

**DEPARTMENT OF TRANSPORTATION  
BUREAU OF TRANSPORTATION STATISTICS  
OFFICE OF AIRLINE INFORMATION**

**TITLE 14 CODE OF FEDERAL REGULATIONS PARTS 234  
TECHNICAL REPORTING DIRECTIVE #27 – ON-TIME PERFORMANCE**

ISSUE DATE: August 15, 2017

EFFECTIVE DATE: January 1, 2018

**The Bureau of Transportation Statistics (BTS) is issuing this Technical Reporting Directive to update the lists of reporting air carriers and reportable airports, and to provide instructions for carriers to report On-Time Performance data for codeshare flights that they market.**

On November 3, 2016, the Department of Transportation (DOT or Department) published a Final Rule “*Enhancing Airline Passenger Protections III*”, Docket No. DOT-OST-2014-0056, 81 FR 76826. For air transportation carried out on or after January 1, 2018, the Final Rule lowered the reporting carrier threshold for On-Time Performance and Passengers Denied Confirmed Space from at least 1 percent of Industry Scheduled-Service Domestic Passenger Revenues to at least (0.5) percent. The Final Rule also expanded the Reportable Airports for On-Time Performance from the top 30 U.S. airports based on annual enplanements to any U.S. large, medium, small or non-hub airport as defined in 49 U.S.C. 47102. The Final Rule further requires reporting carriers that market domestic scheduled codeshare flights to file separate On-Time Performance and Passengers Denied Confirmed Space reports for codeshare flights held out with only one U.S. carrier’s code.

Mishandled Baggage reports are also affected by this Final Rule and another Final Rule issued on November 2, 2016 (*Reporting of Data for Mishandled Baggage and Wheelchairs and Scooters Transported in Aircraft Cargo Compartments*, Docket No. DOT-RITA-2011-0001, 81 FR 76300), but changes to reporting Mishandled Baggage do not take effect until January 1, 2019.

BTS plans to issue separate Technical Reporting Directives to provide instructions for carriers to report oversales and mishandled baggage reports.

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## **I. Introduction**

Part 234 of the U.S. Department of Transportation's (Department's) Regulations, *Airline Service Quality Performance Reports (ASQP)* requires certain U.S. air carriers to submit scheduled flight performance data and mishandled-baggage information to the Department, and to provide on-time performance codes to Computer Reservation System (CRS) vendors. These data are used to monitor each carrier's on-time performance and baggage handling, and to provide information to consumers. The scheduled flight performance data are filed electronically. The mishandled-baggage information is submitted as a one-page report with the required certification and transmittal letter. The on-time performance codes are filed with the Department and supplied to CRS vendors in accordance with the procedures set forth in §§ 234.8 and 234.9 and in this Technical Directive.

## **II. Applicability**

1. Each reporting air carrier providing scheduled domestic passenger operations at a reportable airport will file "On-Time Flight Performance data" if its share of the industry's total domestic scheduled-service passenger revenues exceed half of one percent (0.5), based on Form 41 data for the 12 months ended December 31. Each year the Office of Airline Information updates the list of reporting air carriers.

**2. For calendar year 2018, there are 18 air carriers that reached the reporting threshold of \$453,130,000 in domestic scheduled passenger revenues (0.5 percent of total domestic scheduled-service passenger revenues). The revenues were measured for the 12-month period ending December 31, 2016. These carriers must submit on-time performance data to the Department for calendar year 2018.**

## REPORTING AIR CARRIERS

Alaska  
Allegiant  
American  
Delta  
Endeavor  
Envoy  
ExpressJet  
Frontier  
Hawaiian  
JetBlue  
Mesa  
PSA  
Republic  
SkyWest  
Southwest  
Spirit  
United  
Virgin America

3. The reportable airports with respect to which data must be submitted to the Department are those large, medium, small, or non-hub airports as defined in 49 U.S.C. 47102. Airports can be accessed through the FAA at the below link:

[https://www.faa.gov/airports/planning\\_capacity/passenger\\_allcargo\\_stats/categories/](https://www.faa.gov/airports/planning_capacity/passenger_allcargo_stats/categories/)

4. The reportable flight operations for which data must be submitted to the Department are (1) all scheduled nonstop domestic passenger operations, including a mechanically delayed flight, to or from any reportable airport, operated by a reporting air carrier to or from any reportable airport; and (2) all scheduled nonstop domestic passenger operations, including a mechanically delayed flight, to or from any reportable airport, operated by a codeshare partner of the reporting carrier's, and marketed under only one U.S. carrier's (the reporting carrier's) code. **However, non-reportable passenger flights that experience over 3-hour tarmac times at U.S. airports that are not reported in Part 234 are subject to Part 244 reporting requirements, See Accounting and Reporting Directive No. 303A:**

<https://www.bts.gov/topics/airlines-and-airports/accounting-and-reporting-directives>

5. Any carrier not included in paragraph II.2 of this Technical Directive may voluntarily become a reporting carrier and submit Form 234 for its reportable flights for every nonstop domestic passenger flight it holds out to the public pursuant to a published schedule, provided that the Director, Office of Airline Information (OAI) is advised beforehand. Such voluntary data must be submitted for a minimum of 12 consecutive months. The voluntary submission must meet the exact reporting specifications set forth in this directive. Volunteering carriers that wish to discontinue reporting after one year must advise the Director, OAI, a minimum of 30 days

before discontinuance, so that the necessary changes can be made to the Department's data programs.

Changes in reporting air carriers will be made as necessary by the Director, OAI under authority delegated in §§ 385.19 of the Department's regulations.

### **III. Reporting of On-Time Performance**

#### **1. Definitions**

Definitions used in this directive include those in § 234.2 as well as the following:

(1). **'CRS'** means a computerized reservation system offered to subscribers for use in the United States that contains information about schedules, fares, rules or availability of carriers and provides subscribers with the ability to make reservations if it charges any carrier a fee for system services. It does not mean direct connections between a ticket agent and the internal reservations systems of an individual carrier.

(2). **'Domestic operation'** means a flight operation within or between the 50 states of the United States, the District of Columbia, the Commonwealth of Puerto Rico and the U.S. Virgin Islands, and the territories and possessions of the United States. Transborder operations are not included.

(3). **'Flight'** for purposes of the data to be reported to the Department, means one or more scheduled nonstop operations identified by a specific flight number in conjunction with a specific origin-destination city-pair designation; e.g., flight 102 DCA-ATL-MIA includes two separate flights (DCA-ATL, ATL-MIA).

(4). **'Flight for the purposes of CRS disclosure'**, means nonstop operations as defined above, plus scheduled one-stop and multi-stop operations identified by a specific flight number in conjunction with a specific origin-destination city-pair designation; e.g., flight 102 DCA-ATL-MIA includes three separate flights for purposes of CRS disclosure (DCA-ATL, ATL-MIA, DCA-MIA).

(5). **'Flight operation'** means a specific operation of a given flight on a given day; e.g., if flight 102 DCA-ATL operated daily during the month of July, then it had 31 flight operations in July.

(6). **'Gate arrival time'** is the instance when the pilot sets the aircraft parking brake after arriving at the airport gate or passenger unloading area. If the parking brake is not set, record the time for the opening of the passenger door. Also, carriers using a Docking Guidance System (DGS) may record the official "gate-arrival time" when the aircraft is stopped at the appropriate parking mark.

(7). **'Gate departure time'** is the instance when the pilot releases the aircraft parking brake after passengers have loaded and aircraft doors have been closed. In cases where the flight returned to the departure gate before wheels-off time and departed a second time, report the last gate departure time before wheels-off time. In cases of an air return, report the last gate departure time before the gate return. If passengers were boarded without the parking brake being set, record the time that the passenger door was closed. Also, carriers using a Docking Guidance System may record the official "gate-departure time" based on aircraft movement. For example, one DGS records gate departure time when the aircraft moves more than 1 meter from the appropriate parking mark within 15 seconds. Fifteen seconds is then subtracted from the recorded time to obtain the appropriate out time.

(8). **'Gate Return'** aircraft leaves the boarding gate only to return to a gate for the purpose of allowing passengers to de-board the aircraft.

## **2. Data Requirements for DOT On-Time Disclosure Reports**

(1). Each reporting air carrier will file Form 234 for each calendar month. Each report will include all nonstop domestic passenger scheduled flight operation operated or marketed by the reporting carrier that serve one or more of the reportable airports.

