

**Sec. 19-7 Passenger origin-destination survey.**

(a) All U.S. large certificated air carriers conducting scheduled passenger operations (except helicopter carriers) shall participate in a Passenger Origin-Destination (O & D) Survey covering domestic and international operations, as described in the instructions manual entitled, *Instructions to Air Carriers for Collecting and Reporting Passenger Origin-Destination Survey Statistics* (Appendix A to this section), and in *Passenger Origin-Destination Directives* issued by the Department's Bureau of Transportation Statistics (BTS), Office of Airline Information (OAI). Copies of these *Instructions* and *Directives* are provided to each large carrier participating in the Survey. Copies are also available from the Office of Airline Information, K-25, Room 4125, U.S. Department of Transportation, 400 Seventh St., SW., Washington, DC 20590.

(b) Those participating air carriers that have access to automatic data processing (ADP) services shall utilize magnetic tape, cartridge, floppy diskette or other ADP media for transmitting the prescribed data. Those carriers without ADP capability should contact the Office of Airline Information for further instructions ((202) 366-4373).

(c) A statistically valid sample of light coupons shall be selected for reporting purposes. The sample shall consist of at least 1 percent of the total lifted ticket flight coupons for all large domestic markets listed in the Instructions and 10 percent for all others—including domestic and international markets. The sample shall be selected and reported in accordance with the requirements of paragraph (a) of their section, except that the participating O & D carriers with nonstandard

ticketing procedures, or other special operating characteristics, may propose alternative procedures. Such departures from standard O & D Survey practices shall not be authorized unless approved in writing by the Director, Office of Airline Information under the procedures in Sec. 1-2 of 14 CFR part 241. The data to be recorded and reported from selected lifted ticket flight coupons, as stipulated in the *Instructions* and *Directives* shall include the following data elements: Point of origin, carrier on each flight-coupon stage, fare-basis code for each flightcoupon stage, points of stopover or connection (interline and intraline), point of destination, number of passengers, and total dollar value of ticket (fare plus tax).

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(d) Data covering the operations of foreign air carriers that are similar to the information collected in the Passenger Origin-Destination Survey are generally not available to the Department, the U.S. carriers, or U.S. interests. Therefore, because of the damaging competitive impact on U.S. carriers and the adverse effect upon the public interest that would result from unilateral disclosure of the U.S. survey data, the Department has determined its policy to be that the international data in the Passenger Origin-Destination Survey shall be disclosed only as follows:

(1) To an air carrier directly participating in and contributing input data to the Survey or to a legal or consulting firm designated by an air carrier to use on its behalf O & D data in connection with a specific assignment

by such carrier.

(2) To parties to any proceeding before the Department to the extent that such data are relevant and material to the issues in the proceeding upon a determination to this effect by the Administrative Law Judge or by the Department's decision-maker. Any data to which access is granted pursuant to this section may be introduced into evidence subject to the normal rules of admissability of evidence.

(3) To agencies and other components of the U.S. Government.

(4) To other persons upon a showing that the release of the data will serve specifically identified needs of U.S. users which are consistent with U.S. interests.

(5) To foreign governments and foreign users as provided in formal reciprocal arrangements between the foreign and U.S. governments for the exchange of comparable O & D data.

(e) The Department reserves the right to make such other disclosures of the O & D data as is consistent with its regulatory functions and responsibilities.

APPENDIX A TO SEC. 19-7—INSTRUCTIONS  
TO AIR CARRIERS FOR COLLECTING AND  
REPORTING PASSENGER ORIGIN-DESTINATION  
SURVEY STATISTICS

All questions, comments, extension and waiver requests should be addressed to:  
Office of Airline Information, K-25, Room  
4125, U.S. Department of Transportation,  
400 Seventh St., SW., Washington, DC  
20590, Telephone (202) 366-9059.

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1 Each ticket booklet is comprised of one or more *flight coupons* for passenger travel in a city-pair market, plus a *passenger coupon* (the traveler's receipt) and the *auditor coupon*

(for the carrier's internal controls).

*B. Narrative Description*

A single O&D Survey is conducted continuously by the large U.S. certificated air carriers.

Foreign air carriers do not directly participate in the Survey, although some of their data are captured in the Survey, since passengers who share a ticketed itinerary between a U.S. carrier and a foreign carrier may be sampled by the U.S. carrier. The authority for these instructions is found in 14 CFR part 241, section 19-7, and in the CAB Sunset Act of 1984 (Pub. L. 94-443).

The Survey samples revenue passenger trips moving in whole or in part on domestic and/or international scheduled services of the carriers participating in the Survey. In general, these requirements do not apply to small certificated, all-cargo and all charter carriers.

