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A LOS ANGELES BASIN 1100 AIRCRAFT TRAFFIC MODEL,(U)

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A LOS ANGELES BASIN 1100 AIRCRAFT TRAFFIC MODEL

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The MITRE CORPORATION
1820 Dolley Madison Boulevard
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January 1981

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Prepared for

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION
Systems Research & Development Service
Washington, D.C. 20590

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16. Abstract

This document describes a static model of air traffic in the Los Angeles basin in the 1995 time frame. The model is a "snapshot" of a "peak" instant in 1995, i.e., an instant when the greatest number of aircraft are predicted to be seen at any time in 1995 in the Los Angeles basin. Derived from an earlier model, it contains 1105 instantaneously airborne aircraft. Position, velocity, and other relevant descriptors of each aircraft are provided. The model reflects realistic constraints such as topography, expected airspace restrictions, and aircraft performance characteristics. The total number of aircraft predicted in the model is obtained on the basis of historical data and air traffic projections by the Federal Aviation Administration for the Los Angeles basin.

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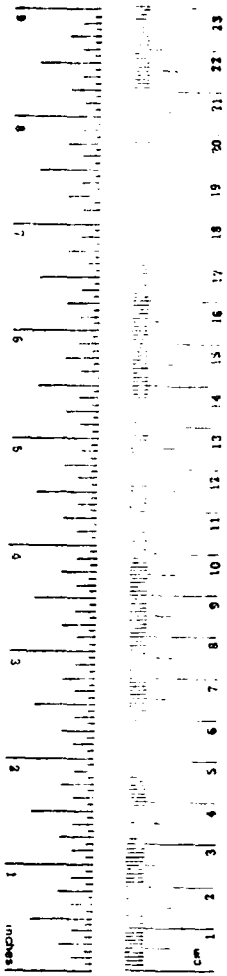
METRIC CONVERSION FACTORS

Approximate Conversions to Metric Measures

Symbol	When You Know	Multiply by	To Find	Symbol
		LENGTH		
in	inches	2.5	centimeters	cm
ft	feet	30	centimeters	cm
yd	yards	0.9	meters	m
mi	miles	1.6	kilometers	km
		AREA		
in^2	square inches	6.5	square centimeters	cm^2
ft^2	square feet	0.09	square meters	m^2
yd^2	square yards	0.8	square meters	m^2
mi^2	square miles	2.6	square kilometers	km^2
	acres	0.4	hectares	ha
		MASS (weight)		
oz	ounces	28	grams	g
lb	pounds	0.45	kilograms	kg
	short tons (2000 lb)	0.9	tonnes	t
		VOLUME		
tsp	teaspoons	5	milliliters	ml
Tbsp	tablespoons	15	milliliters	ml
fl oz	fluid ounces	30	milliliters	ml
c	cups	0.24	liters	l
pt	pints	0.47	liters	l
qt	quarts	0.95	liters	l
gal	gallons	3.8	liters	l
ft^3	cubic feet	0.03	cubic meters	m^3
yd^3	cubic yards	0.76	cubic meters	m^3
		TEMPERATURE (exact)		
°F	Fahrenheit temperature	5/9 (after subtracting 32)	Celsius temperature	°C

[illegible] 1 in = 2.54 (exactly). For other exact conversions and more detailed tables, see NBS Misc. Publ. 286, Units of Weights and Measures, Price $2.25, SD Catalog No. C13.10:286.



Approximate Conversions from Metric Measures

Symbol	When You Know	Multiply by	To Find	Symbol
		LENGTH		
mm	millimeters	0.04	inches	in
cm	centimeters	0.4	inches	in
m	meters	3.3	feet	ft
m	meters	1.1	yards	yd
km	kilometers	0.6	miles	mi
		AREA		
cm^2	square centimeters	0.16	square inches	in^2
m^2	square meters	1.2	square yards	yd^2
km^2	square kilometers	0.4	square miles	mi^2
ha	hectares (10 000 m^2)	2.5	acres	
		MASS (weight)		
g	grams	0.035	ounces	oz
kg	kilograms	2.2	pounds	lb
t	tonnes (1000 kg)	1.1	short tons	
		VOLUME		
ml	milliliters	0.03	fluid ounces	fl oz
l	liters	2.1	pints	pt
l	liters	1.06	quarts	qt
l	liters	0.26	gallons	gal
m^3	cubic meters	35	cubic feet	ft^3
m^3	cubic meters	1.3	cubic yards	yd^3
		TEMPERATURE (exact)		
°C	Celsius temperature	9/5 (then add 32)	Fahrenheit temperature	°F

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1. INTRODUCTION

This document describes an air traffic model of the Los Angles basin projected into the 1995 time frame. The Los Angeles basin is known to be the area of the densest air traffic in the United States at this time. It is expected to continue to be the densest area of air traffic activity in the 1990s. This model is a "snapshot" of air traffic in the Los Angeles basin, and represents air traffic at a "peak" instant in 1995, i.e., an instant which contains the greatest number of aircraft expected to be airborne in that area at any time during 1995. It contains complete position and velocity information on each aircraft in the basin at this peak instant. The model contains 1105 aircraft and is referred to as the LAX-1100 model.

LAX-1100 is derived from an earlier air traffic model of the Los Angeles basin for the same year, described in Reference 1. LAX-1100 revises that model by using current air traffic forecasts, but maintains all the realism inherent in that model such as topographical and airspace constraints, and aircraft performance.

This document briefly describes the methodology for deriving LAX-1100 and its data formats. It also lists each aircraft in the model.

The model is stored on tape number 1218 at the MITRE/Washington Computing Center at 1820 Dolley Madison Boulevard, McLean, Virginia 22102.

2. THE LAX-1100 MODEL

LAX-1100 is derived from an existing and previously widely used traffic model of the 1995 Los Angeles hub described in Reference 1, here referred to as LAX-1840. LAX-1840 makes extensive use of real life information about the Los Angeles basin, such as airport locations, terrain, likely airspace and route restrictions, traffic flows and patterns, aircraft altitude and speed profiles appropriate to their performance categories and flight types. The model was hand made; all this renders the model highly realistic. However, the traffic levels used for building the model were based on the forecasts available in 1972. Air traffic statistics have since experienced a significantly slower rate of growth as a result of the energy crisis. The LAX-1100 model incorporates the latest FAA forecasts. It is based on the LAX-1840 model and maintains all the realism otherwise inherent in that model. Section 2.1 briefly summarizes the relevant methodology of the original LAX-1840 model. Section 2.2 summarizes the new forecasts used for revising LAX-1840. Section 2.3 describes the method used for obtaining LAX-1100.

2.1 Review of LAX-1840 Methodology

Reference 1 uses the growth in the total annual operations in the Los Angeles hub to estimate the growth in the peak instantaneous airborne count (IAC) in the basin. Let N71 and N95 be the peak IACs for the Los Angeles hub in 1971 and 1995, respectively. Let A71 and A95 be the total annual operations in the Los Angeles hub for 1971 and 1995, respectively. Then, Reference 1 assumes that

$$\frac{N95}{N71} \approx \frac{A95}{A71}$$

Reference 2 provides a peak IAC of 495 for the base year (actually 1972). Reference 3 shows that this IAC is based on about 82% of the air traffic activity in the basin. Thus, the total basin IAC, N71, was estimated by Reference 1 to be 600. The 1971 annual operations count A71 = 6,357,000 operations was available from FAA sources. The 1995 operations count, A95, was obtained by the following method:

$A95 = (1+R)^{24} * A71$, where R is given by $(1+R)^{10} = A83/A73$

A83 and A73 were obtained from FAA Terminal Area forecasts (see Reference 1 for details). This gives A95 = 19,477,000. Therefore N95 = (19477/6357) * 600 = 1840. This total IAC count of 1840 was then subdivided into various subgroups in proportion to component operation numbers.

2.2 New Forecast

Reference 4, published in 1985, provides the FAA forecast of air traffic in the Los Angeles area for the years 1985 to 1990. This forecast was published [illegible] before the airline deregulation act was passed. However, a later forecast is not yet available. Deregulation may be expected to affect air traffic fleet projections slightly. Table 2-1 lists the [illegible] from Reference 4 for the years 1985 and 1990 for three [illegible] operations: air carriers, general aviation itinerant, and general aviation local. This is the finest subdivision of operations available in Reference 4. For this study, the operations within each category were projected another five years, to the year 1995, assuming a constant yearly percent growth between 1985 and 1995. These resulting new forecasts for 1995 are also listed in Table 2-1.

Table 2-2 compares these new forecasts to the original 1995 forecasts used in deriving LAX-1840. Military operations are assumed to remain constant at the levels of Reference 1. Table 2-2 shows the ratio of the new forecasts to the old forecasts for each flight category. The new forecast yields a total annual operations count which is about 60% of the old forecast. Thus, maintaining the methodology used in Reference 1, the total number of aircraft in the 1995 Los Angeles basin peak snapshot would be expected to be about 60% of the number in *LAX-1840*.

2.3 Derivation of LAX-1100

Since Reference 1 assumes a proportionality of the growth in annual operations to peak IAC at all levels, the new forecasts should be reflected in smaller total IACs for the basin in each of the three flight categories of Table 2-2 in the proportions listed there. A random number generator is used to delete air rate from the LAX-1840 model, as shown in Figure 2-1. The final set of aircraft in the output file LAX-NEW is thus a proper subset of the aircraft in LAX-1840. Each aircraft that is retained in LAX-NEW has all its original coordinate values.

Three different runs were made, with three different starting random number seeds providing three different LAX-NEW models. The three versions had 1074, 1096 and 1105 aircraft respectively. The 1105 aircraft model was chosen as the revised Los Angeles basin model and was named LAX-1100.

TABLE 2-1

1973 AVIATION FORECASTS FOR THE L.A. HUB

Type of Projection	Forecast For Year	Air Carriers	General Aviation	
			Itinerant	Local
FAA (Reference 4)	1985	840	4317	3676
	1990	1015	4825	4060
Geometric Projection	1997	1224	5393	4485

TABLE 2-2

COMPARISON OF FORECASTS

(Annual Operations in Thousands)

	Air Carriers	General Aviation		Military	Total
		Itinerant	Local		
New 1995 Forecast (From Table 2-1)	12[illegible]	539[illegible]	[illegible]	490	[illegible]
Old 1995 Forecast (from Tables 3-2 and 3-4 of Reference 1)	1343	8882	8882	[illegible]	194[illegible]
Scaling Factor	0.911	0.607	0.507	1	

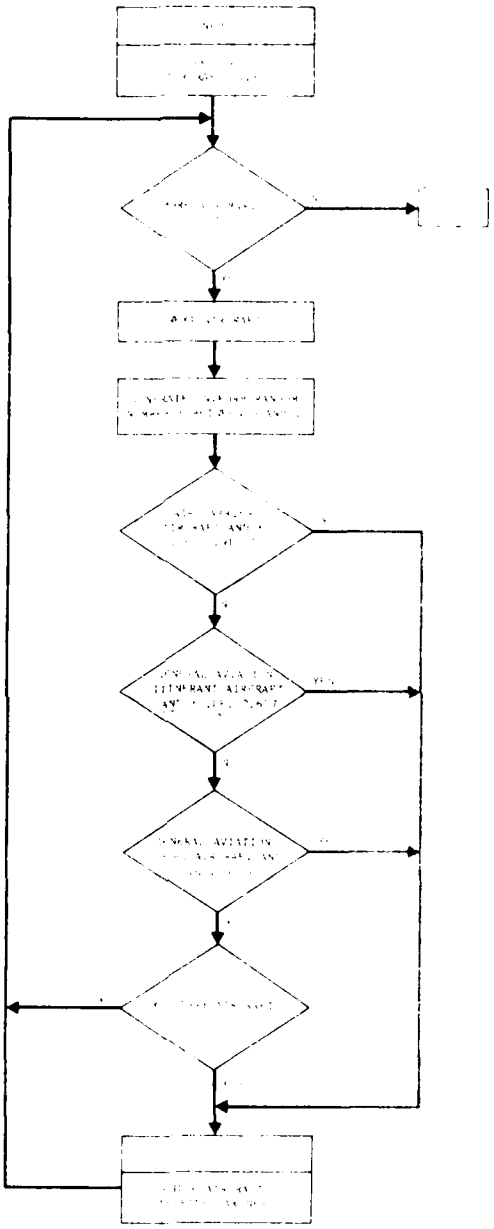


FIGURE 2-1
GENERATION OF LAX-1100

3. DATA FORMATS

The LAX-1100 model consists of 1105 aircraft. The model exists as a series of 1105 card images, each card image consisting of data on one aircraft, and is stored on a 9-track tape.

Section 3.1 describes the format information for reading the tape, and section 3.2 describes the formats for interpreting each card image.