(2). For each nonstop flight operation serving a reportable airport, the following data elements will be reported<sup>1</sup>:

- A, A1, A2, A3. Carrier Code(s) (Two Letter Code as set forth in section III-3b(2) of this directive)
- B, B1, B2, B3. Flight Number(s) (as set forth in section III-3b(2) of this directive)
- C. Departure Airport (Three-Letter Code)
- D. Arrival Airport (Three-Letter Code)
- E. Date of Flight Operation (Year/Month/Day)
- F. Day of Week of this Flight Operation (Monday = 1...Sunday = 7)
- G. Scheduled Departure Time as Shown in the Official Airline Guide (OAG) Pursuant to § 234.4(a)(4)
- H. Scheduled Departure Time as Shown in CRS Selected by the Carrier as its Data Source Pursuant to § 234.4(a)(5)
- I. Gate Departure Time (Actual) in Local Time (For gate-returns, and air returns record the last time away from gate before wheels-off time.)
- J. Scheduled Arrival Time as Shown in the OAG
- K. Scheduled Arrival Time as Shown in CRS
- L. Gate Arrival Time (Actual) in Local Time (Complete this field for all flights that reach their scheduled destination airport – otherwise, report NO data between the commas separating the fields)
- M. Difference in Minutes between OAG and Scheduled Departure Time: G minus H

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<sup>1</sup> For the purposes of forms 3A and 3B in Section III.3.b.(2) of this document, marketing carriers following the July 2017 Office of Aviation Enforcement and Proceedings (OAEP) Enforcement Policy must provide schedule information related to the originally scheduled flight that was not operated and subject to the swap in the specific fields detailed in the footnotes to forms 3A and 3B. (See footnotes 8 and 10)

- N. Difference in Minutes between OAG and Scheduled Arrival Time: J minus K
- O. Scheduled Elapsed Time per CRS in Minutes: K minus H
- P. Actual Gate to Gate Time in Minutes: L minus I (Complete this field for all flights that reach their scheduled destination airport – otherwise, report NO data between the commas separating the fields)
- Q. Departure Delay (Difference in Minutes Between Actual Departure Time and CRS Scheduled Departure Time): I minus H
- R. Arrival Delay (Difference in Minutes between Actual Arrival Time and CRS Scheduled Arrival Time): L minus K (Complete this field for all flights that reach their scheduled destination airport – otherwise, report NO data between the commas separating the fields)
- S. Elapsed Time Difference (Difference in Minutes between Actual Elapsed Time and CRS Scheduled Elapsed Time): P minus O (Complete this field for all flights that reach their scheduled destination airport – otherwise, report NO data between the commas separating the fields)
- T. Wheels-Off Time (Actual) in Local Time – otherwise; report NO data between the commas separating the fields
- U. Wheels-On Time (Actual) in Local Time (Complete this field for all flights that reach their scheduled destination airport – otherwise, report NO data between the commas separating the fields)
- V. Aircraft Tail Number (It is the Aircraft Tail Number with the Gate Departure Time populated in field I – otherwise, report NO data between the commas separating the fields)
- W. Cancellation Code – otherwise, report NO data between the commas separating the fields
- X. Minutes late for delay code E – otherwise, report NO data between the commas separating the fields
- Y. Minutes late for delay code F – otherwise, report NO data between the commas separating the fields
- Z. Minutes late for delay code G – otherwise, report NO data between the commas separating the fields
- AA. Minutes late for delay code H – otherwise, report NO data between the commas separating the fields
- AB. Minutes late for delay code I – otherwise, report NO data between the commas separating the fields
- AC. First Gate Departure Time at Origin Airport (For Gate returns and canceled flights – otherwise, report NO data between the commas separating the fields)
- AD. Total Ground Time Away from Gate (Report only flights that experience gate returns at the origin airport, including canceled flights – actual minutes. Do not include the time from last gate-departure to wheels-off – otherwise; report NO data between the commas separating the fields)
- AE. Longest Time Away from Gate for Gate Return or Canceled Flight (Do not include the time from last gate-departure to wheels-off – otherwise, report NO data between the commas separating the fields)

- AF. Number of landings at Diverted Airports (Maximum of 5 diverted landings, the # 9 signifies an air return where the flight was ultimately canceled – otherwise, report NO data between the commas separating the fields)
- AG. Three letter Code of Airport where Diverted Flight Landed – otherwise, report NO data between the commas separating the fields
- AH. Wheels-on Time at Diverted Airport – otherwise, report NO data between the commas separating the fields
- AI. Total Time Away from Gate at Diverted Airport – otherwise, report NO data between the commas separating the fields
- AJ. Longest Time Away from Gate at Diverted Airport – otherwise, report NO data between the commas separating the fields
- AK. Wheels-off Time at Diverted Airport AG Three letter Code of Airport where Diverted Flight Landed – otherwise, report NO data between the commas separating the fields
- AL. Aircraft Tail Number (the Aircraft with Wheels-off Time populated in field AK – otherwise, report NO data between the commas separating the fields)
- AM. Three letter Code of Airport where Diverted Flight Landed – otherwise, report NO data between the commas separating the fields
- AN. Wheels-on Time at Diverted Airport – otherwise; report NO data between the commas separating the fields
- AO. Total Time Away from Gate at Diverted Airport – otherwise, report NO data between the commas separating the fields
- AP. Longest Time Away from Gate at Diverted Airport – otherwise, report NO data between the commas separating the fields
- AQ. Wheels-off Time at Diverted Airport AM Three letter Code of Airport where Diverted Flight Landed – otherwise, report NO data between the commas separating the fields
- AR. Aircraft Tail Number (the Aircraft with Wheels-off Time populated in field AQ – otherwise, report NO data between the commas separating the fields)
- AS. Three letter Code of Airport where Diverted Flight Landed – otherwise, report NO data between the commas separating the fields
- AT. Wheels-on Time at Diverted Airport – otherwise, report NO data between the commas separating the fields
- AU. Total Time Away from Gate at Diverted Airport – otherwise, report NO data between the commas separating the fields
- AV. Longest Time Away from Gate at Diverted Airport – otherwise, report NO data between the commas separating the fields
- AW. Wheels-off Time at Diverted Airport – otherwise, report NO data between the commas separating the fields
- AX. Aircraft Tail Number (the Aircraft with Wheels-off Time populated in field AW – otherwise, report NO data between the commas separating the fields)

- AY. Three letter Code of Airport where Diverted Flight Landed – otherwise, report NO data between the commas separating the fields
- AZ. Wheels-on Time at Diverted Airport – otherwise; report NO data between the commas separating the fields
- BA. Total Time Away from Gate at Diverted Airport – otherwise, report NO data between the commas separating the fields
- BB. Longest Time Away from Gate at Diverted Airport – otherwise, report NO data between the commas separating the fields
- BC. Wheels-off Time at Diverted Airport – otherwise, report NO data between the commas separating the fields
- BD. Aircraft Tail Number (the Aircraft with Wheels-off Time populated in field BC – otherwise, report NO data between the commas separating the fields)
- BE. Three letter Code of Airport where Diverted Flight Landed – otherwise, report NO data between the commas separating the fields
- BF. Wheels-on Time at Diverted Airport – otherwise, report NO data between the commas separating the fields
- BG. Total Time Away from Gate at Diverted Airport – otherwise, report NO data between the commas separating the fields
- BH. Longest Time Away from Gate at Diverted Airport – otherwise, report NO data between the commas separating the fields
- BI. Wheels-off Time at Diverted Airport (populate the last “Wheels-off Time at Diverted Airport” field only in cases where the diverted flight reached the final destination of the scheduled destination airport – otherwise, report NO data between the commas separating the fields)
- BJ. Aircraft Tail Number (populate this field if Wheels-off Time is populated in field BI – otherwise, report NO data between the commas separating the fields)

***CANCELLATION CODES***

- A-Carrier Caused
- B-Weather
- C-National Aviation System
- D-Security

***DELAY CODES***

- E-Carrier Caused
- F-Weather
- G-National Aviation System
- H-Security
- I-Late Arriving Aircraft

(3). The data format for the elements listed in paragraph 2 above will comply exactly with either one of two flight record field specifications set forth in the following section “3.a.(18) Reporting Numeric Data.”

**3.a. Report Format and Instructions for On-Time Disclosure Reports.**

(1). All scheduled and actual arrival and departure times will be reported in local time using a 24-hour clock; e.g., 3:15 p.m. will be 1515, midnight is 2400, and one minute after midnight is 0001. In using local time, the reporting carrier must adjust for time zone differences in computing data elements O, P, and S.

(2). Times should be reported in whole minutes; e.g., two hours equals 120 minutes.

(3). Flight operations that begin and end in different months will be reported in the month in which they begin.

(4). Extra-section<sup>2</sup>, nonscheduled and charter flights will not be reported **in Part 234 but are subject to the reporting requirements of Part 244, See Accounting and Reporting Directive No. 303A:**

<https://www.bts.gov/topics/airlines-and-airports/accounting-and-reporting-directives>

(5). **Gate Returns are reported by:**

Entering the time of the last gate departure before wheels-off time in field I Gate Departure Time;

Entering the time of the first gate departure in field AC First Gate Departure Time at Origin Airport;

Entering the appropriate minutes for AD Total Time Away from Gate and entering the appropriate minutes for AE Longest Time Away from Gate.

**Note: Carriers are not required to submit data on “gate returns” of 5 minutes or less.**

(6). **Canceled Flight information will be incorporated in the appropriate fields<sup>3</sup> by:**

entering NO data between the commas separating the fields in the data field I (Gate Departure Time), if the flight is canceled after gate departure, record the appropriate gate departure time in Field I;

Entering NO data between the commas separating the fields in data field L (Gate Arrival Time);

entering NO data between the commas separating the fields in data field T (Wheels-Off Time), if the flight is canceled after an air return to the origin airport, record the appropriate wheels-off time in Field T, record a 9 in Field AF and complete Fields AG Three Letter Code of Airport of Diverted Airport (in this case the origin airport), AH Wheels-on Time at Diverted Airport, AI Total Time Away from Gate at Diverted Airport, and AJ Longest Time Away from Gate at Diverted Airport;

and entering NO data between the commas separating the fields in data field U (Wheels-On Time).

