

DRAFT



Flight Information Exchange Model US Extension Data Dictionary

The Flight Information Exchange Model (FIXM) is a global standard for achieving interoperable exchanges of flight information. FIXM is based on a standardized (yet extensible and dynamic) set of data elements that increase interoperability and data exchange among automated systems. FIXM is part of a family of technology independent, harmonized, and interoperable information exchange models and Extensible Markup Language (XML) schemas [alongside the Aeronautical Information Exchange Model (AIXM) and Weather Information Exchange Model (WXXM)]. FIXM is designed to support the information needs of global aviation stakeholders such as Air Traffic Management (ATM), airlines, airport personnel, and air safety providers.

The FIXM US Extension Data Dictionary (FIXM US DD) provides a conceptual explanation of the flight data elements (FDEs) expected to be exchanged within the FAA's National Airspace System (NAS) using the FIXM standard. Currently, the FIXM US DD includes a definition for each FDE, as well as alternate names that reflect various nomenclatures across systems and operational domains, relationships among FDEs, data types, value ranges (where applicable), business rules associated with the individual use of each FDE, and references to authoritative sources where more information can be found regarding the referenced FDE. The FIXM DD is complementary to the other FIXM artifacts such as the FIXM models and the FIXM schemas.

This version of the FIXM US DD adds 34 FDEs that support the publication of Traffic Flow Management Data (TFMData) to users within the United States.

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Contents

Document History	7
1 Element Metadata Definitions	8
1.2 Name	8
1.3 Definition	8
1.4 Alternate Names	8
1.5 Has Parts	8
1.6 Is Part Of.....	9
1.7 Range of Values.....	9
1.8 Business Rules	10
1.9 Notes	11
1.10 References	11
2 Data Type.....	12
3 Data Elements	19
3.1 Adapted Arrival Route Clearance Support Alphanumerics.....	19
3.2 Adapted Arrival Route Identifier	20
3.3 Adapted Departure Arrival Route Clearance Support Alphanumerics	21
3.4 Adapted Departure Arrival Route Identifier	22
3.5 Adapted Departure Route Clearance Support Alphanumerics.....	23
3.6 Adapted Departure Route Identifier	24
3.7 Airborne Equipment Qualifier.....	25
3.8 Aircraft Identification – Previous	27
3.9 Airport Movement Area Holding - Arrival Information	28
3.10 Airport Movement Area Holding - Departure Information	29
3.11 Airport Movement Area Holding Intent - Arrival.....	30
3.12 Airport Movement Area Holding Intent - Departure.....	31
3.13 Airspace Entry Time - Earliest	32
3.14 Airspace Entry Time - Initial	33
3.15 Airspace Entry Time - Original.....	34
3.16 Airspace Entry Time - Slot Credit Substitution Earliest Acceptable	35
3.17 Airspace Entry Time - Slot Credit Substitution Latest Acceptable	36
3.18 Airspace Entry Time - Traffic Flow Management System Estimated.....	37
3.19 Airspace Exit Time - Traffic Flow Management System Estimated.....	38
3.20 Airspace Identifier	39
3.21 Arrival Center	40

3.22	Arrival Point	41
3.23	Arrival Slot - NAS	43
3.24	Boundary Crossing Position - Actual	44
3.25	Boundary Crossing Time - Actual	45
3.26	Classified Speed Indicator	46
3.27	Coast Indicator	47
3.28	Collaborative Trajectory Options Program Control Exempt Reason (New).....	48
3.29	Collaborative Trajectory Options Program Identifier	49
3.30	Collaborative Trajectory Options Program Name.....	50
3.31	Computer ID	51
3.32	Computer System ID (New)	52
3.33	Control Exempt (New).....	53
3.34	Control Indicator (New)	54
3.35	Control Type (New)	55
3.36	Coordination Fix.....	56
3.37	Coordination Time	57
3.38	Coordination Time Type.....	58
3.39	Current RVSM Flight Compliance.....	59
3.40	Deicing Information	60
3.41	Deicing Intent.....	61
3.42	Deicing Location.....	62
3.43	Delay Time to Absorb.....	63
3.44	Departure Center	64
3.45	Departure Point	65
3.46	Departure Procedure Transition Fix (New).....	67
3.47	Diversion Indicator (New)	68
3.48	En Route Clearance Heading.....	69
3.49	En Route Clearance Speed	70
3.50	En Route Clearance Text	71
3.51	Fixed Airspace Volume Number Containing First Adapted Arrival Route Fix	72
3.52	Flight Class.....	73
3.53	Flight Intent.....	74
3.54	Flight Plan Identifier.....	75
3.55	Flight Rules - NAS	76
3.56	Future RVSM Flight Compliance	77

3.57	Handoff Accepting Sector	78
3.58	Handoff Accepting Unit.....	79
3.59	Handoff Event Category.....	80
3.60	Hold Data Expect Further Clearance Time.....	81
3.61	Hold Data Fix.....	82
3.62	In-Block Time - Scheduled.....	83
3.63	Intended Arrival Spot.....	84
3.64	Intended Departure Spot.....	85
3.65	Interim Altitude Information	86
3.66	Local Intended Route	87
3.67	Movement Area Entry Time - Airspace User Requested	88
3.68	Movement Area Entry Time - Target	89
3.69	Movement Area Exit Time - Airspace User Requested	90
3.70	NAS Advisory Information.....	91
3.71	NAS Flight Identifiers Unit (New).....	92
3.72	NAS Route	93
3.73	NAS Route - Incomplete Indicator (New).....	95
3.74	NAS Route - Inhibit Adapted Arrival Routes Indicator (New)	96
3.75	NAS Route - Inhibit Adapted Departure Routes Indicator (New)	97
3.76	NAS Route - Reentry for Military Route.....	98
3.77	NAS Route - Tailored Indicator (New).....	100
3.78	Off-Block Time - Scheduled.....	101
3.79	Other Flight Information.....	102
3.80	Performance-Based Navigation Accuracy.....	103
3.81	Performance-Based Navigation Category.....	104
3.82	Performance-Based Navigation Phase.....	105
3.83	Pre-Implicit Substitution Flight Information (New)	106
3.84	Pre-Implicit Substitution Runway Departure Time – Controlled (New)	107
3.85	Pre-Implicit Substitution Slot (New)	108
3.86	Pre-Implicit Substitution Trajectory Identifier (New)	109
3.87	Pre-Implicit Substitution Trajectory Total Cost (New)	110
3.88	Predicted Airways	111
3.89	Predicted Fixes	112
3.90	Predicted Sectors	113
3.91	Predicted Units.....	114

3.92	Predicted Waypoints.....	115
3.93	Relative Flight Priority (New)	116
3.94	Requested Altitude	117
3.95	Route Impact List	118
3.96	Runway Arrival Time - Airspace User Actual (New)	119
3.97	Runway Arrival Time - Airspace User Estimated.....	120
3.98	Runway Arrival Time - Earliest	121
3.99	Runway Arrival Time - Original	122
3.100	Runway Arrival Time - Preferred.....	123
3.101	Runway Arrival Time - Slot Credit Substitution Earliest Acceptable	124
3.102	Runway Arrival Time - Slot Credit Substitution Latest Acceptable	125
3.103	Runway Arrival Time - Traffic Flow Management System Estimated.....	126
3.104	Runway Arrival Time - Traffic Flow Management System Estimated Type (New)	127
3.105	Runway Departure Time - Airspace User Actual (New)	128
3.106	Runway Departure Time - Airspace User Estimated.....	129
3.107	Runway Departure Time - Earliest	130
3.108	Runway Departure Time - Original	131
3.109	Runway Departure Time - Preferred.....	132
3.110	Runway Departure Time - Traffic Flow Management System Estimated.....	133
3.111	Runway Departure Time - Traffic Flow Management System Estimated Type (New)	134
3.112	RVSM Equipped (New).....	135
3.113	SFDPS Flight Status.....	136
3.114	Site Specific Plan Identifier.....	137
3.115	Slot Hold Status.....	138
3.116	Special Aircraft Qualifier	139
3.117	Special Slot Type (New).....	140
3.118	Stand Return Intent.....	141
3.119	Standard Terminal Arrival Route Transition Fix (New)	142
3.120	Target Altitude	143
3.121	Target Position	144
3.122	Target Position Time	145
3.123	Track Speed Components	146
3.124	Traffic Flow Management Advisory Number	147
3.125	Traffic Flow Management Advisory Type	148
3.126	Traffic Flow Management Advisory Update Time	149

3.127	Traffic Flow Management Collaborative Trajectory Options Program Information.....	150
3.128	Traffic Flow Management Reroute Information.....	151
3.129	Traffic Flow Management System Aircraft Weight Class (New)	152
3.130	Traffic Flow Management System Departure Procedure Designator (New)	153
3.131	Traffic Flow Management System Flight Creation Time (New)	154
3.132	Traffic Flow Management System Flight Plan Remarks.....	155
3.133	Traffic Flow Management System Flight Status.....	157
3.134	Traffic Flow Management System Next Event (New)	158
3.135	Traffic Flow Management System Next Position (New)	159
3.136	Traffic Flow Management System Reroute Identifier.....	160
3.137	Traffic Flow Management System Reroute Inclusion Indicator.....	161
3.138	Traffic Flow Management System Reroute Name	162
3.139	Traffic Flow Management System Reroute Protected Segment	163
3.140	Traffic Flow Management System Reroute Type.....	164
3.141	Traffic Flow Management System Route Type (New)	165
3.142	Traffic Flow Management System Standard Instrument Arrival Designator (New)	166
3.143	Trajectory Airspace Impact	167
3.144	Trajectory Manual Override Status.....	168
3.145	Trajectory Minimum Notification Time	169
3.146	Trajectory Option Set	170
3.147	Trajectory Option Set Sequence Number (New)	171
3.148	Trajectory Relative Cost	172
3.149	Trajectory Source (New)	173
3.150	Trajectory Total Cost	174
3.151	Trajectory Valid End Time	175
3.152	Trajectory Valid Start Time	176
3.153	Wake Turbulence Category - NAS	177
3.154	Yielded Slot Indicator	178
Acronym List.....		179

Document History

Version	Version Type	Description	Entered By
0.90	Draft	<ul style="list-style-type: none"> Initial draft for internal review 	Booz Allen Hamilton
0.91	Draft	<ul style="list-style-type: none"> Draft for internal review 	Booz Allen Hamilton
0.92	Draft	<ul style="list-style-type: none"> Formatting; updates to notes 	Booz Allen Hamilton
1.00	Draft	<ul style="list-style-type: none"> Grammatical; minor updates to notes 	Booz Allen Hamilton
1.00	Final	<ul style="list-style-type: none"> Enhanced metadata definitions Grammatical; minor updates to notes Added Data Type Descriptions 	Booz Allen Hamilton
1.10	Final	<ul style="list-style-type: none"> Changed Classified Speed Indicator to Aircraft Speed that is represented by 3 types Added format information to Notes in Computer ID Added implementation notes to Coordination Fix 	Booz Allen Hamilton
2.00	Final	<ul style="list-style-type: none"> Updated data types and Element Metadata Added additional elements not applicable to FIXM Core v2.0.0 – Times, Speeds, etc. 	Booz Allen Hamilton
3.00	Draft	<ul style="list-style-type: none"> Name changed from NAS Extension DD to US Extension DD Added additional elements Draft for CCB review 	Booz Allen Hamilton
3.1	Draft	<ul style="list-style-type: none"> Added 34 FDEs that support the publication of TFMDData to users within the US 	Booz Allen Hamilton
3.1	Final	<ul style="list-style-type: none"> Incorporated grammatical comments, and minor edits to notes 	Booz Allen Hamilton

1 Element Metadata Definitions

Element-level metadata are used to capture the meaning of the data elements, to provide the context in which they appear and their associated business rules. The element-level metadata are:

1.2 Name

This metadata captures a unique, descriptive name for the data element. The naming convention used in this document attempts to fulfil the following goals:

1. The data element name should not contain acronyms – to the extent possible. The use of acronyms raises the risk of the names being used erroneously. Commonly used aviation domain terms are optimal for naming conventions; however, in some cases, the use of synonyms may be the most practical approach.
2. The name should express – as much as possible – the type of data it represents (e.g., time, speed, altitude).
3. The names should be constructed such that related data elements are adjacent in an alphabetized list. For example, “Earliest Runway Departure Time” was named “Runway Departure Time – Earliest”, to allow its record to be documented adjacent to other data elements associated with Runway Departure Time (i.e. "Runway Departure Time - Airspace User Estimated", and Runway Departure Time - Traffic Flow Management System Estimated", etc.)

1.3 Definition

This metadata describes the data element in unambiguous and universal terms such that a reader, with a basic level of aviation domain knowledge, can have a clear understanding of what information the data element represents. If necessary, the description may point to references that provide further clarification. This description should avoid jargon or references to systems’ behavior to the extent possible and should be clear and succinct.

1.4 Alternate Names

This metadata captures alternate terms (i.e., terms from other domains that are used synonymously) and any other information that would facilitate the discovery of semantically equivalent (or related) data elements.

1.5 Has Parts

This metadata lists any (possibly more basic) data elements contained by the data element (or data type) to which the metadata refers. Therefore, when the “Has Parts” metadata is populated, this data element (or data type) will always be denoted as a "Record", "Array", or "Union" data type. For example, for the FIXM Data Dictionary v2.0, “Route Impact List” has the following parts: “Predicted Airways”, “Predicted Units”, and “Predicted Sectors”. These data elements are described as unique data elements in the data dictionary as well.

1.6 Is Part Of

This metadata will be populated if the referenced data element is a "Record", "Array", or "Union" data type. It specifies the name of the data element or data type to which the referenced data element belongs. For example, for the FIXM Data Dictionary v2.0, "Predicted Airways" is part of "Route Impact List".

1.7 Range of Values

This metadata indicates the range of values the data element can take. This is accomplished by either providing upper and lower threshold values, or by explicitly enumerating all the possible values. In the case of an enumeration, this metadata also specifies if the data element can take only one or more of the enumerated values.

There are a few exceptions to how this metadata is used in the Data Dictionary:

1. In some cases, the list of all possible values for a data element is too long to be captured in this document. In those cases, the "Range of Values" metadata field will contain a reference to the document(s) that specify the valid list of values.
2. Some data elements can assume more than one value from a controlled vocabulary. In this case, Range of Values captures the controlled vocabulary, and the "Notes" section clarifies which combinations of values are acceptable.

Notation

The following notation conventions are used to describe the Range of Values:

1. Discrete enumeration. Predefined values are listed explicitly and exhaustively. They are separated by commas, and the whole collection is delimited by curly brackets. Example: {RNP, RNV}. In a software implementation, this type of discrete enumeration would be implemented as an enumeration.
2. Numeric range. This is a range of numbers defined implicitly by specifying the lower and upper limits, separated by a dash symbol ('-') and delimited by square brackets. Example: [0-99] specifies a range of 100 numeric values starting with 0 (inclusive of 0) and ending with 99 (inclusive of 99). Some numeric ranges are specified in bases other than 10, such as base 8 (octal) or 16 (hexadecimal). In these cases, an explanatory note is provided.
3. Alphabetic range. This is a range of alphabetic characters defined implicitly by specifying the first and last characters, separated by the dash symbol ('-') and delimited by square brackets. Example: [A-Z] specifies a range of letters (ordered alphabetically) starting with upper-case 'A' and ending with upper-case 'Z'. Please note, unless specified otherwise, all alphabetic characters are assumed to be upper case letters corresponding to the American Standard Code for Information Interchange (ASCII) characters in the range of 41hex to 5Ahex.

These notation conventions can be combined, in order to express more complex types of value ranges. For example:

1. [A-Z, 0-9] represents upper-case letters and numbers

2. {[A-Z], +, -, ,} represents upper-case letters, the '+' (plus) character, the '-' (minus) character . and the ',' (comma) character

The Range of Values, as defined above, can be accompanied by a modifier which further defines the range:

1. Multiplicity. The number of values each data element can have is specified in plain language, preceding or following the range definition. For example, if the data element can take only one value from a discrete enumeration (i.e., the enumeration has mutually exclusive values), then the range is specified as "{V1, V2, V3, V4}". If multiple values are acceptable, the range is specified as "one or more of the following values: {V1, V2, V3, V4}". If there is an upper limit on how many values can be combined, that is specified also ("up to 3 of {V1, V2, V3, V4, V5}").
2. Exclusion. In certain cases, some values in an implicit range are not valid. In those cases, the invalid values are specified after the range. For example: "[A-S] excluding {I, N, O}".

Other considerations:

1. Free-form text. Unless otherwise specified, the default value range for the acceptable characters in free-form text is {[A-Z], [0-9], -, ?, :, (,), ., ,, ', =, /, +}.
2. Complex data elements. Certain data elements are complex in nature (they contain multiple data elements as components.)
3. In all cases, if the Range of Values is already captured within the description of the data type, this metadata will be left blank.

1.8 Business Rules

This metadata defines or constrains some aspect of the use of a particular data element. They have the following functions:

1. describes how data elements are used together in a functional or operational context
2. defines roles or functionality associated with data elements
3. describes rules for using the data elements in specific contexts

Business Rules will be defined by guidance documents and will outline when and how the referenced data element will be used. Multiple Business Rules should be in a bulleted list.

For example, specific Business Rules are:

1. In-Block Time - Scheduled: "The element is only present for flights which were created from the OAG; otherwise, it is null."
2. Traffic Flow Management System Flight Status: "TFMS generates the flight status based on all available data sources and uses it to determine how to model a flight and how to treat a flight in a Traffic Management Initiative."

1.9 Notes

This field captures any other pertinent information or knowledge regarding the referenced data element that does not fit in any of the other data fields. This section may include descriptions of enumerated values, descriptions of the operating environment, the individual data types comprised by a “Complex” data type, data type formatting, examples and other information in the reference documentation. Limited guidance-specific XML may be listed here for clarification purposes. Multiple Notes should be in a bulleted list.

1.10 References

This metadata lists specific sources which further define, explain, and/or provide additional information about the data element, its context and its role. Multiple References should be in a bulleted list.

2 Data Type

Data Types	Description
4D Trajectory	<p>Type: Array</p> <p>Definition: A construct containing the four-dimensional (x, y, z, and time) trajectory: of an aircraft from gate-to-gate, at the level of fidelity required for attaining the agreed ATM system performance levels.</p> <p>Has Parts: Trajectory Point</p> <p>Notes: For FIXM v3.0, this data type only covers the airborne segment. However, future versions of FIXM will cover gate-to-gate operations.</p>
Aerodrome	<p>Type: Union</p> <p>Definition: A defined area on land or water (including any buildings, installations and equipment) intended to be used either wholly or in part for the arrival, departure and surface movement of aircraft.</p> <p>This data type can be described as one of the following:</p> <ul style="list-style-type: none"> The four (4) character code from ICAO 7910 that identifies the aerodrome, if one is available (enumerated type) <p>Notes:</p> <ul style="list-style-type: none"> If a code is not available, then <ul style="list-style-type: none"> Aerodrome Location (location) Aerodrome Name or Alternate Identifier (character string)
Air Traffic Services Unit	<p>Type: Union</p> <p>Definition: A generic term meaning variously, air traffic control unit, flight information centre or air traffic services reporting office.</p> <p>Notes:</p> <ul style="list-style-type: none"> This data type contains the four (4) character code from ICAO 7910 that identifies the unit, if one is available (enumerated type) If a code is not available, a character string contains the unit name or alternate Air Traffic Services Unit (ATSU) identifier (character string)

Data Types	Description
Air Traffic Services Unit Airspace	<p>Type: Union</p> <p>Definition: Airspaces of defined dimensions, alphabetically designated, within which specific types of flights may operate and for which air traffic services and rules of operation are specified.</p> <p>Notes:</p> <ul style="list-style-type: none"> • This data type contains the four (4) character code from ICAO 7910 that identifies the ATSU that it is associated with, if one is available (enumerated type) • If a code is not available, a character string contains the airspace name (character string)
Alpha Character	<p>Definition: One upper-case alphabetic character in the range [A-Z].</p>
Alpha String	<p>Definition: String containing only upper-case alphabetic characters in the range [A-Z].</p>
Altitude	<p>Type: Union</p> <p>Definition: The vertical distance of a level, a point or an object considered as a point, measured from mean sea level.</p> <p>The altitude can be expressed in two ways:</p> <p>1. Flight Level character string is a standard nominal altitude of an aircraft, calculated from the international standard pressure datum of 1013.25 hPa (29.92 inches in Hg), the average sea-level pressure. Flight Level is expressed in metres or feet. It is not necessarily the same as the aircraft's true altitude, either above mean sea level or above ground level. Two alternative conventions are available for the expression of flight level data:</p> <p>Notes:</p> <ul style="list-style-type: none"> • "F" followed by three (3) decimal numeric characters: indicates a flight level number, e.g. Flight Level 330 is expressed as "F330"; • "S" followed by four (4) decimal numeric characters: indicates standard metric level in tens of metres, i.e. Standard Metric Level 11,300 metres (Flight Level 370) is expressed as "S1130"; <p>2. Altitude (character string) is the real altitude calculated by the aircraft, by measuring the air pressure and adjusting it for the local air pressure. Altitude is expressed in metres or</p>

Data Types	Description
	<p>feet. Two alternative conventions are available for the expression of altitude:</p> <ul style="list-style-type: none"> • “A” followed by three (3) decimal numeric characters: indicates altitude in hundreds of feet, e.g. an altitude of 4,500 feet is expressed as “A045”; • “M” followed by four (4) decimal numeric characters: indicates altitude in tens of metres, e.g. an altitude of 8,400 metres is expressed as “M0840”. <p>Range of values: [0-130,000] when expressed in feet, [0-40,000] when expressed in metres.</p>
Array	<p>Definition: The array data type stores a number of elements of same type in a specific order.</p>
Beacon Code & Mode	<p>Type: Record</p> <p>Definition: The Secondary Surveillance Radar (SSR) mode and transponder code of the flight.</p> <ul style="list-style-type: none"> • SSR Mode (enumeration): {A, C, S} <ul style="list-style-type: none"> ○ The enumeration "S" refers to selective interrogation for Automatic Dependent Surveillance – Broadcast (ADS-B) and is associated with the aircraft address <p>Notes:</p> <ul style="list-style-type: none"> • Octal range of Beacon Code (numeric string): [0000 - 7777]
Boolean	<p>Definition: The Boolean type represents the values: true and false.</p>
Character	<p>Definition: A character that is standardized by UTF-8 (Uniform Transformation Format 8-bit)</p> <p>Notes: UTF-8 is the default encoding for XML.</p>
Character String	<p>Definition: A string of characters as standardized by UTF-8</p> <p>Notes: UTF-8 is the default encoding for XML.</p>
Constrained Airspace	<p>Type: Character String</p> <p>Definition: The defined region of airspace that is used to identify flights subject to a constraint.</p> <p>Notes:</p> <ul style="list-style-type: none"> • It is usually associated with a date/time
Date Time	<p>Type: Character String</p> <p>Definition: Represents a specific instance of date and time.</p> <p>Notes:</p> <ul style="list-style-type: none"> • The pattern for this data type is YYYY-MM-DDThh:mm:ss[.SSS][Z GMT-zzzz] where YYYY