The source documents for the Survey data are passenger tickets. These data are collected from the "lifted" flight coupons of tickets (a portion of a multi-part ticket booklet of three 1 or more coupons, including one for each stage of the passenger's trip itinerary which is lifted by the carrier as the passenger boards a particular flight segment).

The Survey data are taken from the coupon that is lifted by a participating carrier, unless it is apparent from the lifted coupon that another participating carrier has already recorded and reported the data, in which instance the ticket coupon is non-reportable for the second honoring/participating carrier. The complete passenger itinerary, and related data on type of fare and dollar value of the ticket, is recorded as

extremely lengthy itineraries (such as around-the-world tickets) into a standard trip stage length limit (which may be either seven or twenty-three stages, at the carrier's option), as explained in Section V.D.

3 Magnetic tapes, floppy discs and similar media will be returned to the carriers, upon request, following completion of the processing cycle by the Department.

one entry from the sampled, reportable flight coupon.

The recording of data from the sampled flight coupon normally consists of transcribing the information exactly as indicated on the ticket. The detail recorded for each trip shows the complete routing from the origin city (airport code) to the destination city (airport code) including, in sequence from the origin, each point of transfer and stopover (intra-line and interline), the summarized fare-basis code shown for each flight coupon stage of the itinerary, and the total dollar value of the fare and tax for the entire ticket.

Prior to 1987, the Survey was generally based on a 10-percent sample of passenger tickets. Beginning July 1, 1987, the Survey is collected primarily on the basis of a stratified, scientific sample of at least 1 percent of tickets in domestic major markets and 10 percent of tickets in all other domestic and in all international city-pair markets. The Survey data are taken from the selected flight coupons of the tickets sampled: single-coupon or double-coupon round trips in domestic major markets where the ticket serial number ends in double zero (00) and all other ticket coupons ending in zero (0). This procedure yields a "two-tiered" stratified sample.

Group tickets are included on the basis of a 10-percent sample when the number of passengers on such a group ticket is 10 or less.

Group tickets with more than 10 passengers on each ticket are included on the basis of a 100 percent census, *i.e.*, all such tickets are

sampled, regardless of serial number, and the total data listed are conformed to a 10 percent sample for inclusion in the O&D Survey. Following the selection of reportable flight coupons and the recording of data, each participating carrier shall edit and summarize 2 the data into a quarterly report to the Department.

## II. EFFECTIVE DATE OF INSTRUCTIONS

These data collection and reporting instructions are effective on and after July 1, 1987 and apply to all flight coupons lifted on or after July 1, 1987.

## III. CARRIERS PARTICIPATING IN SURVEY

A. *Participating carriers.* As defined in section 19-7 of the Department's Economic Regulations (14 CFR part 241), the participants in the O&D Survey include all large certificated air carriers conducting scheduled passenger services (except helicopter carriers).

These participating carriers collect and report data in accordance with these Instructions, and supplemental *Passenger Origin-Destination Directives* that may be issued periodically.

The list of participating carriers will be issued by reporting directive under the authority in 14 CFR 385.27(b).

B. *Amendments to list of participating carriers.* As new carriers begin service, they will be required to file O&D Survey Data. These carriers will not be added to the participating carrier list automatically, but will be added when the next annual review is made.

## IV. SUBMISSION OF REPORTS

A. *Period covered by reports.* Reports are to be filed for each calendar quarter of the year as shown below:

Report Time period covered

1st quarter ..... Jan. 1 through Mar. 31.

2nd quarter ..... Apr. 1 through June 30.

3rd quarter ..... July 1 through Sept. 30.

4th quarter ..... Oct. 1 through Dec. 31.

B. *Filing date for reports.* Reports are to be filed with the Department on or before the dates listed below. The mailing address is on the inside cover to these instructions.

Report Due date 1

1st quarter ..... May 15  
2nd quarter ..... Aug. 15  
3rd quarter ..... Nov. 15  
4th quarter ..... Feb. 15

1 Due dates falling on Saturday, Sunday or national holiday will become effective the first following work day.

C. *Format of report.* The report may be submitted in any one of the following formats:

(1) ADP media including magnetic tapes and floppy discs.<sup>3</sup>

(2) Hard copy BTS Form 2787, in typewritten form, for carriers that lack computer capability. Sample formats of the required data appear in Sections IX and XII.

Supplies of blank Form 2787 are available, upon request, from the Director, Office of Airline Information (address on inside cover). Any reasonable facsimile of Form 2787 will be acceptable in lieu of Form 2787, if approved in advance by the Director.

D. *Number of copies of report to be filed.* A participating carrier shall file with the Department a single copy of its quarterly O&D data report. When ADP submissions are transmitted, the package is to contain a transmittal letter describing the contents, and stating the overall record and passenger

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4 Upon approval of the Director, Office of Airline Information, carriers may continue current reporting procedures (up to twentythree stages of a passenger flight) and may report a uniform 10 percent sample of tickets lifted (each zero ending lifted coupon) without reducing the sample size from 10 percent to 1 percent for domestic major markets.