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<sup>2</sup> A marketing carrier following the July 2017 OAEP Enforcement Policy must report using Form 3A a flight that meets the definition of “extra-section flight” in 14 CFR 234.4 that is operated due to a Codeshare Swap (See Attachment 1: Flow Chart)

<sup>3</sup> A marketing carrier following the July 2017 OAEP Enforcement Policy would not submit a Form 234 for a flight operation that was cancelled (and that did not leave the gate) and that was the subject of a Codeshare Swap so long as the carrier meets the conditions of the policy (See Attachment 1: Flow Chart)

The aircraft tail number must be reported for canceled flights; however, when a flight has been canceled before a specific aircraft has been assigned to that flight, you would enter NO data between the commas separating the fields in field V (Aircraft Tail Number).

The total number of canceled flights in a month, equal the number of flights with blanks in Field T (Wheels-off Time) plus the number of flights with a 9 reported in Field AF (Number of Diverted Landings).

**(7). For flights that are canceled after ground gate return:**

You would also enter the appropriate times in Fields AC First Gate Departure Time at Origin Airport, AD Total Time Away from Gate, and AE Longest Time Away from Gate, and Field Q Departure Delay Time.

**(8). Information on flights, which operated but were diverted to an alternate destination, will be incorporated in the appropriate flight record for the diverted flight operation by:**

entering the number of diverted landings in field AF Number of Diverted Landings (maximum of 5 diversions);

entering NO data between the commas separating the fields in fields L, P, R, S, U for all the diverted flights that are not reached in the scheduled destination;

entering the three-letter code of the diverted airport in field AG Three Letter Code of Diverted Airport;

entering the wheels-on time in field AH Wheels-on Time at Diverted Airport;

entering the appropriate minutes in field AI Total Time Away from Gate at Diverted Airport;

entering the appropriate minutes in field AJ Longest Time Away from Gate at Diverted Airport;

entering the wheels-off time at Diverted Airport, AK Wheels-off Time at Diverted Airport;

entering the aircraft tail number in Field AL Aircraft Tail Number; and entering the appropriate data in fields L Gate Arrival Time, P Actual Gate-to-Gate Time, R Arrival Delay Time, S Elapsed Time Difference, and U Wheels-On Time when a diverted flight reaches its scheduled destination.

**(9). Air Return – Flight not cancelled**

**Treat as a diverted flight by:**

entering the number of diverted landings in field AF Number of Diverted Landings (If carrier experienced one air return then continued to its final destination, there would be 1 diverted landing).

entering the three-letter code of the diverted airport (in this case the origin airport code) in field AG Three Letter Code of Diverted Airport;

entering the wheels-on time in field AH Wheels-on Time at Diverted Airport;

entering the appropriate minutes in field AI Total Time Away from Gate at Diverted Airport;

entering the appropriate minutes in field AJ Longest Time Away from Gate at Diverted Airport;

entering the wheels-off time at Diverted Airport, AK Wheels-off Time at Diverted Airport;

entering the aircraft tail number in Field AL Aircraft Tail Number if the wheels-off time is populated in field AK; and

entering the appropriate data in fields L Gate Arrival Time, P Actual Gate-to-Gate Time, R Arrival Delay Time, S Elapsed Time Difference, and U Wheels-On Time when a diverted flight reaches its scheduled destination.

**(10). Air Return – Then after departing a second time, the flight is again diverted**

**Treat as two diverted flights by:**

entering 2 in field AF Number of Diverted Landings;

entering the three-letter code of the diverted airport (in this case the origin airport code) in field AG Three Letter Code of Diverted Airport;

entering the wheels-on time in field AH Wheels-on Time at Diverted Airport;

entering the appropriate minutes in field AI Total Time Away from Gate at Diverted Airport;

entering the appropriate minutes in field AJ Longest Time Away from Gate at Diverted Airport;

entering the wheels-off time at Diverted Airport, AK Wheels-off Time at Diverted Airport;

entering the aircraft tail number in Field AL Aircraft Tail Number;

entering the airport code of the diverted airport in field AM Three Letter Code of Diverted Airport;

entering the wheels-on time in field AN Wheels-on Time at Diverted Airport;

entering the appropriate minutes in field AO Total Time Away from Gate at Diverted Airport;  
entering the appropriate minutes in field AP Longest Time Away from Gate at Diverted Airport;  
entering the wheels-off time at Diverted Airport, AQ Wheels-off Time at Diverted Airport,  
entering the aircraft tail number in Field AR Aircraft Tail Number; and  
entering the appropriate data in fields L Gate Arrival Time, P Actual Gate-to-Gate Time, R Arrival Delay Time, S Elapsed Time Difference, and U Wheels-On Time when a diverted flight reaches its scheduled destination.

**(11). Diversions that overfly the scheduled destination and land at the next scheduled point on the routing.** For example, a carrier has a flight routing DCA-ATL-MIA. ATL has severe weather and the flight overflies ATL and continues to MIA.

Report the DCA-ATL segment as a diverted flight as follows:

entering 1 in field AF Number of Diverted Landings;  
entering MIA in field AG Three Letter Code of Diverted Airport;  
entering the wheels-on time at MIA in field AH Wheels-on Time at Diverted Airport;  
entering the appropriate minutes that the aircraft was away from the gate in MIA in field AI Total Time Away from Gate at Diverted Airport;  
entering the appropriate minutes in field AJ Longest Time Away from Gate at Diverted Airport;  
entering NO data between the commas separating the fields for field L Gate Arrival Time (Actual); and  
entering NO data between the commas separating the fields for field U Wheels-On Time (Actual).

Report the ATL-MIA segment as a canceled flight by:

entering NO data between the commas separating the fields in the data field I (Gate Departure Time);  
entering NO data between the commas separating the fields in data field L Gate Arrival Time;  
entering NO data between the commas separating the fields in data field T Wheels-Off Time;  
entering NO data between the commas separating the fields in data field U Wheels-On Time; and entering a B for the cancellation code in field W.

(12). A BOS-LAX flight is diverted to ORD. After a stay at ORD the flight returns to BOS where the flight is then terminated. Report all diversion information as normal, including any tarmac time. Because the flight returned to the origin airport, Boston, the flight should also be reported as a cancelled flight with a cancellation code in field W.

(13). All fields for which data are unavailable will be indicated by having NO data between the commas separating the fields

(14). Any data field resulting from calculations involving a blank field (where there is NO data between the commas separating the fields) will also have NO data between the commas separating the field

(15). For data fields Q, R, and S, use positive numbers to indicate time in minutes for departure/arrival/elapsed time delays. Use negative numbers to indicate time in minutes for departures, arrivals ahead of schedule and elapsed times less than scheduled.

(16). Fields M, N, Q, R, and S have positive and negative values.

(17). Aircraft Tail Number – use the aircraft tail number that was in use immediately after wheels-off time, in case of aircraft swaps after a diversion - report the tail number in use immediately after the wheels-off time at the diverted airport.

Examples: Aircraft N1111 was scheduled to operate the flight, but before passengers boarded the flight Aircraft N2222 was substituted – report aircraft N2222.

Aircraft N1111 left the gate, but returned after blowing a tire on the runway (no wheels-off). Aircraft N2222 was substituted and the flight was operated – report aircraft N2222.

Aircraft N1111 departed airport, but flight was diverted to alternate airport. Aircraft N2222 was substituted and the flight arrived at scheduled destination. Report aircraft N1111 in Field T and aircraft N2222 in Field AJ.

a. When reporting in the **ASCII** comma delimited format, as described in the specifications set forth in section **III.3.b. On-Time Disclosure Reports**, these fields will indicate this attribute as the actual numeric value, preceded by a "-" negative sign when the number is negative.

(18). **Reporting numeric data:**

a. When reporting in the **ASCII** comma delimited format, leading zeros are NOT necessary for "Minutes" fields (M, N, O, P, Q, R, S, X, Y, Z, AA, AB, AD, AE, AI, AJ, AO, AP, AU, AV, BA, BB, BG and BH).

b. Leading zeros will be used for "Time" fields (G, H, I, J, K, L, T, U, AC, AH, AK, AN, AQ, AS, AT, AW, AZ, BC, BF and BI). These fields use a 24-hour clock and will use a leading zero to show 0800 for 8:00 AM (2000 for 8:00 PM.)

**3.b. On-Time Disclosure Reports.**

**(1) ASQP – On-Time Data Transmittal Letter**

The transmittal letter must identify the carrier and month and year for which the On-Time Data are being submitted, and contain the following information:

A certification statement identifying an appropriate official of the reporting carrier. The certification statement will read:

**I, (Name) and (Title), of the above-named air carrier, certify that the BTS Form 234 “On-Time Flight Performance Report” is to the best of my knowledge and belief, true, correct, and a complete report for the period stated.**

**Date:**

**Signature:**

**Name (Please Print or Type):**

The name(s) and telephone number(s) of the carrier’s staff who can be contacted to resolve problems regarding both carrier data and technical matters.

For control purposes, a statement indicating the total number of flight operations and unique flight numbers in the Form 234 submission.

For the initial submission, a description of the data submitted, specifying whether the eSubmit file includes data for all domestic scheduled nonstop flight operations.

For the initial submission and for subsequent changes, a statement identifying the source of the scheduled arrival and departure times used in the report: (1) Official Airline Guide in effect on (date) and (2) the name of the computer reservation system used for reporting purposes, pursuant to §234.4(f).

