

## INDIVIDUAL AIRCRAFT RECORDS

### THE AIR FORCE HISTORICAL RESEARCH AGENCY Maxwell AFB AL 36112-6678

This distribution describes the AFHRA's individual aircraft record collections and modes of their production. It should be noted that after 1 July 1995 the Agency can no longer provide transcriptions of individual records to unaffiliated patrons. For interpretation guidance, please see the AFHRA's distributions on interpretation of the Large Cards, Small Cards, and Computer Ledgers.

#### The Agency's Aircraft Record Collection

The AFHRA holds individual aircraft records for almost all aircraft once or presently in the USA inventory. These records begin in 1924 and continue to July 1990 and appear to be about 98 percent complete (records for many aircraft of the early 1920s, a few during 1924-1950, and aircraft in highly sensitive reconnaissance programs, for example, are not available). Each set of aircraft records has its own unique characteristics, but for most planes one may learn its manufacturer; place of production; date of entry into the inventory; units of assignment; duty stations; and something of the final disposition. Among the data never given are maintenance information or crew members or W.W. II unit assignments overseas (Z. assignments ARE stated). The individual aircraft records thus are a priceless historical resource, if they have pronounced limitations as regards interpretation, availability, and accessibility. Over time, the format of the records, the recording medium, the information entered, and the data entries have passed through five major stages:

**Large Cards** - ca. 1924-Feb. 1955. During this period records were kept on several types of paper cards ca. 9 x 11 1/2 in., many now available only on micro film. Entries are handwritten and machine-posted, usually in an alpha-numeric code. One or two cards are normally necessary for an aircraft's history during this era.

**Small Cards** - Feb. 1955-June 1964. In February 1955 aircraft record keeping was converted to a system of *smv.A*, automated posting cards ca. 3 x 8 in., usually generated annually or semi-annually. Data was entered in an alpha-numeric code system broadly similar to the large cards but differing in numerous details, including major unit designations, distance fields, and absence of station numbers. One to about ten small cards may be found for each aircraft in this era, plus large cards for any service before February 1955.

**Computer Ledgers** - June 1964-Apr. 1980. In mid-1964 aircraft activity reporting was converted to a computer-generated annual inventory report presented on fan-folded ledger sheets. Under this system, an aircraft's recorded activity for a calendar year must be extracted from each year's inventory report. Depending on a plane's duration of service, as many as sixteen inventory reports (including two for 1964) must be examined for entries. Data entry codes and data fields for the ledgers are quite different from either large cards or small cards.

**Microfiche** - May 1980-July 1990. Beginning May 1980, the USAF produced monthly inventory reports on microfiche, copies of which are held at the AFHRA. These fiche use much the same data entry coding as the earlier computer ledgers.

**REMIS** - July 1990 - Beginning in mid-1990 the USAF instituted the so-called REMIS (Reliability & Maintainability Information System) computer data base which, among other functions, tracks individual aircraft in the inventory. The AFHRA has a data link connection for the retrieval of individual aircraft activity since mid-1990.

#### Reproduction and Public Availability

Individual aircraft records from the Large Card and Small Card periods only (i.e., down to June 1964) are available to the public in the form of photocopies (some from microfilm). Large quantities of aircraft records from the Large Card, Small Card, and Computer Ledger periods can be purchased on 16mm microfilm in the following series:

Series ACR - Large Cards. Aircraft out of the inventory by 1951. 118 rolls.

Series OACR - Supplement to above, records out of file. 10 rolls.

Series AC - Large Cards. Aircraft still active in 1951, activity down to Feb. 1955 (end of Large Card era). 75 rolls.

Series ACA - Small Cards. Individual aircraft records from Feb. 1955 until June 1964. 89 rolls.

Series AVH - Computer Ledgers. Annual inventory reports from June 1964 until May 1980. 27 rolls.

LISTS OF ROLL NUMBERS AND THE MILITARY SERIAL NUMBERS ("TAIL NUMBERS") THAT THEY CONTAIN, TOGETHER WITH ORDERING INFORMATION, ARE AVAILABLE FROM THE AGENCY ON REQUEST.

Aircraft records in the Microfiche and REMIS eras are available only at the Agency.