Data Types	Description
	<p>represents the year, MM the month, and DD the day, preceded by an optional leading negative (-) character to indicate a negative number. If the negative character is omitted, positive (+) is assumed. The T is the date/time separator, and hh, mm, and ss represent hours, minutes, and seconds respectively.</p> <ul style="list-style-type: none"> Additional digits can be used to increase the precision of fractional seconds, if desired. For example, the format ss.ss..., with any number of digits after the decimal point is supported. Specifying fractions of a second is optional. This representation may be immediately followed by a "Z" to indicate Coordinated Universal Time (UTC) or to indicate the time zone. For example, the difference between the local time and UTC, immediately followed by a sign, + or -, followed by the difference from UTC represented as hh:mm (minutes is required). If the time zone is included, both hours and minutes must be present.
Direction	<p>Type: Float</p> <p>Definition: Indicates direction relative to either true north or magnetic north.</p> <ul style="list-style-type: none"> Range of values is [0-360], expressed in degrees <p>Notes:</p> <ul style="list-style-type: none"> Include all data elements that represent a heading, bearing, or ground track
Enumeration	<p>Definition: Represents one or multiple choices from a finite, predefined collection of choices (controlled vocabulary).</p> <p>Notes: The controlled vocabulary is specified in the "Range of Values" field, whenever practicable. If the enumeration is too large to be included explicitly, a reference is provided.</p>
Flight Rules	<p>Type: Enumeration</p> <p>Definition: Rules of the flight as dictated by regulations, weather, and separation minimums for IFR and VFR flights.</p> <p>An enumerated listing of an Aircraft's flight rules {I, V}, as defined in ICAO 4444 where:</p> <p>Notes:</p> <ul style="list-style-type: none"> I - Instrument Flight Rules (IFR) V - Visual Flight Rules (VFR)

Data Types	Description
Float	<p>The floating point data type contains fractional values. In the context of FIXM it represents single-precision, 32-bit floating-point numbers.</p> <p>Definition:</p>
Frequency	<p>Type: Float</p> <p>Definition: Describes the radio frequency used for communications and navigation between aircraft-ground, ground-ground, or aircraft-aircraft.</p> <p>Notes:</p> <ul style="list-style-type: none"> • The range of values is [3-3000] • Expressed in megahertz (MHz)
Integer	<p>The integer data type represents positive whole numbers {1, 2, 3...}, negative whole numbers {-1, -2, -3...}, and zero {0}.</p> <p>Definition:</p>
Location	<p>Type: Union</p> <p>Definition: A place indicating a specified location used to define an ATS route or the flight path of an aircraft or for other navigation/ATS purposes.</p> <p>This data type can be identified in any of the following ways:</p> <ul style="list-style-type: none"> • Location Identifier (enumerated): a predefined two (2) to five (5) character string. This string can be a fix name • Latitude/Longitude (record: defined by a pair of latitude and longitude coordinates. • Fix-radial-distance (character string): defined by three values: a navigation aid identifier (typically a VOR), a magnetic heading (expressed as a "Direction"), and a distance (expressed in nautical miles). <p>Notes:</p>
Numeric Character	<p>Definition: One numeric character in the range [0-9].</p>
Numeric String	<p>Definition: String containing only numeric characters in the range [0-9].</p>
Record	<p>Definition: The record data type is a value that contains other values, typically in fixed number and sequence and typically indexed by names. The elements of records are usually called fields or members</p>
Route	<p>Type: Record</p>

Data Types	Description
	<p>A Route defines the path of a flight over the surface of the earth. It also includes altitude and speed information. It represents the intent of the flight.</p> <p>Definition:</p> <ul style="list-style-type: none"> • Cruising Altitude - Requested • Cruising Speed • Route String <p>Has Parts:</p> <ul style="list-style-type: none"> • Airway • Significant Point • Expanded Route
Sector	<p>Type: Character String</p> <p>Definition: The position of the air traffic controller (ATC) or small group of ATCs within the ATSU.</p> <p>Notes:</p> <ul style="list-style-type: none"> • This designator is always associated with a unit
Sector Airspace	<p>Type: Character String</p> <p>Definition: A subdivision of a designated control area.</p> <p>Notes:</p> <ul style="list-style-type: none"> • It is always associated with an ATSU airspace
Speed	<p>Type: Float</p> <p>Definition: An instantaneous measurement of the rate of movement for an aircraft.</p> <p>Notes:</p> <ul style="list-style-type: none"> • Range of [0-2500] when expressed in knots • Range of [0-4630] when expressed as KPH • Range of [0-3.8] when expressed in Mach
Time Duration	<p>Type: Character String</p> <p>Definition: The length of time that something exists or lasts.</p> <p>Notes:</p> <ul style="list-style-type: none"> • The pattern for duration is nYnMnDTnHnMnS, where nY represents the number of years, nM the number of months, nD the number of days, T the date/time separator, nH the number of hours, nM the number of minutes, and nS the number of seconds
Union	<p>Definition: A union is a value that may have any of several representations or formats (e.g., it could be either an integer or a string). A union can be pictured as a chunk of memory that is used to store variables of different data types. Once a new value is assigned to a field, the existing</p>

Data Types	Description
	<p>data is overwritten with the new data. The memory area storing the value has no intrinsic type (other than just bytes or words of memory), but the value can be treated as one of several abstract data types, having the type of the value that was last written to the memory area.</p>
Vertical Rate	<p>Type: Float</p> <p>Definition: The value of an aircraft's vertical rate of change.</p> <ul style="list-style-type: none"> • climb if positive, descent if negative <p>Notes:</p> <ul style="list-style-type: none"> • [(-30,000)-30,000] when expressed in ft/min • [(-15)-15] if expressed in m/s
Weight	<p>Type: Float</p> <p>Definition: The measurement of the pull of gravity of an object</p> <p>Notes</p> <ul style="list-style-type: none"> • expressed in pounds, grams (mass), or kilograms (mass)

3 Data Elements

3.1 Adapted Arrival Route Clearance Support Alphanumerics

Adapted Arrival Route Clearance Support Alphanumerics	
<i>Definition</i>	This field contains the route string with an Adapted Arrival Route (AAR) to be provided to the controller at the time the auto-route is applied.
<i>Alternate Names</i>	
<i>Has Parts</i>	
<i>Is Part Of</i>	
<i>Data Type(s)</i>	Character String
<i>Range of Values</i>	
<i>Business Rules</i>	<ul style="list-style-type: none"> • AAR alphanumerics include the AAR Transition-fix. • These alphanumerics are preceded by the Field 10 element (in the filed route) that precedes the AAR Transition-fix in the merged route. • For alphanumerics not in field 10 format, the + delimiter will precede and follow the non-field 10 format elements.
<i>Notes</i>	<ul style="list-style-type: none"> • AARs are used to control the flow and separation of traffic arriving at designated airports. • Based on information about the flight and restrictions encoded in AAR adaptation data, an AAR may be applied automatically to the flight during the route conversion process. • Differs from the route string in that this data might not be in Field 10 route string format. • This is a structured string. • [ATM IPOPOP ICD] Transmitted in AH, FH, and HU messages as CMS 142e, 142f Preferential Route Alphanumerics (AAR) field 10 format, non-field 10 format.
<i>Reference</i>	<ul style="list-style-type: none"> • National Airspace System (NAS)-IR-82422412-01, En Route Automation Modernization (ERAM)/Air Traffic Management (ATM) Intermediate Point of Presence (IPOPOP) Interface Control Document, Rev A, September 30, 2008

3.2 Adapted Arrival Route Identifier

Adapted Arrival Route Identifier	
<i>Definition</i>	The five character identifier used to internally identify an adapted arrival route.
<i>Alternate Names</i>	
<i>Has Parts</i>	
<i>Is Part Of</i>	
<i>Data Type(s)</i>	Character String
<i>Range of Values</i>	
<i>Business Rules</i>	
<i>Notes</i>	<ul style="list-style-type: none">Adapted Arrival Routes (AARs) are used to control the flow and separation of traffic arriving at designated airports.Based on information about the flight and restrictions encoded in AAR adaptation data, an AAR may be applied automatically to the flight during the route conversion process.This ID is defined in NAS adaptation.It consists of five (5) alphanumeric characters.[ATM IPOPOP ICD] Transmitted in AH, FH, and HU messages as CMS 141c Adapted Route indicator (AAR).
<i>Reference</i>	<ul style="list-style-type: none">National Airspace System (NAS)-IR-82422412-01, En Route Automation Modernization (ERAM)/Air Traffic Management (ATM) Intermediate Point of Presence (IPOPOP) Interface Control Document, Rev A, September 30, 2008

3.3 Adapted Departure Arrival Route Clearance Support Alphanumerics

Adapted Departure Arrival Route Clearance Support Alphanumerics	
Definition	This field contains the route string with an Adapted Departure Arrival Route (ADAR) to be provided to the controller at the time the auto-route is applied.
Alternate Names	
Has Parts	
Is Part Of	
Data Type(s)	Character String
Range of Values	
Business Rules	<ul style="list-style-type: none"> For alphanumerics not in field 10 format, the + delimiter will precede and follow the non-field 10 format elements.
Notes	<ul style="list-style-type: none"> Adapted Departure Arrival Routes (ADARs) are used to control the flow and separation of traffic departing and arriving between specific pairs of airports. Based on information about the flight and restrictions encoded in ADAR adaptation data, an ADAR may be applied automatically to the flight during the route conversion process. Differs from the route string in that this data might not be in Field 10 route string format. This is a structured string. [ATM IPOPOP ICD] Transmitted in AH, FH, and HU messages as CMS 142a, 142b Preferential Route Alphanumerics (ADAR) field 10 format, non-field 10 format.
Reference	<ul style="list-style-type: none"> National Airspace System (NAS)-IR-82422412-01, En Route Automation Modernization (ERAM)/Air Traffic Management (ATM) Intermediate Point of Presence (IPOPOP) Interface Control Document, Rev A, September 30, 2008

3.4 Adapted Departure Arrival Route Identifier

Adapted Departure Arrival Route Identifier	
<i>Definition</i>	The five character identifier is used to internally identify an Adapted Departure Arrival Route (ADAR).
<i>Alternate Names</i>	
<i>Has Parts</i>	
<i>Is Part Of</i>	
<i>Data Type(s)</i>	Character String
<i>Range of Values</i>	
<i>Business Rules</i>	
<i>Notes</i>	<ul style="list-style-type: none"> • ADARs are used to control the flow and separation of traffic departing and arriving between specific pairs of airports. • Based on information about the flight and restrictions encoded in ADAR adaptation data, an ADAR may be applied automatically to the flight during the route conversion process. • This ID is defined in NAS adaptation. • It consists of five (5) alphanumeric characters. • [ATM IPOPOP ICD] Transmitted in AH, FH, and HU messages as CMS 141a Adapted Route indicator (ADAR).
<i>Reference</i>	<ul style="list-style-type: none"> • National Airspace System (NAS)-IR-82422412-01, En Route Automation Modernization (ERAM)/Air Traffic Management (ATM) Intermediate Point of Presence (IPOPOP) Interface Control Document, Rev A, September 30, 2008

3.5 Adapted Departure Route Clearance Support Alphanumerics

Adapted Departure Route Clearance Support Alphanumerics	
Definition	This field contains the route string with an Adapted Departure Route (ADR) to be provided to the controller at the time the auto-route is applied.
Alternate Names	
Has Parts	
Is Part Of	
Data Type(s)	Character String
Range of Values	
Business Rules	<ul style="list-style-type: none"> • ADR alphanumerics include the ADR Transition-fix. • These alphanumerics are followed by the Field 10 element (in the filed route) that follows the ADR Transition-fix in the merged route. • For alphanumerics not in field 10 format, the + delimiter will precede and follow the non-field 10 format elements.
Notes	<ul style="list-style-type: none"> • ADRs are used to control the flow and separation of traffic departing designated airports. • Based on information about the flight and restrictions encoded in ADR adaptation data, an ADR may be applied automatically to the flight during the route conversion process. • Differs from the route string in that this data might not be in Field 10 route string format. • This is a structured string. • [ATM IPOPOP ICD] Transmitted in AH, FH, and HU messages as CMS 142c, 142d Preferential Route Alphanumerics (ADR) field 10 format, non-field 10 format.
Reference	<ul style="list-style-type: none"> • National Airspace System (NAS)-IR-82422412-01, En Route Automation Modernization (ERAM)/Air Traffic Management (ATM) Intermediate Point of Presence (IPOPOP) Interface Control Document, Rev A, September 30, 2008

3.6 Adapted Departure Route Identifier

Adapted Departure Route Identifier	
<i>Definition</i>	The identifier used to internally identify the Adapted Departure Route (ADR).
<i>Alternate Names</i>	
<i>Has Parts</i>	
<i>Is Part Of</i>	
<i>Data Type(s)</i>	Character String
<i>Range of Values</i>	
<i>Business Rules</i>	
<i>Notes</i>	<ul style="list-style-type: none">• Adapted Departure Routes (ADRs) are used to control the flow and separation of traffic departing designated airports.• Based on information about the flight and restrictions encoded in ADR adaptation data, an ADR may be applied automatically to the flight during the route conversion process.• The identifier is defined in NAS adaptation.• It consists of five (5) alphanumeric characters.• [ATM IPOPOP ICD] Transmitted in AH, FH, and HU messages as CMS 141b Adapted Route indicator (ADR).
<i>Reference</i>	<ul style="list-style-type: none">• National Airspace System (NAS)-IR-82422412-01, En Route Automation Modernization (ERAM)/Air Traffic Management (ATM) Intermediate Point of Presence (IPOPOP) Interface Control Document, Rev A, September 30, 2008

3.7 Airborne Equipment Qualifier

Airborne Equipment Qualifier	
Definition	A value assigned to the aircraft, based on its navigational equipment, whether or not it has a transponder, and if it has a transponder, whether the transponder supports Mode C.
Alternate Names	
Has Parts	
Is Part Of	
Data Type(s)	Enumeration
Range of Values	One of the following values: {A, B, C, D, G, H, I, L, M, N, P, S, T, U, V, W, X, Y, Z}
Business Rules	
Notes	<p>The meaning of the enumerated values are:</p> <ul style="list-style-type: none"> • RVSM <ul style="list-style-type: none"> ○ Any Navigation Capability <ul style="list-style-type: none"> ▪ H - Failed transponder or Failed Mode C capability ○ No GNSS, No RNAV <ul style="list-style-type: none"> ▪ W - Transponder with Mode C ○ RNAV, No GNSS <ul style="list-style-type: none"> ▪ Z - Transponder with Mode C ○ GNSS <ul style="list-style-type: none"> ▪ L - Transponder with Mode C • No RVSM <ul style="list-style-type: none"> ○ No DME <ul style="list-style-type: none"> ▪ X - No Transponder ▪ T - Transponder with no Mode C ▪ U - Transponder with Mode C ○ DME <ul style="list-style-type: none"> ▪ D - No Transponder ▪ B - Transponder with no Mode C ▪ A - Transponder with Mode C ○ TACAN <ul style="list-style-type: none"> ▪ M - No Transponder

	<ul style="list-style-type: none"> ▪ N - Transponder with no Mode C ▪ P - Transponder with Mode C ○ RNAV, No GNSS <ul style="list-style-type: none"> ▪ Y - No Transponder ▪ C - Transponder with no Mode C ▪ I - Transponder with Mode C ○ GNSS <ul style="list-style-type: none"> ▪ V - No Transponder ▪ S - Transponder with no Mode C ▪ G - Transponder with Mode C <p>[ATM IPOP ICD] Transmitted in FH, AH, DH, HU, NP and NU messages as CMS 03e.</p>
<i>Reference</i>	<ul style="list-style-type: none"> • FAA Order JO 7110.65U, Air Traffic Control; dated February 9; 2012 • National Airspace System (NAS)-IR-82422412-01, En Route Automation Modernization (ERAM)/Air Traffic Management (ATM) Intermediate Point of Presence (IPOP) Interface Control Document, Rev A, September 30, 2008

3.8 Aircraft Identification – Previous

Aircraft Identification – Previous	
<i>Definition</i>	The aircraft identification prior to a modification.
<i>Alternate Names</i>	
<i>Has Parts</i>	
<i>Is Part Of</i>	
<i>Data Type(s)</i>	Character String
<i>Range of Values</i>	[A-Z][A-Z0-9]{1,6}
<i>Business Rules</i>	
<i>Notes</i>	<ul style="list-style-type: none">• Found in CMS messages when an aircraft identification is modified.• [ATM IPOPOP ICD] Transmitted in IH and NI messages as Flight Identification (New Identifier).
<i>Reference</i>	<ul style="list-style-type: none">• NAS-IC-82422412-01, REVISION B, En Route Automation Modernization (ERAM)/User Systems via Air Traffic Management (ATM) Intermediate Point of Presence (IPOPOP), April 30, 2012

3.9 Airport Movement Area Holding - Arrival Information

Airport Movement Area Holding - Arrival Information	
<i>Definition</i>	Indicates the intent for an arriving flight to hold in the airport movement area due to unavailability of a parking stand or ramp access, and the time when the flight is estimated to exit the airport movement area.
<i>Alternate Names</i>	
<i>Has Parts</i>	Airport Movement Area Holding Intent - Arrival, Movement Area Exit Time - Airspace User Requested
<i>Is Part Of</i>	Flight Intent
<i>Data Type(s)</i>	Record
<i>Range of Values</i>	
<i>Business Rules</i>	
<i>Notes</i>	
<i>Reference</i>	<ul style="list-style-type: none">Terminal Flight Data Manager (TFDM) Core for Airport Traffic Control Towers (ATCT) Concept of Operations, ConOps-PMO-02-TFDM-13-001, Rev. 2.1, Terminal Flight Data Manager Program Office, November 4, 2013.

3.10 Airport Movement Area Holding - Departure Information

Airport Movement Area Holding - Departure Information	
<i>Definition</i>	Indicates the intent for a departing flight to hold in the airport movement area when surface departure metering or other Traffic Management Initiatives are in effect, and the time when the flight is estimated to request entry in the airport movement area.
<i>Alternate Names</i>	
<i>Has Parts</i>	Airport Movement Area Holding Intent - Departure, Movement Area Entry Time - Airspace User Requested
<i>Is Part Of</i>	Flight Intent
<i>Data Type(s)</i>	Record
<i>Range of Values</i>	
<i>Business Rules</i>	
<i>Notes</i>	
<i>Reference</i>	<ul style="list-style-type: none"> • Draft U.S. Airport Surface Collaborative Decision Making (CDM) Concept of Operations (ConOps) in the Near-Term, Application of Surface CDM at United States Airports, Federal Aviation Administration (FAA) Air Traffic Organization Surface Operations Office, July 23, 2013. • Terminal Flight Data Manager (TFDM) Core for Airport Traffic Control Towers (ATCT) Concept of Operations, ConOps-PMO-02-TFDM-13-001, Rev. 2.1, Terminal Flight Data Manager Program Office, November 4, 2013.

3.11 Airport Movement Area Holding Intent - Arrival

Airport Movement Area Holding Intent - Arrival	
<i>Definition</i>	Indicates the intent for an arriving flight to hold in the airport movement area due to unavailability of a parking stand or ramp access.
<i>Alternate Names</i>	
<i>Has Parts</i>	
<i>Is Part Of</i>	Airport Movement Area Holding - Arrival Information
<i>Data Type(s)</i>	Boolean
<i>Range of Values</i>	
<i>Business Rules</i>	
<i>Notes</i>	
<i>Reference</i>	<ul style="list-style-type: none">Terminal Flight Data Manager (TFDM) Core for Airport Traffic Control Towers (ATCT) Concept of Operations, ConOps-PMO-02-TFDM-13-001, Rev. 2.1, Terminal Flight Data Manager Program Office, November 4, 2013.

3.12 Airport Movement Area Holding Intent - Departure

Airport Movement Area Holding Intent - Departure	
<i>Definition</i>	Indicates the intent for a departing flight to hold in the airport movement area when surface departure metering or other Traffic Management Initiatives are in effect.
<i>Alternate Names</i>	
<i>Has Parts</i>	
<i>Is Part Of</i>	Airport Movement Area Holding - Departure Information
<i>Data Type(s)</i>	Boolean
<i>Range of Values</i>	
<i>Business Rules</i>	
<i>Notes</i>	
<i>Reference</i>	<ul style="list-style-type: none">• Draft U.S. Airport Surface Collaborative Decision Making (CDM) Concept of Operations (ConOps) in the Near-Term, Application of Surface CDM at United States Airports, Federal Aviation Administration (FAA) Air Traffic Organization Surface Operations Office, July 23, 2013.• Terminal Flight Data Manager (TFDM) Core for Airport Traffic Control Towers (ATCT) Concept of Operations, ConOps-PMO-02-TFDM-13-001, Rev. 2.1, Terminal Flight Data Manager Program Office, November 4, 2013.

3.13 Airspace Entry Time - Earliest

Airspace Entry Time - Earliest	
<i>Definition</i>	The earliest time the flight could enter the constrained airspace.
<i>Alternate Names</i>	FCA Earliest Entry, EENTRY
<i>Has Parts</i>	
<i>Is Part Of</i>	
<i>Data Type(s)</i>	Date Time
<i>Range of Values</i>	
<i>Business Rules</i>	
<i>Notes</i>	<ul style="list-style-type: none"> This element can be part of the Trajectory Airspace Impact record associated with the Airspace identifier, but also as a standalone element.
<i>Reference</i>	<ul style="list-style-type: none"> CSC, Traffic Flow Management System (TFMS) Collaborative Trajectory Options Program (CTOP) Interface Control Document (ICD) for the Traffic Flow Management-Modernization (TFM-M) Program, Final, version 3.2, July 2, 2013 CSC, System Wide Information Management (SWIM) Traffic Flow Management Data Service Web Service Description Document (WSDD) for Traffic Flow Management-Modernization (TFM-M), Revised Draft, Revision 1.3, Release 10, December 6, 2013 CSC, TFMS ADL and Broadcast File Format Specification for the Traffic Flow Management-Modernization (TFM-M) Program, Draft, Release 10, Version 14.0, December 5, 2013

3.14 Airspace Entry Time - Initial

Airspace Entry Time - Initial	
Definition	The date and time at which a flight was originally planning to enter into the airspace.
Alternate Names	IENTRY
Has Parts	
Is Part Of	
Data Type(s)	Date Time
Range of Values	
Business Rules	
Notes	<ul style="list-style-type: none"> Used to determine the priority order when allocating flights to slots. The Airspace Entry Time - Initial (IENTRY) is set as follows: <ul style="list-style-type: none"> For a Flow Evaluation Area (FEA), the Airspace Entry Time - Initial (IENTRY) is always set to the Airspace Entry Time - TFMS Estimated (ENTRY) minus any delay the flight has already incurred (Runway Departure Time - TFMS Estimated (ETD) – Off-Block Time - Initial (IGTD)). For a Flow Constrained Area (FCA), the Airspace Entry Time - Initial (IENTRY) is set as follows. When a flight is first observed to be traversing the FCA, the Airspace Entry Time - Initial (IENTRY) is set to the Airspace Entry Time - TFMS Estimated (ENTRY) minus any delay the flight has already incurred (Runway Departure Time - TFMS Estimated (ETD) – Off-Block Time - Initial (IGTD)). Thereafter it is never changed. If a flight is created from an “active” message (e.g., departure message, airborne flight plan, etc.), the Airspace Entry Time - Initial (IENTRY) is set to null.
Reference	<ul style="list-style-type: none"> CSC, TFMS ADL and Broadcast File Format Specification for the Traffic Flow Management-Modernization (TFM-M) Program, Draft, Release 10, Version 14.0, December 5, 2013

3.15 Airspace Entry Time - Original

Airspace Entry Time - Original	
<i>Definition</i>	The last Airspace Entry Time - Traffic Flow Management System Estimated modeled by the Traffic Flow Management System (TFMS) before either a Traffic Management Initiative is issued, or the flight departs, or the flight is “time-out” delayed by TFMS.
<i>Alternate Names</i>	OENTRY
<i>Has Parts</i>	
<i>Is Part Of</i>	
<i>Data Type(s)</i>	Date Time
<i>Range of Values</i>	
<i>Business Rules</i>	
<i>Notes</i>	The data element is used to “back out” of a Traffic Management Initiative (TMI), and it does NOT include any time-out delay modeled by TFMS.
<i>Reference</i>	<ul style="list-style-type: none">CSC, TFMS ADL and Broadcast File Format Specification for the Traffic Flow Management-Modernization (TFM-M) Program, Draft, Release 10, Version 14.0, December 5, 2013