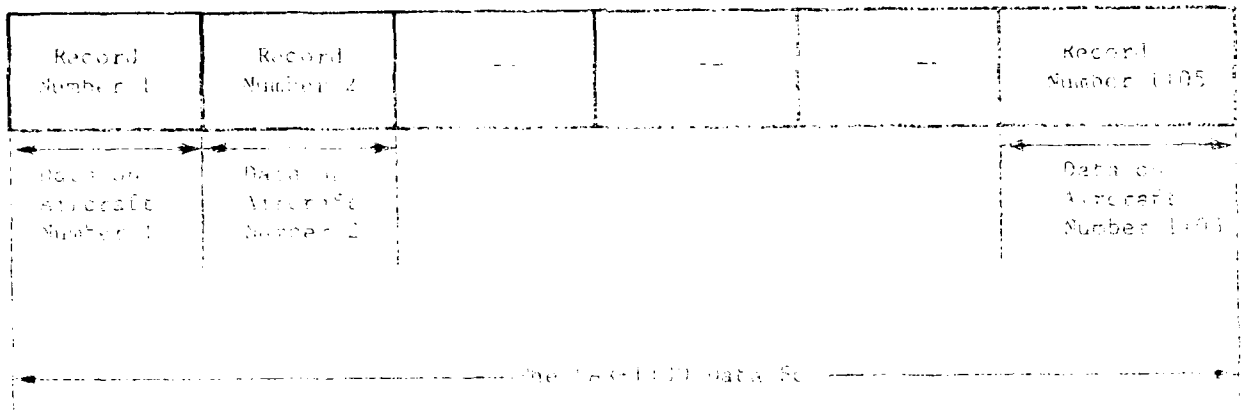
3.1 Tape Format

Tape number 1218 is a 9-track tape and contains the LAX-1100 model. It has been created on an IBM/370 (Model 148) computer running VM/370. The data density is 800 bits per inch. The data set consists of 1105 logical records as shown in Figure 3-1 (see Reference 5 for IBM/370 nomenclature). Each logical record corresponds to a physical record 80 bytes long. Each byte represents an EBCDIC coded alphanumeric character. Each logical record is thus an 80 column card image. A tape mark indicates the end of the data set on the tape.

3.2 Formats For Each Card Image

This section describes the data formats for each card image. Each card image contains complete data on one aircraft. These formats are identical with those necessary to interpret the LAX-1840 model of Reference 1. Reference 1 also contains a description of these formats; however, Reference 1, as published in March 1974, contained an error affecting the interpretation of columns 41 through 53. This error was later corrected by a correction sheet dated September 11, 1974. The formats described in this section incorporate these corrections. The following formats are thus the correct formats:

Item No.	Card Columns	
1	1-4	Aircraft sequence number
2	6-13	Aircraft description code
3	15-17	Departure airport code
4	19-21	Arrival airport code
5	23-39	Aircraft position (x,y,z)
6	41-59	Aircraft velocity ($\dot{x}$,$\dot{y}$,$\dot{z}$)
7	61-64	Aircraft heading
8	66-69	Aircraft ground speed
9	71-74	Aircraft turn rate
10	76	Flight plan code
11	78	Flight phase code



Each record is [illegible] bytes long.
Record format [illegible] length'

FIGURE 1
LAX-1100 TAPE FORMAT

The interpretation of the data codes and the arithmetic precision and units of measure are included in the following detailed description of each data item:

1. Aircraft sequence number
   Cols: 1-4 nnnn
   Data: a four digit integer ranging from 1 to 1105

2. Aircraft description code
   Cols: 6-13 a_1 a_2 a_3 a_4 nnnn

   Data: Descriptor Category a_1 a_2 a_3 a_4

   Sequence number nnnn within a category

   where

   <u>Air carrier</u> a_1 a_2 = AC

	T	SST
a_3 =	L	Long haul
	M	Medium haul
	S	Short haul
	U	Ultra-short haul
a_4 =	H	Heavy aircraft
	L	Light aircraft

<u>General Aviation or Military</u>

a_1 =	V	for VFR
	I	for IFR
a_2 =	I	for itinerant
	L	for local
	O	for over
a_3 =	G	for general aviation
	M	for military
a_4 =	A	Single engine 1-3 places
	B	Single engine 4 or more places
	C	Multi-engine under 12,500 pounds
	D	Multi-engine over 12,500 pounds
	E	Turboprop
	F	Turbojet

3. Departure airport code

Cols: 15-17 aaa
Data: One of 48 airport codes (see Table 3-1) or one of eight hub boundary octals (see Figure 3-2) for flights departing from airports outside of the hub.

4. Arrival airport code

Cols: 19-21 aaa
Data: Same as (3). (Hub codes for flights destined for airports outside the hub.)

5. Aircraft positions (x, y, z)

Cols: 23-28, 30-35, 37-39
± xxx.x, ± xxx.x xxx

Data: x coordinate in nautical miles
y coordinate in nautical miles
z coordinate in hundreds of feet

The coordinate system is centered at the LAX VORTAC. The VORTAC is at 33° 55' 59" North Latitude and 118° 25' 52" West Longitude. The x-axis points (true) east and the y-axis points (true) north. Altitudes are referenced to mean sea level.

6. Aircraft velocities ($\dot{y}$, $\dot{x}$, $\dot{z}$)

Cols: 41-46, 48-53, 55-59
± xxx.x ± xxx.x ± xxxx

Data: $\dot{y}$ is velocity in knots

$\dot{x}$ is velocity in knots

$\dot{z}$ is climb or descent rate in feet per minute

7. Aircraft heading

Cols: 61-64 xxxx
Data: Aircraft heading from 0 to 359 degrees
(0 = true north, angles increasing clockwise)

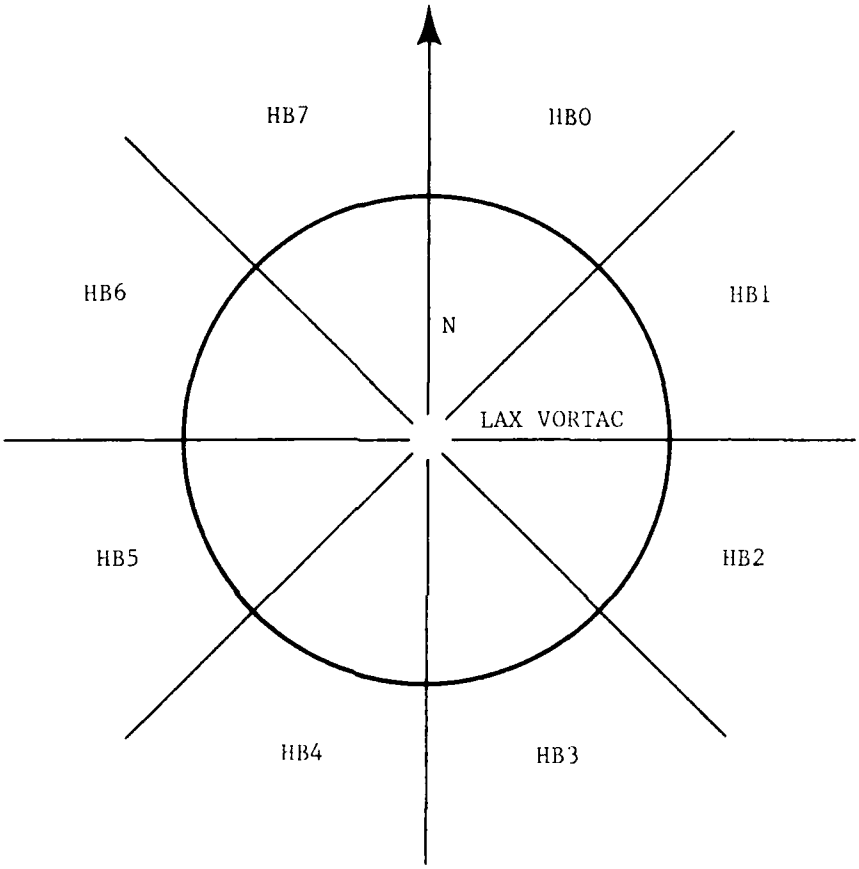
8. Aircraft ground speed

Cols: 66-69 xxxx
Data: Ground speed in knots

TABLE 3-1

AIRPORT CODE LIST

	Airport Code	Airport Name		Airport Code	Airport Name
1.	LGB	Long Beach	25.	L36	Rialto
2.	VNY	Van Nuys	26.	APV	Apple Valley
3.	SNA	Santa Ana	27.	SBD	Norton AFB
4.	LAX	Los Angeles International	28.	L66	Corona
5.	TOA	Torrance	29.	L12	Redlands
6.	SMO	Santa Monica	30.	NZJ	MCAS El Toro
7.	HHR	Hawthorne	31.	X17	Hemet Ryan
8.	BUR	Burbank	32.	SFR	San Fernando
9.	POC	La Verne Brackett	33.	RIR	Fla Bob (Riverside)
10.	CNO	Chino	34.	WHP	Whiteman (L.A.)
11.	EMT	El Monte	35.	X01	Agua Dulce
12.	FUL	Fullerton	36.	X42	Skylark
13.	CPM	Compton	37.	SZP	Santa Paula
14.	X14	George AFB	38.	X32	Quartz Hill
15.	EDW	Edwards AFB	39.	X37	Rosamond
16.	OXR	Oxnard	40.	L38	Capistrano
17.	ONT	Ontario	41.	SBT	Tri City
18.	RAL	Riverside	42.	X25	Morrow
19.	L16	Meadowlark	43.	X15	Hawkins
20.	WJF	Fox	44.	X31	Perris Valley
21.	PMD	Palmdale	45.	X33	Rancho California
22.	L02	Santa Susana	46.	X18	Hesperia Airlodge
23.	CCB	Cable	47.	X44	Sun Hill Ranch
24.	RIV	March AFB	48.	X43	Sterks Ranch



NOTE: The Hub Is Divided Into Eight Equiangular Octals For Arrivals And Departures Across Its Boundaries.

FIGURE 3-2
HUB OCTAL CODES

9. Aircraft turn rate

Cols: 71-74 ± x.x

Data: Turn rate in degrees per second
+ = clockwise
- = counter clockwise

10. Flight plan code

Col: 76 n
Data: n = 1 flight plan filed
n = 0 no flight plan

11. Flight phase code

Col: 78 n
Data: n = 0 Cruise phase
n = 1 Climb phase
n = 2 Descent phase

A complete listing of this data set is provided in Chapter 4.

4. THE SNAPSHOT

Table 4-1 lists the LAX-1100 model.

SEQN NO.	AIRCRAFT DESCRIPT CODE	AIRPORT DEP	ARR	AIRCRAFT POSITION N MI -X-	N MI -Y-	FT-DD -Z-	AIRCRAFT VELOCITY KNOTS -Y-	KNOTS -X-	FT/MN -Z-	BRNG DEGS	GRND SPD KTS	TURN RATE DG/SC	C D 1	C D 2
1	ACLH0001	LAX	HB5	-41.3	-3.2	180	-55.2	-313.1	2800	260	318	0.0	1	1
2	ACLH0002	HB7	LAX	-14.7	17.2	133	-258.6	134.5	-1400	158	279	0.0	1	2
3	ACLH0003	LAX	HB7	-21.0	34.3	222	270.7	-67.4	2350	346	274	0.0	1	1
4	ACLH0004	HB7	LAX	-15.1	56.2	210	-250.2	144.5	-1450	150	284	0.0	1	2
5	ACLH0005	LAX	HB1	65.4	48.2	370	155.0	264.4	0	60	310	0.0	1	0
6	ACLH0006	HB1	LAX	55.1	51.0	260	-263.1	95.7	0	160	280	0.0	1	2
7	ACLH0007	LAX	HB0	14.4	34.4	150	256.5	136.0	2450	23	279	0.0	1	1
8	ACLH0008	HB1	LAX	15.4	2.7	35	-24.9	-237.6	-1200	264	239	0.0	1	2
9	ACLH0009	LAX	HB1	10.0	16.9	135	134.5	232.9	2250	60	269	0.0	1	1
10	ACLH0010	HB1	LAX	51.7	12.4	150	-228.6	-121.5	-1400	238	259	0.0	1	2
11	ACMH0001	HB3	LAX	21.0	-13.	60	-147.1	-175.4	-1150	230	229	0.0	1	2
12	ACMH0002	HB1	LAX	10.0	2.0	27	-22.4	-217.8	-750	264	219	0.0	1	2
13	ACMH0003	HB7	LAX	1.0	4.8	24	-161.9	161.9	-1150	135	229	-2.0	1	2
14	ACMH0004	HB7	LAX	-14.4	2.2	44	-153.6	134.0	-1200	130	239	-1.5	1	2
15	ACMH0005	HB7	LAX	2.0	33.8	140	-248.6	13.0	-1250	177	249	0.0	1	2
16	ACMH0006	HB1	LAX	14.5	42.4	145	-64.4	-243.5	2100	255	24	0.0	1	1
17	ACMH0007	HB1	LAX	50.3	5.1	135	-24.9	-237.6	-1200	264	239	0.0	1	2
18	ACMH0008	HB1	LAX	68.9	14.4	135	-137.2	-219.6	-1300	238	259	0.0	1	2
19	ACMH0009	HB1	LAX	64.1	36.2	230	-237.5	-125.2	-1375	238	259	0.0	1	2
20	ACMH0011	LAX	HB7	-3.4	-0.3	15	-17.3	-193.2	700	255	199	0.0	1	1
21	ACMH0012	LAX	HB2	-6.2	-4.8	35	-167.7	-143.7	1850	220	219	0.0	1	1
22	ACMH0013	LAX	HB2	-4.3	-3.6	58	-3.8	219.9	300	41	219	0.0	1	1
23	ACMH0014	LAX	HB1	13.7	6.5	50	33.4	237.8	0	82	240	0.0	1	2
24	ACMH0015	LAX	HB1	17.2	21.0	152	124.5	224.3	1775	60	259	0.0	1	1
25	ACMH0016	LAX	HB0	10.3	24.1	30	236.4	101.1	2150	23	259	0.0	1	1
26	ACMH0017	LAX	HB3	-1.3	-31.0	175	-249.[illegible]	103.7	2200	158	269	-0.5	1	1
27	ACMH0018	LAX	HB2	55.1	-34.4	350	-5.4	309.9	0	91	310	0.0	1	0
28	ACMH0019	LAX	HB1	44.5	36.5	335	144.5	253.2	2425	60	289	0.0	1	1
29	ACMH0020	LAX	HB7	-15.5	17.2	135	270.7	-67.4	2350	346	279	0.0	1	1
30	ACMH0021	LAX	HB1	51.7	45.9	340	71.7	310.8	900	77	319	0.0	1	1
31	ACMH0022	LAX	HB1	55.1	30.0	265	190.2	204.0	2375	47	279	0.0	1	1
32	ACMH0023	LAX	HB2	56.6	-12.4	320	-20.8	299.2	1000	94	299	0.0	1	1
33	ACSL0001	HB7	LAX	4.8	3.7	43	-64.5	198.7	-900	138	209	0.0	1	2
34	ACSL0002	HB3	LAX	7.8	0.6	20	-22.8	-217.8	-1100	264	219	0.0	1	2
35	ACSL0003	HB3	LAX	16.9	-6.2	43	147.1	-175.4	-1150	310	229	0.0	1	2
36	ACSL0004	HB1	LAX	37.9	3.7	96	-23.9	-227.7	-1150	264	229	0.0	1	2
37	ACSL0005	HB7	LAX	-10.0	47.2	185	-224.3	129.5	-1300	150	259	0.0	1	2
38	ACSL0006	HB6	LAX	-48.2	42.7	250	-144.9	214.7	-1250	124	259	0.0	1	2
39	ACSL0007	LAX	HB7	-13.1	6.8	70	252.2	-62.8	0	346	260	0.0	1	1
40	ACSL0008	LAX	HB1	-4.3	8.6	54	114.5	198.3	1900	60	229	0.0	1	1
41	ACSL0009	LAX	HB0	5.9	13.4	60	220.0	43.3	2000	23	239	0.0	1	1
42	ACSL0010	LAX	HB1	32.7	3.3	120	119.5	236.9	2000	60	239	-2.5	1	1
43	ACSL0011	LAX	HB2	39.6	-10.6	227	-18.7	268.3	2250	94	269	0.0	1	1
44	ACUL0001	LAX	LGB	5.5	-8.6	79	-3.9	228.9	1900	91	229	0.0	1	1
45	ACUL0002	LAX	SNA	8.2	-9.9	87	-4.0	233.9	1950	91	234	0.0	1	1
46	ACUL0003	LAX	SNA	0.0	-5.5	30	-140.7	167.7	1200	130	219	0.0	1	1
47	ACUL0004	LAX	SNA	28.6	-10.3	175	-17.3	248.3	2050	94	249	0.0	1	1
48	ACUL0005	LAX	SNA	19.3	-4.9	120	-8.3	238.8	2000	92	239	0.0	1	1
49	ACUL0006	LAX	ONT	-1.0	-0.6	11	-102.2	-121.8	1300	230	159	0.0	1	1
50	ACUL0007	LAX	ONT	3.4	5.5	50	29.2	237.9	0	82	210	0.0	1	1