## INTERPRETATION OF LARGE AIRCRAFT RECORD CARDS

It should be remembered that the Large Cards span some thirty years in peace and war, thus several varieties exist. Up to **1940, entries** were mostly **in plain** text and thus readily intelligible. World War II saw the introduction of extensive machine posting and various coding systems which make the interpretation of cards today extremely laborious and often problematical. Card researchers should understand that the earliest code book available at the Agency dates from 1951, and even it is incomplete. Under the best of circumstances, then, interpretation of the Large Cards is difficult and subject to guesswork. The following comments, however, may make lay interpretation easier and more meaningful. Please remember—

- Large Card dates are given in the order day, month, and year.
- Machine posting of all data began in 1944, making a machine-posted entry 1944 or later (important for interpreting the date field).
- UNIT ASSIGNMENTS OVERSEAS during WW. II service arc never given. Only the depart are and return dates and theatre of assignment are available.

### Top of card

Aircraft production and identification information entered in plain text. Project number meanings arc not known today.

### Data Entry Headings

Large Card data fields can be read beneath each of the printed headings. *Often, however, the vertical alignment of the headings and data fields was not closely respected.*

### Entry into Inventory

The first series of entries below the card headings usually record acceptance, availability, and delivery. The plane's progress from factory to first duly assignment can usually be followed in the handwritten initials to the left of, and below, "Accepted," "Available," and "Delivered." A short succession of airfield stops leading to Florida or Maine and thence overseas is typical in the WW. II era.

### Main Data Fields (For WW. II Aircraft Sent Overseas, see that heading, below)

Reading across a large card from left to right, one normally finds the following data fields:

**Station** • Duty station to which the aircraft was assigned, sometimes somewhat abbreviated.

**Command** - Possessing command (AMC, ATC, SAC, etc.) is immediately to right of station.

**Unit** - Possessing unit's designation is usually posted directly beneath "Parent Unit" and "Sub-Unit" headings. The oft-seen "BAS" stands for Base Unit, while Air Materiel Command areas (SA AR for San Antonio, SB AR for San Bernardino, MID AR for Middletown, Penn.) arc usually given away by AMC & duty station. Many other unit types (FTR, BM, SRCYV) are self-evident, but others can be known only through Agency references and a few arc undecipherable today.

Gain/Loss - Normally at end of unit designation - "GB" = Gained from, "LB" = lost to. followed by the other unit.

**A/C Type** - Normally self-evident.

**Status** - Numerous aircraft status codes follow to right of aircraft type - RT = transient maintenance; CC = combat ready; RM = depot modification; SS = storage.

Stat. No. - To right of status code may be a four-digit number representing the aircraft's duty station. A comprehensive station number list is available in AFHRA K 134.45-38, USAF Organizations and Station Codes. Sept. 1951, microfilm roll K1074).

[**A/C No.**] - [Sometimes the aircraft military serial no. appears here.]

**Date Field.** - Most confusing data field. One should remember

- Dates are day, month, and year, not later military style.
- Dates during 1944-ca. 1946 are usually partial, the year not being given. In these cases, the year must be found by working forwards or backwards from known years, such as the delivery date.
- Dates 1950 and later are usually include spacing and the year, i.e., '2 50 (September 2, 1950).
- Date fields 1950 and later usually include two dates. The meaning of those two dates is not entirely clear.

**Far Left** - Last column to left usually records a station number (four digits) during W.W. II period.

- Last column to left usually records an aircraft serial no. during 1950s (ignore this column for 1950s cards).

### W.W. II Aircraft Sent Overseas

Records of W.W. II aircraft sent overseas have certain characteristics which warrant special mention here. Instead of the data fields described in "Main Data Fields," above, W.W. II aircraft sent overseas usually follow the following:

- Departure from the US shown as "DEP US" or "Dep US," usually from a Field or Maine location (Morrison, Bangor, and Grenier AAFlds are common) after staging across country from the factory.
- Following "Dep US," one should try to find the shipping code showing the theater to which it was sent. Some of the most common shipping codes were:

SOXO - Eighth AF, England (most common, esp. after 1942)

