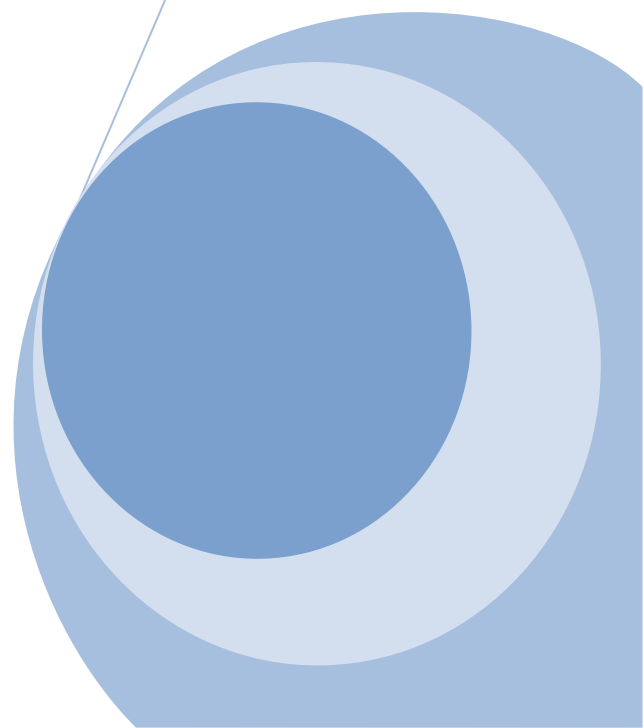# Standard Data Interchange Format

## Swimming Data Interchange Format

United States Swimming has matured as an organization and expanded services to individuals and clubs.  To support this expansion, USS has developed a computer plan. One component is a standard interchange format for technical data.

United States Swimming
4/28/1998

# Swimming Data Interchange Format

## Contents

# Swimming Data Interchange Format

Swimming Data Interchange Format

## Revisions List

- ❖ Page 2, Revise definition of mandatory fields.

- ❖ Remove all vendor-defined fields. The resulting space
  - ▪ Will be for future use.

- ❖ Remove all "checksum" fields. The resulting space will be
  - ▪ For future use.

- ❖ Add field to A0 record (156/2) "submitted by LSC" for Top 16
  - ▪ Tabulation.

- ❖ Page 19, D0 Record, "EVENT SEX Code 011" (67/1)
  - ▪ Make mandatory.

- ❖ Top 16 Pyramid (only) - allow multiple meets.

- ❖ Page 3, Revise phone number formatting restrictions.

- ❖ Page 3, Revise Time field format # 3.

- ❖ Remove H0 record.

- ❖ Page 3, Revise Name field format.

- ❖ Remove "Transaction" field from all records.
  - ▪ The resulting space will be for future use.

- ❖ Page 10, B1 change "meet city" & "meet state" to M2.

- ❖ Page 13, C1 remove mandatory on "Region Code".

- ❖ Change each occurrence of "USS or other ID" to "USS#" and
  - ▪ Make M2.

- ❖ Remove any occurrence of "unique Event ID#". The resulting
  - ▪ Space will be for future use.

- ❖ Convert "admin info" fields in D1 to future use.

- ❖ Convert "middle initial" in D1 to future use.

- ❖ Remove "ANSWER Code 023" in all records, make future use.

- ❖ Change to M1: "meet name", "meet start" in B1. "TEAM code"
  - ▪ "Full team name" in C1.

- ❖ Change to M2: "date of swim" in D0&E0, "swimmer birth date"
  - ▪ In D1 & F0, "ORG Code" in all records.

# Swimming Data Interchange Format

- ❖ Convert "flight status" in D0 to future use.

- ❖ Prelims & finals place and points are to be M1 for championship meets.

- ❖ Added a new record (D3) that includes the new USS# and
  - ▪ Swimmer's preferred first name.

- ❖ Revised pyramids to include the D3 record.

- ❖ Added field for SDIF version number to the A0 record at 4/8.

- ❖ Added definition of new USS# in the format design section.

- ❖ Added condition (#) to the D0 record to allow entry of
  - ▪ Relay only swimmers.

- ❖ Added definition for file extension (SD3) on page 2 under
  - ▪ Format design.

- ❖ Added fields for the submission of registration information
  - ▪ To the D3 record.

- ❖ Added the definition of ETHNICITY Code 026.

- ❖ Added and defined a LOGICAL field type.

- ❖ Revised definition of Alpha data type to allow right
  - ▪ Justification of numeric data.

- ❖ Add back Event Numbers.

- ❖ Change participation selections in the D3 record.

- ❖ Implement new USS# and preferred first name in F0
  - ▪ Instead of following F0 with a D3 record.

# Introduction

United States Swimming has matured as an organization and expanded services to individuals and clubs.  To support this expansion, USS has developed a computer plan. One component is a standard interchange format for technical data.  Swimming data must be transmitted among the clubs, Local Swimming Committees (LSCs), and the USS headquarters office.  Exchanging meet results is one example, where data from a host club is distributed to swimmers and clubs using diskettes or modems.  Some LSCs are compiling swimmer statistics and would retype the data from printed sheets if electronic transmission were not available.  A standard format promotes easy exchange of data and the development of new computer programs and services.  The goal is to preserve the valuable efforts of our volunteers.

To develop this standard, United States Swimming established an ad-hoc committee to review existing needs and prepare a draft design.    A representative from US Masters Swimming and a coach familiar with high school and college swimming requirements contributed significantly to the final design.  The design is intended to allow all aquatic sports organizations to use the same standard.  New records can be added, and new codes or fields can be added to existing records.

The format incorporates a modular design.  Each file would combine the records into an order that corresponds to the type of data to be transmitted.  Meet entry records would have a specific order.  Time standards would have another order.  When specific record types are not needed, those records can be omitted.   Certain fields were declared to be "mandatory" for adequate identification of the data and to preserve unique identifiers.

Swimming Data Interchange Format

# Format Design

SDI files have a SD3 extension. Example: meetrslt.sd3.

The basic design of the USS Interchange Format is a fixed record length for all records.  Data is grouped together by type of information, and records are linked to each other by common fields or by record order.  The records comprise a single type of information, e.g., one record for meet host data.  The file structure has an implied order of less frequent data proceeding more frequent data, i.e., one meet, multiple teams, multiple athletes per team, etc.

Each record is one-hundred sixty-two (162) bytes in length, with the last two bytes a carriage return and line feed. Byte 161 is an ASCII 13 and byte 162 is an ASCII 10.  Each  record has a two byte record identifier.