TABLE 4-1
(Continued)

SEQN NO.	AIRCRAFT DESCRIPT CODE	AIRPORT DEP	AIRPORT ARR	AIRCRAFT POSITION N MI -X-	N MI -Y-	FT-00 -Z-	AIRCRAFT VELOCITY KNOTS -X-	KNOTS -Y-	FT/MN -Z-	HDNG DEGS	GRND SPD KTS	TURN RATE DG/SC	C 1	C 2
1234567890	1234567890	1234567890	1234567890	1234567890	1234567890	1234567890	1234567890	1234567890	1234567890	1234567890	1234567890	1234567890		
51	ACJLD009	LAX	ONT	39.3	-3.1	90	66.9	218.9	-1150	73	229	0.0	1	2
52	ACJLD009	LAX	ONT	47.2	8.2	25	-3.6	-238.9	-1050	269	209	0.0	1	2
53	ACJLD010	LAX	BAL	54.1	0.3	30	41.6	-236.3	-1500	280	240	0.0	1	2
54	ACJLD011	LAX	PMD	12.7	30.0	150	201.5	35.5	1100	23	219	0.0	1	1
55	ACMHD024	ONT	HB1	48.2	23.4	105	183.4	196.7	2250	47	269	0.0	1	1
56	ACMHD025	HB5	ONT	50.3	0.3	56	72.8	238.0	-1400	73	249	0.0	1	2
57	ACSLD012	HB2	ONT	52.0	-22.7	130	210.4	-76.6	-1100	340	224	0.0	1	2
58	ACSLD013	HB5	ONT	17.5	-6.5	125	64.0	209.4	-1100	73	219	0.0	1	2
59	ACSLD014	HB6	ONT	37.2	35.1	210	-144.8	214.7	-1300	124	259	0.0	1	2
60	ACSLD015	HB1	ONT	71.0	45.8	250	-183.4	-196.7	-1350	227	269	0.0	1	2
61	ACSLD016	ONT	HB0	32.0	23.8	140	224.5	81.7	2000	20	239	0.0	1	1
62	ACSLD017	ONT	HB7	3.7	22.0	90	198.4	-166.4	2200	320	259	0.0	1	1
63	ACJLD012	ONT	LGB	24.4	-3.6	41	-210.4	-76.6	0	200	224	0.0	1	0
64	ACJLD013	ONT	SNA	37.6	5.8	30	-167.7	-160.7	1800	220	219	0.0	1	1
65	ACJLD014	ONT	SNA	31.7	-8.9	50	-198.3	-114.4	1850	210	229	0.0	1	1
66	ACJLD015	ONT	LAX	13.1	2.0	31	-22.3	-212.8	-600	264	214	0.0	1	2
67	ACJLD017	ONT	LAX	23.8	5.1	62	-205.7	-74.9	-1100	200	214	0.0	1	2
68	ACMHD026	HB1	PMD	24.4	43.4	40	-59.2	-221.1	-1150	255	229	0.0	1	2
69	ACMHD027	HB1	PMD	65.2	54.1	140	-72.2	-259.4	-1400	255	279	0.0	1	0
70	ACMHD028	HB6	PMD	-39.6	7.9	210	0.0	279.0	-1400	90	279	0.0	1	2
71	ACMHD029	PMD	HB1	34.1	30.3	250	124.5	215.6	2100	60	249	0.0	1	2
72	ACMHD030	PMD	HB1	37.9	44.8	220	92.0	252.7	2300	70	269	0.5	1	1
73	ACMHD031	PMD	HB7	-25.5	57.9	315	237.8	-77.1	2500	345	298	0.0	1	1
74	ACSLD018	HB1	PMD	41.7	47.9	75	-61.8	-230.8	-1200	255	239	0.0	1	2
75	ACSLD019	HB7	PMD	3.4	55.1	110	-24.3	277.9	-1400	95	279	0.0	1	2
76	ACSLD020	HB2	PMD	57.4	-29.5	200	232.9	-134.5	-900	330	269	0.0	1	2
77	ACSLD022	PMD	HB1	14.4	41.8	28	-71.4	-136.3	1725	250	209	0.1	1	1
78	ACSLD023	PMD	HB1	12.7	34.0	70	-39.7	-225.5	1900	260	229	-2.0	1	1
79	ACSLD024	PMD	HB1	49.7	41.1	220	135.2	225.6	2100	65	249	0.0	1	1
80	ACSLD025	PMD	HB3	28.2	-32.0	85	-228.1	142.5	2200	148	269	0.0	1	1
81	ACJLD019	PMD	LAX	7.2	31.7	100	-251.1	-67.2	0	195	260	0.0	1	0
82	ACMHD032	HB6	SNA	33.5	-7.8	30	-198.3	-114.4	-600	210	229	0.0	1	2
83	ACMHD033	HB1	SNA	65.4	18.4	195	-169.8	-182.1	-1250	227	249	0.0	1	2
84	ACMHD034	SNA	HB2	25.5	-13.6	20	-172.3	-99.4	1500	210	199	0.0	1	1
85	ACMHD035	SNA	HB2	25.1	-3.7	150	240.5	64.4	2100	15	249	0.0	1	0
86	ACSLD027	HB2	SNA	24.3	-12.2	2	-189.6	-109.4	-1100	210	219	0.0	1	2
87	ACSLD028	HB1	SNA	36.5	0.3	42	-198.3	-114.4	-600	210	229	0.0	1	2
88	ACSLD029	HB1	SNA	61.4	31.0	155	-68.5	-243.3	-1250	250	254	0.1	1	2
89	ACSLD030	HB1	SNA	27.5	14.4	115	-89.5	221.5	-1200	112	239	0.0	1	2
90	ACSLD031	SNA	HB2	37.4	-17.9	115	84.3	244.8	2150	71	259	0.3	1	1
91	ACSLD032	SNA	HB3	43.2	14.4	35	140.7	160.0	-1200	40	249	0.6	1	2
92	ACSLD033	SNA	HB1	63.3	42.4	320	173.5	206.8	0	50	270	0.0	1	0
93	ACSLD034	SNA	HB3	31.2	-36.2	110	-228.1	142.5	2200	148	269	0.0	1	1
94	ACJLD020	SNA	LAX	14.6	-15.6	80	236.3	-41.6	0	350	240	0.0	1	0
95	ACJLD021	SNA	LAX	14.4	-2.4	35	180.9	-104.5	-525	330	209	0.0	1	2
96	ACJLD022	SNA	LAX	5.1	1.3	12	-71.4	-146.3	-1050	250	209	0.5	1	2
97	ACJLD023	SNA	LAX	17.2	-4.2	40	82.0	-225.5	0	290	240	0.0	1	0
98	ACJLD024	SNA	BUR	17.9	-1.0	80	225.5	-34.7	-1150	350	229	0.0	1	2
99	ACJLD026	SNA	ONT	43.1	7.5	12	-3.4	-195.9	-600	269	199	0.0	1	2
100	ACJLD027	HB2	SNA	45.5	-21.0	40	119.9	-237.8	0	300	240	0.0	0	0

TABLE 4-1
(Continued)

SEQN NO.	AIRCRAFT DESCRIPT	AIRCRAFT OBJ	AIRCRAFT DEP	AIRCRAFT POSITION NMI -X-	NMI -Y-	FT-DD -Z-	AIRCRAFT VELOCITY KNOTS -Y-	KNOTS -X-	FT/MN -Z-	BRNG DEGS	GRD SPD KTS	TURN RATE DG/SC	1	2
101	ACSL0027	SNA	HR1	62.4	36.2	110	154.2	183.8	0	50	240	0.0	0	0
102	ACMH0037	HR7	BUR	-32.7	43.7	215	-224.4	157.1	-1375	145	274	0.0	1	2
103	ACMH0038	HR3	BUR	32.0	-32.0	135	-172.9	-206.0	-1350	230	264	0.0	1	2
104	ACMH0039	BUR	HR7	3.0	15.5	25	-17.3	-198.2	1700	265	199	0.0	1	1
105	ACMH0040	BUR	HR7	-18.2	28.6	170	257.2	-59.3	2200	347	264	0.0	1	1
106	ACSL0036	HR7	BUR	-1.7	25.8	115	-243.6	12.7	-1200	177	244	0.0	1	2
107	ACSL0037	SNA	HR1	56.2	43.8	130	116.2	247.2	0	65	275	0.0	1	0
108	ACSL0038	BUR	HR7	-16.2	23.1	130	238.6	-86.5	2100	340	254	1.0	1	1
109	ACSL0039	BUR	LAX	13.7	-12.0	70	-39.9	226.5	0	100	230	0.0	1	0
110	ACSL0031	BUR	SNA	-2.0	7.2	30	-205.7	74.9	1600	160	219	0.0	1	1
111	ACSL0032	BUR	PAL	50.7	3.1	10	-137.6	196.5	-1000	125	240	2.5	1	2
112	ACSL0039	HR3	LGB	23.4	-15.1	32	143.6	-165.2	-1100	311	219	0.0	1	2
113	ACSL0033	LGB	LAX	12.7	-5.5	10	115.0	-137.1	1000	310	179	0.0	1	1
114	ACSL0034	LGB	BUR	13.4	13.6	42	137.0	145.3	-540	60	214	-2.0	1	2
115	ACSL0035	LGB	PXR	-24.8	16.5	60	0.0	-209.0	-1000	270	209	0.0	1	2
116	ACSL0036	LGB	NT	57.2	5.5	40	0.0	230.0	-250	0	230	-3.0	1	2
117	ACSL0037	PAL	LAX	44.4	2.7	60	43.4	-246.2	0	280	250	0.0	1	0
118	ACSL0038	PAL	BUR	23.1	11.3	60	160.0	-190.7	-1000	310	249	0.0	1	2
119	ACSL0039	PXR	LGB	-10.3	11.3	40	-105.6	226.5	0	115	250	0.0	1	0
120	ITSA0001	PXR	LGB	-5.1	18.2	49	-42.7	117.4	0	110	125	0.0	1	0
121	ITS0002	PXR	LAX	20.3	2.4	43	-15.0	-143.2	1	264	144	0.0	1	0
122	ITS0003	NT	LAX	32.0	8.2	40	-69.9	-121.2	0	240	140	0.0	1	0
123	ITS0005	LAX	HR3	4.8	41.3	78	128.0	32.5	0	10	130	0.0	1	0
124	ITS0006	ONT	SMO	23.4	6.2	50	-9.0	-127.6	0	266	130	0.0	1	0
125	ITS0007	LGB	BUR	8.4	7.2	41	100.6	-65.3	0	327	120	0.0	1	0
126	ITS0008	LAX	PDC	14.4	3.4	52	61.0	137.0	0	66	150	0.0	1	0
127	ITS0009	ONT	HR7	39.3	2.0	59	113.7	-63.0	0	331	130	0.0	1	0
128	ITS0010	LAX	ONT	28.2	4.8	51	17.0	133.9	0	83	140	0.0	1	0
129	ITS0011	PXR	ONT	22.4	13.0	50	20.1	143.5	0	82	145	0.0	1	0
130	ITS0012	SNA	L66	43.1	-3.7	25	37.5	120.5	-600	54	149	-3.0	1	2
131	ITS0013	SMO	L66	22.7	2.0	67	24.2	153.0	0	81	155	0.0	1	0
132	ITS0014	HR1	L66	55.5	0.6	57	-20.1	-127.4	-750	261	129	0.0	1	2
133	ITS0002	PAL	LGB	33.4	-1.3	42	-55.3	-160.7	0	251	170	0.0	1	0
134	ITS0003	LGB	HR3	41.3	21.7	89	-102.1	200.4	0	117	225	0.0	1	0
135	ITS0004	LAX	SNA	16.2	-13.1	33	-49.1	167.7	0	118	190	0.0	1	0
136	ITS0005	PAL	SNA	46.9	-5.8	40	-95.3	-187.1	0	243	210	0.0	1	0
137	ITS0008	SNA	LAX	18.6	-13.4	41	141.7	-118.9	0	320	185	0.0	1	0
138	ITS0009	BUR	LAX	12.4	8.6	51	-124.7	63.5	0	153	140	0.0	1	0
139	ITS0011	PAL	LAX	34.4	1.7	63	-17.8	-204.2	0	265	205	0.0	1	0
140	ITS0012	BUR	LAX	5.8	25.5	60	-128.3	-20.3	0	189	150	0.0	1	0
141	ITS0015	LAX	HR7	-27.2	42.0	63	168.8	-97.5	0	330	195	0.0	1	0
142	ITS0017	L66	HR3	24.8	-1.3	60	3.6	-164.7	0	273	165	0.0	1	0
143	ITS0018	PDC	BUR	14.3	12.0	53	39.5	-185.8	0	282	190	0.0	1	0
144	ITS0019	L66	BUR	14.4	9.6	52	31.0	-166.2	0	296	185	0.0	1	0
145	ITS0020	HR1	BUR	65.5	25.8	79	-47.8	-173.6	0	255	195	0.0	1	0
146	ITS0023	LGB	ONT	24.3	-4.8	32	148.5	212.1	1200	55	250	0.0	1	1
147	ITS0024	LAX	NT	42.4	3.1	25	49.2	135.3	-1200	70	144	-1.0	1	2
148	ITS0025	HR1	ONT	7[illegible].4	33.1	98	-130.0	-117.0	0	222	175	0.0	1	0
149	ITS0026	ONT	HR7	[illegible]7.4	55.1	79	180.0	-151.0	0	320	235	0.0	1	0
150	ITS0030	BUR	L66	14.2	20.6	68	-127.9	119.3	0	137	175	0.0	1	0