3.16 Airspace Entry Time - Slot Credit Substitution Earliest Acceptable

Airspace Entry Time - Slot Credit Substitution Earliest Acceptable	
<i>Definition</i>	The earliest time at which the Airspace user will accept a slot in a Traffic Management Initiative (TMI) Airspace Flow Program (AFP) in return for a yielded slot.
<i>Alternate Names</i>	Slot Credit Substitution Earliest Acceptable Runway Time of Arrival
<i>Has Parts</i>	
<i>Is Part Of</i>	
<i>Data Type(s)</i>	Date Time
<i>Range of Values</i>	
<i>Business Rules</i>	<ul style="list-style-type: none">• Provided by airspace users via Slot Credit Substitution CDM message.
<i>Notes</i>	
<i>Reference</i>	<ul style="list-style-type: none">• CSC, Traffic Flow Management System-to-Airline Operation Center Network (TFMS-to-AOCNET) Interface Control Document (ICD) for the Traffic Flow Management-Modernization (TFM-M) Program, Final, Release 9, November 19, 2012

3.17 Airspace Entry Time - Slot Credit Substitution Latest Acceptable

Airspace Entry Time - Slot Credit Substitution Latest Acceptable	
<i>Definition</i>	The latest time at which the Airspace user will accept a slot in a Traffic Management Initiative (TMI) Airspace Flow Program (AFP), in return for a yielded slot.
<i>Alternate Names</i>	Slot Credit Substitution Latest Acceptable Runway Time of Arrival
<i>Has Parts</i>	
<i>Is Part Of</i>	
<i>Data Type(s)</i>	Date Time
<i>Range of Values</i>	
<i>Business Rules</i>	<ul style="list-style-type: none">• Provided by airspace users via Slot Credit Substitution CDM message.
<i>Notes</i>	
<i>Reference</i>	<ul style="list-style-type: none">• CSC, Traffic Flow Management System-to-Airline Operation Center Network (TFMS-to-AOCNET) Interface Control Document (ICD) for the Traffic Flow Management-Modernization (TFM-M) Program, Final, Release 9, November 19, 2012

3.18 Airspace Entry Time - Traffic Flow Management System Estimated

Airspace Entry Time - Traffic Flow Management System Estimated	
<i>Definition</i>	The estimated airspace entry time considering all data sources, as determined by Traffic Flow Management System (TFMS).
<i>Alternate Names</i>	ENTRY
<i>Has Parts</i>	
<i>Is Part Of</i>	
<i>Data Type(s)</i>	Date Time
<i>Range of Values</i>	
<i>Business Rules</i>	
<i>Notes</i>	
<i>Reference</i>	<ul style="list-style-type: none">CSC, TFMS ADL and Broadcast File Format Specification for the Traffic Flow Management-Modernization (TFM-M) Program, Draft, Release 10, Version 14.0, December 5, 2013

3.19 Airspace Exit Time - Traffic Flow Management System Estimated

Airspace Exit Time - Traffic Flow Management System Estimated	
<i>Definition</i>	The estimated airspace exit time considering all data sources, as determined by Traffic Flow Management System (TFMS).
<i>Alternate Names</i>	EXIT
<i>Has Parts</i>	
<i>Is Part Of</i>	
<i>Data Type(s)</i>	Date Time
<i>Range of Values</i>	
<i>Business Rules</i>	
<i>Notes</i>	<ul style="list-style-type: none"> If the airspace (Flow Evaluation Area (FEA)/Flow Constrained Area (FCA)) is a fix or line segment, then the Airspace Exit Time - TFMS Estimated (EXIT) equals the Airspace Entry Time - TFMS Estimated (ENTRY).
<i>Reference</i>	<ul style="list-style-type: none"> CSC, TFMS ADL and Broadcast File Format Specification for the Traffic Flow Management-Modernization (TFM-M) Program, Draft, Release 10, Version 14.0, December 5, 2013

3.20 Airspace Identifier

Airspace Identifier	
<i>Definition</i>	Unique Identifier for the constrained airspace to be traversed by the trajectory option.
<i>Alternate Names</i>	
<i>Has Parts</i>	
<i>Is Part Of</i>	Trajectory Airspace Impact
<i>Data Type(s)</i>	Constrained Airspace
<i>Range of Values</i>	
<i>Business Rules</i>	
<i>Notes</i>	
<i>Reference</i>	<ul style="list-style-type: none">• CSC, Traffic Flow Management System (TFMS) Collaborative Trajectory Options Program (CTOP) Interface Control Document (ICD) for the Traffic Flow Management-Modernization (TFM-M) Program, Final, version 3.2, July 2, 2013• FAA, Web Service Description Document Traffic Flow Management Data Service (TFMData) Revised Final, Revision 1.9, October 31, 2014

3.21 Arrival Center

Arrival Center	
<i>Definition</i>	Indicates the Air Route Traffic Control Center (ARTCC) for the arrival point for a flight.
<i>Alternate Names</i>	
<i>Has Parts</i>	
<i>Is Part Of</i>	
<i>Data Type(s)</i>	Air Traffic Services Unit
<i>Range of Values</i>	
<i>Business Rules</i>	
<i>Notes</i>	<p>Includes non-standard codes which combine a number of non-CONUS centers, e.g.,</p> <ul style="list-style-type: none"> • ZEU - Europe • ZSA - South America • ZPA - Pacific <p>Full list provided in the reference: CSC 'Traffic Flow Management Modernization FDB to FTM Data Message Definitions', Feb 12, 2008.</p>
<i>Reference</i>	<ul style="list-style-type: none"> • CSC, System Wide Information Management (SWIM) Traffic Flow Management Data Service Web Service Description Document (WSDD) for Traffic Flow Management-Modernization (TFM-M), Revised Draft, Revision 1.3, Release 10, December 6, 2013 • CSC 'Traffic Flow Management Modernization FDB to FTM Data Message Definitions', Feb 12, 2008

3.22 Arrival Point

Arrival Point	
Definition	The final point or other final entity where the air traffic control/management system route terminates.
Alternate Names	
Has Parts	
Is Part Of	
Data Type(s)	Union
Range of Values	
Business Rules	
Notes	<ul style="list-style-type: none"> • This element could be the Arrival Aerodrome (similar to the way it is defined in core), which could be an ICAO identifier or an FAA Location identifier, or the location - a named fix, Fix Radial Distance (FRD) or Lat/Long. • This could also be the location of a point being over flown - a named fix, FRD or Lat/Long. • This could also be a Special Use Airspace (SUA). • This could also be the identifier for the destination center. • This data element is composed of the following pieces of information. The data type is listed after the colon. <ul style="list-style-type: none"> ○ Unit: unit <ul style="list-style-type: none"> ▪ Unit Format: <ul style="list-style-type: none"> ▪ LLL ▪ Examples include: <ul style="list-style-type: none"> ▪ ZLA ▪ ZLN ▪ CZY ○ Airport or Fix: 2-12 character alphanumeric string <ul style="list-style-type: none"> ▪ Fix formats include: <ul style="list-style-type: none"> ▪ aa(a)(a)(a), for fix name or ▪ aa(a)(a)dddddd, for fix radial distance or ▪ dddd(L)/(d)dddd(L), for lat/long ▪ Examples include: <ul style="list-style-type: none"> ▪ AB

	<ul style="list-style-type: none"> ▪ BUJ ▪ DFW ▪ KDFW ▪ ATOKA ▪ AB200010 ▪ SHP090015 ▪ ATOKA300040 ▪ 3500/04000 ▪ 3500N/04000W
<i>Reference</i>	<ul style="list-style-type: none"> • CSC, System Wide Information Management (SWIM) Traffic Flow Management Data Service Web Service Description Document (WSDD) for Traffic Flow Management-Modernization (TFM-M), Revised Draft, Revision 1.3, Release 10, December 6, 2013

3.23 Arrival Slot - NAS

Arrival Slot - NAS	
Definition	A time slot at an airport or airspace entry point that identifies a point in time when an aircraft is constrained to arrive at the airport or airspace entry point.
Alternate Names	ASLOT, slot
Has Parts	
Is Part Of	
Data Type(s)	Character String
Range of Values	
Business Rules	
Notes	<ul style="list-style-type: none"> This element has been created to address the specific naming convention used in the United States: <ul style="list-style-type: none"> NAS format is: 11, 12, or 14 characters: aaa(a).ddddddL or FCA: ccc.dddddddL, where the airport or FCA name is followed by a period, slot date and time (DDHHMM) and an alpha character. In the United States, when an arrival delay at an airport is implemented, the Traffic Flow Management System (TFMS) allocates the airport capacity into arrival slots that are spaced out to achieve the desired acceptance rate to handle the traffic demand. TFMS then assigns a flight to the slot and updates the flight with the flight specific delay information. Arrival Slots not assigned to flights and, therefore, available for use are called Unassigned Slots. For CTOPs this element provides the name of the piece of FCA capacity assigned to a flight as part of a CTOP CTOP Format: fcaName.entryTime.oneLetterSuffix where entry time is in yyyyMMddhhmm example- FCA001.201003291736A or fcaName. NOSLOT when flight's trajectory avoids the FCA. CTOP Pattern: [a-zA-Z0-9]{6}[.]{1}[0-9]{12}[a-zA-Z]{1} NOSLOT. For CTOPs this element could be associated with the Special Slot Type, which may contain 'PURGED' or 'REMOVED' instead of a slot definition.
Reference	<ul style="list-style-type: none"> CSC, Traffic Flow Management System-to-Airline Operation Center Network (TFMS-to-AOCNET) Interface Control Document (ICD) for the Traffic Flow Management-Modernization (TFM-M) Program, Final, Release 9, November 19, 2012 FAA, Web Service Description Document Traffic Flow Management Data Service (TFMData) Revised Final, Revision 1.9, October 31, 2014

3.24 Boundary Crossing Position - Actual

Boundary Crossing Position - Actual	
<i>Definition</i>	The actual boundary crossing point inbound to the Air Route Traffic Control Center (ARTCC) for the flight.
<i>Alternate Names</i>	Boundary Crossing Point
<i>Has Parts</i>	Boundary Crossing Time - Actual
<i>Is Part Of</i>	
<i>Data Type(s)</i>	Location
<i>Range of Values</i>	
<i>Business Rules</i>	
<i>Notes</i>	Part of the Boundary Crossing Update.
<i>Reference</i>	<ul style="list-style-type: none">CSC, System Wide Information Management (SWIM) Traffic Flow Management Data Service Web Service Description Document (WSDD) for Traffic Flow Management-Modernization (TFM-M), Revised Draft, Revision 1.3, Release 10, December 6, 2013

3.25 Boundary Crossing Time - Actual

Boundary Crossing Time - Actual	
<i>Definition</i>	The actual time at which a flight crosses the associated boundary crossing point.
<i>Alternate Names</i>	
<i>Has Parts</i>	
<i>Is Part Of</i>	Boundary Crossing Position - Actual
<i>Data Type(s)</i>	Date Time
<i>Range of Values</i>	
<i>Business Rules</i>	
<i>Notes</i>	
<i>Reference</i>	<ul style="list-style-type: none">CSC, System Wide Information Management (SWIM) Traffic Flow Management Data Service Web Service Description Document (WSDD) for Traffic Flow Management-Modernization (TFM-M), Revised Draft, Revision 1.3, Release 10, December 6, 2013

3.26 Classified Speed Indicator

Classified Speed Indicator	
<i>Definition</i>	The indication that the speed for this flight is classified and is not to be recorded.
<i>Alternate Names</i>	
<i>Has Parts</i>	
<i>Is Part Of</i>	
<i>Data Type(s)</i>	Enumeration
<i>Range of Values</i>	CLASSIFIED
<i>Business Rules</i>	
<i>Notes</i>	<ul style="list-style-type: none">• [IMPLEMENTATION_NOTES] NAS_EXTENSION: This data element is associated with FIXM Core data element Cruising Speed (FIXM_version - 1.0).• [ATM IPOP ICD] Transmitted in AH, FH, HU, NP, NU, and TH messages as CMS 05 [d] Aircraft Speed.
<i>Reference</i>	<ul style="list-style-type: none">• National Airspace System (NAS)-IR-82422412-01, En Route Automation Modernization (ERAM)/Air Traffic Management (ATM) Intermediate Point of Presence (IPOP) Interface Control Document, Rev A, September 30, 2008

3.27 Coast Indicator

Coast Indicator	
<i>Definition</i>	An indicator the aircraft was unexpectedly not detected by radar (after a period of tracking).
<i>Alternate Names</i>	
<i>Has Parts</i>	
<i>Is Part Of</i>	
<i>Data Type(s)</i>	Boolean
<i>Range of Values</i>	
<i>Business Rules</i>	
<i>Notes</i>	<ul style="list-style-type: none">• [ATM IPOP ICD] Transmitted in TH message as CMS 153a Coast Indicator.
<i>Reference</i>	<ul style="list-style-type: none">• National Airspace System (NAS)-IR-82422412-01, En Route Automation Modernization (ERAM)/Air Traffic Management (ATM) Intermediate Point of Presence (IPOP) Interface Control Document, Rev A, September 30, 2008

3.28 Collaborative Trajectory Options Program Control Exempt Reason (New)

Collaborative Trajectory Options Program Control Exempt Reason	
<i>Definition</i>	Indicates the reason for a flight being exempted from the Collaborative Trajectory Options Program.
<i>Alternate Names</i>	exemptReason, EXEMPT_REASON
<i>Has Parts</i>	
<i>Is Part Of</i>	Traffic Flow Management Collaborative Trajectory Options Program Information
<i>Data Type(s)</i>	Enumeration
<i>Range of Values</i>	{NON_EXEMPT, MANUAL, ACID, INTERNATIONAL, ANOTHER_CTOP, TIME, ARR_ARPT, DEP_ARPT, ARR_ARTCC, DEP_ARTCC, ACTIVE, AFP, GDP, GS, PARAM}
<i>Business Rules</i>	Included only if the flight is exempted from the CTOP (CTL_EXEMPT is TRUE)
<i>Notes</i>	
<i>Reference</i>	<ul style="list-style-type: none"> FAA, Web Service Description Document Traffic Flow Management Data Service (TFMData) Revised Final, Revision 1.9, October 31, 2014

3.29 Collaborative Trajectory Options Program Identifier

Collaborative Trajectory Options Program Identifier	
<i>Definition</i>	The Traffic Flow Management System generated unique identifier for the Collaborative Trajectory Options Program.
<i>Alternate Names</i>	
<i>Has Parts</i>	
<i>Is Part Of</i>	Traffic Flow Management Collaborative Trajectory Options Program Information
<i>Data Type(s)</i>	Character String
<i>Range of Values</i>	
<i>Business Rules</i>	
<i>Notes</i>	Format: CTP\d{3}
<i>Reference</i>	<ul style="list-style-type: none">• FAA, Web Service Description Document Traffic Flow Management Data Service (TFMData) Revised Final, Revision 1.9, October 31, 2014

3.30 Collaborative Trajectory Options Program Name

Collaborative Trajectory Options Program Name	
<i>Definition</i>	The name for the Collaborative Trajectory Options Program as defined by the traffic manager.
<i>Alternate Names</i>	
<i>Has Parts</i>	
<i>Is Part Of</i>	Traffic Flow Management Collaborative Trajectory Options Program Information
<i>Data Type(s)</i>	Character String
<i>Range of Values</i>	
<i>Business Rules</i>	
<i>Notes</i>	Format: Up to 30 characters
<i>Reference</i>	<ul style="list-style-type: none">• FAA, Web Service Description Document Traffic Flow Management Data Service (TFMData) Revised Final, Revision 1.9, October 31, 2014

3.31 Computer ID

Computer ID	
Definition	A unique identification assigned by ERAM to each flight plan.
Alternate Names	NAS CID, ECID, ERAM CID
Has Parts	
Is Part Of	
Data Type(s)	Character String
Range of Values	[A-Z] excluding {I, O}, [0-9]
Business Rules	
Notes	<ul style="list-style-type: none"> CID is used by controllers as a quick reference to enter commands for a flight. [ATM IPOP ICD] Transmitted in AC, AH, AK, BA, CL, DH, ET, FH, HB, HC, HD, HE, HF, HH, HO, HP, HT, HU, HV, HX, ID, IE, IH, IM, IO, LH, NI, NL, NP, NU, OH, PH, PT, RE, RH, TH and UI messages as CMS 02d ERAM Computer Identification (ECID) or NAS CID. A three character code in one of the following formats: two digits plus one letter (ddL), one digit plus one letter plus one digit (dLd), or one digit plus two letters (dLL).
Reference	<ul style="list-style-type: none"> National Airspace System (NAS)-IR-82422412-01, En Route Automation Modernization (ERAM)/Air Traffic Management (ATM) Intermediate Point of Presence (IPOP) Interface Control Document, Rev A, September 30, 2008

3.32 Computer System ID (New)

Computer System ID	
<i>Definition</i>	Provides the Computer System ID of the system housed at a facility which assigned the ID Number. It is used to predefine the identification of systems which the TFMS exchanges data with.
<i>Alternate Names</i>	computerSystemId
<i>Has Parts</i>	
<i>Is Part Of</i>	
<i>Data Type(s)</i>	Enumeration
<i>Range of Values</i>	{TFMS, HCS, CTAS, TBFM, ETMS, ERAM, STDDS, ODAPS, OTHER}
<i>Business Rules</i>	
<i>Notes</i>	
<i>Reference</i>	<ul style="list-style-type: none">• FAA, Web Service Description Document Traffic Flow Management Data Service (TFMData) Revised Final, Revision 1.9, October 31, 2014

3.33 Control Exempt (New)

Control Exempt	
<i>Definition</i>	Indicates whether the flight was processed as exempt from the Traffic Flow Management Initiative.
<i>Alternate Names</i>	ctlExempt, CTL_EXEMPT
<i>Has Parts</i>	
<i>Is Part Of</i>	
<i>Data Type(s)</i>	Boolean
<i>Range of Values</i>	
<i>Business Rules</i>	
<i>Notes</i>	
<i>Reference</i>	<ul style="list-style-type: none">• FAA, Web Service Description Document Traffic Flow Management Data Service (TFMData) Revised Final, Revision 1.9, October 31, 2014

3.34 Control Indicator (New)

Control Indicator	
<i>Definition</i>	Indicator used to describe when flight control is active or canceled.
<i>Alternate Names</i>	
<i>Has Parts</i>	
<i>Is Part Of</i>	
<i>Data Type(s)</i>	Enumeration
<i>Range of Values</i>	{CONTROL_ACTIVE, CONTROL_CANCELED}
<i>Business Rules</i>	
<i>Notes</i>	
<i>Reference</i>	<ul style="list-style-type: none">FAA, Web Service Description Document Traffic Flow Management Data Service (TFMData) Revised Final, Revision 1.9, October 31, 2014

3.35 Control Type (New)

Control Type	
<i>Definition</i>	If a flight is controlled [(i.e., has a Controlled Time of Departure (CTD) and Controlled Time of Arrival (CTA)], this element indicates the specific source of the current control times for this flight.
<i>Alternate Names</i>	CTL_TYPE
<i>Has Parts</i>	
<i>Is Part Of</i>	
<i>Data Type(s)</i>	Enumeration
<i>Range of Values</i>	{GDP, AFP, GS, BLKT, COMP, BRG, DAS, GAAP, UDP, RCTL, SUB, SCS, ECR, UPD, ABRG, SBRG, UBRG, ADPT}
<i>Business Rules</i>	
<i>Notes</i>	Format: LL[LL]
<i>Reference</i>	<ul style="list-style-type: none">FAA, Web Service Description Document Traffic Flow Management Data Service (TFMData) Revised Final, Revision 1.9, October 31, 2014

3.36 Coordination Fix

Coordination Fix	
Definition	The fix to be used in conjunction with the Coordination Time so processing for this flight (and its trajectory) can be synchronized for the next sector/facility. It "coordinates" the flight plan with the aircraft position.
Alternate Names	
Has Parts	
Is Part Of	
Data Type(s)	Location
Range of Values	
Business Rules	
Notes	<ul style="list-style-type: none"> • [ATM IPOPOP ICD] Transmitted in AH, FH, HP, and HU messages as CMS 06a Coordination Fix. • [ATM IPOPOP ICD] For a flight, the coordination point is the starting point to begin processing the flight plan route from one of the following points: <ol style="list-style-type: none"> 1. the departure airport 2. the airfile fix or 3. the reference fix for an active flight
Reference	<ul style="list-style-type: none"> • National Airspace System (NAS)-IR-82422412-01, En Route Automation Modernization (ERAM)/Air Traffic Management (ATM) Intermediate Point of Presence (IPOPOP) Interface Control Document, Rev A, September 30, 2008

3.37 Coordination Time

Coordination Time	
Definition	The time to be used in conjunction with the Coordination Fix so processing for this flight (and its trajectory) can be synchronized for the next sector/facility. It "coordinates" the flight plan with the aircraft position.
Alternate Names	
Has Parts	
Is Part Of	
Data Type(s)	Date Time
Range of Values	
Business Rules	
Notes	<ul style="list-style-type: none"> • [IMPLEMENTATION_NOTES] NAS_EXTENSION: This data element is closely associated with FIXM Core data elements: Off Block Time-Estimated (FIXM_version - 2.0) and Runway Departure Time - Actual (FIXM_version - 2.0). • For two values of the Coordination Time Type, the Coordination Time is the same value as an element in FIXM Core: <ul style="list-style-type: none"> ○ P = FIXM Core data element Off Block Time-Estimated (FIXM version 2.0) ○ D = FIXM Core data element Runway Departure Time - Actual (FIXM version 2.0) • When the value of the Coordination Time Type is "E", then Coordination Time does not have a direct correspondence to an element in Core. • [ATM IPOPOP ICD] Transmitted in AH, DH, FH, HP, and HU messages as CMS 07b or d Coordination Time Element.
Reference	<ul style="list-style-type: none"> • National Airspace System (NAS)-IR-82422412-01, En Route Automation Modernization (ERAM)/Air Traffic Management (ATM) Intermediate Point of Presence (IPOPOP) Interface Control Document, Rev A, September 30, 2008

3.38 Coordination Time Type

Coordination Time Type	
<i>Definition</i>	The indicator for the type of "Coordination Time".
<i>Alternate Names</i>	Type of Time Action Indicator Element
<i>Has Parts</i>	
<i>Is Part Of</i>	
<i>Data Type(s)</i>	Enumeration
<i>Range of Values</i>	{P, D, E}
<i>Business Rules</i>	
<i>Notes</i>	<ul style="list-style-type: none"> The valid values are: <ul style="list-style-type: none"> P = Proposed flight plan preparing for departure D = Flight has departed from the departure airport E = Active flight plan; aircraft is flying [ATM IPOP ICD] Transmitted in AH, DH, FH, HP, and HU messages as CMS 07a Type of Time Action Indicator Element.
<i>Reference</i>	<ul style="list-style-type: none"> National Airspace System (NAS)-IR-82422412-01, En Route Automation Modernization (ERAM)/Air Traffic Management (ATM) Intermediate Point of Presence (IPOP) Interface Control Document, Rev A, September 30, 2008

3.39 Current RVSM Flight Compliance

Current RVSM Flight Compliance	
<i>Definition</i>	Indicates if the flight is currently Reduced Vertical Separation Minimum (RVSM) compliant in RVSM airspace, as determined by the Traffic Flow Management System.
<i>Alternate Names</i>	
<i>Has Parts</i>	
<i>Is Part Of</i>	
<i>Data Type(s)</i>	Boolean
<i>Range of Values</i>	true, false
<i>Business Rules</i>	
<i>Notes</i>	<ul style="list-style-type: none"> TFMData feed provides the following for this element: <ul style="list-style-type: none"> a - if compliant, NC - non-compliant TFMS FIXM adapter converts the above values into boolean true/false TFMS determines the compliance in the RVSM airspace based on Airborne Equipment Qualifier and other factors
<i>Reference</i>	<ul style="list-style-type: none"> CSC, System Wide Information Management (SWIM) Traffic Flow Management Data Service Web Service Description Document (WSDD) for Traffic Flow Management-Modernization (TFM-M), Revised Draft, Revision 1.3, Release 10, December 6, 2013

3.40 Deicing Information

Deicing Information	
<i>Definition</i>	Indicates the intent for the flight to be deiced and the intended deicing location.
<i>Alternate Names</i>	
<i>Has Parts</i>	Deicing Intent, Deicing Location
<i>Is Part Of</i>	Flight Intent
<i>Data Type(s)</i>	Record
<i>Range of Values</i>	
<i>Business Rules</i>	
<i>Notes</i>	
<i>Reference</i>	<ul style="list-style-type: none">Terminal Flight Data Manager (TFDM) Core for Airport Traffic Control Towers (ATCT) Concept of Operations, ConOps-PMO-02-TFDM-13-001, Rev. 2.1, Terminal Flight Data Manager Program Office, November 4, 2013.