BOLERO - Eighth AF, England, in mid-1942 era

UGLY - Eighth AF, England, 1942 era

WILDFLOWER - Eighth AF England, 1942 era

GLEN - Twelfth AF, Oran, Algeria

DAUB - Tenth AF, ATC, 20 TSP, Karachi, India

DUKO - Twelfth AF, Italy

GLUE - Ninth AF

IRON - Seventh AF, ATC - Oahu Island, Hawaii

OHAM - Fifteenth AF, Bari, Italy

PACT - Fourteenth AF, Chungking, China

- Dates of assignment/receipt in theater are indicated by "R" and "A" followed by date: "42144" = 21 April 1944, "12.N tf" = 8 Dec. 1945, etc.

### Wartime Losses in Theater

For aircraft lost or salvaged overseas, the last line(s) usually contain the command losing the aircraft (i.e., SOXO) + a use of loss + serial number + date:

- CON - Condemned, often followed by
- SAL - Salvage, often followed by either
- BD - Battle Damage or
- NBD - Non-Battle Damage
- MIA, FLAK, CRASH - self-explanatory losses

### W.W. II and Post-W.W. Terminations not Overseas

Many W.W. II aircraft returned to the US after combat service. The return to the US ("Ret US") is followed by A' my Airfield where landed, plus subsequent stages across country. Almost all USAAF aircraft excess to need were scrapped in the US. This is indicated by transfer to RFC (Reconstruction Finance Corp.), the agency designated to handle disposition of war-surplus federal property. No aircraft service records are available after disposition.

## INTERPRETATION OF SMALL AIRCRAFT RECORDS

In February 1955 the USAF converted its aircraft activity reporting to a system of automated posting cards ca. 3 x 8 in., thus introducing the Small Card period. Simultaneously, various changes were made in both the data codes and the data fields appearing on the cards. Between February 1955 and June 1964, Small Cards were produced for each aircraft either semi-annually or annually, so that aircraft active during this decade may have up to ten or twelve cards (six is about average). Although entries on Small Cards are less irregular than the Large Cards, a couple of points are worth mentioning:

- Small Cards for 1955-56 have no year date on them, making this a confusing period to interpret. The best solution is usually to work forward from the last Large Card or backward from a 1957 card, attempting to follow the unit assignment and station changes.
- Master Cards - Most, but not all, aircraft entering the inventory in the Small Card era have a yellow master card as the first card in their file. These yellow masters show the manufacturer, place of manufacture, and dates of acceptance, availability, and delivery, but no unit or station assignments.
- 1964 Small Cards all have a posting error—the last digit was dropped off the number of the possessing unit (509th Bomb Group was entered as 50th Bomb Group, etc.)

### Entry into the Inventory

In the Small Card era, basic data about entry into the USAF inventory is provided on the Master Card mentioned above ("General Comments"). Some Small Card files, especially those after ca. 1962, lack such card, and in other cases the Master Cards are missing.

### Year Dates of Small Cards

The report date for each Small Card is usually indicated in the upper righthand corner, i.e., "6/61" (June 1961) and "1263" (Dec. 1963). As indicated in "General Comments," 1955-1956 Small Cards cannot be reliably dated to their year. The "6" on some cards may not be "1956."

### Main Data Entry Fields

"L" or "G" - (for "Lost" or "Gained") immediately followed by Possessing Command (i.e., "LSAC" = Lost by SAC, "GAMC" = Gained by AMC). [some Small Cards also show Possessing Command immediately followed by numbered air force or subordinate unit or agency, i.e., "LAMCCCA" = Lost by AMC Oklahoma City Air Materiel Area]

Assignment - (1) Number of the USAF unit followed by a symbol for its function, i.e., 68ARHSQ = 68th Air Refueling Squadron, or (2) a contractor, i.e., "BOESW" = Boeing, Seattle, Washington.

Aircraft type - i.e., KC135A

Aircraft status - A two-letter code, e.g., "CC" = combat ready, "SS" = storage, "XS" = excess properly, "CW" = contract work, "RN" = depot maintenance, etc.

Aircraft serial number - An easily identifiable, and thus useful, reference for aircraft located in the center of the card.