TABLE 4

SEQ NO.	DATE	AIRCRAFT	AIRCRAFT POSITION -Y-	-Z-	-X-	AIRCRAFT VELOCITY KNOTS -Y-	-X-	-Z-	HDG DEGS	SPD KTS	RATE DEG/SEC	1	2
151	[illegible]	[illegible]	57.[illegible]	-26.9	77	173.3	-139.4	0	322	220	0.0	1	0
152	[illegible]	[illegible]	-13.4	27.5	73	-79.4	137.8	0	121	155	0.0	1	0
153	[illegible]	[illegible]	[illegible]	-[illegible]	21	-93.4	65.3	-700	145	114	-2.0	1	2
154	[illegible]	[illegible]	45.1	8.9	73	233.5	62.6	0	13	235	0.0	1	2
155	[illegible]	[illegible]	5.4	3.3	19	-2.9	-163.9	-1000	267	169	0.0	1	2
156	[illegible]	[illegible]	17.5	8.2	43	111.8	-165.[illegible]	0	304	233	0.0	1	0
157	[illegible]	[illegible]	27.5	0.0	33	42.7	233.5	0	78	235	0.0	1	0
158	[illegible]	[illegible]	48.2	5.8	73	53.4	191.2	0	73	200	0.0	1	0
159	[illegible]	[illegible]	26.2	3.1	38	-63.4	-187.4	0	250	200	0.0	1	0
160	[illegible]	[illegible]	52.7	14.8	51	-73.4	-141.3	0	249	235	0.0	1	0
161	[illegible]	[illegible]	24.1	-15.5	23	-140.7	140.7	-1000	135	199	-3.0	1	2
162	[illegible]	[illegible]	15.5	-1.0	56	0.0	-234.0	-2000	270	234	0.0	1	2
163	[illegible]	[illegible]	12.0	1.0	69	173.9	-112.0	1500	330	224	0.0	1	0
164	[illegible]	[illegible]	11.7	12.4	49	-14.7	93.7	0	100	85	0.0	1	0
165	[illegible]	[illegible]	14.5	11.3	45	-40.1	85.0	0	115	95	0.0	0	0
166	[illegible]	[illegible]	-10.0	22.7	45	7.4	84.6	0	85	85	0.0	0	0
167	[illegible]	[illegible]	1.7	2.4	48	51.5	-38.0	0	335	90	0.0	0	0
168	[illegible]	[illegible]	4.1	33.1	40	-56.0	-64.1	500	231	89	-1.0	0	1
169	[illegible]	[illegible]	0.3	35.8	66	-88.9	-14.0	0	139	90	0.0	0	0
170	[illegible]	[illegible]	-13.1	40.0	74	-76.3	37.2	0	154	85	0.0	0	0
171	[illegible]	[illegible]	26.7	-11.7	10	-60.5	57.7	-500	140	79	0.0	0	2
172	[illegible]	[illegible]	28.2	-22.4	39	57.8	-64.9	0	310	90	2.5	0	0
173	[illegible]	[illegible]	46.2	-27.2	81	69.2	-41.8	0	307	115	0.0	0	0
174	[illegible]	[illegible]	11.7	-11.0	21	35.1	-82.8	0	293	90	0.0	0	0
175	[illegible]	[illegible]	31.7	15.5	65	-69.6	-48.7	0	215	85	0.0	1	0
176	[illegible]	[illegible]	38.2	-27.9	73	-64.7	69.4	0	133	95	0.0	1	0
177	[illegible]	[illegible]	3.4	1.0	44	68.7	-49.5	0	324	85	0.0	1	0
178	[illegible]	[illegible]	13.7	34.1	47	-95.2	-54.9	0	210	110	0.0	1	0
179	[illegible]	[illegible]	7.[illegible]	21.7	35	-96.5	25.8	0	165	100	0.0	0	0
180	[illegible]	[illegible]	-5.1	10.0	42	57.2	-68.1	600	310	89	0.0	1	1
181	[illegible]	[illegible]	5.2	9.6	27	-54.6	-65.1	0	230	85	0.0	1	0
182	[illegible]	[illegible]	8.[illegible]	-3.6	10	0.0	-79.0	500	270	79	0.0	0	1
183	[illegible]	[illegible]	31.3	-2.7	42	0.0	-35.0	0	270	85	0.0	0	0
184	[illegible]	[illegible]	56.2	16.2	62	0.0	95.0	0	90	95	0.0	0	0
185	[illegible]	[illegible]	4.1	11.7	12	7.7	88.6	-500	95	87	0.0	0	2
186	[illegible]	[illegible]	24.1	13.7	63	10.7	-134.4	0	276	105	0.0	0	0
187	[illegible]	[illegible]	3.4	23.6	27	-73.3	-5.1	400	184	74	0.0	0	1
188	[illegible]	[illegible]	19.3	34.8	88	-65.1	-54.6	0	220	85	0.0	0	0
189	[illegible]	[illegible]	25.5	9.3	33	0.0	94.0	-700	90	94	0.0	0	0
190	[illegible]	[illegible]	-2.5	27.2	58	13.9	97.0	0	82	100	0.0	1	0
191	[illegible]	[illegible]	20.5	20.6	75	-68.9	57.8	0	140	90	0.0	0	0
192	[illegible]	[illegible]	18.5	30.0	96	86.0	-63.2	0	325	105	0.0	0	0
193	[illegible]	[illegible]	23.8	17.2	55	44.9	-53.6	0	310	70	0.0	1	0
194	[illegible]	[illegible]	30.7	-12.4	17	72.9	51.0	700	35	89	0.0	0	1
195	[illegible]	[illegible]	51.4	5.8	21	-20.7	-77.2	0	255	80	0.0	0	0
196	[illegible]	[illegible]	68.6	4.4	55	6.2	43.7	0	96	90	0.0	1	0
197	[illegible]	[illegible]	59.3	-18.2	92	-60.1	50.1	0	135	85	0.0	0	1
198	[illegible]	[illegible]	23.5	30.3	63	-68.4	39.5	300	150	79	0.0	1	0
199	[illegible]	[illegible]	43.1	20.6	94	72.7	61.0	0	40	95	0.0	0	0
200	[illegible]	[illegible]	-22.0	15.8	36	-15.6	83.6	0	100	90	0.0	0	0

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
201	VI5A0055	X32	[illegible]	11.7	14.6	32	-65.5	45.8	0	145	91	-1.5	0	0	0
202	VI5A0056	5RT	[illegible]	45.1	14.1	64	34.2	-43.9	0	290	133	[illegible]	[illegible]	[illegible]	[illegible]
203	VI5A0057	[illegible]	[illegible]	[illegible]	38.2	57	73.6	-42.4	[illegible]	330	95	[illegible]	1	[illegible]	[illegible]
204	VI5A0058	[illegible]	[illegible]	57.7	33.3	64	-65.4	-57.8	0	220	90	0.0	[illegible]	[illegible]	[illegible]
205	VI5A0059	[illegible]	[illegible]	25.5	0.5	24	-72.7	-41.9	-600	210	94	[illegible]	[illegible]	[illegible]	[illegible]
206	VI5A0061	L36	[illegible]	42.4	13.1	52	-4.0	-114.4	0	365	115	[illegible]	[illegible]	[illegible]	
207	VI5A0062	L66	[illegible]	25.5	-3.4	12	[illegible]	-47.3	-500	270	89	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	VI5A0064	[illegible]	[illegible]	-0.5	[illegible]	34	[illegible]	52.5	0	150	135	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	VI5A0063	[illegible]	[illegible]	40.3	-3.6	56	[illegible]	77.2	0	75	83	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	VI5A0065	[illegible]	[illegible]	31.5	4.1	43	-37.6	-133.3	0	250	110	[illegible]	[illegible]	[illegible]	[illegible]
211	VI5A0066	[illegible]	[illegible]	13.7	15.5	56	-72.4	19.4	0	165	75	[illegible]	[illegible]	[illegible]	[illegible]
212	VI5A0067	[illegible]	[illegible]	-0.6	9.6	46	13.6	-75.7	0	240	91	[illegible]	[illegible]	[illegible]	[illegible]
213	VI5A0071	[illegible]	[illegible]	26.9	26.9	112	-9.4	-39.5	0	264	72	[illegible]	[illegible]	[illegible]	[illegible]
214	VI5A0073	T1A	[illegible]	29.4	-4.1	55	47.5	32.2	0	60	95	[illegible]	[illegible]	[illegible]	[illegible]
215	VI5A0075	[illegible]	4B2	23.5	23.0	64	128.3	-54.7	0	337	145	[illegible]	[illegible]	[illegible]	[illegible]
216	VI5A0076	[illegible]	[illegible]	52.7	-3.7	66	80.6	-37.[illegible]	-600	335	89	[illegible]	[illegible]	[illegible]	[illegible]
217	VI5A0078	L15	X4L	27.2	-13.3	42	-23.9	-64.1	-700	251	67	[illegible]	[illegible]	[illegible]	[illegible]
218	VI5A0079	X25	X4L	52.3	7.9	15	-72.7	-41.9	500	210	54	[illegible]	[illegible]	[illegible]	[illegible]
219	VI5A0081	X4L	[illegible]	73.1	2.4	57	41.3	112.7	0	79	123	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	VI5A0082	[illegible]	L16	25.3	-13.2	66	79.8	-29.0	0	340	45	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	VI5A0085	[illegible]	[illegible]	15.5	35.1	56	54.3	-53.9	-600	320	94	0.0	0	0	2
[illegible]	VI5A0086	[illegible]	[illegible]	14.4	12.7	33	95.3	4.9	200	3	94	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	VI5A0087	[illegible]	[illegible]	32.7	1.3	24	43.0	-33.8	700	340	99	0.0	0	0	1
[illegible]	VI5A0088	[illegible]	[illegible]	15.2	-2.3	47	104.2	-48.[illegible]	0	335	115	0.0	0	0	0
[illegible]	VI5A0091	[illegible]	[illegible]	33.4	4.1	34	84.2	70.7	0	40	110	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	VI5A0093	[illegible]	[illegible]	30.5	-4.6	34	32.5	55.2	0	60	65	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	VI5A0094	[illegible]	L36	45.[illegible]	24.1	65	-65.1	54.6	0	140	85	0.0	0	0	0
[illegible]	VI5A0095	[illegible]	L66	35.3	-7.2	33	34.2	93.9	0	70	100	0.0	0	0	0
[illegible]	[illegible]	[illegible]	L66	25.4	-2.7	74	0.0	37.0	0	90	90	0.0	[illegible]	0	0
[illegible]	VI5A0098	[illegible]	X17	57.2	-5.1	47	-36.0	51.5	0	115	90	0.0	0	0	0
[illegible]	VI5A0099	X4L	X17	56.5	-2.7	28	-63.6	53.6	0	135	91	0.0	0	[illegible]	0
[illegible]	VI5A0100	[illegible]	[illegible]	5.1	13.3	36	65.5	57.4	[illegible]	40	99	[illegible]	[illegible]	0	0
[illegible]	VI5A0102	[illegible]	[illegible]	-2.[illegible]	[illegible]	35	85.[illegible]	3.0	0	0	85	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	VI5A0103	[illegible]	[illegible]	-3.3	16.5	23	57.2	-65.1	500	310	89	-2.0	0	0	1
[illegible]	VI5A0104	T1A	[illegible]	43.1	-5.1	35	24.5	91.7	0	75	95	0.0	1	0	0
230	VI5A0105	[illegible]	[illegible]	25.9	14.4	55	8.2	44.6	0	85	95	0.0	1	0	0
[illegible]	VI5A0106	[illegible]	[illegible]	56.5	-11.7	20	82.7	-14.5	600	350	84	0.0	0	0	1
[illegible]	VI5A0108	[illegible]	[illegible]	-4.1	6.2	24	74.2	27.0	500	20	79	0.0	0	0	1
[illegible]	VI5A0109	[illegible]	[illegible]	13.7	-1.7	46	-42.7	117.4	0	110	125	[illegible]	1	0	0
[illegible]	VI5A0111	[illegible]	[illegible]	24.[illegible]	12.4	44	47.4	-52.2	0	300	95	0.0	0	0	0
241	VI5A0112	[illegible]	X31	3.6	25.8	34	93.5	16.4	0	10	95	0.0	0	0	0
242	VI5A0114	X31	[illegible]	-6.8	53.6	64	63.4	-24.5	0	335	75	[illegible]	1	0	0
243	VI5A0115	[illegible]	X42	64.3	-33.4	55	81.5	-33.0	0	335	90	0.0	0	0	0
244	VI5A0118	X25	[illegible]	45.3	10.6	21	-44.4	-85.7	-700	240	99	0.0	0	0	2
245	VI5A0120	5Z2	[illegible]	-24.4	57.7	45	113.2	17.9	0	10	115	0.0	0	0	0
246	VI5A0122	5R9	X32	0.3	23.6	43	92.2	-47.5	0	330	95	0.0	0	0	0
247	VI5A0124	X13	X37	42.4	26.9	64	76.6	-54.2	0	320	100	0.0	1	0	0
248	VI5A0125	433	X37	15.1	65.5	47	-39.5	-57.4	0	210	115	0.0	0	0	0
249	VI5A0127	WHP	L38	23.1	-19.6	34	-61.0	72.7	0	130	95	0.0	0	0	0
250	VI5A0129	WHP	5RT	25.5	18.6	57	-4.2	94.6	0	95	95	0.0	0	0	0

