## A1-F18AC-NFM-000

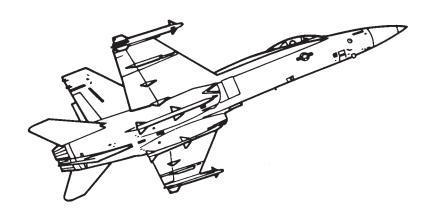




# NATOPS FLIGHT MANUAL NAVY MODEL F/A-18A/B/C/D 161353 AND UP AIRCRAFT

THIS PUBLICATION SUPERSEDES A1-F18AC-NFM-000 DATED 1 AUGUST 2006 CHANGED 15 JUNE 2007

THIS PUBLICATION IS INCOMPLETE WITHOUT A1-F18AC-NFM-200 and A1-F18AC-NFM-210



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THE AIRCRAFT



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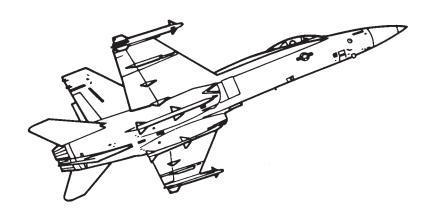




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UNDER THE DIRECTION OF THE COMMANDER

NAVAL AIR SYSTEMS COMMAND.

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THE AIRCRAFT



### DEPARTMENT OF THE NAVY NAVAL AIR SYSTEMS COMMAND RADM WILLIAM A. MOFFETT BUILDING 47123 BUSE ROAD, BLDG 2272 PATUXENT RIVER, MD 20670-1547

15 September 2008

### LETTER OF PROMULGATION

- 1. The Naval Air Training and Operating Procedures Standardization (NATOPS) Program is a positive approach toward improving combat readiness and achieving a substantial reduction in the aircraft mishap rate. Standardization, based on professional knowledge and experience, provides the basis for development of an efficient and sound operational procedure. The standardization program is not planned to stifle individual initiative, but rather to aid the Commanding Officer in increasing the unit's combat potential without reducing command prestige or responsibility.
- 2. This manual standardizes ground and flight procedures but does not include tactical doctrine. Compliance with the stipulated manual requirements and procedures is mandatory except as authorized herein. In order to remain effective, NATOPS must be dynamic and stimulate rather than suppress individual thinking. Since aviation is a continuing, progressive profession, it is both desirable and necessary that new ideas and new techniques be expeditiously evaluated and incorporated if proven to be sound. To this end, Commanding Officers of aviation units are authorized to modify procedures contained herein, in accordance with the waiver provisions established by OPNAV Instruction 3710.7, for the purpose of assessing new ideas prior to initiating recommendations for permanent changes. This manual is prepared and kept current by the users in order to achieve maximum readiness and safety in the most efficient and economical manner. Should conflict exist between the training and operating procedures found in this manual and those found in other publications, this manual will govern.
- 3. Checklists and other pertinent extracts from this publication necessary to normal operations and training should be made and carried for use in naval aircraft.

S. R. EASTBURG Rear Admiral, United States Navy

By direction of

Commander, Naval Air Systems Command

# CHAPTER 1

# The Aircraft

### 1.1 AIRCRAFT DESCRIPTION

1.1.1 Meet The Hornet. The F/A-18A/C Hornet is a single-place fighter/attack aircraft built by McDonnell Douglas Aerospace. See figure 1-1 for general arrangement and Cockpits Foldout section for cockpit arrangement. It is powered by two General Electric F404-GE-400 or F404-GE-402 (enhanced performance) turbofan engines with afterburner. The aircraft features a variable camber mid-wing with leading edge extensions (LEX) mounted on each side of the fuselage from the wing roots to just forward of the windshield. The twin vertical stabilizers are angled outboard 20° from the vertical. The wings have hydraulically actuated leading edge and trailing edge flaps and ailerons. The twin rudders and differential stabilators are also hydraulically actuated. The speed brake is mounted on the top side of the aft fuselage between the vertical stabilizers. The pressurized cockpit is enclosed by an electrically operated clam shell canopy. An aircraft mounted auxiliary power unit (APU) is used to start the engines. On the ground, the APU may be used to supply air conditioning or electrical and hydraulic power to the aircraft systems.