Right Center Area of Data Field - occupied by a bewildering variety of possibilities, probably either "lost to" or "gained from" in most cases.

### Small Card Date Field

Small Card Date Fields are found in the second column from the left-hand edge of the card as a cluster of four to nine numbers, sometimes including a "J" or a "K." The Small Card date fields are difficult, but note the following:

- Two dates are included in most date fields, except for 1962-64 cards, which have only one Julian date.
- Dates may be given as day-month or month-day or Julian dates or by some combination thereof. Note leap years in Julian dates. Months are numbered 1-10 with "J" standing for November and "K" for December.

### Duty Stations

Duty Stations on Small Cards are always entered in the last column on the right-hand side of the card and are usually self-explanatory. Location of some "AF Plants" are not known today.

## INTERPRETATION OF COMPUTER LEDGER AIRCRAFT RECORDS

In June 1964 the USAF converted its aircraft activity reporting to a system of computer-generated 11 x 14 in. fan-folded sheets which were bound into ledgers. Computer runs for the entire USAF inventory of aircraft were done once a year (in July and December for 1964 only), producing several thick binders which theoretically included every aircraft's activity during the year. In the Ledger Era, an aircraft's annual activity might amount to between one and a hundred twenty entries, with about three to six being average. Simultaneously, various changes were made in both the data codes and the data fields appearing on the reports, so that the Ledger Records make up a distinct, and distinctly different, file series. Although entries in the Ledger Records are quite consistent and standardized, a few points are worth noting:

- 1964 reporting is slightly different. Complete computer inventory reports were run for July-December and October-December. Both reports are needed to cover the July-December 1964 period.
- 1977 reporting is slightly different. In 1977 a problem with reporting occurred which produced two reports (one short, one long), each of which needs to be examined to cover the calendar year.
- Not all aircraft have entries in each report. The explanation for these lacunae is not clear. The frequency of reports seems worst with Air National Guard and AF Reserve aircraft.
- Termination - Very occasionally no termination information will be found, the aircraft simply disappearing from inventory reports.

### Entry into the Inventory

In the Computer Ledger era, entry into the USAF inventory is usually shown by the rubric "FORCED GAIN" in the "Gain from or Lost to" column. A few aircraft lack such an indicator, and for these entry must be validated by finding the first report of activity. New aircraft generally come into the inventory during the FY of their serial, or the year after, i.e., an aircraft serialized 66-xxx would probably enter the inventory in calendar years 1966 or 1967.

### Year Dates in Computer Ledgers

Data dates in the Computer Ledger era are always shown in the Julian system, i.e., "66097" = 97th day of 1966, or 7 April 1966. When transcribing Julian dates, note the leap years (1964, 1968, 1972, 1976).

### Main Data Entry Fields

**Aircraft serial** - e.g., 66 7587, written without a dash after FY

**Aircraft type** - F 4C, KC 135A, etc., again without a dash

**Possessing organization** - (1) Number + type of AF unit, or (2) a five-letter code for an Air Materiel Command Air Materiel Area (later Air Logistics Center), or (3) contractor (usually for modification or depot maintenance (almost always AFLC command possession) **Possessing command** - e.g., TAC (Tactical Air Command), SAC (Strategic Air Command), TAF (Pacific Air Forces).

Codes ending in "O" are simply for overseas locations, e.g., TAO = Tactical Air Command possession overseas.

**Station number** - a four-letter random code representing the aircraft's duty station (requires a code book to decypher)(repeats the plain text duty station). **Possession code** - a two-letter code representing the aircraft's status (requires code books to decypher). **Inventory Acct** - a two-letter code representing a gain or retention ("G"), loss ("L"), or termination ("T" or "Z") + a letter

for cause:

TM = loss to enemy action on combat mission

TA = loss in a flying accident

TJ = authorized reclamation

TL = transfer or diversion to non-US AF activity

TW = transfer to museum or school

TR = abandonment due to enemy action

T1 = loss hostile foreign armed action on combat support mission

T2 = flying accident on combat support mission

T3 = cause unknown on combat support mission

T4 = hostile foreign armed action not on combat support mission

**Action date** - Julian date + (in 1976 and later reports) the hour

**Possessing station** - plain text name of aircraft's duty station