Note that the domestic major markets will be reviewed each year at June 30, based on the prior 12 months O&D data, and the list amended as necessary. The list could remain static for more than a year, although it will be reviewed annually. Necessary amendments will be effective on January 1 of the

following year.

5 Codes to be used are those appearing in the *Official Airline Guide* at the time the data are being recorded. If a code is not found in the OAG, contact the Director, Office of Airline Information (address inside front cover). counts included in the submission. Each submission is to be labeled externally as to submitting carrier and time period of the O&D Survey data.

E. *Address for filing reports.* Reports should be submitted to the Director, Office of Airline Information (address on inside cover).

#### V. SELECTION OF SAMPLE AND RECORDING OF DATA.4

A. *Sampling Basis.* Each participating carrier in this O&D Survey shall search all listed flight coupons, whether the coupons are its own ticket stock or on the ticket stock of another U.S. or foreign carrier (either standard IATA and ARC ticket stock or nonstandard ticket stock), and is to *select for reporting purposes* the following flight coupons:

(1) *Major domestic markets.* All single-passenger flight coupons that are either a single flight coupon ticket or part of a round trip, two coupon ticket where the ticket serial number ends in the digits double-zero (00).

NOTE.—The list of major domestic markets will be issued by reporting directive under the authority in 14 CFR 385.27(b).

(2) *International markets and all other domestic markets.* (a) All single-passenger flight coupons with ticket serial numbers ending with the digit zero (0);

(b) Those group-ticket flight coupons with 10 or fewer passengers with ticket serial numbers ending with the digit zero (0);

(c) Those group-ticket flight coupons with 11 or more passengers without regard to serial number; and

(d) Itineraries in major domestic markets that comprise more than two coupons are sampled on a uniform 10 percent basis, by selecting all ticket serial numbers ending with the digit zero (0).



*B. Selection of Reportable Flight Coupons.*

The flight coupons identified above are to be examined to isolate the reportable flight coupons, i.e. coupons from which data are to be recorded. Flight coupon data are reported only by the first honoring and participating carrier (operating carrier). Such carriers shall report the required data for the entire ticketed itinerary.

If a participating carrier has preceded an examining carrier on any stage in the trip itinerary, including any stage in a conjunction itinerary and any stage in a reissued ticket (either before or after reissue) that coupon is not reportable.

For conjunction tickets, the ticket number for the first ticket booklet determines if the conjunction tickets should be reported in the Survey. Otherwise, conjunction tickets do not require special treatment and are governed by the rules for regular tickets.

No adjustment is made in the Survey for alterations or changes in the trip itinerary subsequent to the stage covered by the reportable coupon.

*C. Optional Use of Other Sampling Procedures.*

(1) Alternative sampling procedures or alternative O&D data systems may be proposed by participating carriers with nonstandard ticketing procedures, or other special operating characteristics. Data reported under proposed alternative procedures must approximate the usefulness and statistical validity of the O&D Survey.

(2) Such departures from the prescribed O&D Survey practices shall not be authorized unless approved in writing by the Director, Office of Airline Information (address inside front cover). The proposed alternative O&D Survey procedures must be described in detail in the letter requesting the waiver.

*D. Recording of Data from Reportable Flight Coupons.*

(1) The following items are to be reported from the reportable flight coupons:

- (a) Point of origin,
- (b) Operating carrier on each flight stage

- (if unknown, identify ticketed carrier),
  - (c) Ticketed carrier on each flight stage,
  - (d) Fare-basis on each flight coupon, C, D, F, G, X or Y,
  - (e) Points of stopover or connection (interline and intraline),
  - (f) Point of destination,
  - (g) Number of passengers, and
  - (h) Total dollar value of ticket (fare plus tax and other charges, such as Passenger Facility Charges).
- (2) The individual items are to be recorded in the sequence of occurrence in the itinerary as follows:
- (a) All entries for *points* (airport codes 5) in an itinerary are to be recorded in three-letter airport code data to fit into the stagelength limitation (seven or twenty-three stages at the carrier's option), all airport codes are to be reported, including data on