3.41 Deicing Intent

Deicing Intent	
<i>Definition</i>	Indicates the intent for the flight to be deiced.
<i>Alternate Names</i>	
<i>Has Parts</i>	
<i>Is Part Of</i>	Deicing Information
<i>Data Type(s)</i>	Boolean
<i>Range of Values</i>	
<i>Business Rules</i>	
<i>Notes</i>	
<i>Reference</i>	<ul style="list-style-type: none">Terminal Flight Data Manager (TFDM) Core for Airport Traffic Control Towers (ATCT) Concept of Operations, ConOps-PMO-02-TFDM-13-001, Rev. 2.1, Terminal Flight Data Manager Program Office, November 4, 2013.

3.42 Deicing Location

Deicing Location	
<i>Definition</i>	Indicates the location where the flight intends to be deiced.
<i>Alternate Names</i>	
<i>Has Parts</i>	
<i>Is Part Of</i>	Deicing Information
<i>Data Type(s)</i>	Character String
<i>Range of Values</i>	
<i>Business Rules</i>	
<i>Notes</i>	
<i>Reference</i>	<ul style="list-style-type: none">Terminal Flight Data Manager (TFDM) Core for Airport Traffic Control Towers (ATCT) Concept of Operations, ConOps-PMO-02-TFDM-13-001, Rev. 2.1, Terminal Flight Data Manager Program Office, November 4, 2013.

3.43 Delay Time to Absorb

Delay Time to Absorb	
Definition	Indicates the amount of time that needs to be absorbed during the flight. It is corrective action for meeting the goal of Estimated Departure Clearance Time (EDCT), when flight is already active and needs to arrive at the destination later than originally planned.
Alternate Names	Arrival Delay, Provide Delay Time
Has Parts	
Is Part Of	
Data Type(s)	Time Duration
Range of Values	
Business Rules	
Notes	<ul style="list-style-type: none"> The Estimated Departure Clearance Time (EDCT) entered for the flight to delay arrival time at an airport is used by automation to determine and assign the Delay Time to Absorb. [ATM IPOP ICD] Transmitted in AH, DH, FH, HP and HU messages as CMS 07e Coordination Time. In CMS, the field is called Provide Delay Time.
Reference	<ul style="list-style-type: none"> National Airspace System (NAS)-IR-82422412-01, En Route Automation Modernization (ERAM)/Air Traffic Management (ATM) Intermediate Point of Presence (IPOP) Interface Control Document, Rev A, September 30, 2008

3.44 Departure Center

Departure Center	
<i>Definition</i>	Indicates the Air Route Traffic Control Center (ARTCC) for the departure point for a flight.
<i>Alternate Names</i>	
<i>Has Parts</i>	
<i>Is Part Of</i>	
<i>Data Type(s)</i>	Air Traffic Services Unit
<i>Range of Values</i>	
<i>Business Rules</i>	
<i>Notes</i>	<p>Includes non-standard codes which combine a number of non-CONUS centers, e.g.,</p> <ul style="list-style-type: none"> • ZEU - Europe • ZSA - South America • ZPA - Pacific <p>Full list provided in the reference: CSC 'Traffic Flow Management Modernization FDB to FTM Data Message Definitions', Feb 12, 2008.</p>
<i>Reference</i>	<ul style="list-style-type: none"> • CSC, System Wide Information Management (SWIM) Traffic Flow Management Data Service Web Service Description Document (WSDD) for Traffic Flow Management-Modernization (TFM-M), Revised Draft, Revision 1.3, Release 10, December 6, 2013 • CSC 'Traffic Flow Management Modernization FDB to FTM Data Message Definitions', Feb 12, 2008

3.45 Departure Point

Departure Point	
Definition	The first point or other initial entity where the air traffic control/management system route starts.
Alternate Names	
Has Parts	
Is Part Of	
Data Type(s)	Union
Range of Values	
Business Rules	
Notes	<ul style="list-style-type: none"> • This element could be the Departure Aerodrome (similar to the way it is defined in core), which could be an ICAO identifier or an FAA Location identifier or the location - a named fix, Fix Radial Distance (FRD) or Lat/Long. • This could also be the location of a point being flown - a named fix, FRD or Lat/Long. • This could also be a Special Use Airspace (SUA). • This could also be the identifier for the departure center. • This data element is composed of the following pieces of information. The data type is listed after the colon. <ul style="list-style-type: none"> ○ Unit: unit <ul style="list-style-type: none"> ▪ Unit Format: <ul style="list-style-type: none"> ▪ LLL ▪ Examples include: <ul style="list-style-type: none"> ▪ ZAU ▪ ZLN ▪ CZY ○ Airport or Fix: 2-12 character alphanumeric string <ul style="list-style-type: none"> ▪ Fix formats include: <ul style="list-style-type: none"> ▪ aa(a)(a)(a), for fix name or ▪ aa(a)(a)(a)dddddd, for fix radial distance or ▪ dddd(L)/(d)dddd(L), for lat/long ▪ Examples include:

	<ul style="list-style-type: none"> ▪ AB ▪ BUJ ▪ DFW ▪ KDFW ▪ ATOKA ▪ AB200010 ▪ SHP090015 ▪ ATOKA300040 ▪ 3500/04000 ▪ 3500N/04000W
<i>Reference</i>	<ul style="list-style-type: none"> • CSC, System Wide Information Management (SWIM) Traffic Flow Management Data Service Web Service Description Document (WSDD) for Traffic Flow Management-Modernization (TFM-M), Revised Draft, Revision 1.3, Release 10, December 6, 2013

3.46 Departure Procedure Transition Fix (New)

Departure Procedure Transition Fix	
<i>Definition</i>	The name for the Departure Procedure Transition Fix
<i>Alternate Names</i>	dpTransitionFix
<i>Has Parts</i>	
<i>Is Part Of</i>	
<i>Data Type(s)</i>	Location
<i>Range of Values</i>	
<i>Business Rules</i>	
<i>Notes</i>	
<i>Reference</i>	<ul style="list-style-type: none">FAA, Web Service Description Document Traffic Flow Management Data Service (TFMData) Revised Final, Revision 1.9, October 31, 2014

3.47 Diversion Indicator (New)

Diversion Indicator	
<i>Definition</i>	Indicator used to define the diversion state of a flight.
<i>Alternate Names</i>	
<i>Has Parts</i>	
<i>Is Part Of</i>	
<i>Data Type(s)</i>	Enumeration
<i>Range of Values</i>	{AIRBORN_NOCTL, AIRBORN_CTL, GROUND_NOCTL, GROUND_CTL, NO_DIVERSION}
<i>Business Rules</i>	
<i>Notes</i>	
<i>Reference</i>	<ul style="list-style-type: none">FAA, Web Service Description Document Traffic Flow Management Data Service (TFMData) Revised Final, Revision 1.9, October 31, 2014

3.48 En Route Clearance Heading

En Route Clearance Heading	
<i>Definition</i>	Contains the En Route Controller Clearance heading, as entered by the controller in the fourth line of the Full Data Block.
<i>Alternate Names</i>	
<i>Has Parts</i>	
<i>Is Part Of</i>	
<i>Data Type(s)</i>	Direction
<i>Range of Values</i>	
<i>Business Rules</i>	
<i>Notes</i>	<ul style="list-style-type: none">• [ATM IPOPOP ICD] Transmitted in HV message as CMS 155a FDB Fourth Line Heading.
<i>Reference</i>	<ul style="list-style-type: none">• National Airspace System (NAS)-IR-82422412-01, En Route Automation Modernization (ERAM)/Air Traffic Management (ATM) Intermediate Point of Presence (IPOPOP) Interface Control Document, Rev A, September 30, 2008

3.49 En Route Clearance Speed

En Route Clearance Speed	
<i>Definition</i>	This data element contains the En Route Controller Clearance speed, as entered by the controller in the fourth line of the Full Data Block.
<i>Alternate Names</i>	
<i>Has Parts</i>	
<i>Is Part Of</i>	
<i>Data Type(s)</i>	Speed
<i>Range of Values</i>	
<i>Business Rules</i>	
<i>Notes</i>	<ul style="list-style-type: none">• The method of measurement is Indicated Airspeed (IAS), usually in knots or mach.• [ATM IPOPOP ICD] Transmitted in HF message as CMS 155b FDB Fourth Line Speed.
<i>Reference</i>	<ul style="list-style-type: none">• National Airspace System (NAS)-IR-82422412-01, En Route Automation Modernization (ERAM)/Air Traffic Management (ATM) Intermediate Point of Presence (IPOPOP) Interface Control Document, Rev A, September 30, 2008

3.50 En Route Clearance Text

En Route Clearance Text	
<i>Definition</i>	This data element contains free-form text entered by the En Route Controller, to be associated with the Clearance in the fourth line of the Full Data Block.
<i>Alternate Names</i>	
<i>Has Parts</i>	
<i>Is Part Of</i>	
<i>Data Type(s)</i>	Character String
<i>Range of Values</i>	
<i>Business Rules</i>	<ul style="list-style-type: none"> Valid input includes up arrow, down arrow, and overcast symbol.
<i>Notes</i>	<ul style="list-style-type: none"> [ATM IPOPOP ICD] Transmitted in HF message as CMS 155c Free Form Text. This element may contain symbols that are not standard ASCII characters. The symbols originated in ERAM and could be sent to NAS consumers such as SFDPS (SWIM Flight Data Publication Service). The SWIM consumer of this data element needs to be aware that these non-standard ASCII characters could be present and translate accordingly.
<i>Reference</i>	<ul style="list-style-type: none"> National Airspace System (NAS)-IR-82422412-01, En Route Automation Modernization (ERAM)/Air Traffic Management (ATM) Intermediate Point of Presence (IPOPOP) Interface Control Document, Rev A, September 30, 2008

3.51 Fixed Airspace Volume Number Containing First Adapted Arrival Route Fix

Fixed Airspace Volume Number Containing First Adapted Arrival Route Fix	
Definition	Contains the uncombined Fixed Airspace Volume (FAV) number containing the first Adapted Arrival Route (AAR) fix.
Alternate Names	
Has Parts	
Is Part Of	
Data Type(s)	Numeric String
Range of Values	
Business Rules	<ul style="list-style-type: none"> [ATM IPOP ICD] The FAV containing the first AAR fix may be repeated up to four times.
Notes	<ul style="list-style-type: none"> [ATM IPOP ICD] Transmitted in AH, FH and HU message as CMS 143b Uncombined FAV Containing the First AAR Fix.
Reference	<ul style="list-style-type: none"> National Airspace System (NAS)-IR-82422412-01, En Route Automation Modernization (ERAM)/Air Traffic Management (ATM) Intermediate Point of Presence (IPOP) Interface Control Document, Rev A, September 30, 2008

3.52 Flight Class

Flight Class	
<i>Definition</i>	Denotes the flight class of the aircraft which is determined by the aircraft call sign that is in the Aircraft Situation Display to Industry (ASDI) feed.
<i>Alternate Names</i>	
<i>Has Parts</i>	
<i>Is Part Of</i>	
<i>Data Type(s)</i>	Enumeration
<i>Range of Values</i>	{AIR TAXI, CARGO, COMMERCIAL, LIFEGUARD, GENERAL AVIATION, CANADIAN GENERAL AVIATION, MILITARY, OTHER, UNKNOWN}
<i>Business Rules</i>	
<i>Notes</i>	
<i>Reference</i>	<ul style="list-style-type: none">• FAA, Web Service Description Document Traffic Flow Management Data Service (TFMData) Revised Final, Revision 1.9, October 31, 2014

3.53 Flight Intent

Flight Intent	
Definition	A container for the list of intent values provided by the flight operator that designate the intentions of a flight prior to departure from an aerodrome or after arrival at an aerodrome.
Alternate Names	
Has Parts	Deicing Information, Stand Return Intent, Intended Departure Spot, Intended Arrival Spot, Airport Movement Area Holding - Departure Information, Airport Movement Area Holding - Arrival Information
Is Part Of	
Data Type(s)	Record
Range of Values	
Business Rules	<p>For airport surface management in the United States.:</p> <ul style="list-style-type: none"> • Intent for a departing flight to hold in the Airport Movement Area when surface departure metering or other Traffic Management Initiatives are in effect • Intent for an arriving flight to hold in the Airport Movement Area due to unavailability of a parking stand or ramp access • Intent for a flight to be de-iced • Intended departure spot (entry point in the airport movement area from the non-movement area) • Intended arrival spot (entry point in the non-movement area from the airport movement area) • Stand return Intent
Notes	For airport surface management in the United States., this data element facilitates airport surface departure management.
Reference	<ul style="list-style-type: none"> • Draft U.S. Airport Surface Collaborative Decision Making (CDM) Concept of Operations (ConOps) in the Near-Term, Application of Surface CDM at United States Airports, Federal Aviation Administration (FAA) Air Traffic Organization Surface Operations Office, July 23, 2013. • Terminal Flight Data Manager (TFDM) Core for Airport Traffic Control Towers (ATCT) Concept of Operations, ConOps-PMO-02-TFDM-13-001, Rev. 2.1, Terminal Flight Data Manager Program Office, November 4, 2013.

3.54 Flight Plan Identifier

Flight Plan Identifier	
<i>Definition</i>	The flight plan identifier is used to uniquely name a flight plan within the scope of its flight.
<i>Alternate Names</i>	
<i>Has Parts</i>	
<i>Is Part Of</i>	
<i>Data Type(s)</i>	Character String
<i>Range of Values</i>	
<i>Business Rules</i>	
<i>Notes</i>	<ul style="list-style-type: none"> • This element could be used to identify a handle or key for the flight object in some system - for example, a legacy system that uses some identifier for the flight object other than the Globally Unique Flight Identifier (GUFI). The usage of this element will be determined at the regional level, and it may be the case this element is not exchanged globally. <ul style="list-style-type: none"> ○ This could be an identifier generated by an Air Navigation Service Provider (ANSP). In the United States, this will be the ERAM GUFI - an identifier unique for the flight in the National Airspace Service (NAS). ○ This could be an identifier generated and used by the aircraft operator.
<i>Reference</i>	<ul style="list-style-type: none"> • FIXM Development Team collaboration

3.55 Flight Rules - NAS

Flight Rules - NAS	
Definition	The regulation, or combination of regulations, that governs all aspects of operations under which the pilot plans to fly in the NAS.
Alternate Names	
Has Parts	
Is Part Of	
Data Type(s)	Enumeration
Range of Values	I, V, D
Business Rules	<ul style="list-style-type: none"> May change during the course of the flight based on contents of the route field.
Notes	<ul style="list-style-type: none"> [IMPLEMENTATION_NOTES] NAS_EXTENSION: This data element extends, by adding an additional value, FIXM Core data element Flight Rules. [ATM IPOP ICD] Transmitted in AH, FH, and HU messages as CMS 10a Flight Plan Route The meaning of the values is as follows: <ul style="list-style-type: none"> I - Instrument Flight Rules (IFR) V - Visual Flight Rules (VFR) D - Defense Visual Flight Rules (DVFR)
Reference	<ul style="list-style-type: none"> National Airspace System (NAS)-IR-82422412-01, En Route Automation Modernization (ERAM)/Air Traffic Management (ATM) Intermediate Point of Presence (IPOP) Interface Control Document, Rev A, September 30, 2008

3.56 Future RVSM Flight Compliance

Future RVSM Flight Compliance	
Definition	Indicates if the flight will be Reduced Vertical Separation Minimum (RVSM) compliant when it reaches the RVSM airspace as determined by the Traffic Flow Management System (TFMS).
Alternate Names	
Has Parts	
Is Part Of	
Data Type(s)	Boolean
Range of Values	true, false
Business Rules	
Notes	<ul style="list-style-type: none"> TFMData feed provides the following for this element: <ul style="list-style-type: none"> a - if compliant, NC - non-compliant TFMS FIXM adapter converts the above values into boolean true/false TFMS determines the compliance in the RVSM airspace based on Airborne Equipment Qualifier and other factors
Reference	<ul style="list-style-type: none"> CSC, System Wide Information Management (SWIM) Traffic Flow Management Data Service Web Service Description Document (WSDD) for Traffic Flow Management-Modernization (TFM-M), Revised Draft, Revision 1.3, Release 10, December 6, 2013

3.57 Handoff Accepting Sector

Handoff Accepting Sector	
Definition	The Air Traffic Control (ATC) sector accepting control of the aircraft as a result of a handoff.
Alternate Names	
Has Parts	
Is Part Of	
Data Type(s)	Sector
Range of Values	
Business Rules	The sector where the handoff was actually accepted. This may be different from the 'Handoff Receiving Sector' due to the controller's capability of accepting a handoff not routed to him, using the /OK override.
Notes	<ul style="list-style-type: none"> • [IMPLEMENTATION_NOTES] NAS_EXTENSION: This data element is closely associated with FIXM Core data element Handoff Receiving Sector. • [ATM IPOP ICD] Transmitted in the OH message as CMS 335a Accepting Sector.
Reference	<ul style="list-style-type: none"> • National Airspace System (NAS)-IR-82422412-01, En Route Automation Modernization (ERAM)/Air Traffic Management (ATM) Intermediate Point of Presence (IPOP) Interface Control Document, Rev A, September 30, 2009

3.58 Handoff Accepting Unit

Handoff Accepting Unit	
Definition	The Air Traffic Control (ATC) unit accepting control of the aircraft as a result of a handoff.
Alternate Names	
Has Parts	
Is Part Of	
Data Type(s)	Air Traffic Services Unit
Range of Values	
Business Rules	The Unit where the handoff was accepted. This will always be the same unit as the receiving unit.
Notes	<ul style="list-style-type: none"> • [IMPLEMENTATION_NOTES] NAS_EXTENSION: This data element is closely associated with FIXM Core data element Handoff Receiving Unit. • [ATM IPOP ICD] Transmitted in the OH message as CMS 334a Accepting Facility.
Reference	<ul style="list-style-type: none"> • National Airspace System (NAS)-IR-82422412-01, En Route Automation Modernization (ERAM)/Air Traffic Management (ATM) Intermediate Point of Presence (IPOP) Interface Control Document, Rev A, September 30, 2009 • ICAO 7910, Location Indicators, latest published edition.

3.59 Handoff Event Category

Handoff Event Category	
<i>Definition</i>	Characterizes a handoff in terms of its status.
<i>Alternate Names</i>	
<i>Has Parts</i>	
<i>Is Part Of</i>	
<i>Data Type(s)</i>	Enumeration
<i>Range of Values</i>	{ I, A, R, T, U, F }
<i>Business Rules</i>	
<i>Notes</i>	<ul style="list-style-type: none">• [ATM IPOP ICD] Transmitted in OH message as CMS 336a Handoff Event Indicator.• The meaning of the enumerated value is: I for Initiation, A for Acceptance, R for Retraction, T for Take Control, U for Update, F for Failure.
<i>Reference</i>	<ul style="list-style-type: none">• National Airspace System (NAS)-IR-82422412-01, En Route Automation Modernization (ERAM)/Air Traffic Management (ATM) Intermediate Point of Presence (IPOP) Interface Control Document, Rev A, September 30, 2008

3.60 Hold Data Expect Further Clearance Time

Hold Data Expect Further Clearance Time	
<i>Definition</i>	The time the flight can expect further clearance at the specified hold fix.
<i>Alternate Names</i>	
<i>Has Parts</i>	
<i>Is Part Of</i>	
<i>Data Type(s)</i>	Date Time
<i>Range of Values</i>	
<i>Business Rules</i>	
<i>Notes</i>	<ul style="list-style-type: none">• [ATM IPOP ICD] Transmitted in HH and HO messages as CMS 21d Hold Data Time.
<i>Reference</i>	<ul style="list-style-type: none">• National Airspace System (NAS)-IR-82422412-01, En Route Automation Modernization (ERAM)/Air Traffic Management (ATM) Intermediate Point of Presence (IPOP) Interface Control Document, Rev A, September 30, 2008

3.61 Hold Data Fix

Hold Data Fix	
<i>Definition</i>	The location for the flight to Hold along the filed route of flight.
<i>Alternate Names</i>	
<i>Has Parts</i>	
<i>Is Part Of</i>	
<i>Data Type(s)</i>	Location
<i>Range of Values</i>	
<i>Business Rules</i>	
<i>Notes</i>	<ul style="list-style-type: none">• [ATM IPOP ICD] Transmitted in HH and HO messages as CMS 21a Hold Data Fix.
<i>Reference</i>	<ul style="list-style-type: none">• National Airspace System (NAS)-IR-82422412-01, En Route Automation Modernization (ERAM)/Air Traffic Management (ATM) Intermediate Point of Presence (IPOP) Interface Control Document, Rev A, September 30, 2008

3.62 In-Block Time - Scheduled

In-Block Time - Scheduled	
<i>Definition</i>	Scheduled gate time of arrival for a flight, as provided by the OAG (Official Airline Guide).
<i>Alternate Names</i>	Scheduled Gate Time of Arrival, SGTA
<i>Has Parts</i>	
<i>Is Part Of</i>	
<i>Data Type(s)</i>	Date Time
<i>Range of Values</i>	
<i>Business Rules</i>	<ul style="list-style-type: none">The element is only present for flights which were created from the OAG; otherwise, it is null.
<i>Notes</i>	<ul style="list-style-type: none">This element is Traffic Flow Management System (TFMS) specific, indicating the flight was created from the OAG.
<i>Reference</i>	<ul style="list-style-type: none">CSC 'Traffic Flow Management Modernization FDB to FTM Data Message Definitions', Feb 12, 2008

3.63 Intended Arrival Spot

Intended Arrival Spot	
<i>Definition</i>	Indicates the location intended for the flight to enter the non-movement area from the airport movement area.
<i>Alternate Names</i>	
<i>Has Parts</i>	
<i>Is Part Of</i>	Flight Intent
<i>Data Type(s)</i>	Character String
<i>Range of Values</i>	
<i>Business Rules</i>	
<i>Notes</i>	
<i>Reference</i>	<ul style="list-style-type: none">Terminal Flight Data Manager (TFDM) Core for Airport Traffic Control Towers (ATCT) Concept of Operations, ConOps-PMO-02-TFDM-13-001, Rev. 2.1, Terminal Flight Data Manager Program Office, November 4, 2013.

3.64 Intended Departure Spot

Intended Departure Spot	
<i>Definition</i>	Indicates the location intended for the flight to enter the airport movement area from the non-movement area.
<i>Alternate Names</i>	
<i>Has Parts</i>	
<i>Is Part Of</i>	Flight Intent
<i>Data Type(s)</i>	Character String
<i>Range of Values</i>	
<i>Business Rules</i>	
<i>Notes</i>	
<i>Reference</i>	<ul style="list-style-type: none">Terminal Flight Data Manager (TFDM) Core for Airport Traffic Control Towers (ATCT) Concept of Operations, ConOps-PMO-02-TFDM-13-001, Rev. 2.1, Terminal Flight Data Manager Program Office, November 4, 2013.