TABLE [illegible]

(Continued)

SEQN NO.	AIRCRAFT DESCRIPT CODE	AIRPORT DEP	AIRPORT ARR	AIRCRAFT POSITION NMI -X-	AIRCRAFT POSITION NMI -Y-	AIRCRAFT POSITION NMI -Z-	AIRCRAFT VELOCITY KNOTS -Y-	AIRCRAFT VELOCITY KNOTS -X-	AIRCRAFT VELOCITY FT/MN -Z-	HEAD DEG	GRND SPD KTS	TURN RATE DG/SC	[illegible]	[illegible]
1234567890	1234567890	1234567890	1234567890	1234567890	1234567890	1234567890	1234567890	1234567890	1234567890	1234567890	1234567890	1234567890		
251	VIGA0130	HB1	SNT	79.4	13.7	43	-39.9	-64.2	0	240	50	0.0	1	0
252	VIGA0132	TOA	X25	44.1	1.3	35	54.6	65.1	0	50	85	0.0	0	0
253	VIGA0133	[illegible]	X25	44.5	1.7	20	0.0	79.0	600	90	79	0.0	1	1
254	VIGA0135	[illegible]	X15	20.6	39.6	34	69.2	37.9	0	30	80	0.0	0	0
255	VIGA0137	SNA	X33	44.9	-23.3	33	-9.1	104.6	0	95	105	0.0	0	0
256	VIGA0138	CNO	X15	44.7	19.4	34	61.2	-51.4	0	320	80	0.0	0	0
257	VIGA0139	VNY	X44	26.2	34.1	55	42.5	73.6	0	60	85	0.0	0	0
258	VIGA0141	X43	HB7	5.5	56.9	48	72.5	-33.8	0	335	80	0.0	1	0
259	VIGB0001	VNY	LGB	15.5	10.3	45	-59.9	103.9	0	120	120	0.0	0	0
260	VIGB0002	BUR	LGB	20.3	6.5	33	-119.5	10.4	0	175	120	0.0	0	0
261	VIGB0004	ONT	LGB	20.3	-3.4	27	-64.2	-76.6	0	230	100	0.0	0	0
262	VIGB0005	AJR	LGB	10.3	32.7	65	-154.4	13.5	0	175	155	0.0	1	0
263	VIGB0007	L36	LGB	50.0	-2.4	23	-112.7	-41.0	0	200	120	0.0	0	0
264	VIGB0008	L55	LGB	33.8	-2.4	26	-15.6	-88.6	0	260	90	0.0	0	0
265	VIGB0012	X31	LGB	55.1	-21.0	46	0.0	-115.0	0	270	115	0.0	1	0
266	VIGB0013	H33	LGB	38.9	-31.0	47	135.9	-63.3	0	335	150	0.0	0	0
267	VIGB0015	HB2	LGB	64.5	-16.9	27	12.6	-144.4	0	275	145	0.0	0	0
268	VIGB0016	LGB	HB2	6.8	-6.5	16	110.3	-92.5	800	320	144	1.0	1	1
269	VIGB0016	TOA	VNY	24.8	11.0	24	0.0	-115.0	0	270	115	0.0	0	0
270	VIGB0019	PDC	VNY	16.9	-4.1	25	-19.9	113.2	0	100	115	0.0	0	0
271	VIGB0020	[illegible]	VNY	17.5	0.6	23	118.1	-20.8	0	350	120	0.0	0	0
272	VIGB0021	OXR	VNY	-27.5	16.2	36	0.0	115.0	0	90	115	0.0	0	0
273	VIGB0022	WAL	VNY	31.3	13.1	44	40.1	-149.7	0	285	155	0.0	0	0
274	VIGB0026	L12	VNY	34.4	15.1	43	-122.1	-44.4	0	200	130	0.0	0	0
275	VIGB0027	[illegible]	VNY	54.5	14.1	26	76.4	-91.1	100	310	119	0.0	1	0
276	VIGB0028	X01	VNY	3.1	31.0	35	-103.0	-59.4	500	210	119	0.0	0	1
277	VIGB0031	SBT	VNY	29.5	15.5	47	28.6	-162.4	0	280	165	0.0	1	0
278	VIGB0032	X15	VNY	18.9	51.4	44	-20.8	-118.1	0	260	120	0.0	0	0
279	VIGB0033	X33	VNY	44.8	-11.7	44	138.5	-80.0	0	330	160	0.0	1	0
280	VIGB0035	HB7	VNY	-12.0	34.8	35	-86.6	50.0	0	150	100	0.0	0	0
281	VIGB0036	VNY	HB7	-13.7	62.0	85	126.8	-46.1	0	340	135	0.0	0	0
282	VIGB0038	VNY	HBO	-2.7	39.3	53	70.7	70.7	0	45	100	0.0	1	0
283	VIGB0039	HB1	VNY	33.5	37.2	65	-39.3	-108.0	0	250	115	0.0	0	0
284	VIGB0040	VNY	SNA	3.7	-5.1	35	-88.0	73.9	0	140	115	0.0	0	0
285	VIGB0041	SMO	SNA	29.3	-0.3	37	-113.2	19.9	0	170	115	0.0	0	0
286	VIGB0044	SFR	SNA	14.8	-10.3	55	-88.9	126.9	0	125	155	0.0	0	0
287	VIGB0047	X25	SNA	51.4	-5.9	24	-86.6	-49.9	0	210	100	0.0	0	0
288	VIGB0048	X18	SNA	48.9	16.9	46	-105.0	0.0	0	180	105	0.0	0	0
289	VIGB0049	X43	SNA	40.0	30.7	73	-102.8	122.5	0	130	160	0.0	0	0
290	VIGB0050	SNA	HB3	44.8	-34.1	56	-80.4	67.4	0	140	105	0.0	0	0
291	VIGB0051	HB3	SNA	36.9	-36.5	67	118.7	-99.6	0	320	155	0.0	1	0
292	VIGB0052	SNA	HB2	33.8	20.6	53	0.0	154.0	600	90	154	0.0	0	1
293	VIGB0054	VNY	TOA	-1.3	5.8	35	-114.5	10.0	0	175	115	0.0	0	0
294	VIGB0057	CNO	TOA	34.4	0.3	25	-106.0	-106.0	0	225	150	0.0	0	0
295	VIGB0059	ONT	TOA	20.0	-5.8	26	-67.4	-116.9	0	240	135	0.0	0	0
296	VIGB0060	L16	TOA	17.5	-14.8	6	0.0	-119.0	600	270	119	1.5	0	1
297	VIGB0061	PMD	TOA	15.1	14.8	43	-80.3	95.7	0	130	125	0.0	1	0
298	VIGB0062	CCR	TOA	34.8	5.9	22	-108.2	-62.4	0	210	125	0.0	0	0
299	VIGB0064	L12	TOA	63.8	0.0	44	-129.9	-74.9	0	210	150	0.0	1	0
300	VIGB0065	SFR	TOA	1.3	-0.3	36	-110.4	46.8	0	157	120	0.0	0	0

TABLE 3
(Continued)

SEQ NO.	AIRCRAFT DESCRIPT CODE	AIRPORT DEP	AIRPORT ARR	AIRCRAFT POSITION N MI -X-	AIRCRAFT POSITION N MI -Y-	AIRCRAFT POSITION FT-MSL -Z-	AIRCRAFT VELOCITY KNOTS -X-	AIRCRAFT VELOCITY KNOTS -Y-	AIRCRAFT VELOCITY FT/MIN -Z-	BRNG DEGS	SPD KTS	TURN RATE DG/SC	1	2
1234567890	1234567890	1234567890	1234567890	1234567890	1234567890	1234567890	1234567890	1234567890	1234567890	1234567890	1234567890	1234567890	1234567890	1234567890
301	VIGB0067	X42	TOA	47.5	-18.6	65	0.0	-33.0	0	270	80	0.0	0	0
302	VIGB0069	L33	TOA	8.6	-12.7	24	104.2	-48.6	0	335	115	0.0	0	0
303	VIGB0070	X25	TOA	35.5	-3.7	46	-67.4	-80.4	0	230	105	0.0	0	0
304	VIGB0071	X15	TOA	30.3	16.9	45	-93.6	3.1	200	175	94	0.0	0	0
305	VIGB0072	X33	TOA	49.6	-25.5	46	47.8	-131.5	0	290	140	0.0	0	0
306	VIGB0073	X43	TOA	6.8	39.6	64	-86.7	-103.4	0	230	135	0.0	1	0
307	VIGB0074	TOA	HR3	28.2	-21.3	74	-90.1	63.0	0	145	110	0.0	0	0
308	VIGB0075	HR2	TOA	44.8	-12.7	36	0.0	-125.0	0	270	125	0.0	0	0
309	VIGB0076	TOA	HR1	35.8	-6.5	54	54.9	117.8	0	65	130	0.0	0	0
310	VIGB0082	EMT	SMO	19.6	14.1	45	28.2	-105.2	700	285	109	-3.0	0	1
311	VIGB0084	L32	SMO	2.4	8.6	16	-81.0	-56.7	-800	215	97	0.0	0	0
312	VIGB0085	L34	SMO	10.8	8.9	27	-21.7	-123.1	0	260	125	0.0	0	0
313	VIGB0086	XPV	SMO	59.3	25.1	43	-63.0	-90.1	0	235	110	0.0	1	0
314	VIGB0087	L66	SMO	25.4	6.8	25	68.9	-57.8	0	320	90	0.0	0	0
315	VIGB0088	X37	SMO	1.0	50.7	44	-62.4	-103.2	0	240	125	0.0	0	0
316	VIGB0091	X33	SMO	46.2	-9.3	67	84.9	-147.2	0	300	170	0.0	0	0
317	VIGB0093	SMO	HB7	-18.2	44.8	87	98.5	-25.8	0	345	100	0.0	0	0
318	VIGB0094	HR0	SMO	26.5	63.4	65	-98.6	-35.9	0	200	105	0.0	0	0
319	VIGB0095	SMO	HR1	13.7	28.9	76	37.6	103.3	0	70	110	0.0	0	0
320	VIGB0096	VNY	HHR	-0.6	4.1	36	-123.1	21.7	0	170	125	0.0	0	0
321	VIGB0097	SNA	HHR	26.5	-6.8	25	44.4	-122.1	0	290	130	0.0	0	0
322	VIGB0098	BUF	HHR	11.3	-1.3	20	23.2	-131.9	400	280	134	0.0	0	1
323	VIGB0099	CNO	HHR	35.5	-1.3	26	-19.1	-108.3	0	260	110	0.0	0	0
324	VIGB0100	HYT	HHR	31.3	5.1	23	-42.7	-117.4	0	250	125	0.0	0	0
325	VIGB0101	L16	HHR	17.9	-5.8	26	52.4	-90.9	0	300	105	0.0	0	0
326	VIGB0103	L36	HHR	61.4	2.7	39	-67.4	-116.9	0	240	135	0.0	0	0
327	VIGB0106	WMP	HHR	12.0	17.9	33	-103.4	36.7	0	140	135	0.0	0	0
328	VIGB0107	X01	HHR	18.5	11.0	34	-99.7	-6.9	0	134	100	0.0	0	0
329	VIGB0108	S79	HHR	-5.8	30.0	56	-22.5	128.0	0	100	130	0.0	1	0
330	VIGB0110	X15	HHR	19.3	19.6	57	-19.1	108.3	0	100	110	0.0	0	0
331	VIGB0111	HR6	HHR	-31.0	31.7	55	-19.1	108.3	0	100	110	0.0	1	0
332	VIGB0113	HR0	HHR	31.7	39.3	65	-95.2	-54.9	0	210	110	0.0	0	0
333	VIGB0115	HR2	HHR	34.1	-8.9	83	86.7	-103.4	0	310	135	0.0	0	0
334	VIGB0119	L15	BUR	26.5	3.1	46	93.2	111.0	0	50	145	0.0	0	0
335	VIGB0120	PMD	BUR	8.6	12.0	46	-83.7	-14.7	0	190	85	0.0	0	0
336	VIGB0122	X17	BUR	34.8	3.4	24	57.0	-122.3	0	295	135	0.0	1	0
337	VIGB0123	X42	BUR	43.1	-15.1	25	84.0	-73.9	0	320	115	0.0	0	0
338	VIGB0124	X32	BUR	1.3	27.9	45	-169.3	14.8	0	175	170	0.0	0	0
339	VIGB0127	X43	BUR	9.5	38.9	66	-134.0	0.0	500	180	184	0.0	0	0
340	VIGB0130	HR1	BUR	17.9	15.8	47	2.3	-134.9	0	271	135	0.0	1	0
341	VIGB0131	L58	PDC	24.1	0.0	34	130.2	109.2	0	40	170	0.0	0	0
342	VIGB0132	VNY	PDC	5.2	23.4	37	-41.0	112.7	0	110	120	0.0	0	0
343	VIGB0133	SNA	PDC	31.3	-5.5	33	135.2	36.2	0	15	140	0.0	0	0
344	VIGB0135	BUF	PDC	38.2	33.4	57	-71.6	102.3	0	125	125	0.0	0	0
345	VIGB0138	X17	PDC	62.7	-7.2	25	92.5	-110.3	600	310	144	-1.0	0	1
346	VIGB0140	X01	PDC	6.8	27.2	55	-80.3	95.7	0	130	125	0.0	0	0
347	VIGB0141	X42	PDC	52.4	-12.0	25	99.6	-118.7	0	310	155	0.0	0	0
348	VIGB0142	X37	PDC	30.3	48.9	54	-113.2	-19.9	0	190	115	0.0	1	0
349	VIGB0143	L38	PDC	41.3	-12.0	41	66.6	-50.0	0	330	100	0.0	0	0
350	VIGB0144	SRT	PDC	53.8	4.1	25	-99.5	-57.4	0	210	115	0.0	0	0

