

# US WARPLANE SERIAL NUMBERS

## US AIR FORCE / US ARMY

### Origins

Serial numbers are the primary means of aircraft identification with the number allotted to an aircraft remaining unchanged throughout its service life, even if it becomes an instructional airframe. In some cases however, if an aircraft goes through a major rebuild, new serial numbers are assigned, several examples of this are the Douglas A-26A-OM Counter Invaders and the Boeing E-8 J-STARS program. Inter-service transfers are another example of where serial numbers are changed as different services have different systems.

The first US military aircraft was a Wright Model A, purchased on February 10th, 1908 and given the serial number 1. Subsequent aircraft purchases were given the number 2, 3, 4 etc. Later these numbers were prefixed by SC (Signal Corps.) in July 1914, AS (Air Service) in May 1920 and AC (Air Corps.) in July 1926 which was continued up to 1941 when the USAAC became the USAAF.

Blocks of serial numbers were initially reserved for certain aircraft types – 200 for seaplanes, 40000 for experimental aircraft and 94000 for prototype and foreign purchases.

### The Fiscal Year System

In 1920, after the Air Service was reintegrated with the US Army as the US Army Air Service it was decided that future procurement of aircraft would be through the Fiscal Year (FY), with serial numbers reflecting this. So, the first aircraft ordered in FY 1922 (July 1st, 1921 – June 30th, 1922) would be presented as 22-1. The new system caused some confusion with aircraft still in service under the old AS system with numbers in the 22000 and 23000 blocks. To avoid this and cases of duplication, many blocks in the FY 1922 to 1925 were left unassigned.

On July 2nd, 1926 the United States Army Air Corps. (USAAC) came into being and the Fiscal Year System was retained and is still in use up to the present day for air force and army aircraft.

The Fiscal Year assigned to the serial number is the year in which the order was placed for the aircraft, not necessarily the year in which it was completed. For example the XB-19 was ordered in FY 1938 but didn't fly until June of Calendar Year 1941, the very end of FY 1941.

### Presentation

Serial numbers were originally presented on aircraft fuselages in small stencilled letters like so:

**North American O-47A**

**A.C. 38-284**

In 1941-1942 serials were introduced to the tails of aircraft with the last digit of the FY year and the full FY sequence number, so B-17G-35-DL s/n: 42-107027 was presented as:

**2107027**

Fin serial numbers were never less than four digits, the reason being that these were used as radio call signs. So serials under the 100 mark had zeros added to fill them out.

So C-124C s/n: 53-1 was presented as:

**3001**

Longer serial numbers were also sometimes shortened to four digits as in this example of F-86D-50-NA s/n: 52-10035 being presented as:

**2035**

### Duplications and the Zero Prefix

In the early 1940's it was not expected that aircraft would last longer than ten years in service so there was no need to deal with serial number duplications.

The problem did arise in the 1950's and between 1956 and 1964, aircraft over ten years old were prefixed by a 0 digit. This simply means the

aircraft has been in service longer than ten years, not obsolete as many references will state.

Grumman SA-16B Albatross s/n: 51-7205  
originally presented as:

**17205**

was now presented as:

**0-17205**

Longer serial numbers were also often shortened which could mislead identification in some cases.

Douglas C-47A-70-DL s/n: 42-100785 was shortened to:

**0-00785**

Other cases saw the entire number with the FY digit also included as in this example of a

Douglas SC-47A-75-DL s/n: 42-101000 presented as:

**0-2101000**

This system was discontinued in the mid 1960's with the duplication of serial numbers every ten years considered insufficient as long as the same serial number was not applied to the same aircraft type.

When this situation arose the serial number block would be "skipped" over to the next block that did not clash with the previous ten-year numbers.

#### **The 1958 Extra Zero**

In 1958 radio call signs were expanded to the use of five digits with aircraft already in service under the 1000 mark having an extra zero or zeros added to fill them out.

So for FY 1958 the first aircraft was a Boeing KC-135A-BN with s/n: 58-1 now presented as:

**80001**

Aircraft already in service had their serial numbers modified to suit the new call signs.

For example Boeing B-52A s/n: 52-003 was originally delivered with the tail marked as:

**2003**

was then modified to the 1958 extra zero call sign number:

**20003**

before finally given the over ten years old serial prefix as:

**0-20003**

A total of three serial number changes.

#### **US Presidential Serial Numbers**

One occasion where serial numbers are not allocated in strict numerical order was on the two VC-137C and VC-25A Presidential aircraft. "Air Force One" is the correct radio call sign for when the President is on board. These allocations were a special order change to allow better distinction of the call signs in situations where the President is not on board.

The first VC-137C was s/n: 62-6000:

**26000**

The second VC-137C was s/n: 72-7000:

**27000**

This allowed quicker identification between the two aircraft.

The two VC-25A's were ordered in FY 1986 and were assigned s/n: 86-8800 and 86-8900.

A special order change was issued which saw these two numbers changed to 82-8000 and 92-9000 respectively and presented as:

**28000**

and

**29000**

#### **Missile Serial Numbers**

From FY 1958 to FY 1967 some Air Force missile and RPV orders were procured with FY serial numbers usually in the 11000 / 13999 and 5000 / 19999 ranges.