3.65 Interim Altitude Information

Interim Altitude Information	
Definition	The altitude an aircraft is cleared to maintain different from that in the flight plan.
Alternate Names	
Has Parts	
Is Part Of	
Data Type(s)	Union
Range of Values	
Business Rules	
Notes	<ul style="list-style-type: none"> • The aircraft will (climb or descend to and) maintain the new altitude for a short period of time and, subsequently, be cleared to the altitude in the flight plan, or a new altitude, or a new interim altitude. • An interim value of "D" indicates the interim altitude has been deleted. • Consists of an altitude (of Type Altitude) or an indicator to delete ((Enumeration {D})). • [ATM IPOP ICD] Transmitted in HE, LH, NP, and NU messages as CMS 76ab Interim Altitude. [ATM IPOP ICD] Leading zeroes are required.
Reference	<ul style="list-style-type: none"> • National Airspace System (NAS)-IR-82422412-01, En Route Automation Modernization (ERAM)/Air Traffic Management (ATM) Intermediate Point of Presence (IPOP) Interface Control Document, Rev A, September 30, 2008

3.66 Local Intended Route

Local Intended Route	
Definition	The flight plan route that is coordinated to penetrated facilities. It consists of the filed route (CMS field 10a) merged with any expected-to-be-applied-by-the-controlling-center Adapted Departure Routes (ADRs), Adapted Departure Arrival Routes (ADARs) or Adapted Arrival Routes (AARs) applied.
Alternate Names	
Has Parts	
Is Part Of	
Data Type(s)	Character String
Range of Values	
Business Rules	
Notes	<ul style="list-style-type: none"> • Limit length to 1000 character alphanumeric string with the addition of the asterisk (*) character representing the route. • [ATM IPOPOP ICD] Transmitted in AH, FH and HU messages as CMS 10b Local Intended Route.
Reference	<ul style="list-style-type: none"> • National Airspace System (NAS)-IR-82422412-01, En Route Automation Modernization (ERAM)/Air Traffic Management (ATM) Intermediate Point of Presence (IPOPOP) Interface Control Document, Rev A, September 30, 2008

3.67 Movement Area Entry Time - Airspace User Requested

Movement Area Entry Time - Airspace User Requested	
<i>Definition</i>	Indicates the time when the flight is estimated to request entry in the airport movement area.
<i>Alternate Names</i>	
<i>Has Parts</i>	
<i>Is Part Of</i>	Airport Movement Area Holding - Departure Information
<i>Data Type(s)</i>	Date Time
<i>Range of Values</i>	
<i>Business Rules</i>	
<i>Notes</i>	
<i>Reference</i>	<ul style="list-style-type: none"> • Draft U.S. Airport Surface Collaborative Decision Making (CDM) Concept of Operations (ConOps) in the Near-Term, Application of Surface CDM at United States Airports, Federal Aviation Administration (FAA) Air Traffic Organization Surface Operations Office, July 23, 2013. • Terminal Flight Data Manager (TFDM) Core for Airport Traffic Control Towers (ATCT) Concept of Operations, ConOps-PMO-02-TFDM-13-001, Rev. 2.1, Terminal Flight Data Manager Program Office, November 4, 2013.

3.68 Movement Area Entry Time - Target

Movement Area Entry Time - Target	
<i>Definition</i>	The time at which a flight is assigned to enter the Airport Movement Area (AMA) when airport surface departure metering procedures are in effect.
<i>Alternate Names</i>	Target Movement Area Entry Time (TMAT)
<i>Has Parts</i>	
<i>Is Part Of</i>	
<i>Data Type(s)</i>	Date Time
<i>Range of Values</i>	
<i>Business Rules</i>	
<i>Notes</i>	For airport surface management in the United States, this data element facilitates airport surface departure management.
<i>Reference</i>	<ul style="list-style-type: none"> Draft U.S. Airport Surface Collaborative Decision Making (CDM) Concept of Operations in the Near-Term, Application of Surface CDM at United States Airports, Federal Aviation Administration (FAA) Air Traffic Organization Surface Operations Office, July 23, 2013.

3.69 Movement Area Exit Time - Airspace User Requested

Movement Area Exit Time - Airspace User Requested	
<i>Definition</i>	Indicates the time when the flight is estimated to exit the airport movement area.
<i>Alternate Names</i>	
<i>Has Parts</i>	
<i>Is Part Of</i>	Airport Movement Area Holding - Arrival Information
<i>Data Type(s)</i>	Date Time
<i>Range of Values</i>	
<i>Business Rules</i>	
<i>Notes</i>	
<i>Reference</i>	<ul style="list-style-type: none">Terminal Flight Data Manager (TFDM) Core for Airport Traffic Control Towers (ATCT) Concept of Operations, ConOps-PMO-02-TFDM-13-001, Rev. 2.1, Terminal Flight Data Manager Program Office, November 4, 2013.

3.70 NAS Advisory Information

NAS Advisory Information	
Definition	A container for Traffic Flow Management advisories pertinent to a single flight.
Alternate Names	
Has Parts	Traffic Flow Management Advisory Number, Traffic Flow Management Advisory Type, Traffic Flow Management Advisory Update Time
Is Part Of	
Data Type(s)	Record
Range of Values	
Business Rules	
Notes	<p>TFMData FI messages:</p> <ul style="list-style-type: none"> • afpAdvisory • afpCancel • gdpAdvisory • gdpCancel • gsAdvisory • gsCancel • reroute • ctopDefinition • ctopCancel
Reference	<ul style="list-style-type: none"> • CSC, System Wide Information Management (SWIM) Traffic Flow Management Data Service Web Service Description Document (WSDD) for Traffic Flow Management-Modernization (TFM-M), Revised Draft, Revision 1.3, Release 10, December 6, 2013

3.71 NAS Flight Identifiers Unit (New)

NAS Flight Identifiers Unit	
<i>Definition</i>	The Unit associated with certain NAS Flight Identifiers, e.g., Computer ID.
<i>Alternate Names</i>	
<i>Has Parts</i>	
<i>Is Part Of</i>	
<i>Data Type(s)</i>	Air Traffic Services Unit
<i>Range of Values</i>	
<i>Business Rules</i>	
<i>Notes</i>	<ul style="list-style-type: none">CID is used by controllers as a quick reference to enter commands for a flight. It is only unique within a center and so the creating center needs to be associated with the CID.
<i>Reference</i>	<ul style="list-style-type: none">FAA, Web Service Description Document Traffic Flow Management Data Service (TFMData) Revised Final, Revision 1.9, October 31, 2014

3.72 NAS Route

NAS Route	
Definition	This element is the filed route. It only includes acknowledged auto routes. Once the flight is active, this element shows the currently cleared route the airplane will fly from the departure airport to the arrival airport.
Alternate Names	
Has Parts	
Is Part Of	
Data Type(s)	Character String
Range of Values	
Business Rules	<ul style="list-style-type: none"> The field must contain a minimum of two elements containing the departure element followed by the destination element.
Notes	<ul style="list-style-type: none"> [IMPLEMENTATION_NOTES] REPLACES: This data element replaces FIXM Core data element Route. [ATM IPOP ICD] Transmitted in AH, FH, and HU messages as CMS 10a Flight Plan Route. [ATM IPOP ICD] The field is an optionally repeating fix-route-fix sequence, where the first element of the route field is the first fix element, and the second element of the route field is the first route element. Periods (.) delimit elements in the flight plan route, and a fix or route element may be null (..). When a fix element is followed by a null route element followed by a fix element (fix..fix), the sequence is called a direct route segment. When a route element is followed by a null fix element followed by a route element (route..route), the junction fix is implied. Special tailoring symbol may be included (./.), as well as, special second elements such as .., .VFR., .DVFR., special indicators for military routes with reentry, and special optional control suffixes on fixes. Special suffixes can include Auto Route Inhibit and Delay Data for a fix. For Collaborative Trajectory Options Program (CTOP), this is the route associated with a single trajectory option for a flight. It indicates the intent of the flight and includes the path over the surface of the earth, the altitude and the speed for the flight. <p>For TFMDData, this element represents the legacyFormat attribute provided for a NAS Route.</p>
Reference	<ul style="list-style-type: none"> National Airspace System (NAS)-IR-82422412-01, En Route Automation Modernization (ERAM)/Air Traffic Management (ATM) Intermediate Point of Presence (IPOP) Interface Control Document, Rev A, September 30, 2008 CSC, Traffic Flow Management System (TFMS) Collaborative Trajectory Options Program (CTOP) Interface Control Document (ICD) for the Traffic Flow Management-Modernization (TFM-M) Program, Final, version 3.2, July 2, 2013

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| | <ul style="list-style-type: none">• FAA, Web Service Description Document Traffic Flow Management Data Service (TFMData) Revised Final, Revision 1.9, October 31, 2014 |
|--|--|

3.73 NAS Route - Incomplete Indicator (New)

NAS Route - Incomplete Indicator	
<i>Definition</i>	Indicates whether the NAS Route is incomplete or not.
<i>Alternate Names</i>	isIncomplete
<i>Has Parts</i>	
<i>Is Part Of</i>	
<i>Data Type(s)</i>	Boolean
<i>Range of Values</i>	
<i>Business Rules</i>	
<i>Notes</i>	
<i>Reference</i>	<ul style="list-style-type: none">FAA, Web Service Description Document Traffic Flow Management Data Service (TFMData) Revised Final, Revision 1.9, October 31, 2014

3.74 NAS Route - Inhibit Adapted Arrival Routes Indicator (New)

NAS Route - Inhibit Adapted Arrival Routes Indicator	
<i>Definition</i>	Indicates whether adapted arrival routes are inhibited for use for the NAS Route for the flight or not.
<i>Alternate Names</i>	prohibitPrefARoutes
<i>Has Parts</i>	
<i>Is Part Of</i>	
<i>Data Type(s)</i>	Boolean
<i>Range of Values</i>	
<i>Business Rules</i>	
<i>Notes</i>	
<i>Reference</i>	<ul style="list-style-type: none">• FAA, Web Service Description Document Traffic Flow Management Data Service (TFMData) Revised Final, Revision 1.9, October 31, 2014

3.75 NAS Route - Inhibit Adapted Departure Routes Indicator (New)

NAS Route - Inhibit Adapted Departure Routes Indicator	
<i>Definition</i>	Indicates whether adapted departure routes are inhibited for use for the NAS Route for the flight or not.
<i>Alternate Names</i>	prohibitPrefDRoutes
<i>Has Parts</i>	
<i>Is Part Of</i>	
<i>Data Type(s)</i>	Boolean
<i>Range of Values</i>	
<i>Business Rules</i>	
<i>Notes</i>	
<i>Reference</i>	<ul style="list-style-type: none">• FAA, Web Service Description Document Traffic Flow Management Data Service (TFMData) Revised Final, Revision 1.9, October 31, 2014

3.76 NAS Route - Reentry for Military Route

NAS Route - Reentry for Military Route	
Definition	An indication that a portion of a Military Route is to be flown more than once. The element includes an indication of which adapted portion of the route as well as the number of times the fixes are to be flown. It is filed in a NAS Route string and associated with a Military Route. There can be up to two of these per Military Route in the NAS route string.
Alternate Names	Special Route Indicator
Has Parts	
Is Part Of	
Data Type(s)	Record
Range of Values	
Business Rules	
Notes	<ul style="list-style-type: none"> • [IMPLEMENTATION_NOTES] NAS_EXTENSION: This data element extends FIXM Core data element Route. • [ATM IPOP ICD] Transmitted in AH, FH, and HU messages as CMS 10a Flight Plan Route. • [ATM IPOP ICD] Format is <ul style="list-style-type: none"> ○ MilitaryRoute+Rd(d) ○ MilitaryRoute+Sd(d) ○ MilitaryRoute+Rd(d)+S(d) • [ATM IPOP ICD] <ul style="list-style-type: none"> ○ The Military routes can have a Special indicator to fly over a portion of the same FIXs more than one time as follows: <ul style="list-style-type: none"> ▪ FIXA.MilitaryRoute+R2.FIXB..FIXC <ul style="list-style-type: none"> ▪ The Military route will have a number of FIXs adapted as reentry FIXs. If the Reentry +Rd(d) is filed, ERAM will produce the extra FIXs the number of times specified. If the Reentry is not filed, ERAM will not insert the Reentry FIXs that are adapted while flying the route. ▪ FIXA.MilitaryRoute+R2+S1.FIXB..FIXC <ul style="list-style-type: none"> ▪ The same process applies to the “Sd(d) Reentry Special route element. • The complex data type is comprised of:

	<ul style="list-style-type: none"> ○ An indication of which set of fixes adapted in the Military Route are to be flown (R or S) ○ The number of times the indicated portion of the route is to be flown (Integer in range 1-99)
<i>Reference</i>	<ul style="list-style-type: none"> • National Airspace System (NAS)-IR-82422412-01, En Route Automation Modernization (ERAM)/Air Traffic Management (ATM) Intermediate Point of Presence (IPOP) Interface Control Document, Rev A, September 30, 2008

3.77 NAS Route - Tailored Indicator (New)

NAS Route - Tailored Indicator	
<i>Definition</i>	Indicates whether the NAS Route is tailored or not (i.e., a portion of the route string immediately after the departure aerodrome has been removed)
<i>Alternate Names</i>	isTailored
<i>Has Parts</i>	
<i>Is Part Of</i>	
<i>Data Type(s)</i>	Boolean
<i>Range of Values</i>	
<i>Business Rules</i>	
<i>Notes</i>	
<i>Reference</i>	<ul style="list-style-type: none">FAA, Web Service Description Document Traffic Flow Management Data Service (TFMData) Revised Final, Revision 1.9, October 31, 2014

3.78 Off-Block Time - Scheduled

Off-Block Time - Scheduled	
<i>Definition</i>	Scheduled gate time of departure for a flight, as provided by the OAG (Official Airline Guide).
<i>Alternate Names</i>	Scheduled Gate Time of Departure, SGTD
<i>Has Parts</i>	
<i>Is Part Of</i>	
<i>Data Type(s)</i>	Date Time
<i>Range of Values</i>	
<i>Business Rules</i>	<ul style="list-style-type: none">The element is only present for flights which were created from the OAG; otherwise, it is null.
<i>Notes</i>	<ul style="list-style-type: none">This element is Traffic Flow Management System (TFMS) specific, indicating the flight was created from the OAG.
<i>Reference</i>	<ul style="list-style-type: none">CSC 'Traffic Flow Management Modernization FDB to FTM Data Message Definitions', Feb 12, 2008

3.79 Other Flight Information

Other Flight Information	
Definition	This element consists of an identification tag/indicator and the relevant value. This information is "extra" information about the flight that does not fall into some other predefined category.
Alternate Names	ICAO Item 18 adapted indicators
Has Parts	
Is Part Of	
Data Type(s)	Record
Range of Values	
Business Rules	
Notes	<ul style="list-style-type: none"> This data element is composed of the following pieces of information. The data type is listed after the colon. <ul style="list-style-type: none"> Identification tag: Up to four character tag, formatted as an Alpha string. Identification value: Free form text that contains the content associated with the Identification Tag. Formatted as an Alphanumeric string.
Reference	<ul style="list-style-type: none"> National Airspace System (NAS)-IR-82422412-01, En Route Automation Modernization (ERAM)/Air Traffic Management (ATM) Intermediate Point of Presence (IPOP) Interface Control Document, Rev A, September 30, 2009 North American (NAM) Common Coordination Interface Control Document (ICD) VOLUME 1: Area Control Centre (ACC) to ACC, 1/20/12

3.80 Performance-Based Navigation Accuracy

Performance-Based Navigation Accuracy	
<i>Definition</i>	This is the flight's navigation accuracy value for the phase of flight, specified in the Performance-Based Navigation Phase.
<i>Alternate Names</i>	
<i>Has Parts</i>	
<i>Is Part Of</i>	
<i>Data Type(s)</i>	Float
<i>Range of Values</i>	[0.01-99.99]
<i>Business Rules</i>	
<i>Notes</i>	<ul style="list-style-type: none"> • [ATM IPOPOP ICD] Transmitted in FH, AH, and HU messages as CMS 925 [a b c d e f g h i j k l] RNV entries and RNP entries. • [ATM IPOPOP ICD] If the accuracy measurement includes on, board navigation performance monitoring and alerting, the measurement measures Required Navigation Performance (RNP); if not, the measurement measures Area Navigation (RNAV).
<i>Reference</i>	<ul style="list-style-type: none"> • National Airspace System (NAS)-IR-82422412-01, En Route Automation Modernization (ERAM)/Air Traffic Management (ATM) Intermediate Point of Presence (IPOPOP) Interface Control Document, Rev A, September 30, 2008

3.81 Performance-Based Navigation Category

Performance-Based Navigation Category	
Definition	This is an enumeration indicating whether the accuracy measure in Performance-Based Navigation Accuracy is measuring Area Navigation (RNAV) or Required Navigation Performance (RNP).
Alternate Names	
Has Parts	
Is Part Of	
Data Type(s)	Enumeration
Range of Values	{RNP, RNV}
Business Rules	
Notes	<ul style="list-style-type: none"> Valid values are: <ul style="list-style-type: none"> RNV - Area Navigation RNP - Required Navigation Performance [ATM IPOP ICD] Transmitted in FH, AH, and HU messages as CMS 925[a b c d e f g h i j k l] RNV entries and RNP entries. [ATM IPOP ICD] If the accuracy measurement includes on board navigation performance monitoring and alerting, the measurement is called RNP; if not, the measurement is categorized as RNAV.
Reference	<ul style="list-style-type: none"> National Airspace System (NAS)-IR-82422412-01, En Route Automation Modernization (ERAM)/Air Traffic Management (ATM) Intermediate Point of Presence (IPOP) Interface Control Document, Rev A, September 30, 2008

3.82 Performance-Based Navigation Phase

Performance-Based Navigation Phase	
<i>Definition</i>	The phase of flight for which navigation performance is being recorded.
<i>Alternate Names</i>	
<i>Has Parts</i>	
<i>Is Part Of</i>	
<i>Data Type(s)</i>	Enumeration
<i>Range of Values</i>	{D, A, E, G, L, S}
<i>Business Rules</i>	
<i>Notes</i>	<ul style="list-style-type: none"> The meaning of the enumerated values is: <ul style="list-style-type: none"> D - Departure A - Arrival E - Enroute G - Oceanic L - Spare1 S - Spare2 [ATM IPOP ICD] Transmitted in FH, AH, and HU messages as CMS 925[a b c d e f g h i j k l] RNV entries and RNP entries.
<i>Reference</i>	<ul style="list-style-type: none"> National Airspace System (NAS)-IR-82422412-01, En Route Automation Modernization (ERAM)/Air Traffic Management (ATM) Intermediate Point of Presence (IPOP) Interface Control Document, Rev A, September 30, 2008

3.83 Pre-Implicit Substitution Flight Information (New)

Pre-Implicit Substitution Flight Information	
<i>Definition</i>	A container which provides the flight information for a flight which was valid prior to an implicit substitution.
<i>Alternate Names</i>	preImplicitSub
<i>Has Parts</i>	Pre-Implicit Substitution Slot, Pre-Implicit Substitution Trajectory Identifier, Pre-Implicit Substitution Runway Departure Time - Controlled, Pre-Implicit Substitution Trajectory Total Cost
<i>Is Part Of</i>	Traffic Flow Management Collaborative Trajectory Options Program Information
<i>Data Type(s)</i>	Record
<i>Range of Values</i>	
<i>Business Rules</i>	
<i>Notes</i>	
<i>Reference</i>	<ul style="list-style-type: none">FAA, Web Service Description Document Traffic Flow Management Data Service (TFMData) Revised Final, Revision 1.9, October 31, 2014

3.84 Pre-Implicit Substitution Runway Departure Time – Controlled (New)

Pre-Implicit Substitution Runway Departure Time - Controlled	
Definition	The controlled date and time of departure for the flight that was assigned prior to implicit substitution. The controlled date and time of departure represents the time at which a flight is required to take off from the runway as a result of a tactical slot allocation or a Traffic Management Initiative.
Alternate Names	ctd
Has Parts	
Is Part Of	Pre-Implicit Substitution Flight Information
Data Type(s)	Date Time
Range of Values	
Business Rules	
Notes	
Reference	<ul style="list-style-type: none">• FAA, Web Service Description Document Traffic Flow Management Data Service (TFMData) Revised Final, Revision 1.9, October 31, 2014

3.85 Pre-Implicit Substitution Slot (New)

Pre-Implicit Substitution Slot	
Definition	The assigned slot for a flight prior to an implicit substitution. The assigned slot is a time slot at an airport or an airspace entry point that identifies a point in time when an aircraft is constrained to arrive at the airport or airspace entry point.
Alternate Names	slot
Has Parts	
Is Part Of	Pre-Implicit Substitution Flight Information
Data Type(s)	Character String
Range of Values	
Business Rules	
Notes	The NAS format is:fcaName.entryTime.oneLetterSuffix where entry time is in yyyyMMddhhmm example- FCA001.201003291736A or fcaName.NOSLOT when flight's trajectory avoids the FCA.pattern: [a-zA-Z0-9]{6}[.]{1}[0-9]{12}[a-zA-Z]{1} NOSLOT
Reference	<ul style="list-style-type: none"> FAA, Web Service Description Document Traffic Flow Management Data Service (TFMData) Revised Final, Revision 1.9, October 31, 2014

3.86 Pre-Implicit Substitution Trajectory Identifier (New)

Pre-Implicit Substitution Trajectory Identifier	
<i>Definition</i>	The unique identifier for the trajectory that was assigned prior to implicit substitution.
<i>Alternate Names</i>	slot
<i>Has Parts</i>	
<i>Is Part Of</i>	Pre-Implicit Substitution Flight Information
<i>Data Type(s)</i>	Numeric String
<i>Range of Values</i>	{1-99}
<i>Business Rules</i>	
<i>Notes</i>	
<i>Reference</i>	<ul style="list-style-type: none">• FAA, Web Service Description Document Traffic Flow Management Data Service (TFMData) Revised Final, Revision 1.9, October 31, 2014

3.87 Pre-Implicit Substitution Trajectory Total Cost (New)

Pre-Implicit Substitution Trajectory Total Cost	
Definition	The total cost the flight was expected to incur for the assigned trajectory option prior to implicit substitution. It includes the Trajectory Relative Cost and the Traffic Flow Management assigned delay for the assigned trajectory option.
Alternate Names	adjustedCost,
Has Parts	
Is Part Of	Pre-Implicit Substitution Flight Information
Data Type(s)	Integer
Range of Values	
Business Rules	
Notes	<ul style="list-style-type: none"> Expressed in minutes of delay Calculated as the RTC (Relative Trajectory Cost) plus the additional issued Traffic Flow Management delay for this trajectory option.
Reference	<ul style="list-style-type: none"> FAA, Web Service Description Document Traffic Flow Management Data Service (TFMData) Revised Final, Revision 1.9, October 31, 2014

3.88 Predicted Airways

Predicted Airways	
<i>Definition</i>	Current prediction of the airways along the trajectory of a flight.
<i>Alternate Names</i>	
<i>Has Parts</i>	
<i>Is Part Of</i>	Route Impact List
<i>Data Type(s)</i>	Array
<i>Range of Values</i>	
<i>Business Rules</i>	
<i>Notes</i>	<ul style="list-style-type: none">• In the United States, the TFMS Aircraft Situation Display to Industry (ASDI) feed provides the list of airways as shown in the example below:<ul style="list-style-type: none">○ <nxce:airway sequenceNumber="1">ACO2</nxce:airway>○ <nxce:airway sequenceNumber="2">SBV4</nxce:airway>
<i>Reference</i>	<ul style="list-style-type: none">• CSC 'Traffic Flow Management Modernization FDB to FTM Data Message Definitions', Feb 12, 2008• CSC 'Aircraft Situation Display to Industry: Functional Description and Interface Control Document for the XML Version', Ver. 1.8, April 15, 2011

