# Appendix B. Special Codes
Exchange File Format
Version 3.3 (9/10/2004)

## Special Codes

Some fields have ranges defined by special codes.  The following tables define these codes.

## Existence Flags

Each data field has a corresponding existence flag.  The following are the positions for each existence flag:

| | |
|---|---|
| Column 94: | Existence flag for field 1 |
| Column 96: | Existence flag for field 2 |
| Column 98: | Existence flag for field 3 |
| Column 100: | Existence flag for field 4 |
| Column 102: | Existence flag for field 5 |
| Column 104: | Existence flag for field 6 |
| Column 106: | Existence flag for field 7 |
| Column 108: | Existence flag for field 8 |
| Column 110: | Existence flag for field 9 |
| Column 112: | Existence flag for field 10 |

The following are valid values for Existence Flags:

| | |
|---|---|
| 0 | Known |
| 1 | Unknown |

## Obstruction Accuracy Codes

Accuracy codes are 2 character codes which designate the accuracy of a feature. The accuracy code is not the accuracy at which a feature is collected but rather the minimum accuracy required for a feature depending on where it falls within the OIS.

The first character of the accuracy code is the horizontal accuracy.

| Value | Accuracy |
|---|---|
| 1 | 20 feet |
| 2 | 50 feet |
| 3 | 100 feet |

The second character of the accuracy code is the vertical accuracy.

| Value | Accuracy |
|---|---|
| A | 3 feet |
| B | 10 feet |
| C | 20 feet |
| D | 50 feet |
| M | ESTIMATED MAXIMUM ELEVATION* |
| ? | NO TOP ELEVATION – NO VERTICAL ACCURACY |

The special accuracy code 99 indicates features that are not obstructions (such as Geodetic Control, Photo Control, Polygons, etc.). Refer to the "FAA No. 405" for minimum allowable accuracies for these features.

A vertical accuracy designation of M, estimated maximum elevation, is provided when the elevation of an object cannot be determined precisely, as with mobile cranes.

## Horizontal Datum Tie Codes

| | | |
|---|---|---|
| - | | UNDEFINED |
| B | 5 CM | GPS ANA |
| C | 50 CM | GPS ADAM |
| D | 1:100,000 | CLASSICAL 1ST ORDER |
| E | 1:50,000 | CLASSICAL 2ND ORDER CLASS I |
| F | 1:20,000 | CLASSICAL 2ND ORDER CLASS II |
| G | 1:10,000 | CLASSICAL 3RD ORDER CLASS I |
| H | 1:5,000 | CLASSICAL 3RD ORDER CLASS II |
| I | 15 FT | PHOTOGRAMMETRIC |
| J | > 15 FT | OTHER |

## Ellipsoidal Datum Tie Codes

| | | |
|---|---|---|
| - | | UNDEFINED |
| B | 15 CM | GPS ANA |
| C | 50 CM | GPS ADAM |
| D | 1 M | GEOID 96 MODEL (ORTHO+GEOID) |
| E | > 1 M | OTHER |

## Orthometric Datum Tie Code

| | | |
|---|---|---|
| - | | UNDEFINED |
| A | 1.0 MM * SQRT(K) | CLASSICAL 1ST ORDER CLASS I |
| B | 1.4 MM * SQRT(K) | CLASSICAL 1ST ORDER CLASS II |
| C | 2.0 MM * SQRT(K) | CLASSICAL 2ND ORDER CLASS I |
| D | 2.6 MM * SQRT(K) | CLASSICAL 2ND ORDER CLASS II |
| E | 4.0 MM * SQRT(K) | CLASSICAL 3RD ORDER |
| F | 24.0 MM * SQRT(K) | CLASSICAL AOC VERTICAL TIE |
| G | 25 CM | GPS ANA |
| H | 10 FT | PHOTOGRAMMETRIC |
| I | > 10 FT | OTHER |

## Point Survey Status Attribute Code

| | |
|---|---|
| - | Undefined |
| D | Not Verified |
| C | Checked by Survey Methods |
| W | New Point |
| I | Checked by Visual Inspection |
| G | Checked by General Inspection |
| R | Retied |
| B | New Base Elevation |
| T | New Top Elevation |
| V | New Vertical Position |
| ? | Questionable Position Change |

P        Photogrammetrically Determined Position

## Control Type Attribute Code

| - | Undefined |
|---|---|
| P | PACS |
| A | SACS |
| C | TACS |
| T | Triangulation Station |
| L | Local Control |
| S | Sub Point (Photo Control) |