Once signed, the *On-Time Data Transmittal Letter* must be published as an electronic “portable document format” file format, for uploading to the eSubmit application.

The portable document format file **MUST BE** indicated when naming the file, by using the letters [PDF] or [pdf] following the file name, as the file name extension. You must have Adobe software downloaded on your computer in order to “save as/print” your document as a ‘pdf’ file.

While the file name is flexible and may be determined by the individual air carrier, the portable document format (pdf) file format is required, as outlined in Accounting and Reporting Directive No. 307 entitled, *Submitting Airline Data via the Internet*:

<https://www.bts.gov/topics/airlines-and-airports/accounting-and-reporting-directives>

**Suggested file names:**

- XX201003-234transmittal-Form1.pdf**
- XX201003-234transmittal-Form2a.pdf**
- XX201003-234transmittal-Form2b.pdf**
- XX201003-234transmittal-Form3a.pdf**
- XX201003-234transmittal-Form3b.pdf**

***ASQP On-Time Data File***

The **ASQP – On-Time Data** reports must be created as an electronic “comma separated values” file, using ASCII text character encoding, for uploading via the “eSubmit” application.

The comma separated values file **MUST BE** indicated when naming the file, by using the letters [CSV] or [csv] following the file name, as the file name extension.

The file name is flexible and may be determined by the individual air carrier, but the comma separated values (csv) file format is required, as outlined in Accounting and Reporting Directive No. 307 entitled, *Submitting Airline Data via the Internet*:

<https://www.bts.gov/topics/airlines-and-airports/accounting-and-reporting-directives>

**(2) On-time Report Forms**

**Form 1: On-Time Performance Data for Non-Codeshare and Codeshare Flights<sup>4</sup>**

Field	Description	Type	Length	Comments
A	Carrier code	Character	2	Two letter IATA code
B	Flight number	Character	Max length of 4	
C	Departure airport code	Character	3	Three letter Airport code
D	Arrival airport code	Character	3	Three letter Airport code
E	Date of flight operation	Num	8	Format ccyyymmdd
F	Day of the week of flight operation	Num	1	Mon = 1, Sun = 7
G	Scheduled departure time as shown in Official Airline Guide(OAG)	Num	4	Local time 24 hour clock
H	Scheduled departure time as shown in CRS(selected by the Carrier)	Num	4	Local time 24 hour clock
I	Gate departure time (actual)	Num	4	Local time 24 hour clock

<sup>4</sup> A reporting carrier must use this form to report on-time performance data if the flight was not a codeshare flight with another U.S. carrier. A reporting carrier must also use this form to report on-time performance data if the reporting carrier operated, but did not market, a codeshare flight.

J	Scheduled arrival time per OAG	Num	4	Local time 24 hour clock
K	Scheduled arrival time per CRS	Num	4	Local time 24 hour clock
L	Gate arrival time (actual)	Num	4	Local time 24 hour clock
M	Difference between OAG and CRS scheduled departure times	Num	Max length of 4	In minutes (2 hours=120 min) G minus H
N	Difference between OAG and CRS scheduled arrival times	Num	Max length of 4	In minutes – J minus K
O	Scheduled elapsed time per CRS	Num	Max length of 4	In minutes – K minus H
P	Actual gate-to-gate time	Num	Max length of 4	In minutes – L minus I
Q	Departure delay time (actual minutes CRS)	Num	Max length of 4	In minutes – I minus H
R	Arrival delay time (actual minutes CRS)	Num	Max length of 4	In minutes – L minus K
S	Elapsed time difference (actual minutes CRS)	Num	Max length of 4	In minutes – P minus O
T	Wheels-off time (actual)	Num	4	Local time 24 hour clock
U	Wheels-on time (actual)	Num	4	Local time 24 hour clock
V	Aircraft tail number	Character	6	
W	Cancellation code	Character	1	Values are A, B, C, D
X	Minutes late for Delay Code E – Carrier Caused	Num	Max length of 4	In minutes
Y	Minutes late for Delay Code F – Weather	Num	Max length of 4	In minutes
Z	Minutes late for Delay Code G – National Aviation System (NAS)	Num	Max length of 4	In minutes
AA	Minutes late for Delay Code H – Security	Num	Max length of 4	In minutes
AB	Minutes late for Delay Code I – Late Arriving Flight (Initial)	Num	Max length of 4	In minutes
AC	First gate departure time (actual)	Num	4	Local time 24 hour clock
AD	Total ground time away from gate	Num	Max length of 4	In minutes
AE	Longest ground time away from gate	Num	Max length of 4	In minutes
AF	Number of landings at diverted airports	Num	1	1 to 5 for diversions, 9 designates a fly return canceled flight
AG	Diverted airport code 1	Character	3	Three letter Airport code
AH	Wheels-on time at diverted airport	Num	4	Local time 24 hour clock
AI	Total ground time away from gate at diverted airport	Num	Max length of 4	In minutes
AJ	Longest ground time away from gate at diverted airport	Num	Max length of 4	In minutes
AK	Wheels-off time (actual) at diverted airport	Num	4	Local time 24 hour clock
AL	Aircraft tail number	Character	6	
AM	Diverted airport code 2	Character	3	Three letter Airport code
AN	Wheels-on time at diverted airport	Num	4	Local time 24 hour clock
AO	Total ground time away from gate at diverted airport	Num	Max length of 4	In minutes
AP	Longest ground time away from gate at diverted airport	Num	Max length of 4	In minutes
AQ	Wheels-off time (actual) at diverted airport	Num	4	Local time 24 hour clock
AR	Aircraft tail number	Character	6	
AS	Diverted airport code 3	Character	3	Three letter Airport code
AT	Wheels-on time at diverted airport	Num	4	Local time 24 hour clock
AU	Total ground time away from gate at diverted airport	Num	Max length of 4	In minutes
AV	Longest ground time away from gate at diverted airport	Num	Max length of 4	In minutes
AW	Wheels-off time (actual) at diverted airport	Num	4	Local time 24 hour clock

AX	Aircraft tail number	Character	6	
AY	Diverted airport code 4	Character	3	Three letter Airport code
AZ	Wheels-on time at diverted airport	Num	4	Local time 24 hour clock
BA	Total ground time away from gate at diverted airport	Num	Max length of 4	In minutes
BB	Longest ground time away from gate at diverted airport	Num	Max length of 4	In minutes
BC	Wheels-off time (actual) at diverted airport	Num	4	Local time 24 hour clock
BD	Aircraft tail number	Character	6	
BE	Diverted airport code 5	Character	3	Three letter Airport code
BF	Wheels-on time at diverted airport	Num	4	Local time 24 hour clock
BG	Total ground time away from gate at diverted airport	Num	Max length of 4	In minutes
BH	Longest ground time away from gate at diverted airport	Num	Max length of 4	In minutes
BI	Wheels-off time (actual) at diverted airport	Num	4	Local time 24 hour clock
BJ	Aircraft tail number	Character	6	

## Form 2A: On-Time Performance Data for Codeshare Flights (Long)<sup>5</sup>

Field	Description	Type	Length	Comments
A1	Marketing Carrier code	Character	2	Two letter IATA code
B1	Marketing Carrier Flight number	Character	Max length of 4	
A2	Operating Carrier Code	Character	2	Two letter IATA code
B2	Operating Carrier Flight Number	Character	Max length of 4	
C	Departure airport code	Character	3	Three letter Airport code
D	Arrival airport code	Character	3	Three letter Airport code
E	Date of flight operation	Num	8	Format ccyyymmdd
F	Day of the week of flight operation	Num	1	Mon = 1, Sun = 7
G	Scheduled departure time as shown in Official Airline Guide(OAG)	Num	4	Local time 24 hour clock
H	Scheduled departure time as shown in CRS(selected by the Carrier)	Num	4	Local time 24 hour clock
I	Gate departure time (actual)	Num	4	Local time 24 hour clock
J	Scheduled arrival time per OAG	Num	4	Local time 24 hour clock
K	Scheduled arrival time per CRS	Num	4	Local time 24 hour clock
L	Gate arrival time (actual)	Num	4	Local time 24 hour clock
M	Difference between OAG and CRS scheduled departure times	Num	Max length of 4	In minutes (2 hours=120 min) G minus H
N	Difference between OAG and CRS scheduled arrival times	Num	Max length of 4	In minutes – J minus K
O	Scheduled elapsed time per CRS	Num	Max length of 4	In minutes – K minus H
P	Actual gate-to-gate time	Num	Max length of 4	In minutes – L minus I
Q	Departure delay time (actual minutes CRS)	Num	Max length of 4	In minutes – I minus H
R	Arrival delay time (actual minutes CRS)	Num	Max length of 4	In minutes – L minus K
S	Elapsed time difference (actual minutes CRS)	Num	Max length of 4	In minutes – P minus O
T	Wheels-off time (actual)	Num	4	Local time 24 hour clock
U	Wheels-on time (actual)	Num	4	Local time 24 hour clock
V	Aircraft tail number	Character	6	
W	Cancellation code	Character	1	Values are A, B, C, D
X	Minutes late for Delay Code E – Carrier Caused	Num	Max length of 4	In minutes
Y	Minutes late for Delay Code F – Weather	Num	Max length of 4	In minutes
Z	Minutes late for Delay Code G – National Aviation System (NAS)	Num	Max length of 4	In minutes
AA	Minutes late for Delay Code H – Security	Num	Max length of 4	In minutes
AB	Minutes late for Delay Code I – Late Arriving Flight (Initial)	Num	Max length of 4	In minutes
AC	First gate departure time (actual)	Num	4	Local time 24 hour clock
AD	Total ground time away from gate	Num	Max length of 4	In minutes
AE	Longest ground time away from gate	Num	Max length of 4	In minutes
AF	Number of landings at diverted airports	Num	1	1 to 5 for diversions, 9 designates a fly return