#### **Army Serial Number Changes**

From FY 1967 to FY 1970 the US Army began a new series of its own which saw the conventional use of the last digit of the Fiscal Year but started the sequence numbers at 15000.

So, the first US Army order for FY 1970 was a Boeing-Vertol CH-47C Chinook s/n: 70-15000 which was presented as:

**015000**

Quite often the year prefix was dropped and this led to a duplication problem on some aircraft.

From FY 1971 the serial sequence numbers have started at 20000 and continued consecutively since then without reference to the Fiscal Year of purchase.

For example the last Army aircraft ordered in FY 1976 was a Bell AH-1S-BF Cobra s/n: 76-22713 and the very first aircraft ordered in FY 1977 was a Sikorsky UH-60A Blackhawk with s/n: 77-22714.

#### **South-East Asia War**

Increased procurements and security restrictions brought about by the war in Vietnam saw from about 1969 onwards the presentation of serial numbers on camouflaged tactical aircraft changed so exact numbers built could not be determined. Only the last three digits of the serial number were presented in conjunction with a two letter unit code.

#### **Buzz Numbers**

At the end of World War II there was an abundance of well trained and confident pilots who frequently flew low over air-bases or residential areas. In order to prevent this and possible accidents the 8th Air Force in Germany introduced a letter / number code system for quick identification of low flying aircraft on November 6th, 1945, termed after what they were designed to stop "buzzing" of airfields.

The first letter denoted the type – A (Attack), B (Bomber), generally the same as the Type Letter in the designation system. The second letter has no meaning except for just being the letter assigned to that aircraft variant. The numbers were simply the last three digits of the serial number. For example cargo type C-82A-FA s/n: 45-57746 was assigned buzz number CQ-746 with Q being the letter assigned to the C-82 model.

Where duplications occurred under the same two letter code, an A suffix was added, then a B etc. for any more duplications that may follow.

For example:

F-84B-16-RE s/n: 45-59558

assigned buzz number: FS-558-A

F-84B-21-RE s/n: 46-558

assigned buzz number: FS-558-B

F-84C-11-RE s/n: 47-1558

assigned buzz number: FS-558-C

Buzz Numbers were dropped in the mid 1960's when camouflaged aircraft began to appear with low-visible serial numbers. The last use of Buzz Numbers was in 1971.

## **US NAVY / US MARINES**

Serial numbers were given from the very beginning to all aircraft acquired for service by the US Navy and US Marines under the following systems:

### **First Alphanumeric Series (1911-1914)**

Not only the first serial number system but it was also the main designation system for naval aircraft at this time with allocations having a single letter to denote manufacturer followed by a number to indicate order of procurement. For example A was the designator for Curtiss aircraft and four in total were delivered, hence serial numbers A-1 / A-4.

### **Second Alphanumeric Series (1914-1917)**

The second system used was a two letter code that indicated both aircraft type and role. This was again followed by numbers denoting order of procurement and like the first series it was also the main designation system for naval aircraft under this series. On February 10th, 1916, it was decided by the Department of the Navy to order the Office of Naval Aeronautics to give every aircraft ordered a single assigned consecutive number which resulted in the introduction of the next series.

### **First Bureau Number Series (1917-1935)**

On May 19th, 1917, a new system was introduced starting at the number 51, (there were only about this number of aircraft in the US Navy at the time), prefixed by the letter A (Aeroplane). The previous system was gradually abandoned and serial numbers under the new system had run up to A9204 by June 1930. The A prefix was then dropped and the numbers continued from 9205 up to 9999 where in 1935, the series was revised.

### **Second Bureau Number Series (1935-1940)**

The Bureau Number series was restarted at 0001 in 1935 and ran up to 7303 in 1940 when the US Navy found with the imminent possibility of entry into World War II that serial numbers would be duplicated with the massive aircraft orders being made to fight a war on two fronts. It was then decided to again restart the numbering sequence.

### **Third Bureau Number Series (1940-present)**

Starting with BuNo. 00001, a Curtiss SB2C-1 Helldiver, in 1940, this series would see the US Navy through World War II, the Cold War, Vietnam and up to the present day with the current BuNo.'s having climbed well past the 166000 mark. These numbers have become popularly known as Bureau of Aeronautics Numbers - shortened to BuNo. during World war II.

## **US COAST GUARD**

The USCG was formed on January 28th, 1915 to protect US territorial waters and the first Coast Guard aircraft was taken on charge in 1927. Four series of serial numbers have been used:

### **First Series (1927-1934)**

A simple numeric numbering system with an optional CG prefix.

### **Second Series (1934-1936)**

A three number code system covering four aircraft types – 100 (amphibians), 200 (flying boats), 300 (landplanes) and 400 (floatplanes), with procurement numbers denoted in the last two digit spaces.

### **Third Series (1936-present)**

From October 13th, 1936, three digit numbers were used prefixed by the letter V (heavier-than-air). Earlier aircraft were renumbered and aircraft transferred from other services usually had the last three digits of their serial numbers carried over with the V prefix attached. The V prefixed was dropped on December 28th, 1945 and from January 1st, 1951, was replaced by the digit 1 to create the four digit radio call sign requirement. When Air Force or Navy aircraft were transferred to the USCG their serial numbers were quite often carried over using only the last four digits.

### **Executive Series**

Two digit numbers assigned to aircraft under USCG operations for VIP / staff transport.