TABLE [illegible]
(Continued)

SEQN NO.	AIRCRAFT DESCRIPT CODE	AIRPORT DEP	AIRP	AIRCRAFT POSITION N MI -X-	N MI -Y-	FT-MSL -Z-	AIRCRAFT VELOCITY KNOTS -Y-	KNOTS -X-	FT/MN -Z-	BRNG DEGS	GRND SPD KTS	TURN RATE DG/SC	C 1	C 2
1234567890	1234567890	1234567890	1234567890	1234567890	1234567890	1234567890	1234567890	1234567890	1234567890	1234567890	1234567890	1234567890		
351	VIGB0145	X41	PUC	38.2	0.6	23	103.9	-60.0	0	330	120	0.0	0	0
352	VIGB0146	PUC	HB1	53.1	16.5	54	-11.7	134.4	0	95	135	0.0	0	0
353	VIGB0147	HB1	PUC	63.1	24.8	63	-27.7	-157.5	0	260	160	0.0	1	0
354	VIGB0149	LGR	CND	23.1	-5.5	27	53.0	145.6	0	70	155	0.0	0	0
355	VIGB0150	VNY	CND	2.0	25.1	35	34.6	129.4	300	75	134	-1.5	0	0
356	VIGB0154	HHR	CND	48.6	5.8	36	-38.9	-107.1	-600	250	114	0.0	0	2
357	VIGB0155	HJR	CND	28.2	7.5	34	-48.8	115.0	0	113	125	0.0	0	0
358	VIGB0156	CPM	CND	34.4	-1.3	36	59.5	103.0	-800	60	149	0.0	0	2
359	VIGB0158	L16	CND	26.9	-4.1	37	57.5	99.5	0	60	115	0.0	0	0
360	VIGB0160	L02	CND	32.2	6.5	35	-111.8	133.2	-1000	130	174	0.0	0	2
361	VIGB0163	WHP	CND	12.4	12.0	34	-121.3	88.1	0	144	150	0.0	0	0
362	VIGB0165	X42	CND	45.8	-5.1	23	81.0	-56.7	-300	325	99	0.0	0	2
363	VIGB0166	SZP	CND	-27.5	20.0	31	0.0	130.0	0	90	130	0.0	1	0
364	VIGB0168	X37	CND	55.1	12.0	54	-93.5	16.4	0	170	95	0.0	0	0
365	VIGB0170	SBT	CND	54.5	6.5	20	-121.8	-102.2	800	220	159	0.0	0	1
366	VIGB0171	X43	CND	37.2	31.0	53	-80.2	172.1	0	115	190	0.0	0	0
367	VIGB0173	CND	HB0	37.6	18.6	67	125.9	45.8	480	20	134	0.0	0	0
368	VIGB0175	CND	HB2	70.3	-6.8	53	-53.0	145.6	0	110	155	0.0	1	0
369	VIGB0179	CND	HB1	42.0	15.5	56	23.4	132.9	0	80	135	0.0	0	0
370	VIGB0180	HB0	CND	20.3	25.1	95	-130.3	34.9	0	165	135	0.0	0	0
371	VIGB0181	CND	HB1	47.2	1.7	33	23.2	131.9	500	80	134	0.0	1	1
372	VIGB0182	PUC	EMT	27.5	8.2	15	5.1	-98.8	700	273	99	0.0	0	1
373	VIGB0183	VNT	EMT	33.8	7.9	26	22.5	-124.0	0	280	130	0.0	0	0
374	VIGB0184	WJF	EMT	47.2	20.0	55	-124.5	10.8	0	175	125	0.0	0	0
375	VIGB0185	L66	EMT	27.5	1.0	44	77.4	-134.2	0	300	155	0.0	0	0
376	VIGB0186	SFR	EMT	12.4	23.8	56	-11.7	134.4	0	95	135	0.0	0	0
377	VIGB0189	X37	EMT	5.5	41.0	57	-126.8	46.1	0	160	135	0.0	1	0
378	VIGB0190	X25	EMT	43.4	5.1	45	-52.4	-90.9	0	240	105	0.0	0	0
379	VIGB0191	X43	EMT	52.0	24.4	53	-73.2	87.3	300	130	114	2.5	0	1
380	VIGB0192	HB7	EMT	2.0	42.0	54	-80.4	67.4	0	140	105	0.0	1	0
381	VIGB0193	EMT	HB0	34.4	55.1	75	150.3	54.7	0	20	160	0.0	0	0
382	VIGB0196	HB0	EMT	5.8	51.7	47	-159.7	59.1	0	160	170	0.0	1	0
383	VIGB0197	VNY	FUL	7.9	11.0	37	31.0	115.9	0	105	120	0.0	0	0
384	VIGB0203	SFR	FUL	6.8	20.6	35	-65.9	94.2	0	125	115	0.0	0	0
385	VIGB0204	WHP	FUL	26.2	-1.7	22	-71.1	-101.5	-1300	235	124	0.0	0	2
386	VIGB0205	X42	FUL	30.5	-12.7	45	88.3	-88.3	0	315	125	0.0	0	0
387	VIGB0207	X25	FUL	42.4	0.0	45	-59.9	-103.9	0	240	120	0.0	0	0
388	VIGB0208	FUL	HB1	66.2	26.2	56	60.0	103.9	0	60	120	0.0	0	0
389	VIGB0212	SNA	CPM	13.1	-11.0	25	57.8	-68.9	0	310	90	0.0	0	0
390	VIGB0214	DXR	CPM	-13.7	9.3	34	-64.9	112.5	0	120	130	0.0	0	0
391	VIGB0216	WJF	CPM	3.4	36.2	56	-98.2	68.8	0	145	120	0.0	0	0
392	VIGB0217	L66	CPM	16.5	-2.7	25	0.0	-105.0	0	270	105	0.0	0	0
393	VIGB0219	SZP	CPM	-11.3	28.6	33	22.5	128.0	0	80	130	0.0	0	0
394	VIGB0220	X37	CPM	34.4	48.2	57	-99.5	83.5	0	140	130	0.0	1	0
395	VIGB0222	HB7	CPM	3.4	-2.0	36	-8.6	98.6	-800	95	99	0.0	1	2
396	VIGB0223	CPM	HB7	-6.2	22.0	44	108.2	-62.5	0	330	125	0.0	0	0
397	VIGB0225	SMO	OXR	-31.0	4.1	24	-79.4	-137.6	-700	240	159	0.0	0	2
398	VIGB0226	CND	OXR	-1.3	31.0	64	-51.3	-140.9	0	250	150	0.0	1	0
399	VIGB0227	EMT	OXR	-23.8	19.6	46	-18.0	-128.7	0	262	130	0.0	0	0
400	VIGB0230	CNT	OXR	25.8	17.2	66	57.3	-81.9	0	305	100	0.0	0	0

TABLE 4-1
(Continued)

SEQN NO.	AIRCRAFT DESCRIPT CODE	AIRPORT DEP	AIRPORT ARR	AIRCRAFT POSITION N MI -X-	N MI -Y-	FT-00 -Z-	AIRCRAFT VELOCITY KNOTS -Y-	KNOTS -X-	FT/MN -Z-	BRNG DEGS	GRND SPD KTS	TURN RATE DG/SC	C 1	C 2
401	VIGB0231	RAL	DXR	40.7	5.5	43	0.0	-115.0	0	270	115	-1.0	0	0
402	VIGB0232	WJF	DXR	-1.7	43.1	44	-58.7	-125.9	200	245	139	0.0	0	0
403	VIGB0233	RIR	DXR	46.2	30.3	85	59.3	-164.4	0	290	175	0.0	0	0
404	VIGB0234	WHP	DXR	-32.0	17.2	23	-23.2	-131.9	800	260	134	0.0	0	1
405	VIGB0237	DXR	HB7	-32.7	55.1	85	118.1	20.8	0	10	120	0.0	0	0
406	VIGB0238	HB7	DXR	-20.6	34.4	65	-125.1	-50.5	0	202	135	0.0	0	0
407	VIGB0240	VNY	ONT	3.4	20.6	56	0.0	155.0	0	90	155	0.0	0	0
408	VIGB0242	SNA	ONT	41.3	-7.5	55	74.2	74.2	0	45	105	0.0	0	0
409	VIGB0244	SMO	ONT	40.0	30.3	53	-21.7	123.1	0	100	125	0.0	1	0
410	VIGB0249	CPM	ONT	33.4	-3.4	36	50.3	80.5	0	58	95	0.0	0	0
411	VIGB0250	CPM	ONT	45.5	4.4	31	89.2	62.5	-300	35	109	-1.5	0	2
412	VIGB0253	WJF	ONT	44.2	27.5	96	-172.3	-30.3	0	190	175	0.0	0	0
413	VIGB0254	WHP	ONT	13.7	16.5	36	-29.0	79.8	0	110	85	0.0	0	0
414	VIGB0257	ONT	HB0	29.3	36.2	65	70.7	-84.2	0	310	110	0.0	1	0
415	VIGB0258	HB1	ONT	47.2	10.0	30	-29.5	-110.1	-800	255	114	0.0	1	2
416	VIGB0260	HB2	ONT	51.4	7.2	23	8.5	-243.8	-1000	272	244	0.0	0	2
417	VIGB0262	HB0	ONT	40.7	10.6	20	-35.5	97.7	-800	110	104	3.0	1	2
418	VIGB0264	VNY	RAL	3.4	23.4	56	-58.1	159.7	0	110	170	0.0	0	0
419	VIGB0265	SNA	RAL	55.1	-6.5	36	84.8	84.8	0	45	120	0.0	0	0
420	VIGB0266	TUA	RAL	20.6	-17.9	37	-80.3	114.6	0	125	140	0.0	0	0
421	VIGB0267	SMO	RAL	40.3	-18.9	54	106.0	106.0	0	45	150	0.0	1	0
422	VIGB0268	HHR	RAL	14.8	-4.4	35	-74.2	74.2	0	135	105	0.0	0	0
423	VIGB0269	BUR	RAL	7.5	8.9	35	-77.7	77.7	0	135	110	-2.0	0	0
424	VIGB0270	FMT	RAL	47.9	-0.3	20	94.3	54.4	-1000	30	109	0.0	0	2
425	VIGB0271	FUL	RAL	31.3	-4.1	35	0.0	150.0	0	90	150	0.0	0	0
426	VIGB0274	ONT	RAL	40.3	5.5	10	-97.4	17.1	800	170	99	0.0	0	1
427	VIGB0277	RAL	HB0	40.3	35.1	85	90.9	-52.5	0	330	105	0.0	0	0
428	VIGB0279	RAL	HB2	59.6	-15.5	43	-64.9	112.5	0	120	130	0.0	0	0
429	VIGB0280	HB3	RAL	53.8	-25.1	44	118.1	-20.8	0	350	120	0.0	1	0
430	VIGB0282	RIR	L16	63.1	2.7	43	-102.8	122.5	0	130	160	3.0	0	0
431	VIGB0283	SZP	L16	-2.7	29.3	53	-37.6	103.3	0	110	110	0.0	0	0
432	VIGB0284	X37	L16	4.4	25.8	77	-99.5	57.5	0	150	115	0.0	1	0
433	VIGB0286	LGB	WJF	27.9	12.4	64	144.4	12.6	0	5	145	0.0	1	0
434	VIGB0287	VNY	WJF	-2.7	22.7	38	99.8	5.2	0	3	100	0.0	0	0
435	VIGB0289	BUR	WJF	3.7	44.1	45	99.5	57.4	0	30	115	0.0	0	0
436	VIGB0290	CPM	WJF	18.2	-1.7	26	67.5	116.9	0	60	135	0.0	0	0
437	VIGB0292	L65	WJF	56.9	20.6	66	117.8	-54.9	0	335	130	0.0	1	0
438	VIGB0293	WHP	WJF	-5.8	32.7	35	131.5	-47.8	0	340	140	2.0	0	0
439	VIGB0294	HB7	WJF	-3.4	48.2	55	-4.5	129.9	0	92	130	0.0	0	0
440	VIGB0299	VNY	PMD	1.3	31.0	33	102.3	71.6	0	35	125	0.0	0	0
441	VIGB0298	LGB	PMD	14.4	31.0	73	136.8	-24.1	-1000	350	139	0.0	0	2
442	VIGB0300	SFR	PMD	1.3	23.4	15	123.9	2.1	800	1	124	0.0	0	1
443	VIGB0302	WHP	PMD	17.5	44.1	39	0.0	119.0	-900	90	119	2.5	0	2
444	VIGB0303	HB7	PMD	7.9	62.0	55	-123.6	40.1	0	162	130	0.0	0	0
445	VIGB0305	TUA	L02	-7.9	15.8	24	99.6	-118.7	0	310	155	0.0	0	0
446	VIGB0307	DXR	L02	-23.8	18.6	35	46.1	126.8	0	70	135	0.0	0	0
447	VIGB0309	RIR	L02	20.6	15.8	63	19.9	-113.2	0	280	115	0.0	0	0
448	VIGB0311	X25	L02	13.1	18.2	64	47.8	-131.5	0	290	140	0.0	0	0
449	VIGB0312	HB7	L02	-13.7	44.8	55	-108.0	39.3	0	160	115	0.0	0	0
450	VIGB0313	L02	HB6	-37.9	48.2	86	86.0	-60.2	0	325	105	0.0	0	0