## Coding conventions

The first byte of the first record MUST be the first byte of the file, and MUST begin an A0 record.

Fields which is not used should be blank filled.

"No blanks" means that there may not be ANY blanks ANYWHERE in the field; "non-blank" means that there MAY be blanks in the field, but there MUST be AT LEAST ONE non-blank character as well.

There are two levels of mandatory fields. M1 - must be included for the record to be useful. M2 - an exceptions report must be generated for records containing blank M2 fields.  M2 fields are necessary for the records to be processed by USS. M1 fields require a non-blank entry.

All undefined space is named "future use" and MUST be blank until defined explicitly.

The first two bytes of a record are always CONST, and are case sensitive.

All ALPHA fields are left justified* and can contain any letters, numbers and printable symbols. Users may elect to have alphabetic data in upper and lower case or upper case only. *Alpha fields containing only numeric data should be right justified.

All INT data are stored as ASCII digits and should be right justified and blank filled.

All LOGICAL fields must contain a upper case 'T' an upper case 'F' or a blank.

DEC numeric values are also ASCII digits and are right justified and blank filled.  An optional decimal may be used if fractional values occur.

PHONE fields can be formatted in any manner that maintains the integrity of the number.

All DATE fields have the format MMDDYYYY where MM is the month, DD is the day, and YYYY is the year.  If a date is supplied, it must not have ANY blanks -- zero-fill each portion of the date.

CODE fields must match EXACTLY when "table checked", and ARE case sensitive.  The user should request new codes if required.

# Swimming Data Interchange Format

The term "table checked" refers to the tables in the back of the SDIF document, not a file supplied by U.S. Swimming.

USPS designates U.S. Postal Service state abbreviations and should be capitalized.

POSTAL CODES may be left or right justified, but should include leading zeroes where defined (for example: a Vermont ZIP code of 05452).

All TIME fields MUST match one of the following formats:

1) All blanks.
2) Have the format **mm:ss.ss** where mm is the minute's value and **ss.ss** is the seconds value to hundredths. The third byte must be a colon or a blank, and the sixth byte must be a period. If a blank appears anywhere in this format, everything to the left must also be blank.
3) TIME Code 020, left-justified and blank-filled.

The USSNUM format consists of: date of birth (mmddyy) + first 3 letters of legal first name + middle initial + first 4 letters of last name. In the event that there is no middle initial or not enough letters in the first or last name to fill the field, an asterisk will be used. Special characters are removed.

The old USSNUM format consist of: LSC + 2 digit birthday year + 1st letter of last name + 1st letter of first name + middle initial + date of birth (mmddyy)

**Examples:**

| Name | New Format | Old Format |
|------|-----------|-----------|
| Catherine A. Durance | 011553CATADURA | 53DCA011553 |
| Cy V. Young | 091879CY*VYOUN | 79YCV091879 |
| Thomas Chu | 020981THO*CHU* | 81CT*020981 |
| Ty Lee | 011873TY**LEE* | 73LT*011873 |
| Dave T. O'Neil | 030367DAVTONEI | 67ODT030367 |

If a time field is used, then the COURSE/STATUS code field immediately following (if present) must be entered also. When meets are timed finals only, the swim time should be entered in the Finals Time field.

A NAME type must be in the following format: last name followed by a comma and a space, followed by first name and an optional space and middle initial. Example: O'Neil, John Q

Swimming Data Interchange Format

## Meet Pyramid

| Record | Description |
| --- | --- |
| A0-File description Record | first record in file, contains data on the file itself and identifies the vendor software. |
| B1-Meet Record | one per file, contains data on type of meet, location, dates of competition. |
| B2-Meet host Record | one or more per meet, contains meet host contact information |
| C1-Team ID Record | one per team, contains data on team name, code, address |
| C2-Team entry Record | one per team, contains coach info plus stats on other records to follow for that team. |
| D0-Ind. event Record | one per splash, contains data on athlete, event, stroke and distance, times, places and lanes. |
| D3-Ind. Info Record | one per swimmer, a swimmer with multiple D0 records will have one D3 record following his/her first D0 record, contains new USS# and preferred first name. |
| G0-Split Record | one or more per "D0", contains data on athlete name, ID, event ID, split time and interval. |
| E0-Relay event Record | one per relay entry, contains data on relay event, team, times, places and lanes. |
| F0-Relay name Record | four or more per "E0", contains data on the athlete name, ID, time, split, and session. |
| G0-Split Record | one or more per "E0" |
| Z0-File terminator Record | one per file, contains statistics and text information. |

At each indented level, the file may have multiple entries to transmit the data in a logical sequence.  The order of the records may vary depending on the user's needs.  Some records have limited data within the record, such as one submitted for meet entry.  The same record would have more data added as the swimmer completes the event.  New records would be added such as split records.  Relay name records could be edited for a revised order of swimmers.

## Record Times Pyramid

To transmit Top 16 or other record times, the user may submit an A0 record, one or more D0 records, and a Z0 record.  The D0 records may be followed by G0 split records if needed. For Top 16 only, multiple meets are allowed.

| Record | Description |
| --- | --- |
| A0-File description Record | first record in file, contains data on the file itself and identifies the vendor software. |
| D0-Individual Event Record | one per time achieved, contains swimmer ID, team, prelims/finals times. |
| D3-Individual Info Record | one per time achieved, contains new USS# and preferred first name. |
| G0-Split Record | one or more per "D0", contains data on athlete name, ID, event ID, split time and interval. |
| Z0-File terminator Record | one per file, contains statistics and text information. |

Swimming Data Interchange Format

## Time Standards Pyramid

To transmit time standards, the user may submit an A0 record, one or more J0, J1, or J2 records, and a Z0 record.

| Record | Description |
| --- | --- |
| A0-File description Record | first record in file, contains data on the file itself and identifies the vendor software. |
| J0-Meet Qualifying Record | one per event, contains times for all pool types. |
| J1-NAG Qualifying Record | one per event and pool type, contains times for all levels AAAA through B. |
| J2-Motivation Qualifying Record | one per event and level, contains times for SCY and LCM. |
| Z0-File terminator Record | one per file, contains statistics and text information. |

## LSC Registration Pyramid

To transmit membership registration data to the LSC, the user may submit an A0 record, one C1 record; one D1 and one D2 record per swimmer, and a Z0 record.

| Record | Description |
| --- | --- |
| A0-File description Record | first record in file contains data on the file itself and identifies the vendor software. |
| C1-TeamID Record | one per file, contains data on team name, code, address. |
| D1-Individual | Administration Record one per swimmer, contains swimmer info |
| D2- Individual | Contact Record one per swimmer, contains remaining swimmer info |
| D3- Individual Info Record | one per swimmer contains new USS# and preferred first name. |
| Z0-File terminator | Record one per file contains statistics and text information. |