### **1.1.2 Aircraft Dimensions.** The approximate dimensions of the aircraft are as follows:

Span (Wings Spread)

with missiles	40 feet 5 inches
without missiles	37 feet 6 inches
Span (Wings Folded)	27 feet 6 inches
Length	56 feet
Height (To Top of Fins)	15 feet 3 inches
Height (To Top of Closed Canopy)	10 feet 6 inches

**1.1.3** Aircraft Gross Weight. Basic aircraft gross weight varies from 24,000 to 25,000 pounds. Refer to applicable DD 365F for accurate aircraft weight.

I-1-1 ORIGINAL

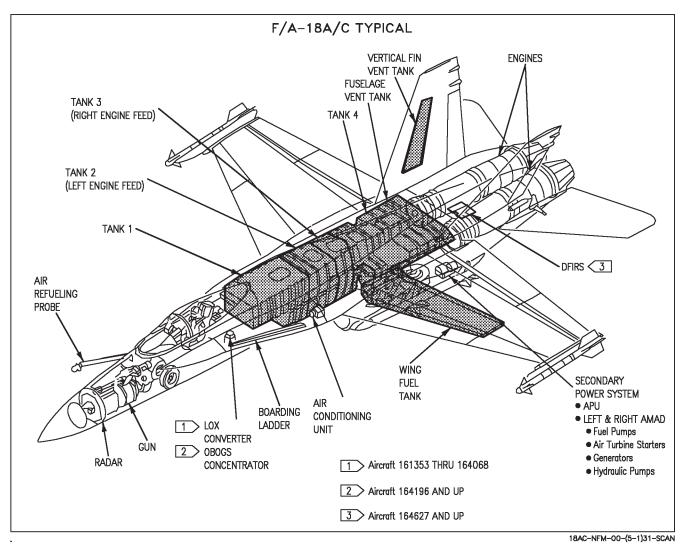


Figure 1-1. General Arrangement (F/A-18A/C)

**1.1.4 Mission.** The aircraft has an all-weather intercept, identify, destroy, and ground attack capability. Air-to-air armament normally consists of AIM-9, AIM-7, and AIM-120 missiles and a 20 mm gun. Various air-to-ground stores may be carried. Mission range may be extended with the addition of up to three external fuel tanks.

### 1.2 BLOCK NUMBERS

See figure 1-2 for block numbers which correspond to aircraft serial numbers (BUNO).