<sup>5</sup> A reporting carrier must use this form to report on-time performance data if: (1) the flight was a codeshare flight held out to the public with only one U.S. carrier designator code (that a flight is also held out under any number of foreign carrier designator codes is irrelevant to determining whether to report); (2) the reporting carrier marketed, but did not operate, the codeshare flight; (3) there was no flight substitution; and (4) the operating carrier of the flight is not a reporting carrier.

				canceled flight
AG	Diverted airport code 1	Character	3	Three letter Airport code
AH	Wheels-on time at diverted airport	Num	4	Local time 24 hour clock
AI	Total ground time away from gate at diverted airport	Num	Max length of 4	In minutes
AJ	Longest ground time away from gate at diverted airport	Num	Max length of 4	In minutes
AK	Wheels-off time (actual) at diverted airport	Num	4	Local time 24 hour clock
AL	Aircraft tail number	Character	6	
AM	Diverted airport code 2	Character	3	Three letter Airport code
AN	Wheels-on time at diverted airport	Num	4	Local time 24 hour clock
AO	Total ground time away from gate at diverted airport	Num	Max length of 4	In minutes
AP	Longest ground time away from gate at diverted airport	Num	Max length of 4	In minutes
AQ	Wheels-off time (actual) at diverted airport	Num	4	Local time 24 hour clock
AR	Aircraft tail number	Character	6	
AS	Diverted airport code 3	Character	3	Three letter Airport code
AT	Wheels-on time at diverted airport	Num	4	Local time 24 hour clock
AU	Total ground time away from gate at diverted airport	Num	Max length of 4	In minutes
AV	Longest ground time away from gate at diverted airport	Num	Max length of 4	In minutes
AW	Wheels-off time (actual) at diverted airport	Num	4	Local time 24 hour clock
AX	Aircraft tail number	Character	6	
AY	Diverted airport code 4	Character	3	Three letter Airport code
AZ	Wheels-on time at diverted airport	Num	4	Local time 24 hour clock
BA	Total ground time away from gate at diverted airport	Num	Max length of 4	In minutes
BB	Longest ground time away from gate at diverted airport	Num	Max length of 4	In minutes
BC	Wheels-off time (actual) at diverted airport	Num	4	Local time 24 hour clock
BD	Aircraft tail number	Character	6	
BE	Diverted airport code 5	Character	3	Three letter Airport code
BF	Wheels-on time at diverted airport	Num	4	Local time 24 hour clock
BG	Total ground time away from gate at diverted airport	Num	Max length of 4	In minutes
BH	Longest ground time away from gate at diverted airport	Num	Max length of 4	In minutes
BI	Wheels-off time (actual) at diverted airport	Num	4	Local time 24 hour clock
BJ	Aircraft tail number	Character	6	

\* \* \*

**Form 2B: On-Time Performance Data for Codeshare Flights (Short)**<sup>6</sup>

Field	Description	Type	Length	Comments
A1	Marketing Carrier code	Character	2	Two letter IATA code
B1	Marketing Carrier Flight number	Character	Max length of 4	
A2	Operating Carrier code	Character	2	Two letter IATA code
B2	Operating Carrier Flight number	Character	Max length of 4	
C	Departure airport code	Character	3	Three letter Airport code
D	Arrival airport code	Character	3	Three letter Airport code
E	Date of flight operation	Num	8	Format ccyymmdd
F	Day of the week of flight operation	Num	1	Mon = 1, Sun = 7
G	Scheduled departure time as shown in Official Airline Guide (OAG)	Num	4	Local time 24 hour clock
J	Scheduled arrival time per OAG	Num	4	Local time 24 hour clock
V	Aircraft tail number	Character	6	

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<sup>6</sup> A reporting carrier must use this form to report on-time performance data if: (1) the flight was a codeshare flight held out to the public with only one U.S. carrier designator code (that a flight is also held out under any number of foreign carrier designator codes is irrelevant to determining whether to report); (2) the reporting carrier marketed, but did not operate, the codeshare flight; (3) there was no flight substitution; and (4) the operating carrier of the flight is also a reporting carrier.

## **Form 3A: On-Time Performance Data for Codeshare Flights (Long)**<sup>7</sup>

**(For Use Only By Marketing Carrier Following July 2017 OAEP Enforcement Policy When There Is A Swap)**

<b>Field</b>	<b>Description</b>	<b>Type</b>	<b>Length</b>	<b>Comments</b>
A1	Marketing Carrier code	Character	2	Two letter IATA code
B1	Marketing Carrier Flight number	Character	Max length of 4	
A2	Scheduled Operating Carrier Code	Character	2	Two letter IATA code
B2	Scheduled Operating Carrier Flight Number	Character	Max length of 4	
A3	Actual Operating Carrier Code	Character	2	Two letter IATA code
B3	Actual Operating Carrier Flight Number	Character	Max length of 4	
C	Departure airport code	Character	3	Three letter Airport code
D	Arrival airport code	Character	3	Three letter Airport code
E	Date of flight operation	Num	8	Format ccyyymmdd
F	Day of the week of flight operation	Num	1	Mon = 1, Sun = 7
G <sub>8</sub>	Scheduled departure time as shown in Official Airline Guide(OAG)	Num	4	Local time 24 hour clock
H	Scheduled departure time as shown in CRS(selected by the Carrier)	Num	4	Local time 24 hour clock
I	Gate departure time (actual)	Num	4	Local time 24 hour clock
J	Scheduled arrival time per OAG	Num	4	Local time 24 hour clock
K	Scheduled arrival time per CRS	Num	4	Local time 24 hour clock
L	Gate arrival time (actual)	Num	4	Local time 24 hour clock
M	Difference between OAG and CRS scheduled departure times	Num	Max length of 4	In minutes (2 hours=120 min) G minus H
N	Difference between OAG and CRS scheduled arrival times	Num	Max length of 4	In minutes – J minus K
O	Scheduled elapsed time per CRS	Num	Max length of 4	In minutes – K minus H
P	Actual gate-to-gate time	Num	Max length of 4	In minutes – L minus I
Q	Departure delay time (actual minutes)	Num	Max length of 4	In minutes – I minus H
R	Arrival delay time (actual minutes)	Num	Max length of 4	In minutes – L minus K
S	Elapsed time difference (actual minutes)	Num	Max length of 4	In minutes – P minus O
T	Wheels-off time (actual)	Num	4	Local time 24 hour clock
U	Wheels-on time (actual)	Num	4	Local time 24 hour clock
V	Aircraft tail number	Character	6	
W	Cancellation code	Character	1	Values are A,B,C, and D
X	Minutes late for Delay Code E – Carrier Caused	Num	Max length of 4	In minutes
Y	Minutes late for Delay Code F – Weather	Num	Max length of 4	In minutes
Z	Minutes late for Delay Code G – National Aviation System (NAS)	Num	Max length of 4	In minutes

<sup>7</sup> A reporting carrier must use this form to report on-time performance data if: (1) the originally scheduled flight was a codeshare flight held out to the public with only one U.S. carrier designator code (that a flight is also held out under any number of foreign carrier designator codes is irrelevant to determining whether to report); (2) there was a flight substitution (Codeshare Swap); (3) the reporting carrier marketed the originally scheduled codeshare flight but did not operate the originally scheduled codeshare flight or the substitute codeshare flight; and (4) the substitute flight was an extra section flight or the carrier that operated the flight is not a reporting carrier.

<sup>8</sup> For the purposes of fields G, H, J, and K, a carrier must provide information as it relates to the originally scheduled flight that was not operated and subject to the Codeshare Swap and must apply that information in calculating the other fields that are based on the information in fields G, H, J, and K (i.e. M, N, O, Q, R, S). All other fields and references to them relate to the substitute flight that was actually operated.