## A0 -- File Description Record

**Purpose**: **Identify the file and the type of data to be transmitted.**

Contact person and phone number included to assist with use of information on the file.  This record is mandatory for each transfer of data within this file structure.  Each file begins with this record and each file has only one record of this type.

| Start / Length | Mandatory | Type | Description |
|---|---|---|---|
| 1/2 | M1* | CONST | "A0" |
| 3/1 | M2* | CODE | ORG Code 001, table checked |
| 4/8 | | ALPHA | SDIF version number (same format as the version number from the title page) |
| 12/2 | M1* | CODE | FILE Code 003, table checked |
| 14/30 | | | future use |
| 44/20 | * | ALPHA | software name |
| 64/10 | * | ALPHA | software version |
| 74/20 | M1* | ALPHA | contact name |
| 94/12 | M1* | PHONE | contact phone |
| 106/8 | M1* | DATE | file creation or update |
| 114/42 | | | future use |
| 156/2 | | ALPHA | submitted by LSC - for Top 16 |
| 158/3 | | | future use |

* Required field for submission of registration data to LSC

# B1 -- Meet Record

**Purpose: Identify the meet name, address, and dates.**

This record is used to identify the meet name and address.  The meet name is required, plus the city, state, meet type, start and end dates.  Additional fields provide for the street address, postal code and country code.  Each file may only have one record of this type.

| Start / Length | Mandatory | Type | Description |
|---|---|---|---|
| 1/2 | M1* | CONST | "B1" |
| 3/1 | M2* | CODE | ORG Code 001, table checked |
| 4/8 | | ALPHA | Future use |
| 12/30 | M1* | ALPHA | meet name |
| 42/22 | | ALPHA | meet address line one |
| 64/22 | | ALPHA | meet address line two |
| 86/20 | M2 | ALPHA | meet city |
| 106/2 | M2 | USPS | meet state |
| 108/10 | | ALPHA | Postal Code, meet zip or foreign code |
| 118/3 | | CODE | COUNTRY Code 004, table checked |
| 121/1 | M2 | CODE | MEET Code 005, table checked |
| 122/8 | M1 | DATE | meet start |
| 130/8 | M2 | DATE | meet end |
| 138/4 | | INT | altitude of pool in feet above sea level |
| 142/8 | | | future use |
| 150/1 | | CODE | COURSE Code 013, table checked, default course set up in exporting software |
| 151/10 | | | future use |

## B2 -- Meet Host Record

**Purpose: Identify the meet host or hosts, and host address.**

This record is used to identify the meet host or hosts and the host address.  The meet host name is required.  Additional fields provide for the street address, city, state, postal code, country code and phone number.

| Start / Length | Mandatory | Type | Description |
|---|---|---|---|
| 1/2 | M1* | CONST | "B2" |
| 3/1 | M2* | CODE | ORG Code 001, table checked |
| 4/8 | | | future use |
| 12/30 | M2 | ALPHA | meet host name |
| 42/22 | | ALPHA | meet address line one |
| 64/22 | | ALPHA | meet address line two |
| 86/20 | | ALPHA | meet city |
| 106/2 | | USPS | meet state |
| 108/10 | | ALPHA | Postal Code, meet zip or foreign code |
| 118/3 | | CODE | COUNTRY Code 004, table checked |
| 121/12 | | PHONE | meet host phone |
| 133/28 | | | future use |

# C1 -- Team Id Record

**Purpose: Identify the team name, code and address.**

Region code defines USS region for team. This record is used to identify the team name, team code, plus region.  When used, more than one team record can be transmitted for a single meet. The team name, USS team code and team abbreviation are required.  The USS region code is also required. Additional fields provide for the street address, city, state, postal code, and country code.

| Start / Length | Mandatory | Type | Description |
|---|---|---|---|
| 1/2 | M1* | CONST | "C1" |
| 3/1 | M2* | CODE | ORG Code 001, table checked |
| 4/8 | | | future use |
| 12/6 | | CODE | TEAM Code 006 |
| 18/30 | M1 | ALPHA | full team name |
| 48/16 | | ALPHA | abbreviated team name |
| 64/22 | | ALPHA | team address line one |
| 86/22 | | ALPHA | team address line two |
| 108/20 | | ALPHA | team city |
| 128/2 | | USPS | team state |
| 130/10 | | ALPHA | Postal Code, team zip or foreign code |
| 140/3 | | CODE | COUNTRY Code 004, table checked |
| 143/1 | | CODE | REGION Code 007, table checked |
| 144/6 | | | future use |
| 150/1 | | ALPHA | optional 5th char of team code |
| 151/10 | | | future use |

## C2 -- Team Entry Record

**Purpose: Identify the team coach and the number of entries for the team.**

This record is used to identify the team coach.  When used, one team entry record would be submitted with the C1 team ID record. The USS team code and team coach field are required. Additional fields provide for the number of individual swimmers, number of splash records, and number of relay entries, number of relay name entries and number of split records.

| Start / Length | Mandatory | Type | Description |
|---|---|---|---|
| 1/2 | M1* | CONST | "C2" |
| 3/1 | M2* | CODE | ORG Code 001, table checked |
| 4/8 | | | future use |
| 12/6 | M2 | CODE | TEAM Code 006 |
| 18/30 | M2 | ALPHA | coach name |
| 48/12 | | PHONE | coach phone |
| 60/6 | | INT | number of entries (from this team) in the individual events, corresponds to number of D0 records |
| 66/6 | | INT | number of different athletes on team |
| 72/5 | | INT | number of entries (from this team) in the relay events, corresponds to number of E0 records |
| 77/6 | | INT | number of relay swimmer entries (from this team), corresponds to number of F0 records |
| 83/6 | | INT | number of split records (from this team) in relay and individual events, corresponds to number of G0 records |
| 89/16 | | ALPHA | short team name for display purposes |
| 105/45 | | | future use |
| 150/1 | | ALPHA | optional 5th char of team code |
| 151/10 | | | future use |

# D0 -- Individual Event Record

**Purpose: Identify the athlete by name, registration number, birth date and gender.**

Identify the stroke, distance, event number and time of the swims. This record is used to identify the athlete and the individual event. When used, one individual event record would be submitted for each swimmer entered in an individual event. The athlete name, USS registration number, birth date and gender code are required. Fields for the stroke, distance, event number, age range, and date of swim are also required. Additional fields provide for the citizenship, age or class, seed time, prelim time, swim off time, finals time and pool lanes used in competition.