I-1-2 ORIGINAL

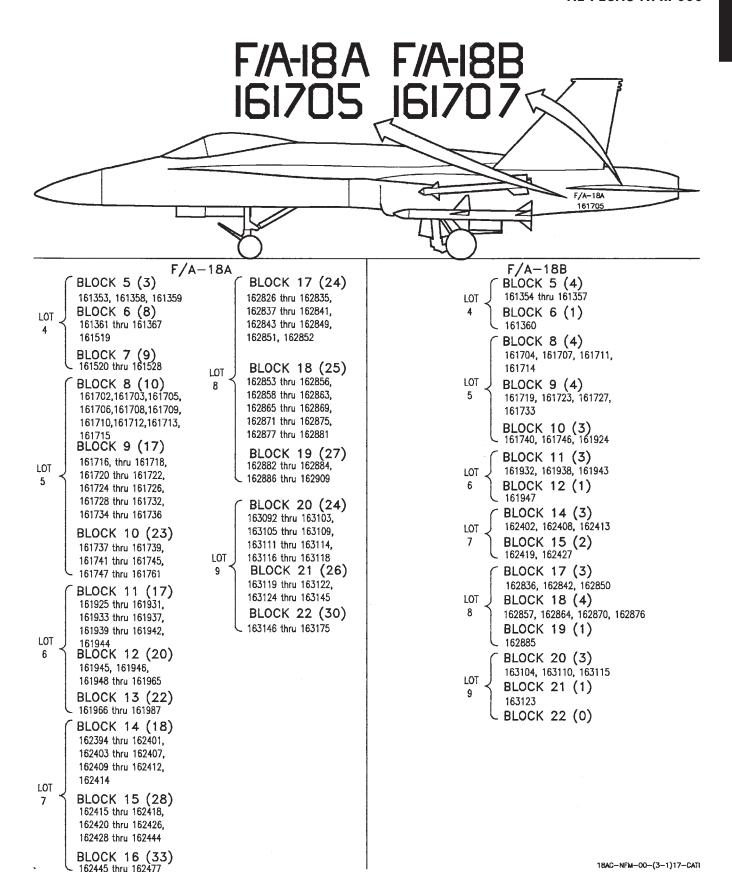


Figure 1-2. Block Numbers (Sheet 1 of 3)

### **LOT 10 BLOCK 23 (23)** 163427 thru 163433, 163435. 163437 thru 163440, 163442 thru 163444, 163446. 163448 thru 163451, 163453, 163455, 163456 **BLOCK 24 (21)** 163458, 163459, 163435 thru 163463, 163465 thru 163467, 163469 thru 163471, 163473. 163475 thru 163481, 163483 thru 163485, **BLOCK 25 (17)** 163487, 163489 thru 163491, 163493 thru 163496, 163498, 163499, 163502 thru 163506, 163508, 163509 **LOT 11 BLOCK 26 (25)** 163699, 163701 thru 163706, 163708 thru 163719, 163721 thru 163726 **BLOCK 27 (26)** 163727 thru 163733. 163735 thru 163748, 163750 thru 163754 **BLOCK 28 (25)** 163755 thru 163762, 163762 thru 163770. 163772 thru 163777. 163779 thru 163782, **LOT 12 BLOCK 29 (20)** 163985, 163987, 163988, 163990, 163992, 163993, 163995, 163996, 163998 thru 164000, 164002 thru 164004, 164006 thru 164008, 164010, 164012, 164013 **BLOCK 30 (16)** 164015, 164016, 164018, 164020, 164021, 164023, 164025, 164027, 164029 thru 164031, 164033, 164034, 164036, 164037, 164039 BLOCK 31 (18) 164041, 164042, 164044, 164045,

164047, 164048, 164050, 164052, 164054, 164055, 164057, 164059, 164060, 164062, 164063, 164065, 164066, 164067

F/A-18C

```
LOT 13
  BLOCK 32 (17)
164197,
164199 thru 164202,
164204 thru 164206,
164208 thru 164210,
164212 thru 164215,
164217, 164218
  BLOCK 33 (23)
164220 thru 164223,
164225 thru 164227,
164229 thru 164236,
164234 thru 164236,
164238 thru 164240,
164242 thru 164244,
164246 thru 164248
  BLOCK 34 (24)
164250 thru 164253,
164255 thru 164258,
164260 thru 164262,
164264 thru 164266,
164268 thru 164271,
164273 thru 164278
LOT 14
  BLOCK 35 (22)
164627 thru 164648
  BLOCK 36 (11)
164654, 164655,
164657, 164658,
164660, 164661,
164663, 164664,
164666, 164668,
164669
  BLOCK 37 (13)
164671, 164673,
164675, 164676,
164678, 164680, 164681, 164682,
164684, 164686,
164687, 164689,
164691
LOT 15
  BLOCK 38 (12)
164693,
164695 thru 164698,
164700, 164701,
164703, 164704,
164706 thru 164708
  BLOCK 39 (12)
164709, 164710,
164712, 164713,
164715, 164716
164718 thru 164722,
                              164224, 164228,
164724
                              164233, 164237,
                              164241, 164245,
  BLOCK 40 (12)
                              164249
164725, 164727,
164728, 164730,
                              164254, 164259,
164263, 164267,
164731 thru 164734
164736, 164737,
164739, 164740
                              164272, 164279
```