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commuter, foreign, intra-state and other carriers' portions of itineraries. Normally codes are recorded as they appear on the ticket. However, if a code is obviously incorrect, *record the correct code*. For instance, if a ticket is coded DCA-NYC or Washington/National to New York when the flight stage actually operated from Washington, Dulles to Newark (EWR), record the correct airport code. When only name spellings of a city appear on the ticket for multi-airport cities (such as Washington, New York, San Francisco, or Los Angeles), record the specific *three letter airport code*. In cases where two airport codes are shown on the ticket for a point, such as when the passenger arrives at an airport such as San Francisco and departs from another local airport such as Oakland, record the code for the arrival airport, enter a surface segment indicator (—) to the departure airport, and record the departure airport code. (When the surface portion is at

the beginning or end of an itinerary, the surface indicator is to be omitted). For example:  
000001 UCA YV UA Y JFK TW TW X  
Passenger(s) Utica Mesa  
Operating  
Carrier  
United  
Ticketed  
Carrier  
Fare Code New York  
Kennedy  
Airport  
TWA  
Operating  
Carrier  
TWA  
Ticketed  
Carrier  
Fare Code  
SURFACE TRANSPORTATION  
SFO (Blank space)  
San Francisco Operating Carrier Ticketed Carrier Fare Code  
OAK UA UA G LAX DL DL F  
Oakland United  
Operating  
Carrier  
United  
Ticketed  
Carrier  
Fare Los Angeles Delta  
Operating  
Carrier  
Delta  
Operating  
Carrier  
Fare Code  
SLC NW NW D PHX AA AA C LAX  
Salt Lake City Northwest  
Operating  
Carrier  
Northwest  
Ticketed  
Carrier  
Fare Code Phoenix American  
Operating  
Carrier

American  
Ticketed  
Carrier  
Fare Code Los Angeles  
JL JL C NRT 04596  
Japan Air Lines  
Operating  
Carrier  
Japan Air Lines  
Ticketed  
Carrier

Fare Code Tokyo Narita Dollars of Fare + Tax  
In the above example, the passenger trip stages or segments are compressed into the maximum of 7 stages so that several intermediate city-pairs (Los Angeles to Seattle to Anchorage, or LAX—SEA—Anc) and the related carriers have not been recorded, as prescribed below in this Section V.D.(3)(e). In addition, after the fourth city-pair (Los Angeles-Salt Lake City), the passenger trip itinerary moves from the initial four-part ticket booklet onto another “conjunction” ticket, and the summary fare code data are not recorded beyond the initial four-part ticket.

(b) All entries for operating and ticketed carriers for a coupon stage of an itinerary are to be recorded using two character IATA assigned or DOT codes, as in the above example. Note that the fare code summary was properly inserted after the ticketed carrier’s code, i.e., UA for United Air Lines and Y for unrestricted coach class service. When a two character carrier code is shown on the ticket, record that code for the ticketed carrier. However, if a code is obviously incorrect, record the correct carrier code. If the reporting carrier does not know the operating carrier on a downline code-share segment, it would use the ticketed carrier’s code for both the operating and ticketed carriers. The reporting carrier is not responsible for knowing the operating carrier of a downline codeshare where it is not a party to the codeshare segment. Except for the infrequent

compression of data to fit into the stagelength limitation (7 or 23 stages at the carrier's option), all carrier codes are to be recorded, including data on air taxis, commuters, intra-state, and other carrier portions of itineraries. On tickets involving interchange service or other cooperative carrier arrangements, the juncture point(s) where the passenger moves from one carrier

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system to another is to be recorded as an intermediate point in the itinerary, even when not shown on the ticket and even though the flight may overfly the juncture point.

(c) Entries for fare-basis codes are to be taken from the "fare basis" and "fare description" portions of the ticket and simplified into the appropriate category, as shown below. No attempt shall be made to determine and record fare-basis codes for that portion of a conjunction ticket appearing in the ticket. Fare-basis codes are to be recorded in one-character alphabetic codes.

The fare-basis codes are recorded as follows:

C—Unrestricted Business Class

D—Restricted Business Class

F—Unrestricted First Class

G—Restricted First Class

X—Restricted Coach/Economy Class

Y—Unrestricted Coach/Economy Class

U—Unknown (This fare category is used when none is shown on a ticket coupon, or when a fare category is not discernible, or when two or more carrier fare codes are compressed into a single stage of a passenger trip).

(d) In recording the number of passengers, each single-passenger ticket is to be recorded as one passenger. Tickets for infants under two years of age not occupying a seat are not to be counted. A revenue passenger is defined in Section X.

For group tickets of 10 or fewer passengers

per ticket record the actual number of passengers on each ticket, *i.e.*, either 2, 3, 4, 5, 6, 7, 8, 9 or 10. For group tickets with 11 or more passengers (those sampled at a 100-percent rate) record the actual number of passengers traveling on each ticket, but keep these entries separate from the group ticket records with 10 or fewer passengers and from the single-passenger ticket records. Group tickets with 11 or more passengers are to be sorted and summarized to combine all passengers for all itineraries which are identical in every respect, *i.e.*, points, carriers, fare basis codes, and average dollar value (as defined in paragraph (e), below). The total number of passengers on each summarized record is to be divided by 10, rounding to the nearest whole passenger. If the quotient ends in 0.5 or more, raise to the next whole passenger. If the quotient ends in less than 0.5, drop the fraction. These large group-ticket records, after division by 10 for compatibility with the other data, are to be merged with the single-passenger records and with the group-ticket entries from tickets of 10 or fewer passengers for the quarterly O&D Survey report.