TABLE 4-1
(Continued)

SEQN No.	AIRCRAFT DESCRIPT CODE	AIRP ORT	AIRCRAFT POSITION NM NM FT-DD -X-	-Y-	-Z-	AIRCRAFT VELOCITY KNOTS -X-	-Y-	-Z-	FT/MN	SPEED DEGS	SPD KTS	DGTS		
1234567890	1234567890	1234567890	1234567890	1234567890	1234567890	1234567890	1234567890	1234567890	1234567890	1234567890	1234567890	1234567890	1234567890	1234567890
451	VIG80315	LDZ	HB2	-10.0	21.0	24	50.2	107.8	700	55	119	0.0	0	1
452	VIG80317	SMJ	CCR	20.6	11.0	34	12.2	139.4	0	45	140	0.0	0	0
453	VIG80318	CKR	CCB	-27.5	24.8	26	18.2	103.4	0	80	105	0.0	0	0
454	VIG80319	HRR	CCB	26.9	13.7	25	0.0	100.0	0	90	100	0.0	1	0
455	VIG80322	CCR	HB1	70.7	17.9	95	70.7	70.7	0	45	100	0.0	1	0
456	VIG80323	HB1	CCR	54.5	2.0	63	-49.9	-86.6	0	240	100	0.0	0	0
457	VIG80324	TDA	L36	47.2	-14.4	55	116.9	67.4	0	30	135	0.0	0	0
458	VIG80325	RJR	L36	44.1	12.7	35	-121.4	56.6	-800	155	134	0.0	0	2
459	VIG80326	SMT	L36	37.2	0.6	33	12.6	144.4	0	85	145	0.0	0	0
460	VIG80327	CKR	L36	-0.6	11.7	37	-21.7	123.1	0	100	125	0.0	1	0
461	VIG80328	LDZ	L36	2.4	13.4	36	-9.4	134.6	0	94	135	0.0	0	0
462	VIG80330	SOR	APV	19.6	30.7	74	87.5	151.5	0	60	175	0.0	1	0
463	VIG80331	RAL	APV	63.4	20.0	75	130.0	0.0	0	0	130	0.0	0	0
464	VIG80332	WHP	APV	10.6	27.2	75	42.4	116.5	500	70	124	0.0	0	1
465	VIG80333	HB1	APV	65.5	48.2	44	-95.2	-54.9	0	210	110	0.0	0	0
466	VIG80335	TDA	L66	26.2	-8.2	36	50.0	86.6	0	60	100	0.0	0	0
467	VIG80337	WHP	L66	37.9	-1.3	15	-33.3	124.6	-900	105	129	-1.5	0	2
468	VIG80339	L66	HB3	51.7	-19.3	74	-86.6	50.0	0	150	100	0.0	0	0
469	VIG80340	CNO	L12	46.5	3.1	15	30.7	114.9	400	75	119	0.0	0	1
470	VIG80341	SFR	L12	50.0	11.7	35	4.3	124.9	0	88	125	0.0	0	0
471	VIG80342	WHP	L12	6.5	32.7	36	48.1	103.3	300	65	114	0.0	0	0
472	VIG80343	POC	XL7	51.7	-4.8	35	-94.2	65.9	0	145	115	0.0	0	0
473	VIG80344	CNO	XL7	64.8	-9.3	36	-76.9	133.3	-700	120	154	0.0	0	2
474	VIG80345	SMT	XL7	53.8	-3.4	37	-48.6	104.2	0	115	115	0.0	0	0
475	VIG80349	X25	XL7	70.3	-2.4	35	-124.5	10.9	0	175	125	0.0	0	0
476	VIG80350	HB3	XL7	68.3	-16.2	25	125.9	-45.8	-300	340	134	0.0	0	2
477	VIG80352	HHR	SFR	2.0	1.3	27	112.5	-65.0	0	330	130	0.0	0	0
478	VIG80353	POC	SFR	16.2	13.1	28	77.4	-134.2	0	300	155	0.0	0	0
479	VIG80357	CNT	SFR	18.6	14.1	42	35.9	-98.6	0	290	105	0.0	0	0
480	VIG80358	RAL	SFR	33.1	11.7	43	64.2	-76.6	0	310	100	0.0	0	0
481	VIG80361	HB7	SFR	-10.6	36.2	57	-126.8	46.1	0	160	135	0.0	0	0
482	VIG80364	SFR	HB0	7.9	51.4	57	137.8	24.3	0	10	140	0.0	0	0
483	VIG80365	HB1	SFR	24.1	32.7	65	-13.8	-78.7	0	260	80	0.0	0	0
484	VIG80366	SFR	HB1	-0.6	26.9	34	79.0	59.5	600	37	99	0.0	0	1
485	VIG80368	SNA	RIR	33.8	-10.0	26	77.4	110.5	0	55	135	0.0	0	0
486	VIG80369	TDA	RIR	13.4	-13.4	37	0.0	125.0	0	90	125	-1.0	0	0
487	VIG80371	SMT	RIR	21.0	10.6	15	106.4	89.3	800	40	139	-1.5	0	1
488	VIG80373	CPM	RIR	21.3	-5.1	33	27.1	101.4	0	75	105	0.0	0	0
489	VIG80374	CKR	RIR	11.7	29.3	57	19.9	113.2	0	80	115	0.0	0	0
490	VIG80375	RIR	HB1	57.9	17.5	57	117.4	-42.7	0	340	125	0.0	0	0
491	VIG80376	HB1	RIR	61.0	41.3	64	-83.1	118.7	0	125	145	0.0	0	0
492	VIG80377	RIR	HB0	40.7	48.9	87	164.4	-59.8	0	340	175	0.0	0	0
493	VIG80378	HB2	RIR	68.3	-5.1	46	117.4	-42.7	0	340	125	0.0	0	0
494	VIG80379	RIR	HB2	51.0	-1.3	16	-85.7	49.5	800	150	99	0.0	0	1
495	VIG80382	HHR	WHP	-6.2	20.6	30	-12.2	139.4	0	95	140	0.0	0	0
496	VIG80383	POC	WHP	26.9	11.7	27	88.0	-73.9	0	320	115	0.0	0	0
497	VIG80384	CNO	WHP	24.1	18.2	43	76.4	-91.1	100	310	119	0.0	0	0
498	VIG80385	SMT	WHP	-2.0	22.4	26	-70.0	83.4	-850	130	109	0.0	0	0
499	VIG80387	CPM	WHP	19.3	-2.7	40	22.5	129.0	0	80	130	-1.0	0	0
500	VIG80336	CUL	WHP	24.1	2.4	35	86.6	-50.0	0	330	100	0.0	0	0

TABLE 4-1
(Continued)

SEQN NO.	AIRCRAFT DESCRIPT CODE	AIRPORT DEP	AIRPORT APR	AIRCRAFT POSITION N MI -X-	N MI -Y-	FT-00 -Z-	AIRCRAFT VELOCITY KNOTS -Y-	KNOTS -X-	FT/MN -Z-	BRNG DEGS	GRND SPD KTS	TURN RATE DG/SC	C 1	C 2
501	VIGB0388	ONT	WHP	33.4	14.1	45	39.3	-108.0	0	290	115	0.0	0	0
502	VIGB0389	RAL	WHP	48.2	13.7	45	22.5	-128.0	0	280	130	0.0	0	0
503	VIGB0390	HB7	WHP	-24.1	65.5	55	-88.3	88.3	0	135	125	0.0	0	0
504	VIGB0392	HB3	WHP	46.9	-16.2	64	88.0	-73.9	0	320	115	0.0	0	0
505	VIGB0393	WHP	HB2	-0.3	24.1	25	116.5	42.4	600	20	124	0.0	0	1
506	VIGB0394	HB1	WHP	35.1	22.7	84	-38.9	-107.1	-200	250	114	0.0	0	0
507	VIGB0396	TOA	X01	0.3	30.7	34	106.4	74.5	0	35	130	0.0	0	0
508	VIGB0398	HHR	X01	21.7	14.1	44	113.2	-19.9	0	350	115	0.0	0	0
509	VIGB0401	CPM	X01	-3.4	31.3	35	147.7	26.0	0	10	150	2.5	0	0
510	VIGB0402	ONT	X01	48.2	21.3	65	115.0	0.0	0	0	115	0.0	0	0
511	VIGB0404	HB0	X01	-7.5	51.7	66	-99.5	57.5	0	150	115	0.0	0	0
512	VIGB0405	VNY	X42	37.4	-6.8	56	-74.9	129.9	0	120	150	0.0	0	0
513	VIGB0407	HHR	X42	31.7	-23.8	35	9.1	134.6	0	85	105	0.0	0	0
514	VIGB0408	PDC	X42	38.0	-8.9	35	-103.9	60.0	0	150	120	0.0	0	0
515	VIGB0410	ONT	X42	53.8	-4.8	25	-103.3	37.6	0	160	110	0.0	0	0
516	VIGB0411	HB3	X42	66.5	-25.1	46	111.0	-93.2	0	320	145	0.0	0	0
517	VIGB0413	VNY	SZP	-24.1	25.5	26	23.4	-132.9	0	280	135	0.0	0	0
518	VIGB0414	TOA	SZP	-9.6	18.9	47	83.5	-99.5	0	310	130	0.0	0	0
519	VIGB0415	SMO	SZP	-13.3	8.2	45	83.5	-99.5	0	310	130	0.0	0	0
520	VIGB0416	HHR	SZP	-8.2	13.1	30	49.9	-86.6	0	300	100	0.0	0	0
521	VIGB0419	FUL	SZP	-15.8	28.6	33	-22.4	-127.0	-400	260	129	0.0	0	2
522	VIGB0421	HB7	SZP	-37.9	55.1	87	-119.6	50.7	0	157	130	0.0	1	0
523	VIGB0423	PDC	X32	17.9	24.8	84	84.2	-70.7	0	320	110	0.0	0	0
524	VIGB0425	RAL	X32	44.8	25.8	64	65.1	-54.6	0	320	85	0.0	0	0
525	VIGB0426	SFR	X32	7.9	45.1	37	-134.2	-35.9	-600	195	139	-2.5	0	2
526	VIGB0427	HB0	X32	-1.0	63.8	65	-115.0	0.0	0	180	115	0.0	0	0
527	VIGB0429	TOA	X37	-16.2	34.8	35	117.9	-32.5	150	325	144	0.0	0	0
528	VIGB0430	SMO	X37	-10.6	17.2	36	116.9	-67.5	0	330	135	0.0	0	0
529	VIGB0431	HHR	X37	-3.1	8.6	24	118.7	-99.6	0	320	155	0.0	0	0
530	VIGB0432	PDC	X37	13.7	36.9	64	95.2	-55.0	0	330	110	0.0	0	0
531	VIGB0434	RIR	X37	51.0	16.9	46	108.8	5.7	200	3	109	-1.0	1	0
532	VIGB0435	X37	HB7	6.8	57.6	34	80.6	-80.6	700	315	114	0.0	0	1
533	VIGB0436	CNO	L38	46.9	-22.4	27	-95.4	-95.4	0	225	135	0.0	0	0
534	VIGB0439	RAL	L38	53.1	-15.8	27	-122.1	-44.4	0	200	130	0.0	0	0
535	VIGB0445	SMO	SBT	36.5	13.1	36	18.2	103.4	0	80	105	0.0	0	0
536	VIGB0448	L02	SBT	18.6	33.1	53	-9.5	109.5	0	95	110	0.0	0	0
537	VIGB0450	SZP	SBT	-4.8	35.5	55	52.8	113.2	0	65	125	0.0	0	0
538	VIGB0454	TOA	X25	25.5	-6.5	37	46.0	98.7	-200	65	109	0.0	0	0
539	VIGB0455	SMO	X25	13.1	13.4	34	35.5	97.7	200	70	104	0.0	0	0
540	VIGB0458	SFR	X25	-3.1	26.5	36	114.4	71.5	0	32	135	0.0	0	0
541	VIGB0461	X25	HB1	56.2	9.6	35	52.6	144.7	900	70	154	0.0	0	1
542	VIGB0462	HB1	X25	70.7	8.6	64	-3.4	-99.9	0	268	100	0.0	0	0
543	VIGB0464	TOA	X15	-9.6	41.7	55	49.5	136.2	0	70	145	0.0	0	0
544	VIGB0465	FUL	X15	22.7	34.1	45	81.9	57.3	0	35	100	0.0	0	0
545	VIGB0468	TOA	X31	47.9	-19.6	33	48.6	104.2	0	65	115	0.0	0	0
546	VIGB0470	PDC	X31	51.0	-11.3	37	-74.2	74.2	0	135	105	0.0	0	0
547	VIGB0474	SFR	X33	36.9	-24.1	54	0.0	150.0	0	90	150	0.0	1	0
548	VIGB0475	RIR	X33	60.3	-7.9	35	-114.9	96.4	0	140	150	0.0	0	0
549	VIGB0476	SBT	X33	55.5	2.4	36	-115.0	0.0	0	180	115	0.0	0	0
550	VIGB0478	PMD	X44	32.4	46.5	56	41.0	112.7	0	70	120	0.0	0	0

