 18.5 ft.
Skin temperature at high speed reaches 600 f, and the inner walls of the air conditioned cockpit can exceed 100f.

With a 45 degree viewing angle to each side and flying at 80,000 ft, the aircraft could bring under surveillance a strip 30 miles wide between Beal AFB and Washington DC in 1 hour.

Source – Aviation Week, January 17, 1966, p 33.

Recorded – January 31, 1966.

AM193 – UH-2A, Kaman Armed Helicopter

Cost -- \$340,000 each in a large order.

Discussion – Take off gross weight = 11,781 lbs.

Hover maximum outside of ground effect at take off weight = 4,800 ft on a 95 F day.

Average speed for 2 hours endurance

Vibration level – Less than 0.1 g for mission.

Source – Aviation Week, December 20, 1965, p 60

Recorded – January 24, 1966.

AM194 – OV-10A, Counter insurgency aircraft

Cost – as follows

Discussion – Special air warfare Center, envisioned original three versions of the family aircraft with these flyaway prices.

Strike reconnaissance = \$200,000

Transport = \$175,000

Utility = \$75,000

Source – Aviation Week, December 6, 1965, p 26.

Recorded – December 28, 1965.

AM195 – YF-12A, Lockheed

Cost -- \$50 million for prototype

Discussion – in a production run of the Air Defense Command version, the cost would be about \$8 million per aircraft.

Source – Aviation Week, November 29, 1965, p 13.

Recorded – December 27, 1965.

AM196 – Huey Cobra, Bell, Interim Armed Helicopter

Cost – about \$340,000 each on a large order

Discussion – UH-2, could produce 30 armed helicopters a month within 9 months.

Proposed armament:

M-3 20 mm cannon mounted in nose

2 M60 waist guns and 1 M5 40 mm grenade launcher

Source – Aviation Week, November 22, 1965, p 22.

Recorded – December 20, 1965.

AM200 – OV-10A, North American counter-insurgency (COIN) aircraft.

Cost – 257 aircraft for \$100 million, about \$390 K each

Discussion – production order for 100 aircraft for the marine Corp. and 157 for the Air Force.

Source – Aviation Week, December 13, 1965, p 28.
Recorded – January 19, 1966.

AM206 – Saab 105 XT, Swedish twin engine attack aircraft
Cost -- \$550,000 per unit
Refitted with 2 GE CJ 610-4 engines, rated thrust at 2,850 lbs each
Weight empty = 5,550 lbs
Length = 34 ft 5 in.
Max level speed = 525 kt
Source – Aviation Week, September 25, 1967, p 61.
Recorded – October 17, 1967.

AM207 – AH-56A, Lockheed Armed Helicopter
Cost -- \$1 million
In production, is in the ball park of \$1 million
This is a flyaway cost, and includes engine and avionics.
Source – Aviation Week, December 18, 1967, p 20.
Recorded – January 2, 1968.