(e) The total dollar value shall be taken from the "Total" box on each ticket and shall be the sum of the fare plus tax for the entire ticket. Record this amount in whole U.S. dollars, with the cents dropped. Do not round cents to nearest whole dollar. Amounts on tickets stated in foreign currency are to be converted to U.S. dollar equivalents. For *all group tickets*, the dollar value to be recorded shall be the average amount per passenger, determined by dividing the total dollar value for the entire group by the number of passengers on the group ticket, dropping cents in the average amount.

(3) The *length of the itineraries to be recorded is limited* to a maximum of seven stages or twenty-three stages, at the carrier's option. This recognizes that the vast majority of

tickets sampled have seven stages or fewer and that the rare occurrences of extremely lengthy itineraries do not impact the overall Survey results enough to justify their reporting burden. Therefore, trips longer than these limits are *compressed* to fall within the stated maximums. The ticketed origin and destination are retained, but the *intermediate routing is compressed* by applying the following rules, in sequence:

- (a) Combine any contiguous open, unknown carrier, or surface stages eliminating the connecting point, and ignoring the farebasis codes, if different:
- (b) Combine any contiguous stages via the same non-U.S. carrier, eliminating the connecting point, and ignoring the fare-basis codes, if different;
- (c) Combine any contiguous stages via different non-U.S. carrier, making the carrier ‘‘UK’’, eliminating the connecting point, and ignoring fare-basis codes, if different:
- (d) Combine any contiguous stages via the *same U.S. carrier*, eliminating the connecting point, and ignoring the fare-basis codes, if different, and;
- (e) If the trip, after applying the four steps above, is still too long, record the compressed routing through to the stage length limitation city (seventh or twenty-third city), enter UK as the final carrier, and then record the ticketed destination as the next (the 8th or 24th) city.

## VI. SUMMARIZATION OF RECORDED DATA

A. *General.* Prior to the submission of each quarterly report to the Department, each carrier is to summarize the data in accordance with the rules in Section VI.B. In special hardship cases, carriers may submit a waiver request (with justification under Section 1–2 of 14 CFR part 241) requesting permission to report their flight coupon records exactly as represented on their lifted tickets. Waiver requests must provide the documentation described in Section VI.C. so that the Department can develop the necessary

procedures and edit routines to ensure the accuracy and reliability of the overall O&D Survey results. The granting of such waivers will depend upon the availability of resources for the Department to assume this

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additional burden, which can only be determined on a case by case basis, after evaluating each carrier's need.

*B. Rules for Summarization.* Sort the recorded entries into sequence by the entire record (excluding the passenger field), *i.e.*, by origin, complete routing (including farebasis codes), tickets destination, and dollars value of ticket. *All identical records are then to be combined into one summary record.* The number of passengers on the summary record is to be the sum of the passenger amounts of all the individual records combined. Passengers are only summarized where records are identical in all respects except in number of passengers including dollar value of ticket. NOTE: DO NOT SUMMARIZE DOLLARS OVER IDENTICAL RECORDS. This summarization is to include the entries from group tickets, but only after the entries for *group tickets with 11 or more passengers* have been *summarized and divided by 10*, as stated in Section V.D.(2)(d). Carriers submitting quarterly O&D Survey reports on magnetic tapes or similar formats such as "floppy discs" will follow the ADP INSTRUCTIONS in Section IX. Carriers filing reports on hardcopy BTS Forms 2787 are to enter, on the last page of the report, the overall total of the number of passengers in the report.

*C. Waiver Requests.* Requests for permission to depart from the required O&D Survey procedures should include a *procedural statement* describing the process the carrier proposed to employ in *examining, selecting and editing* the data from reportable flight coupons for the O&D Survey, as well as a flow chart diagramming



the proposed procedures.

D. *Quantity and Quality Controls*. Carriers are expected to establish and maintain *continuous quantity and quality* controls on the flow of all lifted flight coupons through their system processes to determine the total *number of coupons handled* and the number of reportable *coupons selected*. Such data controls and tests have not been specified by the Department, and necessarily must be developed by each carrier. Each participating carrier shall develop and use on a continuous basis such control tests as are necessary to ensure that all reportable coupons are being selected, recorded and reported as intended by these O&D Survey Instructions. Such controls should extend over all ADP processing, both in-house and that from external service bureaus.