## NAVAID Type Attribute Code

| Code | Abbreviation | Full Name |
|---|---|---|
| - | | Undefined |
| + | APBN | Airport Beacon |
| = | ALS | Approach Lights |
| W | ARSR | Air Route Surveillance Radar |
| A | ASR | Airport Surveillance Radar |
| , | ATCBI | ATCBI |
| J | BCM | Back Course Marker |
| D | DME | Distance Measuring Equipment |
| Y | FM | Fan Marker |
| F | GS | Glide Slope |
| G | IM | Inner Marker |
| K | LDA | Localizer Type Directional Aid |
| Z | LFR | Low Frequency Radio Range |
| R | LMM | Locator Middle Marker |
| E | LOC | Localizer |
| S | LOM | Locator Outer Marker |
| > | LRR | Long Range Radar |
| L | MLSAZ | MLS Azimuth Guidance |
| N | MLSEL | MLS Elevation Guidance |
| V | MLSDME | DME associated with MLS |
| H | MM | Middle Marker |
| X | NDB | Nondirectional Beacon |
| # | NDB/DME | |
| B | OTHER | Other NAVAID |
| I | OM | Outer Marker |
| & | PAPI | Precision Approach Path Indicator |
| % | PAR | Precision Approach Radar |
| ! | PLASI | PLASI |
| * | PVASI | Pulsating Visual Approach Slope Indicator |
| $ | REIL | Runway End Identifier Lights |
| O | SDF | Simplified Directional Facility |
| : | STARS | STARS component |
| M | TACAN | Tactical Air Navigation |
| C | TDR | GCA Touchdown Reflectors |

| | | |
|---|---|---|
| ( | TRCV | Tri-color Visual Approach Slope Indicator |
| ) | TVASI | "T"-Visual Approach Slope Indicator |
| ~ | VASI | Visual Approach Slope Indicator |
| P | VOR | VHF Omni Directional Range |
| T | VOR/DME | |
| Q | VORTAC | VOR + TACAN |

## Special Attribute Code

| | |
|---|---|
| - | Undefined |
| T | Outside specified Obstruction Identification Surface (OIS) |

Note: T refers to a feature which falls outside the surfaces defined in the FAA NO. 405 but which is of interest.

## Runway Approach Type Codes

### Runway_Approach_Types:  ANA surveys
| | |
|---|---|
| NUL | NUL |
| PC1 | ANA PC, Cat 1 |
| PC2 | ANA PC, Cat 2/3 |
| AP1 | ANA PC, Cat 1 Revision Date: January 28, 2004 |
| AP2 | ANA PC, Cat 2/3 Revision Date: January 28, 2004 |

### Runway Approach Types: CGR surveys
| | |
|---|---|
| NUL | NUL |
| CGP | PRECISION INSTRUMENT APPROACH, INCLUDES APPROACH AND PRIMARY SURFACES ONLY |
| CGD | NONPRECISION APPROACH – VISIBILITY MINIMUMS AS LOW AS ¾ MILE INCLUDES APPROACH AND PRIMARY SURFACE ONLY |

### Runway Approach Types: F77 surveys
| | |
|---|---|
| NUL | NUL |
| PIR | PRECISION INSTRUMENT APPROACH |
| ANP | NONPRECISION APPROACH - UTILITY RUNWAY |
| C | NONPRECISION APPROACH - VISIBILITY MINIMUMS GREATER THAN 3/4 MILE |
| D | NONPRECISION APPROACH - VISIBILITY MINIMUMS AS LOW AS 3/4 MILE |
| AV | VISUAL APPROACH - UTILITY RUNWAY |
| BV | VISUAL APPROACH |
| BVC | BV w/Supplemental C |

### Runway Approach Types: OEP surveys
| | |
|---|---|
| NUL | NUL |
| OEP | Operation Evolution Plan |

### Runway Approach Types: RBI surveys
| | |
|---|---|
| NUL | NUL |
| RBI | Ron Brown Airport Initiative |

## Poly Feature Survey Status Attribute Code

| | |
|---|---|
| - | Undefined |
| D | Not Verified |
| C | Checked by Survey Methods |
| W | New Feature |
| I | Checked by Visual Inspection |
| G | Checked by General Inspection |
| R | Retied |
| B | New Base Elevation |
| T | New Top Elevation |
| V | New Vertical Position |
| ? | Questionable Position Change |
| P | Photogrammetrically Determined Position |

## Source Codes

F – Field (ground survey: GPS or Classical)
E – Manual Entry (direct numerical edits performed in the field)
R – Remote Sensing (measurements made from interpreted imagery)
O – Office (direct numerical edits performed in the office)