3.89 Predicted Fixes

Predicted Fixes	
Definition	Current prediction of fixes along the trajectory of a flight, where these predictions are based on all the information available to the Traffic Flow Management System (TFMS).
Alternate Names	
Has Parts	
Is Part Of	Route Impact List
Data Type(s)	Array
Range of Values	
Business Rules	
Notes	<p>Aircraft Situation Display to Industry (ASDI) example:</p> <pre><nxce:fix sequenceNumber="1">DTW</nxce:fix><nxce:fix sequenceNumber="2">ACO2</nxce:fix><nxce:fix sequenceNumber="3">CAGAP</nxce:fix><nxce:fix sequenceNumber="4">VEELA</nxce:fix><nxce:fix sequenceNumber="5">MAARS</nxce:fix><nxce:fix sequenceNumber="6">SPHRE</nxce:fix><nxce:fix sequenceNumber="7">AZTRO</nxce:fix><nxce:fix sequenceNumber="8">ACO</nxce:fix><nxce:fix sequenceNumber="9">AIR</nxce:fix><nxce:fix sequenceNumber="10">EKN</nxce:fix><nxce:fix sequenceNumber="11">ROA</nxce:fix><nxce:fix sequenceNumber="12">SBV4</nxce:fix><nxce:fix sequenceNumber="13">SBV</nxce:fix><nxce:fix sequenceNumber="14">ALDAN</nxce:fix><nxce:fix sequenceNumber="15">BILLA</nxce:fix><nxce:fix sequenceNumber="16">DUHAM</nxce:fix><nxce:fix sequenceNumber="17">RDU</nxce:fix><nxce:fix sequenceNumber="18">RDU</nxce:fix></pre>
Reference	<ol style="list-style-type: none"> 1. CSC 'Traffic Flow Management Modernization FDB to FTM Data Message Definitions', Feb 12, 2008 2. CSC 'Aircraft Situation Display to Industry: Functional Description and Interface Control Document for the XML Version', Ver. 1.8, April 15, 2011

3.90 Predicted Sectors

Predicted Sectors	
Definition	Current prediction of the sectors along the trajectory of a flight.
Alternate Names	
Has Parts	
Is Part Of	Route Impact List
Data Type(s)	Array
Range of Values	
Business Rules	
Notes	<ul style="list-style-type: none"> • Complex data type consists of a series of Sector Airspace data types • In the United States, the TFMS Aircraft Situation Display to Industry (ASDI) feed provides the list of sectors as shown in the example below: <ul style="list-style-type: none"> ○ <nxce:sector sequenceNumber="1">ZOBDTW</nxce:sector> ○ <nxce:sector sequenceNumber="2">ZOB21</nxce:sector> ○ <nxce:sector sequenceNumber="3">ZOB75</nxce:sector> ○ <nxce:sector sequenceNumber="4">ZOB48</nxce:sector> ○ <nxce:sector sequenceNumber="5">ZDC22</nxce:sector> ○ <nxce:sector sequenceNumber="6">ZDCRDU</nxce:sector> • The List of Sectors includes also the terminal control area sectors.
Reference	<ul style="list-style-type: none"> • CSC 'Traffic Flow Management Modernization FDB to FTM Data Message Definitions', Feb 12, 2008 • CSC 'Aircraft Situation Display to Industry: Functional Description and Interface Control Document for the XML Version', Ver. 1.8, April 15, 2011

3.91 Predicted Units

Predicted Units	
<i>Definition</i>	Current prediction of the en route Air Traffic Control units (centres) along the trajectory of a flight.
<i>Alternate Names</i>	Predicted Centres
<i>Has Parts</i>	
<i>Is Part Of</i>	Route Impact List
<i>Data Type(s)</i>	Array
<i>Range of Values</i>	
<i>Business Rules</i>	
<i>Notes</i>	<ul style="list-style-type: none"> • Complex data type consists of a series of Air Traffic Services Unit data types. • In the United States, the TFMS Aircraft Situation Display to Industry (ASDI) feed provides the list of centres as shown in the example below: <ul style="list-style-type: none"> ○ <nxce:center sequenceNumber="1">ZOB</nxce:center> ○ <nxce:center sequenceNumber="2">ZDC</nxce:center>
<i>Reference</i>	<ul style="list-style-type: none"> • CSC 'Traffic Flow Management Modernization FDB to FTM Data Message Definitions', Feb 12, 2008 • CSC 'Aircraft Situation Display to Industry: Functional Description and Interface Control Document for the XML Version', Ver. 1.8, April 15, 2011

3.92 Predicted Waypoints

Predicted Waypoints	
Definition	Current prediction of the waypoints of the trajectory for a flight, where these predictions are based on all the information available to the Traffic Flow Management System (TFMS).
Alternate Names	
Has Parts	
Is Part Of	
Data Type(s)	Array
Range of Values	
Business Rules	
Notes	<p>Aircraft Situation Display to Industry (ASDI) example:</p> <pre><nxce:waypoint sequenceNumber="1" latitudeDecimal="2532" longitudeDecimal="5001"/><nxce:waypoint sequenceNumber="2" latitudeDecimal="2531" longitudeDecimal="4992"/><nxce:waypoint sequenceNumber="3" latitudeDecimal="2531" longitudeDecimal="4992"/><nxce:waypoint sequenceNumber="4" latitudeDecimal="2531" longitudeDecimal="4990"/><nxce:waypoint sequenceNumber="5" latitudeDecimal="2530" longitudeDecimal="4988"/><nxce:waypoint sequenceNumber="6" latitudeDecimal="2530" longitudeDecimal="4987"/><nxce:waypoint sequenceNumber="7" latitudeDecimal="2530" longitudeDecimal="4986"/><nxce:waypoint sequenceNumber="8" latitudeDecimal="2530" longitudeDecimal="4984"/><nxce:waypoint sequenceNumber="9" latitudeDecimal="2529" longitudeDecimal="4979"/><nxce:waypoint sequenceNumber="10" latitudeDecimal="2529" longitudeDecimal="4978"/></pre>
Reference	<ol style="list-style-type: none"> 1. CSC 'Traffic Flow Management Modernization FDB to FTM Data Message Definitions', Feb 12, 2008 2. CSC 'Aircraft Situation Display to Industry: Functional Description and Interface Control Document for the XML Version', Ver. 1.8, April 15, 2011

3.93 Relative Flight Priority (New)

Relative Flight Priority	
<i>Definition</i>	Relative priority of a flight compared to other flights for the same airspace user.
<i>Alternate Names</i>	relFltPriority
<i>Has Parts</i>	
<i>Is Part Of</i>	Traffic Flow Management Collaborative Trajectory Options Program Information
<i>Data Type(s)</i>	Integer
<i>Range of Values</i>	{1-999}
<i>Business Rules</i>	The lower the number, the higher the priority for the flight.
<i>Notes</i>	<ul style="list-style-type: none">• Used by Pre-Implicit Substitutions in a Collaborative Trajectory Options Program• After all flights have been allocated, TFMS adjusts the slots and trajectories that have been assigned to flights to take into account any relative flight priorities that have been provided by the airspace user
<i>Reference</i>	<ul style="list-style-type: none">• FAA, Web Service Description Document Traffic Flow Management Data Service (TFMData) Revised Final, Revision 1.9, October 31, 2014

3.94 Requested Altitude

Requested Altitude	
Definition	The cruise altitude filed or requested for the proposed flight.
Alternate Names	Flight Level
Has Parts	
Is Part Of	
Data Type(s)	Record
Range of Values	
Business Rules	
Notes	<ul style="list-style-type: none"> • This complex data type is comprised of one or a block of Altitudes and Flight Rules. • [IMPLEMENTATION_NOTES] NAS_EXTENSION: This data element extends FIXM Core data element Cruising Level (FIXM_version - 1.0). • [ATM IPOP ICD] Transmitted in AH and FH messages as CMS 09[a b c d e f g] Requested Altitude. • [ATM IPOP ICD] May be represented as any one of the following: <ul style="list-style-type: none"> ○ altitude or flight level ○ vfr-on-top ○ vfr-on-top with altitude ○ aircraft operating above a specified altitude ○ block of altitudes or flight levels ○ vfr flight ○ vfr flight with altitude
Reference	<ul style="list-style-type: none"> • National Airspace System (NAS)-IR-82422412-01, En Route Automation Modernization (ERAM)/Air Traffic Management (ATM) Intermediate Point of Presence (IPOP) Interface Control Document, Rev A, September 30, 2008

3.95 Route Impact List

Route Impact List	
<i>Definition</i>	Current traffic flow management prediction of en route Air Traffic Control units (centres), sectors and airspace elements along the trajectory of a flight.
<i>Alternate Names</i>	
<i>Has Parts</i>	Predicted Airways, Predicted Units, Predicted Sectors, Predicted Fixes, Predicted Waypoints
<i>Is Part Of</i>	
<i>Data Type(s)</i>	Record
<i>Range of Values</i>	
<i>Business Rules</i>	
<i>Notes</i>	
<i>Reference</i>	<ul style="list-style-type: none">• CSC 'Traffic Flow Management Modernization FDB to FTM Data Message Definitions', Feb 12, 2008• CSC 'Aircraft Situation Display to Industry: Functional Description and Interface Control Document for the XML Version', Ver. 1.8, April 15, 2011

3.96 Runway Arrival Time - Airspace User Actual (New)

Runway Arrival Time - Airspace User Actual	
<i>Definition</i>	The actual time of runway arrival, as provided by the Airspace User.
<i>Alternate Names</i>	ON, airlineOnTime
<i>Has Parts</i>	
<i>Is Part Of</i>	
<i>Data Type(s)</i>	Date Time
<i>Range of Values</i>	
<i>Business Rules</i>	<ul style="list-style-type: none">• Provided by airspace users via CDM messages.
<i>Notes</i>	
<i>Reference</i>	<ul style="list-style-type: none">• FAA, Web Service Description Document Traffic Flow Management Data Service (TFMData) Revised Final, Revision 1.9, October 31, 2014

3.97 Runway Arrival Time - Airspace User Estimated

Runway Arrival Time - Airspace User Estimated	
<i>Definition</i>	The estimated time of runway arrival, as provided by the Airspace User.
<i>Alternate Names</i>	Flight Operator Estimated Runway Time of Arrival, LRTA
<i>Has Parts</i>	
<i>Is Part Of</i>	
<i>Data Type(s)</i>	Date Time
<i>Range of Values</i>	
<i>Business Rules</i>	<ul style="list-style-type: none"> • Provided by airspace users via CDM messages.
<i>Notes</i>	
<i>Reference</i>	<ul style="list-style-type: none"> • CSC, Traffic Flow Management System-to-Airline Operation Center Network (TFMS-to-AOCNET) Interface Control Document (ICD) for the Traffic Flow Management-Modernization (TFM-M) Program, Final, Release 9, November 19, 2012 • CSC 'Traffic Flow Management Modernization FDB to FTM Data Message Definitions', Feb 12, 2008

3.98 Runway Arrival Time - Earliest

Runway Arrival Time - Earliest	
<i>Definition</i>	The earliest acceptable arrival time provided by the Airspace user for a flight.
<i>Alternate Names</i>	Earliest Runway Time of Arrival, ERTA
<i>Has Parts</i>	
<i>Is Part Of</i>	
<i>Data Type(s)</i>	Date Time
<i>Range of Values</i>	
<i>Business Rules</i>	<ul style="list-style-type: none"> • Provided by airspace users via CDM messages. • The field may be null.
<i>Notes</i>	<ul style="list-style-type: none"> • In U.S. CDM, if the user has sent this field in a CDM FC or FM message, then the most recent such time is contained in this field. A user can limit how much earlier TFMS will move a flight by sending an Earliest Runway Time of Arrival (ERTA). This ensures a flight will not get assigned a Controlled Time of Arrival (CTA) in a Ground Delay Program earlier than desired by the user.
<i>Reference</i>	<ul style="list-style-type: none"> • CSC, Traffic Flow Management System-to-Airline Operation Center Network (TFMS-to-AOCNET) Interface Control Document (ICD) for the Traffic Flow Management-Modernization (TFM-M) Program, Final, Release 9, November 19, 2012

3.99 Runway Arrival Time - Original

Runway Arrival Time - Original	
<i>Definition</i>	The last " Runway Arrival Time - Traffic Flow Management System Estimated" modeled by TFMS before either a Traffic Management Initiative (TMI) is issued, or the flight departs, or the flight is "time-out" delayed by TFMS.
<i>Alternate Names</i>	OETA, Original ETA
<i>Has Parts</i>	
<i>Is Part Of</i>	
<i>Data Type(s)</i>	Date Time
<i>Range of Values</i>	
<i>Business Rules</i>	
<i>Notes</i>	The data element is used to "back out" of a TMI and it does NOT include any time-out delay modeled by TFMS.
<i>Reference</i>	<ul style="list-style-type: none">CSC, System Wide Information Management (SWIM) Traffic Flow Management Data Service Web Service Description Document (WSDD) for Traffic Flow Management-Modernization (TFM-M), Revised Draft, Revision 1.3, Release 10, December 6, 2013

3.100 Runway Arrival Time - Preferred

Runway Arrival Time - Preferred	
<i>Definition</i>	A runway arrival time which, when considered in aggregate with other flights for that Airspace User, indicates the preferred arrival sequence.
<i>Alternate Names</i>	Preferred Runway Arrival Time
<i>Has Parts</i>	
<i>Is Part Of</i>	
<i>Data Type(s)</i>	Date Time
<i>Range of Values</i>	
<i>Business Rules</i>	<ul style="list-style-type: none"> • A Preferred Time is not the same as a Slot. • A Slot is a time allocated by Air Traffic Control (ATC) in certain air traffic management situations, while a Preferred Time indicates the Airspace User's desire. • A Slot may align with a Preferred Time, or it may differ. • A Slot has a higher operational priority for achievement than a Preferred Time. • A Preferred Time also supports activities which may be proposing or revising a Slot and is an indication in situations where a Slot has not been, or is not normally, allocated. • Note that, although most major airports employ Slot allocation practices, it is not a mandatory practice for all airports.
<i>Notes</i>	
<i>Reference</i>	<ul style="list-style-type: none"> • K. Howard, CDM Message Formats, Version 2.2, Volpe NTSC (USDOT RITA) Memorandum, 3 November 2005.

3.101 Runway Arrival Time - Slot Credit Substitution Earliest Acceptable

Runway Arrival Time - Slot Credit Substitution Earliest Acceptable	
<i>Definition</i>	The earliest time at which the Airspace user will accept a slot in a Traffic Management Initiative (TMI) Ground Delay Program (GDP) in return for a yielded slot.
<i>Alternate Names</i>	Slot Credit Substitution Earliest Acceptable Runway Time of Arrival
<i>Has Parts</i>	
<i>Is Part Of</i>	
<i>Data Type(s)</i>	Date Time
<i>Range of Values</i>	
<i>Business Rules</i>	<ul style="list-style-type: none">• Provided by airspace users via Slot Credit Substitution CDM message.
<i>Notes</i>	
<i>Reference</i>	<ul style="list-style-type: none">• CSC, Traffic Flow Management System-to-Airline Operation Center Network (TFMS-to-AOCNET) Interface Control Document (ICD) for the Traffic Flow Management-Modernization (TFM-M) Program, Final, Release 9, November 19, 2012

3.102 Runway Arrival Time - Slot Credit Substitution Latest Acceptable

Runway Arrival Time - Slot Credit Substitution Latest Acceptable	
<i>Definition</i>	The latest time at which the Airspace user will accept a slot in a Traffic Management Initiative (TMI) Ground Delay Program (GDP), in return for a yielded slot.
<i>Alternate Names</i>	Slot Credit Substitution Latest Acceptable Runway Time of Arrival
<i>Has Parts</i>	
<i>Is Part Of</i>	
<i>Data Type(s)</i>	Date Time
<i>Range of Values</i>	
<i>Business Rules</i>	<ul style="list-style-type: none">• Provided by airspace users via Slot Credit Substitution CDM message.
<i>Notes</i>	
<i>Reference</i>	<ul style="list-style-type: none">• CSC, Traffic Flow Management System-to-Airline Operation Center Network (TFMS-to-AOCNET) Interface Control Document (ICD) for the Traffic Flow Management-Modernization (TFM-M) Program, Final, Release 9, November 19, 2012

3.103 Runway Arrival Time - Traffic Flow Management System Estimated

Runway Arrival Time - Traffic Flow Management System Estimated	
<i>Definition</i>	The estimated runway arrival time considering all data sources, as determined by Traffic Flow Management System (TFMS).
<i>Alternate Names</i>	Estimated Time of Arrival, ETA
<i>Has Parts</i>	
<i>Is Part Of</i>	
<i>Data Type(s)</i>	Date Time
<i>Range of Values</i>	
<i>Business Rules</i>	
<i>Notes</i>	
<i>Reference</i>	<ul style="list-style-type: none"> • CSC 'Traffic Flow Management Modernization FDB to FTM Data Message Definitions', Feb 12, 2008 • CSC 'Aircraft Situation Display to Industry: Functional Description and Interface Control Document for the XML Version', Ver. 1.8, April 15, 2011

3.104 Runway Arrival Time - Traffic Flow Management System Estimated Type (New)

Runway Arrival Time - Traffic Flow Management System Estimated Type	
<i>Definition</i>	The type for the estimated runway arrival time determined by Traffic Flow Management System (TFMS).
<i>Alternate Names</i>	etaType
<i>Has Parts</i>	
<i>Is Part Of</i>	
<i>Data Type(s)</i>	Enumeration
<i>Range of Values</i>	{ACTUAL, ESTIMATED, PROPOSED, SCHEDULED}
<i>Business Rules</i>	
<i>Notes</i>	The ETA type indicates the status of the flight and its source data; that is, it is a combination of what data TFMS-Core has processed for the flight and what state the flight is in (e.g., , estimated, controlled). It also provides information to how the ETA was modeled by TFMS.
<i>Reference</i>	<ul style="list-style-type: none"> • FAA, Web Service Description Document Traffic Flow Management Data Service (TFMData) Revised Final, Revision 1.9, October 31, 2014

3.105 Runway Departure Time - Airspace User Actual (New)

Runway Departure Time - Airspace User Actual	
<i>Definition</i>	The actual time of runway departure, as provided by the Airspace User.
<i>Alternate Names</i>	OFF, airlineOffTime
<i>Has Parts</i>	
<i>Is Part Of</i>	
<i>Data Type(s)</i>	Date Time
<i>Range of Values</i>	
<i>Business Rules</i>	<ul style="list-style-type: none">• Provided by airspace users via CDM messages.
<i>Notes</i>	
<i>Reference</i>	<ul style="list-style-type: none">• FAA, Web Service Description Document Traffic Flow Management Data Service (TFMData) Revised Final, Revision 1.9, October 31, 2014

3.106 Runway Departure Time - Airspace User Estimated

Runway Departure Time - Airspace User Estimated	
<i>Definition</i>	The estimated time of runway departure, as provided by the Airspace User.
<i>Alternate Names</i>	Flight Operator Estimated Runway Time of Departure, LRTD
<i>Has Parts</i>	
<i>Is Part Of</i>	
<i>Data Type(s)</i>	Date Time
<i>Range of Values</i>	
<i>Business Rules</i>	<ul style="list-style-type: none">• Provided by airspace users via CDM messages.
<i>Notes</i>	
<i>Reference</i>	<ul style="list-style-type: none">• VNTSC 'CDM message Formats' ver 2.2, March 31, 2005• CSC 'Traffic Flow Management Modernization FDB to FTM Data Message Definitions', Feb 12, 2008

3.107 Runway Departure Time - Earliest

Runway Departure Time - Earliest	
<i>Definition</i>	Earliest acceptable runway departure time (wheels-off time) an Airspace user provides for a flight.
<i>Alternate Names</i>	Earliest Runway Time of Departure, ERTD
<i>Has Parts</i>	
<i>Is Part Of</i>	
<i>Data Type(s)</i>	Date Time
<i>Range of Values</i>	
<i>Business Rules</i>	<ul style="list-style-type: none"> • Provided by airspace users via CDM messages. • The field may be null.
<i>Notes</i>	
<i>Reference</i>	<ul style="list-style-type: none"> • CSC, Traffic Flow Management System-to-Airline Operation Center Network (TFMS-to-AOCNET) Interface Control Document (ICD) for the Traffic Flow Management-Modernization (TFM-M) Program, Final, Release 9, November 19, 2012

3.108 Runway Departure Time - Original

Runway Departure Time - Original	
Definition	The last Runway Departure Time - Traffic Flow Management System Estimated modeled by TFMS before either a Traffic Management Initiative (TMI) is issued, or the flight departs, or the flight is “time-out” delayed by TFMS.
Alternate Names	OETD, Original ETD
Has Parts	
Is Part Of	
Data Type(s)	Date Time
Range of Values	
Business Rules	
Notes	The data element is used to “back out” of a TMI and it does NOT include any time-out delay modeled by TFMS.
Reference	<ul style="list-style-type: none">• CSC, System Wide Information Management (SWIM) Traffic Flow Management Data Service Web Service Description Document (WSDD) for Traffic Flow Management-Modernization (TFM-M), Revised Draft, Revision 1.3, Release 10, December 6, 2013

3.109 Runway Departure Time - Preferred

Runway Departure Time - Preferred	
<i>Definition</i>	A runway departure time which, when considered in aggregate with other flights for that Airspace User, indicates the preferred departure sequence.
<i>Alternate Names</i>	
<i>Has Parts</i>	
<i>Is Part Of</i>	
<i>Data Type(s)</i>	Date Time
<i>Range of Values</i>	
<i>Business Rules</i>	<p>A Preferred Time is not the same as a Slot.</p> <p>A Slot is a time allocated by Air Traffic Control (ATC) in certain air traffic management situations, while a Preferred Time indicates the Airspace User's desire.</p> <p>A Slot may align with a Preferred Time, or it may differ.</p> <p>A Slot has a higher operational priority for achievement than a Preferred Time.</p> <p>A Preferred Time also supports activities which may be proposing or revising a Slot, and is an indication in situations where a Slot has not been, or is not normally, allocated.</p> <p>Note that, although most major airports employ Slot allocation practices, it is not a mandatory practice for all airports.</p>
<i>Notes</i>	
<i>Reference</i>	Technical Review Meeting Collaboration (captured in meeting minutes)

3.110 Runway Departure Time - Traffic Flow Management System Estimated

Runway Departure Time - Traffic Flow Management System Estimated	
<i>Definition</i>	The estimated runway departure time considering all data sources, as determined by Traffic Flow Management System (TFMS).
<i>Alternate Names</i>	Estimated Time of Departure, ETD
<i>Has Parts</i>	
<i>Is Part Of</i>	
<i>Data Type(s)</i>	Date Time
<i>Range of Values</i>	
<i>Business Rules</i>	
<i>Notes</i>	
<i>Reference</i>	<ul style="list-style-type: none">• CSC 'Traffic Flow Management Modernization FDB to FTM Data Message Definitions', Feb 12, 2008

3.111 Runway Departure Time - Traffic Flow Management System Estimated Type (New)

Runway Departure Time - Traffic Flow Management System Estimated Type	
<i>Definition</i>	The type for the estimated runway departure time determined by Traffic Flow Management System (TFMS).
<i>Alternate Names</i>	etdType
<i>Has Parts</i>	
<i>Is Part Of</i>	
<i>Data Type(s)</i>	Enumeration
<i>Range of Values</i>	{SCHEDULED, EARLY_INTENT, PROPOSED, TAXI, ACTIVE, ESTIMATED, METERED}
<i>Business Rules</i>	
<i>Notes</i>	The ETD type indicates the status of the flight and its source data; that is, it is a combination of what data TFMS-Core has processed for the flight and what state the flight is in (e.g., , estimated, controlled). It also provides information to how the ETD was modeled by TFMS.
<i>Reference</i>	<ul style="list-style-type: none"> FAA, Web Service Description Document Traffic Flow Management Data Service (TFMData) Revised Final, Revision 1.9, October 31, 2014

3.112 RVSM Equipped (New)

RVSM Equipped	
<i>Definition</i>	Indicates if the flight is Reduced Vertical Separation Minimum (RVSM) equipped
<i>Alternate Names</i>	equipped
<i>Has Parts</i>	
<i>Is Part Of</i>	
<i>Data Type(s)</i>	Boolean
<i>Range of Values</i>	true, false
<i>Business Rules</i>	
<i>Notes</i>	
<i>Reference</i>	<ul style="list-style-type: none">• FAA, Web Service Description Document Traffic Flow Management Data Service (TFMData) Revised Final, Revision 1.9, October 31, 2014