NOTE: Individual event records must be preceded by at least one C1 team ID record and one C2 team entry record. If these two records are missing, the individual is assumed to be attached to the previous "team" that has proper coding. Athlete registration data is not available to meet management programs and proper coding is essential.

| Start / Length | Mandatory | Type | Description |
|---|---|---|---|
| 1/2 | M1* | CONST | "D0" |
| 3/1 | M2* | CODE | ORG Code 001, table checked |
| 4/8 | | | future use |
| 12/28 | M1 | NAME | swimmer name |
| 40/12 | M2 | ALPHA | USS# |
| 52/1 | | CODE | ATTACH Code 016, table checked |
| 53/3 | | CODE | CITIZEN Code 009, table checked |
| 56/8 | M2 | DATE | swimmer birth date |
| 64/2 | | ALPHA | swimmer age or class (such as Jr or Sr) |
| 66/1 | M1 | CODE | SEX Code 010, table checked |
| 67/1 | M1# | CODE | EVENT SEX Code 011, table checked |
| 68/4 | M1# | INT | event distance |
| 72/1 | M1# | CODE | STROKE Code 012, table checked |
| 73/4 | | ALPHA | Event Number |
| 77/4 | M1# | CODE | EVENT AGE Code 025, table checked |
| 81/8 | M2 | DATE | date of swim |
| 89/8 | | TIME | seed time |
| 97/1 | * | CODE | COURSE Code 013, table checked |
| 98/8 | | TIME | prelim time |
| 106/1 | * | CODE | COURSE Code 013, table checked |
| 107/8 | | TIME | swim-off time |
| 115/1 | * | CODE | COURSE Code 013, table checked |
| 116/8 | | TIME | finals time |
| 124/1 | * | CODE | COURSE Code 013, table checked |
| 125/2 | | INT | prelim heat number |
| 127/2 | | INT | prelim lane number |
| 129/2 | | INT | finals heat number |
| 131/2 | | INT | finals lane number |
| 133/3 | ** | INT | prelim place ranking |
| 136/3 | ** | INT | finals place ranking |
| 139/4 | ** | DEC | points scored from finals |
| 143/2 | | CODE | EVENT TIME CLASS Code 014, table checked |

| 145/1 | ALPHA | flight status of swimmer (subdivision of Time Standard) |
|---|---|---|
| 146/15 | | future use |

| * | This field is mandatory IF the immediately preceding time    field is NOT blank |
|---|---|
| ** | This field is mandatory (M1) if a championship meet    (MEET Code 005 - 6,7) |
| # | Event age code 025, event sex code 011, event distance,    stroke code 012 and seed time are not mandatory (M1) for relay only swimmers. |
| Note | An additional record type will be used for open water swimming.  Multiple swim offs require multiple records. |

## D1 -- Individual Administrative Record

**Purpose: Identify the athlete by name, registration number, birth date and gender.**

Identify other administrative information. This record is used to identify the athlete and his/her administrative information. When used, one individual administrative record would be submitted for each swimmer in the file.  The athlete name, USS registration number, birth date and gender code are required.

| Start / Length | Mandatory | Type | Description |
|---|---|---|---|
| 1/2 | M1* | CONST | "D1" |
| 3/1 | M2* | CODE | ORG Code 001, table checked |
| 4/8 | | | future use |
| 12/6 | * | CODE | TEAM Code 006 |
| 18/1 | | ALPHA | optional 5th char of team code |
| 19/28 | M1* | NAME | swimmer name |
| 47/1 | | | future use |
| 48/12 | M2* | ALPHA | USS# |
| 60/1 | | CODE | ATTACH Code 016, table checked |
| 61/3 | * | CODE | CITIZEN Code 009, table checked |
| 64/8 | M2* | DATE | swimmer birth date |
| 72/2 | | ALPHA | swimmer age or class (such as Jr or Sr) |
| 74/1 | M1* | CODE | SEX Code 010, table checked |
| 75/30 | | ALPHA | first admin info field |
| 105/20 | * | ALPHA | fourth admin info field, used in submission of registration data for old member number if inits or birthdates change |
| 125/12 | * | PHONE | first phone number for swimmer |

\*        Required field for submission of registration data to LSC

Swimming Data Interchange Format

## D2 -- Individual Contact Record

**Purpose: Identify the athlete by name.  Identify mailing and contact information.**

This record is used to identify the athlete and his/her contact information. When used, one individual contact record would be submitted for each swimmer in the file.  The athlete name is required.

| Start / Length | Mandatory | Type | Description |
|---|---|---|---|
| 1/2 | M1* | CONST | "D2" |
| 3/1 | M2* | CODE | ORG Code 001, table checked |
| 4/8 | | | future use |
| 12/6 | * | CODE | TEAM Code 006 |
| 18/1 | | ALPHA | optional 5th char of team code |
| 19/28 | M1* | NAME | swimmer name |
| 47/30 | | ALPHA | alternate mailing name |
| 77/30 | * | ALPHA | mailing address (street) |
| 107/20 | * | ALPHA | mailing city |
| 127/2 | * | USPS | mailing state |
| 129/12 | | ALPHA | mailing country |
| 141/10 | * | ALPHA | Postal Code, zip or foreign code |
| 151/3 | | CODE | COUNTRY Code 004, table checked |
| 154/1 | | CODE | REGION Code 007, table checked |
| 155/1 | * | CODE | ANSWER Code 023, Is swimmer also a member of another FINA federation? |
| 156/1 | * | CODE | SEASON Code 022, table checked, show which season swimmer is registered for |

\*        Required field for submission of registration data to LSC

## D3 -- Individual Information Record

**Purpose: Contains additional information that is not included in pre version 3 SDI formats.**

This record provides space for the new USS# as well as the swimmers preferred first name. For meet files this record will follow the D0 record and the F0 record if relays are included.  A swimmer with multiple D0 records will have one D3 record following his/her first D0 record.

| Start / Length | Mandatory | Type | Description |
|---|---|---|---|
| 1/2 | M1* | CONST | "D3" |
| 3/14 | M2 | USSNUM | USS# (new) |
| 17/15 | | ALPHA | preferred first name |
| 32/2 | * | CODE | ethnicity code 026 |
| 34/1 | * | LOGICAL | Junior High School |
| 35/1 | * | LOGICAL | Senior High School |
| 36/1 | * | LOGICAL | YMCA/YWCA |
| 37/1 | * | LOGICAL | College |
| 38/1 | * | LOGICAL | Summer Swim League |
| 39/1 | * | LOGICAL | Masters |
| 40/1 | * | LOGICAL | Disabled Sports Organizations |
| 41/1 | * | LOGICAL | Water Polo |
| 42/1 | * | LOGICAL | None |
| 43/118 | | | future use |