AA	Minutes late for Delay Code H – Security	Num	Max length of 4	In minutes
AB	Minutes late for Delay Code I – Late Arriving Flight (Initial)	Num	Max length of 4	In minutes
AC	First gate departure time (actual)	Num	4	Local time 24 hour clock
AD	Total ground time away from gate	Num	Max length of 4	In minutes
AE	Longest ground time away from gate	Num	Max length of 4	In minutes
AF	Number of landings at diverted airports	Num	1	1 to 5 for diversions, 9 designates a fly return canceled flight
AG	Diverted airport code 1	Character	3	Three letter Airport code
AH	Wheels-on time at diverted airport	Num	4	Local time 24 hour clock
AI	Total ground time away from gate at diverted airport	Num	Max length of 4	In minutes
AJ	Longest ground time away from gate at diverted airport	Num	Max length of 4	In minutes
AK	Wheels-off time (actual) at diverted airport	Num	4	Local time 24 hour clock
AL	Aircraft tail number	Character	6	
AM	Diverted airport code 2	Character	3	Three letter Airport code
AN	Wheels-on time at diverted airport	Num	4	Local time 24 hour clock
AO	Total ground time away from gate at diverted airport	Num	Max length of 4	In minutes
AP	Longest ground time away from gate at diverted airport	Num	Max length of 4	In minutes
AQ	Wheels-off time (actual) at diverted airport	Num	4	Local time 24 hour clock
AR	Aircraft tail number	Character	6	
AS	Diverted airport code 3	Character	3	Three letter Airport code
AT	Wheels-on time at diverted airport	Num	4	Local time 24 hour clock
AU	Total ground time away from gate at diverted airport	Num	Max length of 4	In minutes
AV	Longest ground time away from gate at diverted airport	Num	Max length of 4	In minutes
AW	Wheels-off time (actual) at diverted airport	Num	4	Local time 24 hour clock
AX	Aircraft tail number	Character	6	
AY	Diverted airport code 4	Character	3	Three letter Airport code
AZ	Wheels-on time at diverted airport	Num	4	Local time 24 hour clock
BA	Total ground time away from gate at diverted airport	Num	Max length of 4	In minutes
BB	Longest ground time away from gate at diverted airport	Num	Max length of 4	In minutes
BC	Wheels-off time (actual) at diverted airport	Num	4	Local time 24 hour clock
BD	Aircraft tail number	Character	6	
BE	Diverted airport code 5	Character	3	Three letter Airport code
BF	Wheels-on time at diverted airport	Num	4	Local time 24 hour clock
BG	Total ground time away from gate at diverted airport	Num	Max length of 4	In minutes
BH	Longest ground time away from gate at diverted airport	Num	Max length of 4	In minutes
BI	Wheels-off time (actual) at diverted airport	Num	4	Local time 24 hour clock
BJ	Aircraft tail number	Character	6	

\* \* \*

**Form 3B: On-Time Performance Data for Codeshare Flights (Short)<sup>9</sup>**  
**(For Use Only By Marketing Carrier Following July 2017 OAEP Enforcement Policy**  
**When There Is A Swap)**

Field	Description	Type	Length	Comments
A1	Marketing Carrier code	Character	2	Two letter IATA code
B1	Marketing Carrier Flight number	Character	Max length of 4	
A2	Scheduled Operating Carrier code	Character	2	Two letter IATA code
B2	Scheduled Operating Carrier Flight number	Character	Max length of 4	
A3	Actual Operating Carrier code	Character	2	Two letter IATA code
B3	Actual Operating Carrier Flight number	Character	Max length of 4	
C	Departure airport code	Character	3	Three letter Airport code
D	Arrival airport code	Character	3	Three letter Airport code
E	Date of flight operation	Num	8	Format ccyyymmdd
F	Day of the week of flight operation	Num	1	Mon = 1, Sun = 7
G <sub>10</sub>	Scheduled departure time as shown in Official Airline Guide (OAG)	Num	4	Local time 24 hour clock
J	Scheduled arrival time per OAG	Num	4	Local time 24 hour clock
V	Aircraft tail number	Character	6	

\* \* \*

**CANCELLATION CODES:**

- A – Air Carrier
- B – Weather
- C – National Aviation System (NAS)
- D – Security

**DELAY CODES:**

- E – Carrier Caused
- F – Weather
- G – National Aviation System (NAS)
- H – Security
- I – Late Arriving Flight (Initial)

**Note:** The data will be reported without summarization, with a separate flight record for each reportable operation. Flight records will be sequenced by date of flight (field E) within market (fields C and D), within flight number (fields B, B1, B2, B3).

**Note:** When a flight has been canceled before a specific aircraft has been assigned to that flight, you would leave field V (Aircraft Tail Number) blank, resulting in adjacent commas (e.g. NO data between the commas separating the fields ).

The fields in the sample record shown below follow the same order as the above record description, separated by commas, and saved with the file name extension of .csv.

<sup>9</sup> A reporting carrier must use this form to report on-time performance data if: (1) the originally scheduled flight was a codeshare flight held out to the public with only one U.S. carrier designator code (that a flight is also held out under any number of foreign carrier designator codes is irrelevant to determining whether to report); (2) there was a flight substitution (Codeshare Swap); (3) the reporting carrier marketed the originally scheduled codeshare flight but did not operate the originally scheduled codeshare flight or the substitute codeshare flight; (4) the substitute flight was not an extra section flight; and (5) the substitute flight was operated by a reporting carrier.

<sup>10</sup> For fields G and J, a carrier must provide information as it relates to the originally scheduled flight that was not operated and subject to the Codeshare Swap. All other fields relate to the substitute flight that was actually operated.

**Suggested file name: XX201003-234ontime.csv**

**Sample Record Format:**

XX,1234,YY,567,ZZ,921,DFW,BNA,20100301,1,0735,0735,0737,0915,0915,1148,0,0,100,251,2,153,151,0753,1141,N123XX,,,,,,,,,1,MEM,1005,69,69,1114,N234XX,,,,,,,,,,,,,,,,,,,,,

***Example For Codeshare Flights Swap Reporting:***

Reporting Carrier XX is the marketing carrier of Flight XX1234 and the operating carrier is scheduled to be Carrier YY, a codeshare partner of Carrier XX. Due to a mechanical problem, Carrier YY is unable to operate the flight and Carrier ZZ, another codeshare partner of Carrier XX, operated the flight in its place and the flight number is changed to XX5678. Assuming Flight 1234 was cancelled before it departed the gate, Carrier XX may choose to file the reports per one of the two options below:

Option 1 (existing rule):

- Carrier XX reports Flight 1234 as a “cancelled flight.”
  - If Carrier YY is a reporting carrier, Carrier YY files Form 1 and Carrier XX files Form 2B.
  - If Carrier YY is not a reporting carrier, Carrier YY does not report and Carrier XX files Form 2A.
- Carrier XX also reports Flight XX5678 if it is provided for in published schedule.
  - If Carrier ZZ is a reporting carrier, Carrier ZZ files Form 1 and Carrier XX files Form 2B, listing Carrier ZZ in Field A2, Flight number 5678 in Field B2;
  - If Carrier ZZ is not a reporting carrier, Carrier ZZ does not report and Carrier XX files Form 2A, listing Carrier ZZ in Field A2, Flight number 5678 in Field B2.
- Carrier XX does not report Flight 5678 if it is not provided for in published schedule (extra-section flight).<sup>11</sup>

Option 2 (enforcement policy):

- Carrier XX does not file reports for canceled Flight XX1234. Instead, Carrier XX only reports the on-time performance of Flight XX5678 *even if it is not provided for in published schedule (extra-section flight)*.
  - If Carrier ZZ is a reporting carrier and Flight XX5678 is not an extra-section flight, Carrier ZZ files Form 1 and Carrier XX files Form 3B, listing Carrier YY in Field A2, flight number 1234 in Field B2, Carrier ZZ in Field A3, and XX5678 in Field B3;
  - If Carrier ZZ is not a reporting carrier or Flight XX5678 is an extra-section flight, Carrier ZZ does not file a report and Carrier XX files Form 3A, listing

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<sup>11</sup> Section 234.4(e) states that a reporting carrier shall not report the on-time flight performance for any discontinued or extra-section flight. Section 234.2 defines an extra-section flight as “a flight conducted as an integral part of scheduled passenger service, that has not been provided for in published schedules and is required for transportation of traffic that cannot be accommodated on the regularly scheduled flight.”

Carrier YY in Field A2, Flight number 1234 in Field B2, Carrier ZZ in Field A3, and Flight number 5678 in Field B3.

#### **4. Data Requirements and Instructions for CRS Disclosure**

As required by § 234.8 of the Department's Regulations, each reporting carrier providing data pursuant to this directive will calculate an on-time performance code for each reportable (nonstop) flight included in its monthly data submission to the Department, and for each one-stop or multi-stop flight that includes a reportable flight segment as specified below. That calculation will be carried out as follows:

1. Each reporting carrier will compute the arrival delay in minutes for each reported (nonstop) flight operation in its monthly data submission by subtracting the scheduled arrival time for each flight operation per its CRS records (data field M) from the actual gate arrival time (data field N).

2. Using the data derived from the computation in paragraph 1 above, each reporting carrier will calculate, for each nonstop flight in its data submission, the percent of that flight's operations that were on-time during the month (i.e., arrived sooner than the CRS scheduled arrival time + 15 minutes). The calculation will be performed by dividing the number of reported operations of each flight that arrived less than 15 minutes after the scheduled arrival time, by the total number of reported operations of that flight during the month.

3. Each reporting carrier will convert the percentage derived from the computations in paragraph 2 into a one-digit CRS on-time performance code for each reportable flight operated during the month as follows:

<b>Percent of operations of the flights that were on-time</b>	<b>CRS on-time performance code</b>
90 to 100	9
80 to 89.9	8
70 to 79.9	7
60 to 69.9	6
50 to 59.9	5
40 to 49.9	4
30 to 39.9	3
20 to 29.9	2
10 to 19.9	1
0 to 9.9	0

4. New flights, as defined in § 234.2, for which no on-time percentage is available yet will be designated with the CRS data code "N" (no record).

5. Each reporting carrier will include the appropriate one digit CRS code (0 through 9 or "N") as a standard data element in each flight schedule it provides the OAG and/or any CRS vendor(s), for every reportable flight.