## VII. EDITING OF RECORDED DATA

A. *City and Airport Codes*. Prior to submission of O&D Survey reports, each carrier is to edit the recorded data to validate city and airport codes. This edit is to verify that the codes recorded are valid official codes, and it is independent of whether or not the carriers shown actually operated into or out of the airport shown. Any questions about airport codes should be addressed to the Director, Office of Airline Information (see inside of cover).

B. *Edit Responsibility of Carriers*. Each carrier is responsible for developing edit procedures and internal controls over its data entry and processing procedures so that valid and reliable data are captured in the O&D Survey inputs and are properly summarized in the outputs. Since the carriers have many different statistical systems, it is not practicable for the Department of Transportation to prescribe specific controls in this area, and each carrier is responsible for developing the appropriate internal control procedures to edit the O&D Survey data and ensure the integrity of these data. The Department will control the accuracy of its

processing of the sampled data upon receipt from the carriers.

*C. System Documentation of Edits.* Carriers are required to maintain written O&D Survey procedural statements and flow charts.

As provided in Section VIII, these must be established, or re-certified as of July 1, 1987, and thereafter when significant procedural revisions occur.

## VIII. CONTROL OF SAMPLE SELECTION AND DATA RECORDING

*A. Sample Accuracy and Reliability.* In order to maximize the accuracy and reliability of the sample selection and data recording, each carrier is to:

(1) Develop a written statement describing the procedures it will employ in examining and selecting reportable flight coupons and in recording, summarizing, editing, and testing the Survey data.

(2) Submit any proposed changes in the above procedures to the Department's Office of Airline Information, prior to implementation of such changes.

(3) Establish continuous quantity controls on the flow of all lifted flight coupons through the carrier's accounting processing to determine the total number of coupons handled, and the number of reportable coupons selected. Tests are to be made continuously to assure that all reportable coupons are being selected and the data recorded. Such tests should be completed while the "lifted" flight coupons (representing earned passenger revenues for flight segments operated) remain in the possession of the carrier.

Establish such other internal control procedures as are necessary for supervising and monitoring the accuracy of the recording of data from reportable flight coupons.

*B. Staff Review.* The OAI staff will review the carrier procedures and practices and may request modifications or the use of special procedures necessary to improve the sample or to bolster the controls for accuracy and reliability.

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6 Each reel of tape will be returned to the individual carrier upon request.

**IX. ADP INSTRUCTIONS**

Each carrier electing to submit its Survey reports in machine listing form or magnetic media in lieu of hardcopy BTS Form 2787 is to be governed by the following instructions:

*A. Instructions for Submitting Records on Magnetic Media*

(1) *Identification record.* This identification record is to include the reporting carrier and the reporting period. It is designed to fall at the beginning of each file when sorted on columns 7 through 200. The record is to be in the format shown as follows:

Field

Tape

positions

(from-to)

Tape record layout

Passenger Count ..... 1-6 1. Passenger field must contain leading zeros, and no blanks.

1st City Code ..... 7-9

1ST Operating Carrier .. 10-11

1ST Ticketed Carrier .... 12-13 2. City field contains the 3-letter alpha code for the airport in the first 3 positions.

Fare Basis Code ..... 14

2ND City Code ..... 15-17

2nd Operating Carrier ... 18-19

2nd Ticketed Carrier .... 20-21

Fare Basis Code ..... 22

3rd City Code ..... 23-25

3rd Operating Carrier ... 26-27

3rd Ticketed Carrier ..... 28-29

Fare Basis Code ..... 30

4th City Code ..... 31-33 3. Ticketed and operating carrier fields are to contain the 2 character air carrier code.

An unknown carrier is  
to be coded “UK”  
and surface carrier is  
to be coded “— —”  
(dash dash).

4th Operating Carrier .... 34–35

4th Ticketed Carrier ..... 36–37

Fare Basis Code ..... 38

5th City Code ..... 39–41

5th Operating Carrier .... 42–43

5th Ticketed Carrier ..... 44–45

Fare Basis Code ..... 46

6th City Code ..... 47–49 4. Fare basis code is a  
one position alpha  
code.

6th Operating Carrier .... 50–51

6th Ticketed Carrier ..... 52–53

Fare Basis Code ..... 54 5. Portion of record for  
sorting, summarizing,  
and sequencing includes  
columns 7  
through 200.

7th City Code ..... 55–57

7th Operating Carrier .... 58–59

7th Ticketed Carrier ..... 60–61

Fare Basis Code ..... 62

8th City Code ..... 63–65 6. Dollar amount in positions  
196–200 is  
right justified.