3.113 SFDPS Flight Status

SFDPS Flight Status	
<i>Definition</i>	Identification of the current aspect of the flight life cycle as determined by the SWIM Flight Data Publication Service (SFDPS).
<i>Alternate Names</i>	
<i>Has Parts</i>	
<i>Is Part Of</i>	
<i>Data Type(s)</i>	Enumeration
<i>Range of Values</i>	One of the following: {PROPOSED, ACTIVE, COMPLETED, CANCELLED, DROPPED}
<i>Business Rules</i>	
<i>Notes</i>	<p>The meaning of the enumerated values are:</p> <ul style="list-style-type: none"> • PROPOSED - There is at least one non-cancelled flight plan in place, and the flight has not yet become airborne. • ACTIVE - Flight is airborne, and updates are still being generated for the flight. • COMPLETED - Flight has landed at its destination. • DROPPED - Data updates terminated before the flight landed. It is unknown whether the flight is still airborne or not. This could be a flight that has left FAA airspace or a flight that has switched to Visual Flight Rules. • CANCELLED - There are only cancelled flight plans for the flight, and it was never airborne.
<i>Reference</i>	Technical Review Meeting Collaboration (captured in meeting minutes)

3.114 Site Specific Plan Identifier

Site Specific Plan Identifier	
<i>Definition</i>	Site Specific Plan Identifier is a unique ID for each system plan in each ERAM facility.
<i>Alternate Names</i>	SSPID
<i>Has Parts</i>	
<i>Is Part Of</i>	
<i>Data Type(s)</i>	Integer
<i>Range of Values</i>	1 to 4000
<i>Business Rules</i>	
<i>Notes</i>	<ul style="list-style-type: none"> [ATM IPOPOP ICD] Transmitted in AC, AH, AK, BA, CL, DH, ET, FH, HB, HC, HD, HE, HF, HH, HO, HP, HT, HU, HV, HX, ID, IE, IH, IM, IO, LH, NI, NL, NP, NU, OH, PH, PT, RE, RH, TH and UI messages as CMS 167A ERAM Site Specific Plan Identifier.
<i>Reference</i>	<ul style="list-style-type: none"> NAS-IC-82422412-01, REVISION B, En Route Automation Modernization (ERAM)/User Systems via Air Traffic Management (ATM) Intermediate Point of Presence (IPOPOP), April 30, 2012

3.115 Slot Hold Status

Slot Hold Status	
Definition	If a flight is controlled and cancelled [e.g., has a Controlled Time of Departure (CTD), Controlled Time of Arrival (CTA), and Arrival Slot (ASLOT)], the slot hold status indicates whether the slot associated with this flight is being held, or would be held, by the Airspace User for the next full compression.
Alternate Names	SL_HOLD
Has Parts	
Is Part Of	
Data Type(s)	Enumeration
Range of Values	{H, R}
Business Rules	<ul style="list-style-type: none"> • Provided by airspace users via CDM messages (FM, FX messages). • Only applies for a flights controlled as part of a Ground Delay Program (GDP).
Notes	<ul style="list-style-type: none"> • Values: <ul style="list-style-type: none"> ○ H - Hold ○ R - Release
Reference	<ul style="list-style-type: none"> • CSC, Traffic Flow Management System-to-Airline Operation Center Network (TFMS-to-AOCNET) Interface Control Document (ICD) for the Traffic Flow Management-Modernization (TFM-M) Program, Final, Release 9, November 19, 2012

3.116 Special Aircraft Qualifier

Special Aircraft Qualifier	
Definition	Indicates the flight is a heavy jet, B757 or, if not present, a large jet and if the flight is either equipped or not with TCAS. This indicator is used for output purposes such as strip printing and message transfers to other facilities such as Automated Radar Terminal System (ARTS).
Alternate Names	New Flight Aircraft Specification
Has Parts	
Is Part Of	
Data Type(s)	Enumeration
Range of Values	{Heavy-Jet and TCAS, Heavy-Jet, B757, B757 with TCAS, TCAS}
Business Rules	
Notes	<ul style="list-style-type: none"> • Could not find any other element that would better match this TFMDData/ASDI element. • New Flight Aircraft Specification is the updated information to the Special Aircraft Qualifier • [ATM IPOP ICD] Transmitted in AH, DH, FH, HU, NP and NU messages as CMS 03a Special Aircraft Indicator.
Reference	<ul style="list-style-type: none"> • CSC, System Wide Information Management (SWIM) Traffic Flow Management Data Service Web Service Description Document (WSDD) for Traffic Flow Management-Modernization (TFM-M), Revised Draft, Revision 1.3, Release 10, December 6, 2013 • National Airspace System (NAS)-IR-82422412-01, En Route Automation Modernization (ERAM)/Air Traffic Management (ATM) Intermediate Point of Presence (IPOP) Interface Control Document, Rev A, September 30, 2008

3.117 Special Slot Type (New)

Special Slot Type	
<i>Definition</i>	An indicator which provides the type of the Collaborative Trajectory Options Program time slot at an airspace entry point.
<i>Alternate Names</i>	specialSlot
<i>Has Parts</i>	
<i>Is Part Of</i>	
<i>Data Type(s)</i>	Enumeration
<i>Range of Values</i>	{PURGED, REMOVED}
<i>Business Rules</i>	
<i>Notes</i>	<ul style="list-style-type: none">This element is associated with the Arrival Slot - NAS for CTOPs, where ASLOT field may contain 'PURGED' or 'REMOVED' instead of a slot definition.
<i>Reference</i>	<ul style="list-style-type: none">FAA, Web Service Description Document Traffic Flow Management Data Service (TFMData) Revised Final, Revision 1.9, October 31, 2014

3.118 Stand Return Intent

Stand Return Intent	
<i>Definition</i>	Indicates the intent for the flight to return to the stand.
<i>Alternate Names</i>	Gate Return Intent
<i>Has Parts</i>	
<i>Is Part Of</i>	Flight Intent
<i>Data Type(s)</i>	Boolean
<i>Range of Values</i>	
<i>Business Rules</i>	
<i>Notes</i>	In the United States, the term gate is used interchangeably with the term stand
<i>Reference</i>	<ul style="list-style-type: none">Terminal Flight Data Manager (TFDM) Core for Airport Traffic Control Towers (ATCT) Concept of Operations, ConOps-PMO-02-TFDM-13-001, Rev. 2.1, Terminal Flight Data Manager Program Office, November 4, 2013.

3.119 Standard Terminal Arrival Route Transition Fix (New)

Standard Terminal Arrival Route Transition Fix	
<i>Definition</i>	The name for the Standard Terminal Arrival Route Transition Fix
<i>Alternate Names</i>	starTransitionFix
<i>Has Parts</i>	
<i>Is Part Of</i>	
<i>Data Type(s)</i>	Location
<i>Range of Values</i>	
<i>Business Rules</i>	
<i>Notes</i>	
<i>Reference</i>	<ul style="list-style-type: none">FAA, Web Service Description Document Traffic Flow Management Data Service (TFMData) Revised Final, Revision 1.9, October 31, 2014

3.120 Target Altitude

Target Altitude	
<i>Definition</i>	The Mode C target altitude, corrected for barometric pressure. Can be marked as invalid.
<i>Alternate Names</i>	
<i>Has Parts</i>	
<i>Is Part Of</i>	
<i>Data Type(s)</i>	Altitude
<i>Range of Values</i>	Altitude or INVALID
<i>Business Rules</i>	
<i>Notes</i>	<ul style="list-style-type: none">• [ATM IPOP ICD] Transmitted in TH message as CMS 172ab.
<i>Reference</i>	<ul style="list-style-type: none">• National Airspace System (NAS)-IR-82422412-01, En Route Automation Modernization (ERAM)/Air Traffic Management (ATM) Intermediate Point of Presence (IPOP) Interface Control Document, Rev A, September 30, 2008

3.121 Target Position

Target Position	
<i>Definition</i>	Aircraft target position, as reported by one raw radar return.
<i>Alternate Names</i>	
<i>Has Parts</i>	
<i>Is Part Of</i>	
<i>Data Type(s)</i>	Location
<i>Range of Values</i>	
<i>Business Rules</i>	
<i>Notes</i>	<ul style="list-style-type: none">• [ATM IPOP ICD] Transmitted in TH message as CMS 171a Target Position.• Target Position is expressed as a latitude/longitude.
<i>Reference</i>	<ul style="list-style-type: none">• National Airspace System (NAS)-IR-82422412-01, En Route Automation Modernization (ERAM)/Air Traffic Management (ATM) Intermediate Point of Presence (IPOP) Interface Control Document, Rev A, September 30, 2008

3.122 Target Position Time

Target Position Time	
<i>Definition</i>	The time associated with the raw radar return.
<i>Alternate Names</i>	
<i>Has Parts</i>	
<i>Is Part Of</i>	
<i>Data Type(s)</i>	Date Time
<i>Range of Values</i>	
<i>Business Rules</i>	
<i>Notes</i>	<ul style="list-style-type: none">• [ATM IPOP ICD] Transmitted in TH message as CMS 173a Time of Target Data.
<i>Reference</i>	<ul style="list-style-type: none">• National Airspace System (NAS)-IR-82422412-01, En Route Automation Modernization (ERAM)/Air Traffic Management (ATM) Intermediate Point of Presence (IPOP) Interface Control Document, Rev A, September 30, 2008

3.123 Track Speed Components

Track Speed Components	
<i>Definition</i>	Speed of the radar surveillance track along the X and Y components.
<i>Alternate Names</i>	
<i>Has Parts</i>	
<i>Is Part Of</i>	
<i>Data Type(s)</i>	Record
<i>Range of Values</i>	
<i>Business Rules</i>	
<i>Notes</i>	<ul style="list-style-type: none">• Consists of speed along the X-axis (of type Speed) and speed along the Y-axis (of type Speed).• [ATM IPOP ICD] Transmitted in TH message as CMS 23e Track Velocity.
<i>Reference</i>	<ul style="list-style-type: none">• National Airspace System (NAS)-IR-82422412-01, En Route Automation Modernization (ERAM)/Air Traffic Management (ATM) Intermediate Point of Presence (IPOP) Interface Control Document, Rev A, September 30, 2008

3.124 Traffic Flow Management Advisory Number

Traffic Flow Management Advisory Number	
<i>Definition</i>	Advisory number issued by traffic flow management.
<i>Alternate Names</i>	
<i>Has Parts</i>	
<i>Is Part Of</i>	NAS Advisory Information
<i>Data Type(s)</i>	Numeric String
<i>Range of Values</i>	
<i>Business Rules</i>	
<i>Notes</i>	Format: ddd (three digits from 001 to 999)
<i>Reference</i>	<ul style="list-style-type: none">CSC, System Wide Information Management (SWIM) Traffic Flow Management Data Service Web Service Description Document (WSDD) for Traffic Flow Management-Modernization (TFM-M), Revised Draft, Revision 1.3, Release 10, December 6, 2013

3.125 Traffic Flow Management Advisory Type

Traffic Flow Management Advisory Type	
Definition	The type for the advisory issued by traffic flow management.
Alternate Names	
Has Parts	
Is Part Of	NAS Advisory Information
Data Type(s)	Enumeration
Range of Values	afpAdvisory, afpCancel, gdpAdvisory, gdpCancel, gsAdvisory, gsCancel, reroute, ctopDefinition, ctopCancel
Business Rules	
Notes	<ul style="list-style-type: none"> • afpAdvisory - Airspace Flow Program Advisory • gdpAdvisory - Ground Delay Program Advisory • gdpCancel - Ground Delay Program cancellation Advisory • gsAdvisory - Ground Stop Program Advisory • gsCancel - Ground Stop Program cancellation Advisory • reroute - Reroute Advisory • ctopDefinition - Collaborative Trajectory Options Program Advisory • ctopCancel - Collaborative Trajectory Options Program cancellation Advisory
Reference	<ul style="list-style-type: none"> • CSC, System Wide Information Management (SWIM) Traffic Flow Management Data Service Web Service Description Document (WSDD) for Traffic Flow Management-Modernization (TFM-M), Revised Draft, Revision 1.3, Release 10, December 6, 2013

3.126 Traffic Flow Management Advisory Update Time

Traffic Flow Management Advisory Update Time	
<i>Definition</i>	The date and time when the advisory was last updated.
<i>Alternate Names</i>	
<i>Has Parts</i>	
<i>Is Part Of</i>	NAS Advisory Information
<i>Data Type(s)</i>	Date Time
<i>Range of Values</i>	
<i>Business Rules</i>	
<i>Notes</i>	
<i>Reference</i>	<ul style="list-style-type: none">CSC, System Wide Information Management (SWIM) Traffic Flow Management Data Service Web Service Description Document (WSDD) for Traffic Flow Management-Modernization (TFM-M), Revised Draft, Revision 1.3, Release 10, December 6, 2013

3.127 Traffic Flow Management Collaborative Trajectory Options Program Information

Traffic Flow Management Collaborative Trajectory Options Program Information	
<i>Definition</i>	A container for a Traffic Flow Management Collaborative Trajectory Options Program pertinent information for a flight.
<i>Alternate Names</i>	
<i>Has Parts</i>	Collaborative Trajectory Options Program Name, Collaborative Trajectory Options Program Identifier, Trajectory Option Set, Trajectory Option Set Sequence Number, Trajectory Source, Collaborative Trajectory Options Program Control Exempt Reason, Relative Flight Priority
<i>Is Part Of</i>	
<i>Data Type(s)</i>	Record
<i>Range of Values</i>	
<i>Business Rules</i>	
<i>Notes</i>	TFMData ctopDefinition/ctopCancel FI Messages
<i>Reference</i>	<ul style="list-style-type: none"> FAA, Web Service Description Document Traffic Flow Management Data Service (TFMData) Revised Final, Revision 1.9, October 31, 2014

3.128 Traffic Flow Management Reroute Information

Traffic Flow Management Reroute Information	
<i>Definition</i>	A container for information pertinent to a single NAS reroute issued for a flight by traffic flow management.
<i>Alternate Names</i>	
<i>Has Parts</i>	Traffic Flow Management System Reroute Identifier, Traffic Flow Management System Reroute Name, Traffic Flow Management System Reroute Type, Traffic Flow Management System Reroute Protected Segment, Traffic Flow Management System Reroute Inclusion Indicator,
<i>Is Part Of</i>	
<i>Data Type(s)</i>	Route
<i>Range of Values</i>	
<i>Business Rules</i>	
<i>Notes</i>	TFMData reroute FI Message
<i>Reference</i>	<ul style="list-style-type: none"> CSC, System Wide Information Management (SWIM) Traffic Flow Management Data Service Web Service Description Document (WSDD) for Traffic Flow Management-Modernization (TFM-M), Revised Draft, Revision 1.3, Release 10, December 6, 2013

3.129 Traffic Flow Management System Aircraft Weight Class (New)

Traffic Flow Management System Aircraft Weight Class	
<i>Definition</i>	Describes an aircraft's weight category
<i>Alternate Names</i>	CLS, Aircraft Weight Class
<i>Has Parts</i>	
<i>Is Part Of</i>	
<i>Data Type(s)</i>	Enumeration
<i>Range of Values</i>	{HEAVY, LARGE, SMALL}
<i>Business Rules</i>	
<i>Notes</i>	
<i>Reference</i>	<ul style="list-style-type: none">FAA, Web Service Description Document Traffic Flow Management Data Service (TFMData) Revised Final, Revision 1.9, October 31, 2014

3.130 Traffic Flow Management System Departure Procedure Designator (New)

Traffic Flow Management System Departure Procedure Designator	
<i>Definition</i>	This is the name of a published departure procedure extending from the departure runway to the start of the en route part of the aircraft's route.
<i>Alternate Names</i>	SID, DP
<i>Has Parts</i>	
<i>Is Part Of</i>	
<i>Data Type(s)</i>	Character String
<i>Range of Values</i>	
<i>Business Rules</i>	
<i>Notes</i>	<ul style="list-style-type: none"> • The elements of this part of the route are not expected to be filed as part of the flight plan submission but may be assigned at a later time and are used to complete the airport departure route information between the airport runway and the en route part of the route. • It is believed this item is included/modelled in AIXM. • It represents the expected/allocated departure route to be followed by the aircraft immediately following takeoff from the departure airport. • The name of a published route that contains fix and leg elements that connect the assigned takeoff runway to the aircraft's starting point on the en route part of its route. It would be expected these SID route elements would be added to the start of the en route elements (and any later STAR additions) to complete the overall expected route of the aircraft.
<i>Reference</i>	<ul style="list-style-type: none"> • FAA, Web Service Description Document Traffic Flow Management Data Service (TFMData) Revised Final, Revision 1.9, October 31, 2014

3.131 Traffic Flow Management System Flight Creation Time (New)

Traffic Flow Management System Flight Creation Time	
<i>Definition</i>	Indicates how long TFMS-Core has known of the flight.
<i>Alternate Names</i>	flightCreation, CR_TIME
<i>Has Parts</i>	
<i>Is Part Of</i>	
<i>Data Type(s)</i>	Date Time
<i>Range of Values</i>	
<i>Business Rules</i>	For Flow Evaluation Areas/Flow Constrained Areas (FEA/FCAs) this is the time the flight was first detected to be intersecting the FEA/FCA.
<i>Notes</i>	
<i>Reference</i>	<ul style="list-style-type: none">• FAA, Web Service Description Document Traffic Flow Management Data Service (TFMData) Revised Final, Revision 1.9, October 31, 2014

3.132 Traffic Flow Management System Flight Plan Remarks

Traffic Flow Management System Flight Plan Remarks	
Definition	NAS Flight Plan Field 11 remarks processed by the Traffic Flow Management System (TFMS) and used for TFM purposes.
Alternate Names	
Has Parts	
Is Part Of	
Data Type(s)	Character String
Range of Values	
Business Rules	
Notes	<ul style="list-style-type: none"> • This data element is in addition to the Core element "Remarks". • Description of indicators used are: <ul style="list-style-type: none"> ○ NRP: National Route Program flight - Flight plan has been processed with the keyword 'NRP' or its aliases in field 11. This indicates the flight is participating in the National Route Program. ○ LIFEGUARD: Lifeguard or MEDEVAC flight - Flight plan has been processed with the keyword 'LIFEGUARD' or its aliases in field 11. ○ CATIII: Flight is capable of utilizing CAT3 landing minimums - Flight plan has been processed with the keyword 'CATIII' or its aliases in field 11. ○ ALTRV: Altitude Reservation - Flight plan has been processed with the keyword 'ALTRV' or its aliases in field 11. ○ SWAP: Swapping - Flight plan has been processed with the keyword 'SWAP' or its aliases in field 11. ○ DVRSN: Diversion Recovery flight - Flight plan has been processed with the keyword 'DVRSN' or its aliases in field 11. ○ ADCUS: Advise Customs - Flight plan has been processed with the keyword 'ADCUS' or its aliases in field 11. ○ FCA: Flow Constrained Area - Flight plan has been processed with the keyword 'FCA' or its aliases in field 11. ○ WXRTE: Severe weather reroute - Flight plan has been processed with the keyword 'WXRTE' or its aliases in field 11. ○ HAR: High Altitude Redesign Fixes - Flight plan has been processed with the keyword 'HAR' or its aliases in field 11. ○ PTP: RNAV Point to Point - Flight plan has been processed with the keyword 'PTP' or its aliases in field 11.

	<ul style="list-style-type: none"> ○ Other keywords which may be present based on TFMS processing: <ul style="list-style-type: none"> ▪ LFG (see LIFE GUARD) ▪ III (see CAT III) ▪ ATV (see ALTRV) ▪ SWP (see SWAP) ▪ DVT (see DVRSN) ▪ ADC (see ADCUS) ▪ WXR (see WXRTE)
<i>Reference</i>	<ul style="list-style-type: none"> • CSC, Traffic Flow Management System-to-Airline Operation Center Network (TFMS-to-AOCNET) Interface Control Document (ICD) for the Traffic Flow Management-Modernization (TFM-M) Program, Final, Release 9, November 19, 2012 • CSC 'Traffic Flow Management Modernization FDB to FTM Data Message Definitions', Feb 12, 2008 • Amendment No. 1 to the Procedures For Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444) • Procedures for Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444), 2007

3.133 Traffic Flow Management System Flight Status

Traffic Flow Management System Flight Status	
<i>Definition</i>	Indicates the current status of the flight, as determined by Traffic Flow Management System (TFMS).
<i>Alternate Names</i>	
<i>Has Parts</i>	
<i>Is Part Of</i>	
<i>Data Type(s)</i>	Enumeration
<i>Range of Values</i>	{Scheduled, Controlled, Filed, Active, Ascending, Cruising, Descending, Completed, Cancelled, Decontrolled, Unknown, None, Error, Other}
<i>Business Rules</i>	<ul style="list-style-type: none">TFMS generates the flight status based on all available data sources and uses it to determine how to model a flight and how to treat a flight in a Traffic Management Initiative.
<i>Notes</i>	
<i>Reference</i>	<ul style="list-style-type: none">CSC 'Traffic Flow Management Modernization FDB to FTM Data Message Definitions', Feb 12, 2008CSC 'Aircraft Situation Display to Industry: Functional Description and Interface Control Document for the XML Version', Ver. 1.8, April 15, 2011

3.134 Traffic Flow Management System Next Event (New)

Traffic Flow Management System Next Event	
<i>Definition</i>	Provides the location of the next point in a flight's current modeled route of flight that has not yet been deemed to have been flown past
<i>Alternate Names</i>	nextEvent
<i>Has Parts</i>	
<i>Is Part Of</i>	
<i>Data Type(s)</i>	Location
<i>Range of Values</i>	
<i>Business Rules</i>	
<i>Notes</i>	<ul style="list-style-type: none">The lat/long provided in the TFMS nextEvent can be present in a (re)modeled route of flight and can therefore be present in a ncsMTrackData for any message that caused the flight's route to be remodeled due to a flight route reconformance (trackInformation or oceanicInformation).
<i>Reference</i>	<ul style="list-style-type: none">FAA, Web Service Description Document Traffic Flow Management Data Service (TFMData) Revised Final, Revision 1.9, October 31, 2014

3.135 Traffic Flow Management System Next Position (New)

Traffic Flow Management System Next Position	
<i>Definition</i>	Provides the location of the first point in a flight's (re)modeled route of flight that has not yet been deemed to have been flown past
<i>Alternate Names</i>	nextPosition
<i>Has Parts</i>	
<i>Is Part Of</i>	
<i>Data Type(s)</i>	Location
<i>Range of Values</i>	
<i>Business Rules</i>	
<i>Notes</i>	<ul style="list-style-type: none"> The lat/long provided in the TFMS nextPosition can be present in a (re)modeled route of flight and can therefore be present in a ncsmlRouteData for any message that caused the flight's route to be remodeled either due to a flight plan entering in the system (flightPlanInformation or ncsmlFlightScheduleActivate), a change in flight plan (some flightPlanAmendmentInformation or some boundaryCrossingUpdate), a flight route reconformance (trackInformation or oceanicInformation), or an internal TFMS event caused a flight's scheduled route to change (ncsmlFlightRoute).
<i>Reference</i>	<ul style="list-style-type: none"> FAA, Web Service Description Document Traffic Flow Management Data Service (TFMData) Revised Final, Revision 1.9, October 31, 2014

3.136 Traffic Flow Management System Reroute Identifier

Traffic Flow Management System Reroute Identifier	
<i>Definition</i>	Traffic Flow Management System generated unique identifier for the reroute.
<i>Alternate Names</i>	
<i>Has Parts</i>	
<i>Is Part Of</i>	Traffic Flow Management Reroute Information
<i>Data Type(s)</i>	Character String
<i>Range of Values</i>	
<i>Business Rules</i>	
<i>Notes</i>	Format is rr.{sitename}.{hostname}.{yyyyMMddhhmmss}
<i>Reference</i>	<ul style="list-style-type: none">CSC, System Wide Information Management (SWIM) Traffic Flow Management Data Service Web Service Description Document (WSDD) for Traffic Flow Management-Modernization (TFM-M), Revised Draft, Revision 1.3, Release 10, December 6, 2013