6. In addition, using the procedure illustrated in this paragraph, each reporting carrier will include the appropriate one digit CRS code (0 through 9 or "N") as a standard data element in each flight schedule it provides the OAG and/or any CRS vendor(s), for every one-stop or multi-stop flight, or portion thereof, that includes a reportable flight as a final flight segment.

**Examples:**

If flight 102 operates EWR-DCA-ATL-MIA, provide the on-time performance codes for:

102 EWR-DCA (calculated per paragraphs 1-4 above)  
102 DCA-ATL (calculated per paragraphs 1-4 above)  
102 ATL-MIA (calculated per paragraphs 1-4 above)  
102 EWR-ATL: assign 102 DCA-ATL performance code  
102 EWR-MIA: assign 102 ATL-MIA performance code  
102 DCA-MIA: assign 102 ATL-MIA performance code

If flight 103 operates BUF-SYR-EWR-DCA, provide on-time performance codes for:

103 SYR-EWR (calculated per paragraphs 1-4 above)  
103 EWR-DCA (calculated per paragraphs 1-4 above)  
103 BUF-EWR: assign 103 SYR-EWR performance code  
103 BUF-DCA: assign 103 EWR-DCA performance code  
103 SYR-DCA: assign 103 EWR-DCA performance code

If flight 104 operates MKE-DTW-CMH-LEX, provide on-time performance codes for:

104 MKE-DTW (calculated per paragraphs 1-4 above)  
104 DTW-CMH (calculated per paragraphs 1-4 above)  
104 MKE-CMH: assign 104 DTW-CMH performance code

7. A flight that is not a new flight will be assigned the on-time performance code calculated for the flight that it replaces, even if the two flights do not have the same flight number.

8. No later than the 15th day of each month, each reporting carrier will deliver or arrange to have delivered to its CRS vendor(s), updated on-time performance codes. If a carrier relies on a third party to supply such flight information to CRS vendor(s), the carrier will provide their flight information, including the appropriate CRS on-time performance codes, at the same time that the carrier submits its monthly flight data to the Department.

9. The calculation and assignment of on-time performance codes for flights other than reportable flights, as permitted in § 234.10, will follow the procedures set forth above. Carriers

are required to perform those calculations only for reportable flights, and for one-stop or multi-stop flights, or portions thereof that include a reportable flight as a final flight segment, but may do so for all flights at their option.

10. No carrier may provide on-time performance codes to the OAG or to any CRS vendor(s) for any flight during any month unless the carrier also provides the required flight data for the month to the Department as specified in Part 234 and in this Technical Directive.

## **5. Reporting the Causes of Canceled and Delayed Flights**

### **1. There are four categories for cancellation:**

- A. Air Carrier
- B. Extreme Weather
- C. National Aviation System
- D. Security

### **2. There are five categories for delayed flights:**

- E. Air Carrier
- F. Extreme Weather
- G. National Aviation System
- H. Security
- I. Late Arriving Aircraft

3. Causal data must be reported for canceled and late arriving flights (flights that arrive at the destination airport 15 minutes or more after the scheduled arrival time. No causal data are required for flights that are considered on-time or for diverted flights.

4. For all late flights, you account for the cause and length of departure delays of 6 minutes or longer (with the exception of No. 5 below). Carriers may choose to report only the predominant departure delay but they must do it on a consistent basis. Also, carriers that report predominant cause of delay must abide by No. 8 below.

5. When there are multiple causes of delays that start at the same time, report the cause of delay having the longest duration.

6. Reported delay minutes must equal the arrival delay. When the arrival delay is greater than the departure delay, the difference is attributed to NAS.

7. When departure delay is greater than the arrival delay, report the arrival delay minutes. If there were multiple delay causes, prorate the time-savings to each cause of delay. Report in whole minutes and do not report a negative number for the length of delay.

8. Causal delay minutes assigned to late arriving aircraft can be equal to or less than but not more than the delay time of the previous flight operated with the same aircraft with one exception, i.e. a carrier swaps aircraft between routes to lessen delays.

(At 2 p.m., aircraft N0011 arrived on time and its next flight segment is scheduled to depart at 5 p.m. Aircraft N0012 was scheduled to arrive at 1 p.m. and is still en-route. The next scheduled flight with this aircraft is at 2:10 p.m. The air carrier swapped aircraft and the 2:10 p.m. flight departed at 2:30 p.m. The carrier reported a 20 minute delay for late arriving aircraft, even though the previous flight with this aircraft arrived on-time.) The flight scheduled to depart at 2:10 p.m. would have departed even later if the air carrier had not swapped aircraft.

## **CAUSAL DELAYS AND CANCELLATIONS**

The primary purpose for collecting causal data is to categorize delays and cancellations so that system problems can be identified and the appropriate parties can take corrective action.

## **AIR CARRIER DELAYS OR CANCELLATIONS**

Below is a list of examples of causes for delays and cancellations that we believe are within the control of the air carrier. This list should be used as a guide for the type of occurrences that should be reported as an air carrier delay and/or cancellation. It should not be considered a complete list, and we welcome comments on additions or deletions.

### **AIR CARRIER**

- Aircraft cleaning
- Aircraft damage (except bird strikes, lightning/hail damage)
- Airport curfew
- Awaiting the arrival of connecting passengers or crew
- Awaiting alcohol test
- Awaiting gate space
- Baggage loading
- Cabin servicing
- Cargo loading
- Catering
- Computer outage - carrier equipment
- Crew legality (pilot or attendant rest)
- Damage by hazardous goods
- Engineering Inspection
- Public Health, etc.
- Flight paperwork
- Fueling
- Gate congestion
- Government forms not properly completed - INS, FAA, Agriculture
- Ground equipment out of service
- Hot brakes restriction
- Last minute passenger
- Late mail from Post Office
- Late crew

Lavatory servicing  
Maintenance  
Medical emergency  
Out of service aircraft  
Oversales  
Positive passenger baggage match  
Passenger services  
Potable water servicing  
Pre-flight check  
Ramp congestion - blocked by another aircraft under carrier's control  
Ramp service  
Removal of unruly passenger  
Revised weight sheet  
Shortage of ramp equipment  
Slow boarding or seating  
Snow removal (when it is a carrier ramp service function)  
Stowing carry-on baggage  
Weight and balance delays

## **WEATHER**

Below is a list of examples of causes for delays and cancellations that we believe are the result of weather. This list should be used as a guide for the type of occurrences that should be reported as an air carrier delay and/or cancellation. It should not be considered a complete list, and we welcome comments on additions or deletions.

## **WEATHER**

Below minimum conditions  
Clear ice inspection  
Deicing aircraft  
Earthquake  
Extreme high or low temperatures  
Hail Damage  
Holding at gate for enroute weather  
Hurricane  
Lightning damage  
Pre-planned cancellations that result from predicted weather  
Snow Storm  
Thunder Storm  
Tornado

## **NATIONAL AVIATION SYSTEM (NAS)**

Below is a list of examples of causes for delays and cancellations that we believe are in the control of the FAA, airport operators or State/local officials. This list should be used as a guide for the type of occurrences that should be reported as a NAS delay and/or cancellation. It should not be considered a complete list; and we welcome comments on additions or deletions.

## **NATIONAL AVIATION SYSTEM (NAS)**

- Airport conditions
- Airport construction
- Air Traffic Control (ATC)
- Awaiting ATC clearance while still at gate
- Air Traffic Quota Flow Program – ATC
- Bird strikes
- Closed Runways
- Computer failure - ATC equipment
- Equipment Outage - ATC
- Gate hold - ATC
- Ground delay program - ATC
- Flow control program - FAA
- Other disabled aircraft blocking runway
- Ramp congestion - blocked by aircraft not under carrier's control
- Ramp Traffic - Air Traffic Control
- Restricted aircraft movement on runways
- Volume Delays

## **SECURITY**

Below is a list of examples of causes for delays and cancellations that we believe were the result of security measures outside the control of air carriers. This list should be used as a guide for the type of occurrences that should be reported as a security delay and/or cancellation. It should not be considered a complete list; and we welcome comments on additions or deletions.

## **SECURITY**

- Bomb threat
- Inoperative screening equipment - TSA
- Evacuation of terminal or concourse resulting from security breach
- Re-boarding aircraft because of security breach
- Sky Marshal caused delay
- Weapon confiscation
- Lines at screening area that exceed standard time (see **X. Security Screening** below)

Note: Delays caused by routine passenger screening should not be assigned to "Security" when the wait at screening areas are less than 30 minutes. In addition, air carriers should ensure that delays and cancellations assigned to "Security" were not attributable to their own actions or caused by their own employees who fail to follow security procedures.

## **LATE ARRIVING AIRCRAFT**

Late Arriving Aircraft means a previous flight with the **same aircraft** arrived late which caused the present flight to depart late. The minutes assigned to Late Arriving Aircraft can never be more than the delay time of the previous flight. When assigning a causal code for Late Arriving Aircraft, the carrier must consider the scheduled time between flights and the carrier's allotted turn time. (Exception from the same aircraft rule is allowed when carrier substitutes an aircraft for a delayed aircraft in order to decrease the delay of upcoming flights).

### **Guidance for Calculating Delay Minutes Attributed to a Late Arriving Flight**

Minutes attributed to a Late Arriving Flight = Arrival time of previous flight + Scheduled turn time – Scheduled Departure time.