Field

Tape

positions

(from-to)

Tape record layout

8th Operating Carrier .... 66–67

8th Ticketed Carrier ..... 68–69

Fare Basis Code ..... 70 7. Positions 66–193 are  
used only by those  
carriers who want to  
report more data, and  
are not compressing  
to 7 stages (see Sec.  
V.D. (3) for compressing  
rules.

9th City Code ..... 71–73

9th Operating Carrier .... 74–75

9th Ticketed Carrier .....	76–77
Fare Basis Code .....	78
10th City Code .....	79–81
10th Operating Carrier ..	82–83
10th Ticketed Carrier ....	84–85
Fare Basis Code .....	86
11th City Code .....	87–89
11th Operating Carrier ..	90–91
11th Ticketed Carrier ....	92–93
Fare Basis Code .....	94
12th City Code .....	95–97
12th Operating Carrier ..	98–99
12th Ticketed Carrier ....	100–101
Fare Basis Code .....	102
13th City Code .....	103–105
13th Operating Carrier ..	106–107
13th Ticketed Carrier ....	108–109
Fare Basis Code .....	110
14th City Code .....	111–113
14th Operating Carrier ..	114–115
14th Ticketed Carrier ....	116–117
Fare Basis Code .....	118
15th City Code .....	119–121
15th Operating Carrier ..	122–123
15TH Ticketed Carrier ..	124–125
Fare Basis Code .....	126
16th City Code .....	127–129
16th Operating Carrier ..	130–131
16th Ticketed Carrier ....	132–133
Fare Basis Code .....	134
17th City Code .....	135–137
17th Operating Carrier ..	138–139
17th Ticketed Carrier ....	140–141
Fare Basis Code .....	142
18th City Code .....	143–145
18th Operating Carrier ..	146–147
18th Ticketed Carrier ....	148–149
Fare Basis Code .....	150
19th City Code .....	151–153
19th Operating Carrier ..	154–155
19th Ticketed Carrier ....	156–157
Fare Basis Code .....	158
20th City Code .....	159–161
20th Operating Carrier ..	162–163
20th Ticketed Carrier ....	164–165
Fare Basis Code .....	166

21st City Code .....	167–169
21st Operating Carrier ..	170–171
21st Ticketed Carrier ....	172–173
Fare Basis Code .....	174
22nd City Code .....	175–177
22nd Operating Carrier	178–179
22nd Ticketed Carrier ...	180–181
Fare Basis Code .....	182
23rd City Code .....	183–185
23rd Operating Carrier	186–187
23rd Ticketed Carrier ....	188–189
Fare Basis Code .....	190
24th City Code .....	191–193
Blank .....	194–195

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7 Itinerary includes total dollar value of ticket.

Field

Tape

positions

(from-to)

Tape record layout

US Value of Ticket in \$ 196–200

Field Columns Remarks

Reporting carrier ..... 1–2 Alpha code.

Reporting period:

Year ..... 3–4 Tens and units position.

Quarter ..... 5 1, 2, 3, or 4.

Blanks ..... 6–200

(2) *Detail record.* (a) All records are to be summarized on the complete itinerary 7 (columns 7 through 200) and the summary record *only* for each itinerary is to be submitted. The tape file, including the identification record, is to be in sequence by complete itinerary.

(b) The tape record layout is shown on the following page.

(3) Magnetic Tape Instructions: (a) All tapes are to be written using the standard IBM extended binary coded decimal interchange code (EBCDIC).

(b) The recording density can be either 6250

or 1600 B.P.I.

(c) All tape will contain standard IBM volume header, and trailer records.

(d) External labels will contain the carrier, name, the report date, file identification, and an address for returning the tapes.

(4) *Transmittal letter*. The tape shall be accompanied by a transmittal letter which shows the number of records reported and the total number of passengers contained in the report.

*B. Editing of Tape Records*. Prior to submission of data, each carrier is requested to edit and correct its data so that its O&D Survey report may be as error-free as is reasonably practicable. The methods to be used in editing are left to the carriers' discretion, but with assistance available upon request from the Department's Office of Airline Information (OAI). To aid the carriers in maintaining a current file of editing criteria, OAI will re-issue, as needed, the city/airport-carrier file to each participating carrier. There will be a five-position field to denote the city/airport-carrier. The first three positions denotes the airport and the last two positions denotes the air carrier.

*C. Standard Formats for Floppy Disk or Cartridge Submissions*. Carriers should use the 200 position format with the standard length fields prescribed for magnetic media submissions. The record layout is detailed in subsection A(1) of this section. However, to simplify the PC submissions, the submitter may report the dollar value of the ticket in the field immediately after the last reported city code, rather than in positions 196–200. Submitters may separate fields by using commas or tabs (comma delimited ASCII or tab delimited ASCII format).

#### X. GLOSSARY OF TERMS

Selected terms used in the foregoing instructions are here defined and explained in the context of the O&D Survey.