# F/A-18D

```
LOT 10
                            LOT 14
  BLOCK 23 (8)
163434, 163436,
163441, 163445,
163447, 163452,
163454, 163457
  BLOCK 24 (8)
                            164667
163460, 163464,
163468, 163472,
163474, 163479,
163482, 163486
  BLOCK 25 (7)
163488, 163492,
163497, 163500,
                            LOT 15
163501, 163507,
163510
LOT 11
  BLOCK 26 (3)
163700, 163707,
163720
  BLOCK 27 (2)
163734, 163749
  BLOCK 28 (3)
163763, 163771,
163778
LOT 12
  BLOCK 29 (10)
163986, 163989,
163991, 163994,
163997, 164001,
164005, 164009,
164011, 164014
  BLOCK 30 (10)
164017, 164019,
164022, 164024,
164026, 164028,
164032, 164035
164038, 164040
  BLOCK 31 (10)
164043, 164046,
164049, 164051,
164053, 164056,
164058, 164061,
164064, 164068
LOT 13
  BLOCK 32 (7)
164196, 164198,
164203, 164207,
164211, 164216,
164219
  BLOCK 33 (7)
```

**BLOCK 35 (0) BLOCK 36 (10)** 164649 thru 164653, 164656, 164659, 164662, 164665, **BLOCK 37 (10)** 164670, 164672, 164674, 164677, 164679, 164683, 164685, 164688, 164690, 164692 **BLOCK 38 (4)** 164694, 164699, 164702, 164705 **BLOCK 39 (4)** 164711, 164714, 164717, 164723 **BLOCK 40 (4)** 164726, 164729, 164735, 164738

Figure 1-2. Block Numbers (Sheet 2 of 3)

**BLOCK 34 (6)** 

I-1-4 **ORIGINAL** 

## F/A-18C

### **LOT 19 LOT 16** BLOCK 41 (9) **BLOCK 50 (24)** 164865, 164867, 165207 thru 165230 164869, 164871, LOT 20 164873, 164875 BLOCK 51 (10) 164877, 164879, 165399 thru 165408 164881 **LOT 21 BLOCK 42 (12) BLOCK 52 (1)** 164883, 164885, 165526 164887, 164889, 164890, 164891, 164892, 164893, 164894, 164895, 164896, 164897, **BLOCK 43 (13)** 164899, 164900, 164902, 164903, 164904, 164905, 164906, 164907, 164908, 164909, 164910, 164911, 164912 **LOT 17 BLOCK 44 (7)** 164946, 164948, 164950, 164952, 164954, 164956, 164958 **BLOCK 45 (12)** 164960, 164962, 164964, 164966, 164968, 164970, 164972, 164973, 164974, 164975, 164976, 164977 **BLOCK 46 (15)** 164978, 164979, 164980, 164981, 164982, 164983, 164984, 164985, 164986, 164987, 164988, 164989, 164990, 164991, 164992 **LOT 18 BLOCK 47 (12)** 165171 thru 165182 BLOCK 48 (12) 165183 thru 165194 **BLOCK 49 (12)** 165195 thru 165206

### F/A-18D

LOT 16	LOT
BLOCK 41 (9)	BL
164866, 164868,	LOT
164870, 164872	BL
164874, 164876,	1654
164878, 164880	LOT
164882	BL
BLOCK 42 (3)	1655
164884, 164886,	1656
164888	
BLOCK 43 (2)	
164898, 164901,	
LOT 17	
BLOCK 44 (8)	
164945, 164947,	
164949, 164951,	
164953, 164955,	
164957, 164959,	
BLOCK 45 (6)	
164961, 164963,	
164965, 164967,	
164969, 164971	
BLOCK 46 (0)	
LOT 18	
BLOCK 47 (0)	
BLOCK 48 (0)	
BLOCK 49 (0)	

LOT 19 BLOCK 50 (0) LOT 20 BLOCK 51 (8) 165409 thru 165416 LOT 21 BLOCK 52 (14) 165527 thru 165532 165680 thru 165687

Figure 1-2. Block Numbers (Sheet 3 of 3)