\*      Required for submission of registration data to an LSC

## E0 -- Relay Event Record

**Purpose: Identify the relay team by name, USS team code, and gender.**

Identify the stroke, distance, event number, date and time of the swims. This record is used to identify the team and the relay event. When used, one relay event record would be submitted for each relay squad entered in a relay event. The relay team name, USS team code, and gender code are required. Fields for the stroke, distance, event number, age range, and date of swim, are also required. Additional fields provide for the age or class, seedtime, prelim time, swim off time, finals time, and pool lanes used in competition.

| Start / Length | Mandatory | Type | Description |
|---|---|---|---|
| 1/2 | M1* | CONST | "E0" |
| 3/1 | M2* | CODE | ORG Code 001, table checked |
| 4/8 | | | future use |
| 12/1 | M1 | ALPHA | relay team name: one alpha char to concatenate with the abbreviated team name (48/16) in record C1 -- creates such names as "Dolphins A" |
| 13/6 | M1 | CODE | TEAM Code 006 |
| 19/2 | | INT | number of F0 relay name records to follow |
| 21/1 | M1 | CODE | EVENT SEX Code 011, table checked |
| 22/4 | M1 | INT | distance of relay |
| 26/1 | M1 | CODE | STROKE Code 012, table checked |
| 27/4 | | ALPHA | Event Number |
| 31/4 | M1 | CODE | EVENT AGE Code 025, table checked |
| 35/3 | | INT | total age of all athletes in this event |
| 38/8 | M2 | DATE | date of swim |
| 46/8 | | TIME | seed time |
| 54/1 | * | CODE | COURSE Code 013, table checked |
| 55/8 | | TIME | prelim time |
| 63/1 | * | CODE | COURSE Code 013, table checked |
| 64/8 | | TIME | swim-off time |
| 72/1 | * | CODE | COURSE Code 013, table checked |
| 73/8 | | TIME | finals time |
| 81/1 | * | CODE | COURSE Code 013, table checked |
| 82/2 | | INT | prelim heat number |
| 84/2 | | INT | prelim lane number |
| 86/2 | | INT | finals heat number |
| 88/2 | | INT | finals lane number |
| 90/3 | ** | INT | prelim place ranking |

*        This field is mandatory IF the immediately preceding time field is NOT blank
**     This field is mandatory (M1) if a championship meet (MEET Code 005 - 6, 7)

Swimming Data Interchange Format

# F0 -- Relay Name Record

**Purpose: Identify the athletes on a relay team by name, USS registration number, birth date and gender.**

Identify the stroke, distance, event number, date, session and time of the swims.  This record is used to identify the athletes on a relay team and the relay order.  When used, one relay name record is submitted for each relay athlete entered in a relay event.  Alternates may be listed on additional records as an optional method of using this record.  The relay team name, USS team code, and gender code are required.  The Event ID # field (12/4) is required to properly identify the relay team to an event and to further link the splits for a relay athlete.  Fields for the stroke, distance, event number, age or class, and date of swim, are also required.  Additional fields provide for the seed time, prelim time, swim off time, finals time, and pool lanes used in competition.

NOTE:  Relay name records must be preceded by at least one E0 relay event record.  If this record is missing, the athlete on a relay team cannot be attached to the proper relay squad.

| Start / Length | Mandatory | Type | Description |
|---|---|---|---|
| 1/2 | M1* | CONST | "F0" |
| 3/1 | M2* | CODE | ORG Code 001, table checked |
| 4/12 | | | future use |
| 16/6 | M1 | CODE | TEAM Code 006 |
| 22/1 | M1# | ALPHA | relay team name:  one alpha char to concatenate with the team abbreviation in record C1 -- creates such names as "Dolphins A" |
| 23/28 | M1 | NAME | swimmer name |
| 51/12 | M2 | ALPHA | USS# |
| 63/3 | | CODE | CITIZEN Code 009, table checked |
| 66/8 | M2 | DATE | swimmer's birth date |
| 74/2 | | ALPHA | swimmer age or class (such as Jr or Sr) |
| 76/1 | M1 | CODE | SEX Code 010, table checked |
| 77/1 | M1 | CODE | ORDER Code 024, prelim leg, table checked |
| 78/1 | M1 | CODE | ORDER Code 024, swim-off leg, table checked |
| 79/1 | M1 | CODE | ORDER Code 024, finals leg, table checked |
| 80/8 | | TIME | leg time |
| 88/1 | * | CODE | COURSE Code 013, table checked |
| 89/4 | | DEC | automatic take-off time in seconds and hundredths (s.ss) |
| 93/14 | M2 | USSNUM | USS# (new) |
| 107/15 | | ALPHA | preferred first name |
| 122/39 | | | future use |
| | | | |

#        If the record is being sent for meet registration and team has not been finalized, this is NOT mandatory
\*        This field is mandatory IF the immediately preceding time field is NOT blank

## G0 -- Splits Record

**Purpose: Identify the athletes in an event by name and USS registration number.**

Identify the split distance, number of splits and the split times of the swims. This record is used to identify the athletes in an event and the split times. When used, one splits record would be submitted for each event that an athlete entered in a meet. The athlete name, USS registration code, and split distance are required. A split type code is required to identify the split as an interval or cumulative time. Ten time fields are provided to record the splits, and multiple records may be used to complete all splits for a long-distance event.