3.137 Traffic Flow Management System Reroute Inclusion Indicator

Traffic Flow Management System Reroute Inclusion Indicator	
<i>Definition</i>	Indicates whether the flight is included or proposed to be included in the traffic management reroute initiative.
<i>Alternate Names</i>	
<i>Has Parts</i>	
<i>Is Part Of</i>	Traffic Flow Management Reroute Information
<i>Data Type(s)</i>	Boolean
<i>Range of Values</i>	
<i>Business Rules</i>	
<i>Notes</i>	A flight captured in a reroute Traffic Management Initiative (TMI) may be manually excluded by traffic managers for various reasons.
<i>Reference</i>	<ul style="list-style-type: none">• CSC, System Wide Information Management (SWIM) Traffic Flow Management Data Service Web Service Description Document (WSDD) for Traffic Flow Management-Modernization (TFM-M), Revised Draft, Revision 1.3, Release 10, December 6, 2013

3.138 Traffic Flow Management System Reroute Name

Traffic Flow Management System Reroute Name	
<i>Definition</i>	Traffic Flow Management System assigned name for the reroute.
<i>Alternate Names</i>	
<i>Has Parts</i>	
<i>Is Part Of</i>	Traffic Flow Management Reroute Information
<i>Data Type(s)</i>	Character String
<i>Range of Values</i>	
<i>Business Rules</i>	
<i>Notes</i>	Format - up to 64 characters
<i>Reference</i>	<ul style="list-style-type: none"> CSC, System Wide Information Management (SWIM) Traffic Flow Management Data Service Web Service Description Document (WSDD) for Traffic Flow Management-Modernization (TFM-M), Revised Draft, Revision 1.3, Release 10, December 6, 2013

3.139 Traffic Flow Management System Reroute Protected Segment

Traffic Flow Management System Reroute Protected Segment	
<i>Definition</i>	All or a portion of the route string that is designated as the protected portion.
<i>Alternate Names</i>	
<i>Has Parts</i>	
<i>Is Part Of</i>	Traffic Flow Management Reroute Information
<i>Data Type(s)</i>	Character String
<i>Range of Values</i>	
<i>Business Rules</i>	<ul style="list-style-type: none"> • Up to 1000 characters • Route elements are separated by spaces • The protected segment must begin and end with a named fix or airport that falls on the route segment.
<i>Notes</i>	
<i>Reference</i>	<ul style="list-style-type: none"> • CSC, System Wide Information Management (SWIM) Traffic Flow Management Data Service Web Service Description Document (WSDD) for Traffic Flow Management-Modernization (TFM-M), Revised Draft, Revision 1.3, Release 10, December 6, 2013

3.140 Traffic Flow Management System Reroute Type

Traffic Flow Management System Reroute Type	
<i>Definition</i>	Route type of the assigned reroute.
<i>Alternate Names</i>	
<i>Has Parts</i>	
<i>Is Part Of</i>	Traffic Flow Management Reroute Information
<i>Data Type(s)</i>	Enumeration
<i>Range of Values</i>	<blank>, CDR RTE, RERTE, UPT RTE, UNKN RTE
<i>Business Rules</i>	
<i>Notes</i>	<p>Range of values (values based on selection made on the Traffic Situation Display (TSD):</p> <ul style="list-style-type: none"> • <blank> - blank entry (for EXPLICIT selection) • CDR RTE - Coded Departure Route (retrieved from the CDR db) • RERTE - Reroute (manually updated reroute) • UPT RTE - User Preferred Trajectory Route (user submitted early intent route) • UNKN RTE - Unknown Route
<i>Reference</i>	<ul style="list-style-type: none"> • CSC, System Wide Information Management (SWIM) Traffic Flow Management Data Service Web Service Description Document (WSDD) for Traffic Flow Management-Modernization (TFM-M), Revised Draft, Revision 1.3, Release 10, December 6, 2013

3.141 Traffic Flow Management System Route Type (New)

Traffic Flow Management System Route Type	
<i>Definition</i>	Provides the route type for a Departure Procedure or a Standard Instrument Arrival.
<i>Alternate Names</i>	routeType
<i>Has Parts</i>	
<i>Is Part Of</i>	
<i>Data Type(s)</i>	Enumeration
<i>Range of Values</i>	{AIRWAY, CODED_ROUTE, DIRECT, SID, STAR, AAR, ADR, ADAR, UNKNOWN, OTHER}
<i>Business Rules</i>	
<i>Notes</i>	
<i>Reference</i>	<ul style="list-style-type: none">FAA, Web Service Description Document Traffic Flow Management Data Service (TFMData) Revised Final, Revision 1.9, October 31, 2014

3.142 Traffic Flow Management System Standard Instrument Arrival Designator (New)

Traffic Flow Management System Standard Instrument Arrival Designator	
<i>Definition</i>	The textual designator of the Standard Instrument Arrival (STAR).
<i>Alternate Names</i>	STAR, Standard Terminal Arrival Route
<i>Has Parts</i>	
<i>Is Part Of</i>	
<i>Data Type(s)</i>	Character String
<i>Range of Values</i>	
<i>Business Rules</i>	<ul style="list-style-type: none"> The name of a published route that contains fix and leg elements that need to connect with the end of the enroute route elements and connect between that and the assigned landing runway at the airport. It would be expected the route elements of the identified STAR would be added to the enroute elements to complete the aircrafts overall expected routing to the landing runway.
<i>Notes</i>	<ul style="list-style-type: none"> A STAR is a designated instrument flight rule (IFR) arrival route linking a significant point, normally on an ATS route, with a point from which a published instrument approach procedure can be commenced. The elements of this part of the route are not expected to be filed as part of the flight plan submission but may be assigned at a later time and used to complete the route information between the en route elements and the airport runway. This element is identified & modelled in AIXM. For example, - FUL3A - a Standard Arrival beginning at designated point FUL.
<i>Reference</i>	<ul style="list-style-type: none"> FAA, Web Service Description Document Traffic Flow Management Data Service (TFMData) Revised Final, Revision 1.9, October 31, 2014

3.143 Trajectory Airspace Impact

Trajectory Airspace Impact	
<i>Definition</i>	Container for the list of constrained airspace areas to be traversed by the trajectory option.
<i>Alternate Names</i>	FCA
<i>Has Parts</i>	Airspace Identifier
<i>Is Part Of</i>	Trajectory Option Set
<i>Data Type(s)</i>	Array
<i>Range of Values</i>	
<i>Business Rules</i>	
<i>Notes</i>	<ul style="list-style-type: none">• This Array is composed of multiple Record data types<ul style="list-style-type: none">○ Record data type is composed of Airspace Identifier (Constrained Airspace data type) and Airspace Entry Time - Earliest (Date Time).
<i>Reference</i>	<ul style="list-style-type: none">• CSC, Traffic Flow Management System (TFMS) Collaborative Trajectory Options Program (CTOP) Interface Control Document (ICD) for the Traffic Flow Management-Modernization (TFM-M) Program, Final, version 3.2, July 2, 2013• FAA, Web Service Description Document Traffic Flow Management Data Service (TFMData) Revised Final, Revision 1.9, October 31, 2014

3.144 Trajectory Manual Override Status

Trajectory Manual Override Status	
<i>Definition</i>	An indication whether a trajectory was either selected manually by a traffic manager from the available trajectory options or was entered manually by a traffic manager.
<i>Alternate Names</i>	
<i>Has Parts</i>	
<i>Is Part Of</i>	Trajectory Option Set
<i>Data Type(s)</i>	Boolean
<i>Range of Values</i>	TRUE/FALSE
<i>Business Rules</i>	When not present, the assumed value is false
<i>Notes</i>	
<i>Reference</i>	<ul style="list-style-type: none">• CSC, Traffic Flow Management System (TFMS) Collaborative Trajectory Options Program (CTOP) Interface Control Document (ICD) for the Traffic Flow Management-Modernization (TFM-M) Program, Final, version 3.2, July 2, 2013• FAA, Web Service Description Document Traffic Flow Management Data Service (TFMData) Revised Final, Revision 1.9, October 31, 2014

3.145 Trajectory Minimum Notification Time

Trajectory Minimum Notification Time	
<i>Definition</i>	The minimum notification time, relative to off block departure time, the airspace user needs for a trajectory option to be assigned.
<i>Alternate Names</i>	Route Minimum Notification Time
<i>Has Parts</i>	
<i>Is Part Of</i>	Trajectory Option Set
<i>Data Type(s)</i>	Integer
<i>Range of Values</i>	
<i>Business Rules</i>	
<i>Notes</i>	<ul style="list-style-type: none">Expressed in minutes
<i>Reference</i>	<ul style="list-style-type: none">CSC, Traffic Flow Management System (TFMS) Collaborative Trajectory Options Program (CTOP) Interface Control Document (ICD) for the Traffic Flow Management-Modernization (TFM-M) Program, Final, version 3.2, July 2, 2013FAA, Web Service Description Document Traffic Flow Management Data Service (TFMData) Revised Final, Revision 1.9, October 31, 2014

3.146 Trajectory Option Set

Trajectory Option Set	
Definition	A container for information pertinent to a single trajectory option for a flight.
Alternate Names	Trajectory Option Data
Has Parts	Trajectory Total Cost, Trajectory Relative Cost, Trajectory Manual Override Status, Trajectory Minimum Notification Time, Trajectory Valid Start Time, Trajectory Valid End Time, Trajectory Airspace Impact
Is Part Of	Traffic Flow Management Collaborative Trajectory Options Program Information
Data Type(s)	Record
Range of Values	
Business Rules	
Notes	<ul style="list-style-type: none"> • This element is associated with the NAS Route data element which provides the route associated with a single trajectory option for a flight. • The core data elements Ranked 4D Trajectory Assignment Status, and Ranked 4D Trajectory Identifier provide the trajectory option assigned status and the trajectory option index.
Reference	<ul style="list-style-type: none"> • CSC, Traffic Flow Management System (TFMS) Collaborative Trajectory Options Program (CTOP) Interface Control Document (ICD) for the Traffic Flow Management-Modernization (TFM-M) Program, Final, version 3.2, July 2, 2013 • FAA, Web Service Description Document Traffic Flow Management Data Service (TFMData) Revised Final, Revision 1.9, October 31, 2014

3.147 Trajectory Option Set Sequence Number (New)

Trajectory Option Set Sequence Number	
<i>Definition</i>	Provides the sequence number for the Trajectory Option Set submitted by the airspace user.
<i>Alternate Names</i>	tosSeqNo, TOS_SEQ_NO
<i>Has Parts</i>	
<i>Is Part Of</i>	Traffic Flow Management Collaborative Trajectory Options Program Information
<i>Data Type(s)</i>	Numeric String
<i>Range of Values</i>	[1-999]
<i>Business Rules</i>	
<i>Notes</i>	<ul style="list-style-type: none">• It is a unique number for the flight.• It is included on every TFMS message that is based on the TOS data to allow the airspace user to verify that an update is based on the latest TOS.
<i>Reference</i>	<ul style="list-style-type: none">• FAA, Web Service Description Document Traffic Flow Management Data Service (TFMData) Revised Final, Revision 1.9, October 31, 2014

3.148 Trajectory Relative Cost

Trajectory Relative Cost	
<i>Definition</i>	The relative cost of the trajectory option as compared to another trajectory option.
<i>Alternate Names</i>	Relative Trajectory Cost, RTC
<i>Has Parts</i>	
<i>Is Part Of</i>	Trajectory Option Set
<i>Data Type(s)</i>	Integer
<i>Range of Values</i>	
<i>Business Rules</i>	
<i>Notes</i>	Expressed in minutes of delay
<i>Reference</i>	<ul style="list-style-type: none">• CSC, Traffic Flow Management System (TFMS) Collaborative Trajectory Options Program (CTOP) Interface Control Document (ICD) for the Traffic Flow Management-Modernization (TFM-M) Program, Final, version 3.2, July 2, 2013• FAA, Web Service Description Document Traffic Flow Management Data Service (TFMData) Revised Final, Revision 1.9, October 31, 2014

3.149 Trajectory Source (New)

Trajectory Source	
<i>Definition</i>	The source of the trajectory data used by the Traffic Flow Management System for a flight as part of Collaborative Trajectory Options Program allocation.
<i>Alternate Names</i>	trajSource
<i>Has Parts</i>	
<i>Is Part Of</i>	Traffic Flow Management Collaborative Trajectory Options Program Information
<i>Data Type(s)</i>	Enumeration
<i>Range of Values</i>	{FILED_FLIGHT_PLAN, CTOP_ASSIGNED, CTOP_MANUAL_ASSIGNED, TOS_OPTION, TFMS_REROUTE, EARLY_INTENT, HISTORICAL_ROUTE, DIRECT_ROUTE, CTOP_ASSIGNED_MODEL, CTOP_MANUAL_ASSIGNED_MODEL}
<i>Business Rules</i>	
<i>Notes</i>	
<i>Reference</i>	<ul style="list-style-type: none">FAA, Web Service Description Document Traffic Flow Management Data Service (TFMData) Revised Final, Revision 1.9, October 31, 2014

3.150 Trajectory Total Cost

Trajectory Total Cost	
<i>Definition</i>	The total cost the flight would incur if this were the assigned trajectory option. It includes the Trajectory Relative Cost and the Traffic Flow Management assigned delay for this trajectory option.
<i>Alternate Names</i>	Adjusted Cost
<i>Has Parts</i>	
<i>Is Part Of</i>	Trajectory Option Set
<i>Data Type(s)</i>	Integer
<i>Range of Values</i>	
<i>Business Rules</i>	
<i>Notes</i>	<ul style="list-style-type: none"> Expressed in minutes of delay Calculated as the TRC (Trajectory Relative Cost) plus the additional issued Traffic Flow Management delay for this trajectory option.
<i>Reference</i>	<ul style="list-style-type: none"> CSC, Traffic Flow Management System (TFMS) Collaborative Trajectory Options Program (CTOP) Interface Control Document (ICD) for the Traffic Flow Management-Modernization (TFM-M) Program, Final, version 3.2, July 2, 2013 FAA, Web Service Description Document Traffic Flow Management Data Service (TFMData) Revised Final, Revision 1.9, October 31, 2014

3.151 Trajectory Valid End Time

Trajectory Valid End Time	
<i>Definition</i>	The latest runway departure time for which this trajectory can be used by this flight.
<i>Alternate Names</i>	Trajectory Valid End Time
<i>Has Parts</i>	
<i>Is Part Of</i>	Trajectory Option Set
<i>Data Type(s)</i>	Date Time
<i>Range of Values</i>	
<i>Business Rules</i>	
<i>Notes</i>	
<i>Reference</i>	<ul style="list-style-type: none">• CSC, Traffic Flow Management System (TFMS) Collaborative Trajectory Options Program (CTOP) Interface Control Document (ICD) for the Traffic Flow Management-Modernization (TFM-M) Program, Final, version 3.2, July 2, 2013• FAA, Web Service Description Document Traffic Flow Management Data Service (TFMData) Revised Final, Revision 1.9, October 31, 2014

3.152 Trajectory Valid Start Time

Trajectory Valid Start Time	
<i>Definition</i>	The earliest runway departure time for which this trajectory can be used by this flight.
<i>Alternate Names</i>	Trajectory Valid Start Time
<i>Has Parts</i>	
<i>Is Part Of</i>	Trajectory Option Set
<i>Data Type(s)</i>	Date Time
<i>Range of Values</i>	
<i>Business Rules</i>	
<i>Notes</i>	
<i>Reference</i>	<ul style="list-style-type: none">• CSC, Traffic Flow Management System (TFMS) Collaborative Trajectory Options Program (CTOP) Interface Control Document (ICD) for the Traffic Flow Management-Modernization (TFM-M) Program, Final, version 3.2, July 2, 2013• FAA, Web Service Description Document Traffic Flow Management Data Service (TFMData) Revised Final, Revision 1.9, October 31, 2014

3.153 Wake Turbulence Category - NAS

Wake Turbulence Category - NAS	
Definition	NAS classification of the aircraft wake turbulence, based on wingspan and Maximum Takeoff Weight (MTOW).
Alternate Names	Wake Turbulence
Has Parts	
Is Part Of	
Data Type(s)	Enumeration
Range of Values	{A, B, C, D, E, F}
Business Rules	
Notes	<ul style="list-style-type: none"> • AIRCRAFT WAKE CATEGORIES. For the purposes of Wake Turbulence Separation Minima, aircraft are categorized as Category A through Category F. Each aircraft is assigned a category based on wingspan and maximum takeoff weight (MTOW). <ul style="list-style-type: none"> ○ Category A - Aircraft capable of MTOW of 300,000 pounds or more and a wingspan greater than 245 feet. ○ Category B - Aircraft capable of MTOW of 300,000 pounds or more and a wingspan greater than 175 feet and less than or equal to 245 feet. ○ Category C – Aircraft capable of a MTOW of 300,000 pounds or more and a wingspan greater than 125 feet and less than or equal to 175 feet. ○ Category D – Aircraft capable of a MTOW of less than 300,000 pounds and a wingspan greater than 125 feet and less than or equal to 175 feet, or aircraft with a wingspan greater than 90 feet and less than or equal to 125 feet. ○ Category E – Aircraft capable of a MTOW greater than 41,000 pounds with a wingspan greater than 65 feet and less than or equal to 90 feet. ○ Category F – Aircraft capable of a MTOW of less than 41,000 pounds and a wingspan less than or equal to 125 feet, or aircraft capable of a MTOW less than 15,500 pounds regardless of wingspan, or a powered sailplane.
Reference	<ul style="list-style-type: none"> • FAA Notice N JO 7110.608, November 1, 2012

3.154 Yielded Slot Indicator

Yielded Slot Indicator	
<i>Definition</i>	Indicates the slot currently specified in "Runway Arrival Time - Controlled" is to be given up by the Airspace User in return for a later slot.
<i>Alternate Names</i>	Yielded Slot
<i>Has Parts</i>	
<i>Is Part Of</i>	
<i>Data Type(s)</i>	Boolean
<i>Range of Values</i>	
<i>Business Rules</i>	
<i>Notes</i>	<ul style="list-style-type: none">• In a NAS Traffic Management Initiative [Ground Delay Program (GDP)/Airspace Flow Program (AFP)], when an arrival delay at an airport is implemented, the Traffic Flow Management System (TFMS) allocates the airport capacity into arrival slots spaced out to achieve the desired acceptance rate to handle the traffic demand.• An Airspace User can ask to give up a slot in return for a later slot.
<i>Reference</i>	<ul style="list-style-type: none">• K. Howard, CDM Message Formats, Version 2.2, Volpe NTSC (USDOT RITA) Memorandum, 3 November 2005.

Acronym List

Acronym	Definitions
4D	Four Dimensional
AAR	Adapted Arrival Route
ABRG	Adaptive Compression Bridging
ADAR	Adapted Departure Arrival Route
ADC	Advise Customs
ADCUS	Advise Customs
ADL	Aggregate Demand List
ADPT	Adaptive Compression
ADR	Adapted Departure Route
ADS-B	Automatic Dependent Surveillance- Broadcast
AFP	Airspace Flow Program
AIXM	Aeronautical Information Exchange Model
ALTRV	Altitude Reservation
AMA	Airport Movement Area
AMH	Aviation Structural Mechanic (Hydraulics)
ANSP	Air Navigation Service Provider
AOCNET	Airline Operations Center Network
ARPT	Airport
ARR	Arrival
ARR	Airport Acceptance Rate or Airport Arrival Rate
ARTCC	Air Route Traffic Control Center
ARTS	Automated Radar Terminal System
ASCII	American Standard Code for Information Interchange
ASDI	Aircraft Situation Display to Industry
ASLOT	Arrival Slot
ATC	Air Traffic Control
ATCT	Air Traffic Control Tower
ATM	Air Traffic Management
ATO	Air Traffic Organization
ATS	Air Traffic Services
ATSU	Air Traffic Service Unit
ATV	Altitude Reservation
BLKT	Blanket; (a type of control applied to all flights that are part of a specific ground delay program)
BRG	SCS Bridge Event
CDM	Collaborative Decision Making
CDR	Coded Departure Route
CID	Computer Identification

CMS	Common Message Set
COMP	Compression
ConOps	Concept of Operations
CSC	Computer Sciences Corporation
CTA	Controlled Time of Arrival
CTAS	Center-TRACON Automation System
CTD	Control Time of Departure
CTL	Control
CTOP	Collaborative Trajectory Options Program
DAS	Delay Assignment
DD	Data Dictionary
DEP	Departure
DME	Distance Measuring Equipment
DOT	Department of Transportation
DP	Departure Procedure
DVFR	Defense Visual Flight Rules
DVRSN	Diversion
DVT	Diversion Recovery Flight
ECID	En Route Automation Modernization Computer Identification
ECR	EDCT Change Request (Expert Departure Clearance Time)
EDCT	Estimated Departure Clearance Time
ERAM	En Route Automation Modernization
ERAM CID	En Route Automation Modernization Computer Identification
ERTA	Earliest Runway Time of Arrival
ERTD	Earliest Runway Time of Departure
ETA	Estimated Time of Arrival
ETD	Estimated Time of Departure
ETMS	Enhanced Traffic Management System
FAV	Fixed Airspace Volume
FC	Flight Plan Create Message (airline)
FCA	Flow Constrained Area
FDB	Flight Plan Data Bank
FDE	Flight Data Element
FEA	Flow Evaluation Area
FIXM	Flight Information Exchange Model
FM	Flight Plan Modification Message
FRD	Fix Radial Distance
FTM	Flight Training Manual
GAAP	General Aviation Airport Program
GDP	Ground Delay Program
GNSS	Global Navigation Satellite System

GPS	Global Positioning System
GS	Ground Stop
GUFI	Globally Unique Flight Identifier
HAR	High Altitude Redesign Fixes
Hg	Mercury
hPa	Hectopascal
IAS	Indicated Airspeed
ICAO	International Civil Aviation Organization
ICD	Interface Control Document
ID	Identification
IFR	Instrument Flight Rules
IGTD	Initial Gate Time of Departure
IPOP	Intermediate Point of Presence
LFG	Lifeguard
LRTA	Latest Runway Time of Arrival
LRTD	Latest Runway Time of Departure
MTOW	Maximum Take Off Weight
NAS	National Airspace System
NRP	National Route Program
NTSC	National Transportation Systems Center
OAG	Official Airline Guide
ODAPS	Oceanic Display and Planning System
PANS	Procedures for Air Navigation Services
PTP	Point to Point
RCTL	Re-controlled Control Times
RITA	Research and Innovation Technology Administration
RNAV	Area Navigation
RNP	Required Navigation Performance
RTC	Relative Trajectory Relative Cost
RVSM	Reduced Vertical Separation Minima
SAI	Special Aircraft Indicator
SBRG	SCS Bridge Event (Slot Credit Substitution)
SCS	Slot Credit Substitution
SFDPS	SWIM Flight Data Publication Service
SGTA	Scheduled Gate Time of Arrival
SGTD	Scheduled Gate Time of Departure
SID	Standard Instrument Departure
SSPID	Site Specific Plan Identifier
SSR	Secondary Surveillance Radar
STAR	Standard Terminal Arrival Route
STDDS	System Wide Information Management (SWIM) Terminal Data Distribution System

SUA	Special Use Airspace
SWAP	Severe Weather Avoidance Plan
SWIM	System Wide Information Management System
SWP	Swap
TACAN	Tactical Air Navigation Aid
TCAS	Traffic Collision Avoidance System
TFDM	Terminal Flight Data Manager
TFM-M	Traffic Flow Management - Modernization
TFMS	Traffic Flow Management System
TMAT	Target Movement Area Entry Time
TMI	Traffic Management Initiative
TOS	Trajectory Option Set
U.S.	United States
UBRG	Unassigned Slot Compression
UDP	Unified GDP (Ground Delay Program)
UPT	User Preferred Trajectory
UTC	Coordinated Universal Time
VFR	Visual Flight Rules
VNTSC	Volpe National Transportation Systems Center
WSDD	Web Service Description Document
WXRTE	Weather Reroute
WXXM	Weather Information Exchange Model
XML	Extensible Markup Language