#### **Examples:**

1. A Flight was 40 minutes late and arrived @ 2:15. There was a scheduled 20-minute turn time and the next flight was schedule to depart at 1:55. (2:15 + 20 minutes – 1:55 = a 40 minute delay may be attributed to a late arriving aircraft.)

A flight was 60 minutes late and arrived @ 2:15. There was a scheduled 20-minute turn time and the next flight was scheduled to depart at 4:00. (2:15 + 20 minutes – 4:00 = no allowable time for late arriving aircraft.)

## **6. Security Screening**

1. Long lines at the passenger screening area can cause carriers to delay flights. Passenger inconvenience and anxiety can create its own security risks. By the nature of the airline business, many screening areas have processing peaks and valleys, which generally result from a large number of flights being scheduled in a short period of time. While the Department is not mandating how air carriers schedule flights, it may be in the carriers' self-interest to review scheduling practices to alleviate delays both inside the airport and on the tarmac.

2. While TSA is in control of passenger screening, the air carriers are responsible for managing the lines up to the screening lanes. Carriers can alleviate the need to hold flights for passengers in screening queues by bringing those passengers to the front of the line. Managing the line becomes more problematical when the carrier has multiple flights scheduled to depart at the same time or multi carriers use the same screening areas.

3. Lines at some screening points amass early in the morning, after there were long lines at the carriers' check-in-counter. The check-in lines quickly disperse when air carriers add

service agents. These passengers gather at the screening queue. The problem could be lessened or avoided by air carriers rescheduling service-agent assignments to encourage a more even flow of passengers to the screening areas.

## **7. Gate Returns including Canceled Flights**

For consistency in the reporting of gate returns, carrier must report the last gate-departure time before wheels-off time as the official gate-departure time (Field I), and carriers will report the first gate departure time in Field AC [First Gate Departure time (Actual)]. Two additional fields (AD Total ground time away from gate and AE Longest ground time away from gate) will be reported. These fields will give consumers and the Federal Aviation Administration a more complete picture of tarmac delays. The clock for computing fields AD and AE will stop when the passengers are given the opportunity to deplane (most carriers' measure this time when the main passenger door is opened or when the parking brake is set.) Carriers must include their method for measuring when the passengers were given the opportunity to deplane in their procedure statement.

For flights, which are canceled after the aircraft leaves the boarding gate but before departing the runway, (wheels-off), carriers will populate Fields AC, AD, AE, and I.

For flights that are canceled after wheels-off time (fly returns/air returns), carriers will report the actual gate-departure time in Field I, the wheels-off time in Field T, a 9 in field AF Number of Diverted Landings (the use of a 9 designates a fly return), the airport code of the origin airport in field AG, the wheels-on time for the fly return in field AH, the total ground time away from gate (after fly return) in field AI and the longest time away from gate (after fly return) in field AJ. For flights that are diverted to an alternate airport, return to the origin airport, and then are cancelled, carriers will report the actual gate-departure time in Field I, the wheels-off time in Field T, a 9 in field AF Number of Diverted Landings (the use of a 9 designates a fly return), the airport code of the alternate airport in field AG, the wheels-on time in field AH, the total ground time away from gate in field AI, the longest time away from gate in field AJ, the wheels off time at diverted airport in field AK, the Aircraft Tail Number in field AL, the origin airport code in field AM (fly return) the Wheels on time in field AN, the total ground time away from gate (after fly return) in field AO, and the longest time away from gate (after fly return) in field AP.

## **8. Diversions**

Carriers will now complete all relevant fields when a flight is diverted to an alternate airport with the exception of cause of delay. The exclusion of not reporting causal data for diversions remains in effect. When a diverted flight does not reach its scheduled destination, fields L Gate Arrival Time, P Actual Gate-to-Gate Time, R Arrival Delay Time, S Elapsed Time Difference, and U Wheels-On Time will be blank (NO data between the commas separating the fields). However, these fields will be populated if a diverted flight reaches the scheduled destination. Carriers will also report the number of diverted landings in field AF Number of Landings at Diverted Airports (up to 5 diverted landings are permitted, and a 9 entered in this fields designates a fly return of a flight which was ultimately canceled); the three letter code of

the Diverted Airport in field AG Three Letter Code of Diverted Airport; the wheels-on time in field AH Wheels-on Time at Diverted Airport; the appropriate minutes in field AI Total Time Away from Gate at Diverted Airport; the appropriate minutes in field AJ Longest Time Away from Gate at Diverted Airport; and the wheels-off time at Diverted Airport, AK Wheels-off Time at Diverted Airport, and AL Aircraft Tail Number. When tracking the minutes to report in fields AI and AJ, the clock stops when passengers are given the opportunity to deplane the aircraft (most carriers measure this time when the main passenger door is opened or when the parking brake is set.) Carriers must include their method for measuring when the passengers were given the opportunity to deplane in their procedure statement.

In order to retain the fixed file format, we have provided fields to capture the data elements for five diversions.

## **9. Procedural Statement**

In fulfilling DOT's data reporting requirements, the reporting air carriers use automated and/or manual systems for collecting flight data. Those using an automated system rely on the Aircraft Communication Addressing and Reporting System (ACARS), the Docking Guidance System (DGS) or Airborne Flight Information System (AFIS).

Carriers have the option of tracking all causes of delays from the moment the delay occurs or only those causes that persist for 6 minutes or longer. Whichever method the carrier elects to use, the carrier must consistently apply the method in its monthly report.

Carriers have the option of reporting multiple causes of departure delays or the predominant cause of departure delays with two exceptions: (1) Causal delay minutes assigned to late arriving aircraft can be equal to or less than but never more than the delay time of the previous flight operated with the same aircraft; and (2) Carriers cannot use minutes assigned to NAS (because arrival delay was greater than departure delay) to disguise another delay cause. For example, a carrier had an 8-minute weather delay at departure and the flight arrived 23 minutes late. The correct reporting would be 8 minutes for weather and 15 minutes for NAS. Whichever method the carrier elects to use, the carrier must consistently apply the method in its monthly report.

The Procedural Statement must be dated and advise users whether it: (1) uses Automated and/or Manual System to track times; if automated please specify the system used; (2) tracks causes of delay beginning with the first minute of delay or only delay causes of 6 minutes or longer; (3) reports all causes of delays or only the predominant cause of delay, and the method used to stop the clock on tarmac times for gate returns and diversions after passengers have been given the opportunity to deplane. Carriers must e-mail the Procedural Statement to [ontime.support@dot.gov](mailto:ontime.support@dot.gov) each year in January. If a carrier elects to change a reporting method, it must submit a revised Procedural Statement for On-Time Reporting before submitting its monthly 234 report.

#### IV. Submission of Reports

1. For more information regarding submission of reports refer to Accounting and Reporting Directive No. 307 entitled, *Submitting Airline Data via the Internet*:

<https://www.bts.gov/topics/airlines-and-airports/accounting-and-reporting-directives>

For assistance, carriers should e-mail [ontime.support@dot.gov](mailto:ontime.support@dot.gov)

*The Air Travel Consumer Report* is a product of the Office of Secretary's Aviation Consumer Protection Division. Questions concerning this publication should be directed to:

Norman A. Strickman  
Director, Aviation Consumer Protection Division  
Office of Aviation Enforcement and Proceedings  
Office of the General Counsel  
U.S. Department of Transportation  
1200 New Jersey Avenue SE  
Washington, DC 20590-0001

202-366-5960

2. Due Dates. The due date for Form 234 On-Time Performance is 15 days after the applicable reporting month, i.e., data for the month of March is due by April 15, unless otherwise noted in enforcement policy. If the 15th day falls on a weekend or Federal holiday, the due date will be the next workday.
3. Enforcement. Penalties for late filing or noncompliance with these reporting requirements will be assessed in accordance with 49 U.S.C. 46310.
4. Missing or Incomplete Records. Any carrier subject to this directive, which does not file the required data for any period, or files incomplete data, will submit a sworn statement of an officer that the carrier was unable to provide the data because it did not have and could not obtain the necessary records. That statement, as well as the veracity of the information and the data submitted, will be subject to 18 U.S.C. 1001, regarding criminal penalties for false statements made to a government agency. The statement will be filed with the Director, Office of Airline Information, at the address below, three days prior to the due date.

William Chadwick, Jr.  
Director, Office of Airline Information  
Bureau of Transportation Statistics  
U.S. Department of Transportation  
1200 New Jersey Avenue SE  
Washington, DC 20590

202 366-4405

[Ontime.support@dot.gov](mailto:Ontime.support@dot.gov)  
[Form251.support@dot.gov](mailto:Form251.support@dot.gov)

5. Special Circumstances. Requests for waivers, exceptions, extensions, or other considerations will be submitted in writing to the Director, Office of Airline Information, at the address in paragraph 4 above.

## **V. Records Retention**

Form 234 is a statistical report. The record retention requirements for statistical reports are governed by 14 CFR Part 249, "Preservation of Air Carrier Records" of the Department's Regulations. Specifically, § 249.20-6 requires the information supporting a statistical report to be maintained by the carrier for three years.

Questions regarding this technical directive should be addressed to [ontime.support@dot.gov](mailto:ontime.support@dot.gov)

W.A. Chadwick, Jr.  
Director, Office of Airline Information  
Bureau of Transportation Statistics  
U.S. Department of Transportation

ATTACHMENT

Attachment 1: Flow Chart