NOTE: Splits records must be preceded by at least one D0 individual event record or one F0 relay name record. If this record is missing, there is no way to connect the splits with the swim.

| Start / Length | Mandatory | Type | Description |
|---|---|---|---|
| 1/2 | M1* | CONST | "G0" |
| 3/1 | M2* | CODE | ORG Code 001, table checked |
| 4/12 | | | future use |
| 16/28 | | NAME | Swimmer name. If name is not available, enter "NO SWIMMER NAME" or some other meaningful string |
| 44/12 | | ALPHA | USS# |
| 56/1 | M1 | INT | sequence number to order multiple splits records for one athlete and one event |
| 57/2 | M1 | INT | total number of splits for this event, |
| 59/4 | M1 | INT | split distance |
| 63/1 | M1 | CODE | SPLIT Code 015, table checked |
| 64/8 | | TIME | split time |
| 72/8 | | TIME | split time |
| 80/8 | | TIME | split time |
| 88/8 | | TIME | split time |
| 96/8 | | TIME | split time |
| 104/8 | | TIME | split time |
| 112/8 | | TIME | split time |
| 120/8 | | TIME | split time |
| 128/8 | | TIME | split time |
| 136/8 | | TIME | split time |
| 144/1 | | CODE | PRELIMS/FINALS Code 019, table checked |
| 145/16 | | | future use |

## J0 -- Meet Qualifying Times Record

**Purpose: Identify the qualifying times for each event of a meet.**

This record is used to identify qualifying times for each event. When used, one meet qualifying times record would be submitted for each event in the meet.  The first six fields are mandatory. At least one time and the age range are also required.  Fields for the zone, meet and LSC codes are also provided.

| Start / Length | Mandatory | Type | Description |
|---|---|---|---|
| 1/2 | M1* | CONST | "J0" |
| 3/8 | M1 | DATE | date on which times become effective |
| 11/1 | M1 | CODE | MEET Code 005, table checked |
| 12/5 | | | future use |
| 17/1 | M1 | CODE | EVENT SEX Code 011, table checked |
| 18/4 | M1 | INT | distance of event |
| 22/1 | M1 | CODE | STROKE Code 012, table checked |
| 23/8 | | TIME | for short course yards |
| 31/8 | | TIME | for short course meters |
| 39/8 | | TIME | for long course meters |
| 47/4 | M1 | CODE | EVENT AGE Code 025, table checked |
| 51/1 | | CODE | ZONE Code 017, table checked |
| 52/2 | | CODE | REGION Code 007, table checked |
| 54/2 | | CODE | LSC Code 002, table checked |
| 56/105 | | | future use |

## J1 -- National Age Group Times Record

**Purpose: Identify the qualifying times for national age group records.**

This record is used to identify qualifying times for national age group records.  When used, one NAG qualifying time's record would be submitted for each event, age group and course combination.  The first seven fields are mandatory.  At least one time is also required.

| Start / Length | Mandatory | Type | Description |
|---|---|---|---|
| **1/2** | M1* | CONST | "J1" |
| **3/8** | M1 | DATE | date on which times become effective |
| **11/1** | M1 | CODE | EVENT SEX Code 011, table checked |
| **12/4** | M1 | INT | distance of event |
| **16/1** | M1 | CODE | STROKE Code 012, table checked |
| **17/4** | M1 | CODE | EVENT AGE Code 025, table checked |
| **21/1** | M1 | CODE | COURSE Code 013, table checked |
| **22/8** | | TIME | BB time |
| **30/8** | | TIME | B time |
| **38/8** | | TIME | A time |
| **46/8** | | TIME | AA time |
| **54/8** | | TIME | AAA time |
| **62/8** | | TIME | AAAA time |
| **70/91** | | | future use |
| **3/8** | M1 | DATE | date on which times become effective |

## J2 -- USS Motivational Times Record

**Purpose: Identify the qualifying times for national age group records.**

This record is used to identify qualifying times for USS motivational programs.  When used, one USS motivational time's record is submitted for each event.  The first five fields are mandatory.  When this record is used, at least one time is also required.

| Start / Length | Mandatory | Type | Description |
|---|---|---|---|
| 1/2 | M1* | CONST | "J2" |
| 3/1 | M1 | CODE | EVENT SEX Code 011, table checked |
| 4/4 | M1 | INT | distance of event |
| 8/1 | M1 | CODE | STROKE Code 012, table checked |
| 9/4 | M1 | CODE | COLOR Code 018, table checked |
| 13/8 | | TIME | short course yards level 1 |
| 21/8 | | TIME | short course yards level 2 |
| 29/8 | | TIME | short course yards level 3 |
| 37/8 | | TIME | long course meters level 1 |
| 45/8 | | TIME | long course meters level 2 |
| 53/8 | | TIME | long course meters level 3 |
| 61/8 | M1 | DATE | date on which times become effective |
| 69/92 | | | future use |
| 3/1 | M1 | CODE | EVENT SEX Code 011, table checked |
| 4/4 | M1 | INT | distance of event |
| 8/1 | M1 | CODE | STROKE Code 012, table checked |

## Z0 -- File Terminator Record

**Purpose: Identify the logical end of file for a file transmission.**

Record statistics and swim statistics are listed for convenience.  This record is mandatory in each file.  Each file ends with this record and each file has only one record of this type.  The first four fields are mandatory.  Additional fields provide for text and record counts.

| Start / Length | Mandatory | Type | Description |
|---|---|---|---|
| 1/2 | M1* | CONST | "Z0" |
| 3/1 | M2* | CODE | ORG Code 001, table checked |
| 4/8 | | | future use |
| 12/2 | M1 | CODE | FILE Code 003, table checked |
| 14/30 | | ALPHA | notes (additional file info) |
| 44/3 | | INT | number of B records |
| 47/3 | | INT | number of different meets |
| 50/4 | | INT | number of C records |
| 54/4 | | INT | number of different teams |
| 58/6 | | INT | number of D records |
| 64/6 | | INT | number of different swimmers |
| 70/5 | | INT | number of E records |
| 75/6 | | INT | number of F records |
| 81/6 | | INT | number of G records |
| 87/5 | | INT | batch number |
| 92/ | | INT | number of new members |

# Code Tables

## ORG Code 001    Organisation code

| | | | |
|---|---|---|---|
| 1 | USS | 6 | NCAA Div III |
| 2 | Masters | 7 | YMCA |
| 3 | NCAA | 8 | FINA |
| 4 | NCAA Div I | 9 | High School |
| 5 | NCAA Div II | | |

## LSC Code 002    Local Swimming Committee code

| | | | |
|---|---|---|---|
| AD | Adirondack | MV | Missouri Valley |
| AK | Alaska | MW | Midwestern |
| AM | Allegheny Mountain | NC | North Carolina |
| AR | Arkansas | ND | North Dakota |
| AZ | Arizona | NE | New England |
| BD | Border | NI | Niagara |
| CA | Southern California | NJ | New Jersey |
| CC | Central California | NM | New Mexico |
| CO | Colorado | NT | North Texas |
| CT | Connecticut | OH | Ohio |
| FG | Florida Gold Coast | OK | Oklahoma |
| FL | Florida | OR | Oregon |
| GA | Georgia | OZ | Ozark |
| GU | Gulf | PC | Pacific |
| HI | Hawaii | PN | Pacific Northwest |
| IA | Iowa | PV | Potomac Valley |
| IE | Inland Empire | SC | South Carolina |
| IL | Illinois | SD | South Dakota |
| IN | Indiana | SE | Southeastern |
| KY | Kentucky | SI | San Diego Imperial |
| LA | Louisiana | SN | Sierra Nevada |
| LE | Lake Erie | SR | Snake River |
| MA | Middle Atlantic | ST | South Texas |
| MD | Maryland | UT | Utah |
| ME | Maine | VA | Virginia |
| MI | Michigan | WI | Wisconsin |
| MN | Minnesota | WT | West Texas |
| MR | Metropolitan | WV | West Virginia |
| MS | Mississippi | WY | Wyoming |
| MT | Montana | | |