*ADP*. An abbreviation for automated data processing, which is the term applied to all

forms of machine processed data.

*Carrier.* Any scheduled air carrier, U.S. or foreign, that appears on a coupon stage in a ticketed itinerary, including helicopter, air taxi, commuter, intra-Alaska carriers, and intra-state carriers.

*City or origin.* (See origin.)

*Conjunction ticket.* Two or more tickets concurrently issued to a passenger and which together constitute a single contract of carriage.

*Connecting point.* An intermediate point in an itinerary at which the passenger deplanes from one flight and boards another flight, either on the same carrier or from the flight of one carrier to a flight of another carrier, for continuation of the journey.

*Coupon stage.* (See flight-coupon stage.)

*Destination.* The last point in the itinerary and the last point at which the passenger is to deplane at the completion of the journey. (In roundtrip itineraries, the destination and the origin are the same.)

*Dollar value of ticket.* (See total dollar value of ticket.)

*Domestic.* Itineraries within or between the 50 U.S. States and the District of Columbia are considered domestic for this Survey.

*Fare basis code.* The alphabetic code(s) or combination of alphabetic and numeric codes appearing in the "Fare basis" box on the flight coupon which describe the applicable service and discount to which the passenger is entitled. All fare basis codes are summarized into basic categories; namely C—Unrestricted Business Class, D—Restricted Business Class, F—Unrestricted First Class, G—Restricted First Class, X—Restricted Coach/Economy Class, Y—Unrestricted Coach/Economy Class, and U—Unknown (This fare category is used when none is shown on a ticket coupon, or when a fare category is not discernible, or when two or more carrier fare codes are compressed into a single stage of a passenger trip).

*Fare ladder.* The "For-issuing-office-only" box of a ticket.



*Flight-coupon stage.* The portion of an itinerary which lies between two contiguous points in the itinerary and between which points the passenger is to travel on a single flight.

*Group ticket.* A single ticket valid for the transportation of two or more passengers over the same itinerary.

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*Interline transfer.* An occurrence at an intermediate point in an itinerary where a passenger changes from one carrier to another carrier, with or without a stopover.

*Intermediate point.* Any point in an itinerary, other than the origin or destination, at which the passenger makes an interline or intraline connection or stopover.

*International.* The world area outside the 50 U.S. States and the District of Columbia. Itineraries between points outside the 50 States are considered as international for this Survey, as well as itineraries between the 50 States and U.S. possessions, and between or within U.S. possessions.

*Intraline transfer.* An occurrence at an intermediate point in an itinerary where a passenger changes from a flight of one carrier to another flight of that same carrier, with or without stopover, or where the passenger changes from one class of service to another class of service on the same flight.

*Itinerary.* All points in the passenger journey, beginning with the origin, followed by the routing, and ending with the destination, in the sequence shown on the ticket.

*Operating air carrier.* Under a code-share arrangement, the air carrier whose aircraft and flight crew are used to perform a flight segment.

*Origin.* The first point in the itinerary and the point where the passenger first boards a carrier at the beginning of the itinerary.

*Participating carrier.* A carrier which is governed

by the Survey data collection and reporting instructions contained herein and which is required to file Survey reports with the Department of Transportation.

*Point.* A city or airport (always identified by its airport code).

*Reissued ticket.* A ticket issued in exchange for all or part of the unused portion of a previously issued ticket.

*Reportable flight coupon.* A flight coupon in an itinerary in which the carrier examining the coupon is the first participating carrier to lift a flight coupon in the itinerary and from which coupon the examining carrier records the Survey data.

*Reporting carrier.* The carrier in a given itinerary which has lifted the reportable flight coupon in that itinerary and which carrier is required to record the Survey data for that itinerary for the report to the Department.

*Routing.* The carrier on each flight-coupon stage in an itinerary and the intermediate points of routing stopover or connection (interline or intraline) in the sequence of occurrence in the movement of the passenger from origin to destination. The routing also includes fare-basis summary codes on each flight-coupon stage, to the extent these are available from the ticket.

*Scheduled service.* Transport service operated on a certificated large air carrier's routes pursuant to published flight schedules, including extra sections of scheduled flights.

*Stage.* (See flight-coupon stage.)

*Ticketed air carrier.* Under a code-share arrangement, the air carrier whose two-character air carrier code is used for a flight segment, whether or not it actually operates the flight segment.

*Total dollar value of ticket.* The sum of the fare plus tax for the entire ticketed itinerary, in whole U.S. dollars with cents dropped. For a group ticket, the amount is the average per passenger. For fares stated in foreign currency, it is the equivalent in

U.S. dollars.

*Transfer.* (See interline transfer and intraline transfer.)