Swimming Data Interchange Format

## FILE Code 003    File/Transmission Type code

01   Meet Registrations
02   Meet Results
03   OVC
04   National Age Group Record
05   LSC Age Group Record
06   LSC Motivational List
07   National Records and Rankings
08   Team Selection
09   LSC Best Times
10   USS Registration
16   Top 16
20   Vendor-defined code

## COUNTRY Code 004    FINA Country code (effective 1993)

AFG  Afghanistan
AHO  Antilles Netherlands
       (Dutch West Indies)
ALB  Albania
ALG  Algeria
AND  Andorra
ANG  Angola
ANT  Antigua
ARG  Argentina
ARM  Armenia
ARU  Aruba
ASA  American Samoa
AUS  Australia
AUT  Austria
AZE  Azerbaijan
BAH  Bahamas
BAN  Bangladesh
BAR  Barbados
BEL  Belgium
BEN  Benin
BER  Bermuda
BHU  Bhutan
BIZ  Belize
BLS  Belarus
BOL  Bolivia
BOT  Botswana
BRA  Brazil
EST   Estonia
ETH   Ethiopia
FIJ   Fiji
FIN   Finland
FRA   France
GAB   Gabon
GAM   Gambia
GBR   Great Britain

BRN   Bahrain
BRU   Brunei
BUL   Bulgaria
BUR   Burkina Faso
CAF   Central African
Republic
CAN   Canada
CAY   Cayman Islands
CGO   People's Rep. of Congo
CHA   Chad
CHI   Chile
CHN   People's Rep. of China
CIV   Ivory Coast
CMR   Cameroon
COK   Cook Islands
COL   Columbia
CRC   Costa Rica
CRO   Croatia
CUB   Cuba
CYP   Cyprus
DEN   Denmark
DJI   Djibouti
DOM   Dominican Republic
ECU   Ecuador
EGY   Arab Republic of Egypt
ESA   El Salvador
ESP   Spain
LAO   Laos
LAT   Latvia
LBA   Libya
LBR   Liberia
LES   Lesotho
LIB   Lebanon
LIE   Liechtenstein
LIT   Lithuania

| | | | |
|---|---|---|---|
| GER | Germany | LUX | Luxembourg |
| GEO | Georgia | MAD | Madagascar |
| GEQ | Equatorial Guinea | MAS | Malaysia |
| GHA | Ghana | MAR | Morocco |
| GRE | Greece | MAW | Malawi |
| GRN | Grenada | MDV | Maldives |
| GUA | Guatemala | MEX | Mexico |
| GUI | Guinea | MGL | Mongolia |
| GUM | Guam | MLD | Moldova |
| GUY | Guyana | MLI | Mali |
| HAI | Haiti | MLT | Malta |
| HKG | Hong Kong | MON | Monaco |
| HON | Honduras | MOZ | Mozambique |
| HUN | Hungary | MRI | Mauritius |
| INA | Indonesia | MTN | Mauritania |
| IND | India | MYA | Union of Myanmar |
| IRL | Ireland | NAM | Namibia |
| IRI | Islamic Rep. of Iran | NCA | Nicaragua |
| IRQ | Iraq | NED | The Netherlands |
| ISL | Iceland | NEP | Nepal |
| ISR | Israel | NIG | Niger |
| ISV | Virgin Islands | NGR | Nigeria |
| ITA | Italy | NOR | Norway |
| IVB | British Virgin Islands | NZL | New Zealand |
| JAM | Jamaica | OMA | Oman |
| JOR | Jordan | PAK | Pakistan |
| JPN | Japan | PAN | Panama |
| KEN | Kenya | PAR | Paraguay |
| KGZ | Kyrghyzstan | PER | Peru |
| KOR | Korea (South) | PHI | Philippines |
| KSA | Saudi Arabia | PNG | Papau-New Guinea |
| KUW | Kuwait | POL | Poland |
| KZK | Kazakhstan | POR | Portugal |
| PRK | Democratic People's | | Sweden |
| Rep. of Korea | | SWZ | Swaziland |
| PUR | Puerto Rico | SYR | Syria |
| QAT | Qatar | TAN | Tanzania |
| ROM | Romania | TCH | Czechoslovakia |
| RSA | South Africa | TGA | Tonga |
| RUS | Russia | THA | Thailand |
| RWA | Rwanda | TJK | Tadjikistan |
| SAM | Western Samoa | TOG | Togo |
| SEN | Senegal | TPE | Chinese Taipei |
| SEY | Seychelles | TRI | Trinidad & Tobago |
| SIN | Singapore | TUN | Tunisia |
| SLE | Sierra Leone | TUR | Turkey |
| SLO | Slovenia | UAE | United Arab Emirates |
| SMR | San Marino | UGA | Uganda |
| SOL | Solomon Islands | UKR | Ukraine |
| SOM | Somalia | URU | Uruguay |
| SRI | Sri Lanka | USA | United States of |

| | | | |
|---|---|---|---|
| SUD | Sudan | | America |
| SUI | Switzerland | VAN | Vanuatu |
| SUR | Surinam | VEN | Venezuela |
| VIE | Vietnam | VIN | St. Vincent and the Grenadines |
| YEM | Yemen | YUG | Yugoslavia |
| ZAI | Zaire | ZAM | Zambia |
| ZIM | Zimbabwe | | |

## MEET Code 005    Meet Type code

| | | | |
|---|---|---|---|
| 1 | Invitational | 8 | Seniors |
| 2 | Regional | 9 | Dual |
| 3 | LSC Championship | 0 | Time Trials |
| 4 | Zone | A | International |
| 5 | Zone Championship | B | Open |
| 6 | National Championship | C | League |
| 7 | Juniors | | |

## TEAM Code 006    LSC and Team code

Supplied from USS Headquarters files upon request.  Concatenation of two-character LSC code and four-character Team code, in that order (e.g., Colorado's FAST would be COFAST).  The code for Unattached should always be UN, and not any other abbreviation.  (Florida Gold's unattached would be FG UN.)

## REGION Code 007    Region code

| | | | |
|---|---|---|---|
| 1 | Region 1 | 8 | Region 8 |
| 2 | Region 2 | 9 | Region 9 |
| 3 | Region 3 | A | Region 10 |
| 4 | Region 4 | B | Region 11 |
| 5 | Region 5 | C | Region 12 |
| 6 | Region 6 | D | Region 13 |
| 7 | Region 7 | E | Region 14 |

## USS# Code 008    USS member number code

Refer to USS membership files.  These will not be published.

## CITIZEN Code 009  Citizenship code

2AL  Dual:  USA and other country
FGN  Foreign
All codes in COUNTRY Code 004

## SEX Code 010    Swimmer Sex code

M    Male
F    Female

## EVENT SEX Code 011 Sex of Event code

M    Male
F    Female
X    Mixed

Swimming Data Interchange Format

## STROKE Code 012   Event Stroke code

1   Freestyle
2   Backstroke
3   Breaststroke
4   Butterfly
5   Individual Medley
6   Freestyle Relay
7   Medley Relay

## COURSE Code 013   Course/Status code

Please note that there are alternatives for the three types
of pools.  The alpha characters make the file more readable.
Either may be used.
1 or S   Short Course Meters
2 or Y   Short Course Yards
3 or L   Long Course Meters
X        Disqualified

## EVENT TIME CLASS Code 014  Event Time Class code

The following characters are concatenated to form a 2-byte code for the event time class.  The first
character indicates the lower limit; the second character indicates the upper limit.  22 indicates B
meets, 23 indicates B-A meets, and 4O indicates AA+ meets.

U    no lower limit (left character only)
O    no upper limit (right character only)
1    Novice times
2    B standard times
P    BB standard times
3    A standard times
4    AA standard times
5    AAA standard times
6    AAAA standard times
J    Junior standard times
S    Senior standard times

## SPLIT Code 015   Split code

C   Cumulative splits supplied
I   Interval splits supplied

## ATTACH Code 016   Attached code

A   Swimmer is attached to team
U   Swimmer is swimming unattached

## ZONE Code 017   Zone code

E   Eastern Zone
S   Southern Zone
C   Central Zone
W   Western Zone

Swimming Data Interchange Format

## COLOR Code 018    Color code

GOLD Gold
SILV Silver
BRNZ Bronze
BLUE Blue
RED  Red (note that fourth character is a space)
WHIT White

## PRELIMS/FINALS Code 019   Prelims/Finals code

P    Prelims
F    Finals
S    Swim-offs

## TIME Code 020     Time explanation code

NT   No Time
NS   No Swim (or No Show)
DNF  Did Not Finish
DQ   Disqualified
SCR  Scratch

## MEMBER Code 021   Membership transaction type

R    Renew
N    New
C    Change
D    Delete

## SEASON Code 022

1    Season 1
2    Season 2
N    Year-round

## ORDER Code 024    relay leg order

0    Not on team for this swim
1    First leg
2    Second leg
3    Third leg
4    Fourth leg
A    Alternate

## EVENT AGE Code 025

first two bytes are lower age limit (digits, or "UN" for no limit)
last two bytes are upper age limit (digits, or "OV" for no limit)
if the age is only one digit, fill with a zero (no blanks allowed)

## ETHNICITY Code 026

The first byte contains the first ethnicity selection.
The second byte contains an optional second ethnicity selection.
If the first byte contains a V,W or X then the second byte must be blank.

Q    African American
R    Asian or Pacific Islander
S    Caucasian
T    Hispanic
U    Native American
V    Other
W    Decline

## Coding Examples

The user of this interchange format has few limitations on the required records and the logical order.  There are only two required records - the file description record "A0" and the file terminator record "Z0".  These two records bracket a data transmission batch in a logical structure.  Optional records have mandatory fields to provide essential information to understand and utilize the data supplied.  Meet management applications will dominate the types of data transmissions.  The format has been designed to accommodate other USS uses.

## Meet Entry

Example - two teams in a dual meet.  One team is the host and merges host team data with visiting team data.  The visiting team provides an "A0" record, a "B1" record as a courtesy, a "B2"record as  courtesy, a "C1" record, a "C2" record, seventy-four"D0" and "D3" records for forty-eight swimmers, five "E0" records for the five relay entries, twenty-nine "F0" and "D0" records for relay swimmers and alternates, and a "Z0" record to close the file.

The host team merges a "C1" record, a "C2" record, sixty-three "D0" and "D3" records for fifty one swimmers, six "E0" records for six relay entries, thirty-five "F0" records for the relay swimmers and alternates, and a "Z0" record is shared from the visiting team submission.  The diagram of the records is given below.

| Visiting Team | Host Team |
|---|---|
| "A0" 1 record | (shares same record) |
| "B1" 1 dual meet | (shares same record) |
| "B2" 1 names host team | (shares same record) |
| "C1" 1 visiting team | "C1" 1 host team |
| "C2" 1 visiting team | "C2" 1 host team |
| "D0"- | "D0"- |
| "D3" 74 visiting athlete-event | "D3" 63 host athlete event |
| "E0" 5 relay entries | "E0" 6 relay entries |
| "F0" 29 relay swimmers | "F0" 35 relay swimmers |
| "Z0" 1 record | (shares same record) |

Swimmers who have not completed the 120-day waiting period are coded with UNATTACHED status on the individual record, but they may still be associated with the team.  The individual event records may be in any order for that team.  The relay event records may be in any order but the relay name records must follow each relay event entry.

For meets with multiple teams the file would have the records for one team together as a group, then the second team and so on until all the teams are completed.  Unattached swimmers who are not associated with a team would be grouped as an "unattached team" with a team ID record that indicates that the athletes are unattached.

It is the responsibility of the participating teams to provide complete and accurate data.  The minimum required fields are noted with an "M" in the mandatory column in the Format Design section of this manual.  The host may require more information to conduct the meet and teams should review the meet invitations closely.

## Meet results from the dual meet

"A0" 1 record for the meet with sanction number and text
"B1" 1 record for meet host data
"B2" 1 record for meet host data
"C1" 1 visiting team record
"C2" 1 visiting team record
"D0" 64 records for visiting team
"G0" 31 records for splits from individual swims
"E0" 5 relay records for visiting team
"F0" 20 relay name records for competing swimmers
"G0" 4 split records for 4 swimmers on lead off
"C1" 1 host team record
"C2" 1 host team record
"D0" 61 records for host team
"G0" 22 records for splits from individual swims
"E0" 4 relay records for host team
"F0" 16 relay name records for host team
"Z0" 1 terminator record for the meet.