TABLE 4-1
(Continued)

SEQN NO.	AIRCRAFT DESCRIPT CODE	AIRPORT DEP	AIRPORT ARR	AIRCRAFT POSITION N MI -X-	N MI -Y-	FT-00 -Z-	AIRCRAFT VELOCITY KNOTS -Y-	KNOTS -X-	FT/MN -Z-	BRNG DEGS	GRND SPD KTS	TURN RATE DG/SC	D 1	D 2
551	VIGB0480	CCB	X43	47.9	30.7	45	109.6	-109.6	0	315	155	0.0	0	0
552	VIGB0481	L36	X43	58.6	16.9	64	142.0	-32.0	500	330	164	0.0	0	[illegible]
553	VIGB0482	X17	X43	51.7	18.9	75	67.4	-116.9	0	300	135	0.0	0	0
554	VIGB0486	HB1	X43	53.4	27.5	45	52.4	-90.9	0	300	105	0.0	0	0
555	VIGC0001	OXR	LGB	-7.2	8.6	78	-106.0	126.3	0	130	165	0.0	1	0
556	VIGC0003	HB2	LGB	50.3	-17.2	84	24.3	-137.8	0	280	140	0.0	0	0
557	VIGC0004	SMO	VNY	1.7	12.0	20	59.4	-103.0	1000	300	119	0.0	0	1
558	VIGC0005	OXR	VNY	-25.1	12.0	73	70.1	142.6	0	70	205	0.0	0	0
559	VIGC0008	VNY	HBO	-1.7	36.5	95	119.5	10.4	0	5	120	0.0	0	0
560	VIGC0010	PDC	SNA	30.3	5.5	35	-162.4	-28.6	0	190	165	0.0	0	0
561	VIGC0013	X01	TOA	-6.8	10.6	56	-182.1	32.1	0	170	185	0.0	0	0
562	VIGC0014	HB1	TOA	37.2	-7.9	86	-35.3	-166.2	0	258	170	0.0	1	0
563	VIGC0015	TOA	HB1	40.7	2.7	75	95.0	164.5	0	60	190	0.0	1	0
564	VIGC0016	HB2	TOA	55.8	-15.5	64	59.8	-164.4	0	290	175	0.0	0	0
565	VIGC0017	CNO	SMO	20.0	8.6	63	16.5	-189.2	0	275	190	0.0	0	0
566	VIGC0018	SMO	HB7	-3.4	16.5	63	183.2	-66.6	0	340	195	0.0	0	0
567	VIGC0019	HB6	SMO	-7.2	39.6	96	-187.1	32.9	0	170	190	0.0	0	0
568	VIGC0020	SMO	HB1	13.1	-7.5	93	57.0	122.3	0	65	135	0.0	0	0
569	VIGC0022	HB1	HHR	12.7	-14.8	85	53.0	-145.6	0	290	155	0.0	0	0
570	VIGC0025	CCB	BUR	11.0	13.7	42	57.8	-158.8	-1200	290	169	0.0	0	2
571	VIGC0026	HB7	BUR	-2.0	13.1	75	-150.6	87.0	-1200	150	174	0.0	0	2
572	VIGC0027	BUR	HB1	30.3	21.7	77	0.0	159.0	200	90	159	0.0	0	0
573	VIGC0028	TOA	PDC	4.1	0.0	43	118.7	83.1	0	35	145	0.0	0	0
574	VIGC0029	L16	PDC	23.1	-7.9	18	108.8	108.8	900	45	154	0.0	0	0
575	VIGC0031	TOA	CNO	33.4	7.5	53	85.0	147.2	0	60	170	0.0	0	0
576	VIGC0032	HHR	CNO	22.7	-4.1	54	56.4	155.0	0	70	165	0.0	0	0
577	VIGC0040	HB1	EMT	35.5	19.6	66	-108.9	-155.6	0	235	190	0.0	0	0
578	VIGC0041	EMT	HBO	18.6	23.8	75	129.9	-75.0	0	330	150	0.0	0	0
579	VIGC0044	HB2	FUL	62.0	-10.0	88	41.0	-112.7	0	290	120	0.0	1	0
580	VIGC0045	WHP	CPM	-5.5	15.8	57	-150.3	54.7	0	160	160	0.0	0	0
581	VIGC0046	X01	CPM	23.4	28.2	76	-169.3	14.8	0	175	170	0.0	0	0
582	VIGC0048	HHR	OXR	-9.6	16.2	62	0.0	-190.0	0	270	190	0.0	0	0
583	VIGC0049	FUL	OXR	23.8	23.4	88	140.9	-51.3	0	340	150	0.0	0	0
584	VIGC0051	HB1	OXR	-27.5	48.2	105	-192.0	-33.8	0	190	195	0.0	0	0
585	VIGC0052	CPM	ONT	48.6	4.8	38	77.1	91.9	0	50	120	-3.0	0	0
586	VIGC0053	L02	ONT	4.6	25.1	74	0.0	175.0	0	90	175	0.0	1	0
587	VIGC0054	WHP	ONT	25.8	29.3	77	13.9	159.3	0	85	160	0.0	0	0
588	VIGC0055	X01	ONT	40.3	26.9	74	-56.6	121.4	-500	115	134	0.0	0	0
589	VIGC0057	HBO	ONT	56.9	16.5	66	-86.7	103.4	0	130	135	0.0	0	0
590	VIGC0059	SFR	RAL	50.0	29.3	93	-173.8	63.2	0	160	185	0.0	0	0
591	VIGC0060	L38	RAL	41.3	41.3	51	-130.2	109.2	0	140	170	0.0	0	0
592	VIGC0061	X25	L16	39.3	-7.5	41	-121.2	-69.9	0	210	140	0.0	1	0
593	VIGC0062	VNY	WJF	3.4	33.1	52	155.8	89.9	0	30	180	0.0	0	0
594	VIGC0064	PMD	HBT	10.3	41.3	36	74.1	-136.8	800	280	139	1.5	0	1
595	VIGC0065	HB6	L02	-16.5	22.4	20	0.0	149.0	-800	90	149	0.0	0	2
596	VIGC0066	SNA	L02	26.9	9.6	54	140.9	-51.3	0	340	150	0.0	1	0
597	VIGC0067	RAL	L02	17.5	25.8	92	230.2	-83.7	0	340	245	0.0	0	0
598	VIGC0068	CCB	HB1	63.8	14.4	55	0.0	135.0	0	90	135	0.0	0	0
599	VIGC0069	SMO	CCB	18.2	15.8	76	33.8	192.0	0	80	195	-0.5	0	0
600	VIGC0071	SZP	APV	24.1	27.9	94	66.6	183.2	0	70	195	0.0	0	0

TABLE 4-1
(Continued)

SEQN NO.	AIRCRAFT DESCRIPT CODE	AIRPORT DEP	AIRPORT ARR	AIRCRAFT POSITION N MI -X-	N MI -Y-	FT-00 -Z-	AIRCRAFT VELOCITY KNOTS -Y-	KNTS -X-	FT/MN -Z-	BRNG DEGS	GRND SPD KTS	TURN RATE DG/SC	C 0 1	C 0 2
601	VIGC0072	X31	L66	50.7	3.4	23	16.9	-194.2	0	275	195	0.0	0	0
602	VIGC0073	HB1	L12	71.0	12.0	70	-83.6	-99.6	-600	220	130	0.0	0	2
603	VIGC0074	VNY	L12	14.8	21.0	78	-15.2	174.3	0	95	175	0.0	1	0
604	VIGC0075	SNA	L12	55.5	-10.3	77	120.2	120.2	0	45	170	0.0	0	0
605	VIGC0076	LGB	X17	24.1	-9.6	52	0.0	220.0	0	90	220	0.0	0	0
606	VIGC0077	SFR	HB7	-0.6	38.2	64	107.2	-89.9	0	320	140	0.0	0	0
607	VIGC0078	HB1	SFR	-11.0	37.9	85	-147.2	85.0	0	150	170	0.0	0	0
608	VIGC0081	L02	RIR	12.4	22.7	94	-23.4	132.9	0	100	135	0.0	0	0
609	VIGC0082	X32	RIR	26.9	36.9	73	-116.6	116.6	0	135	165	0.0	0	0
610	VIGC0083	X33	RIR	63.1	4.1	33	148.7	-39.8	1500	345	154	0.0	0	0
611	VIGC0084	OXR	WHP	-16.5	16.5	51	61.5	169.1	0	70	180	0.0	0	0
612	VIGC0086	RAL	WHP	2.7	12.0	43	92.4	-160.2	0	300	185	0.0	0	0
613	VIGC0088	BUR	X01	6.2	36.5	40	172.3	99.4	-1500	30	199	-3.0	0	2
614	VIGC0090	X44	X01	35.1	36.5	67	-56.4	-155.0	0	250	165	0.0	0	0
615	VIGC0091	X43	X42	35.1	25.5	91	-138.5	80.0	0	150	160	0.0	1	0
616	VIGC0092	HB6	SZP	-41.0	22.4	50	20.6	117.1	-1000	80	119	0.0	0	2
617	VIGC0093	WJF	SZP	-17.2	40.7	62	-74.9	-129.9	0	240	150	0.0	1	0
618	VIGC0094	DCR	SZP	27.5	22.4	86	46.1	-126.8	0	290	135	0.0	0	0
619	VIGC0097	X37	HB7	2.4	57.2	50	31.0	-176.2	1000	280	179	0.0	0	1
620	VIGC0098	APV	L38	53.1	9.6	81	-137.8	-24.3	0	190	140	0.0	1	0
621	VIGC0101	VNY	S8T	25.8	19.3	71	0.0	155.0	0	90	155	0.0	0	0
622	VIGC0104	PMD	X25	52.4	22.7	73	-107.2	89.9	0	140	140	0.0	0	0
623	VIGC0105	SMO	X15	12.7	28.2	76	130.2	109.2	0	40	170	0.0	0	0
624	VIGC0106	FMT	X15	9.3	14.8	52	96.4	-114.9	0	310	150	0.0	1	0
625	VIGC0107	FUL	X31	41.7	2.4	57	59.8	164.4	0	70	175	0.0	0	0
626	VIGC0108	BUR	X33	22.4	-1.7	92	-162.6	162.6	0	135	230	0.0	1	0
627	VIGC0109	PDC	X18	55.8	17.2	57	112.4	112.4	400	45	159	0.0	0	0
628	VIGD0001	RAL	L68	6.8	-6.2	47	-129.4	-108.6	1000	220	169	0.0	0	1
629	VIGD0003	TDA	HB1	57.9	2.0	95	93.2	111.0	0	50	145	0.0	1	0
630	VIGD0004	HB1	PDC	60.0	18.6	105	-107.2	-89.9	0	220	140	0.0	0	0
631	VIGE0002	VNY	HB7	-13.7	65.5	68	144.7	-52.6	-1500	340	154	0.0	0	0
632	VIGE0003	HB1	HHR	42.0	1.3	101	-87.4	-151.5	0	240	175	0.0	1	0
633	VIGE0004	PMD	ONT	34.4	40.3	57	-116.6	116.6	0	135	165	0.0	0	0
634	IDGA0001	HB6	HB3	-3.1	3.4	101	-80.3	95.7	0	130	125	0.0	1	0
635	IDGA0002	HB6	HB3	-42.4	25.5	49	-68.8	98.2	0	125	120	0.0	1	0
636	IDGB0003	HB7	HB1	17.9	39.3	69	-39.3	108.0	0	110	115	0.0	1	0
637	IDGB0006	HB2	HB6	-37.9	21.3	59	-11.7	-134.4	0	265	135	0.0	1	0
638	IDGB0007	HB6	HB2	43.1	8.6	50	-64.9	112.5	0	120	130	0.0	1	0
639	IDGE0001	HB2	HB6	6.2	14.8	92	147.4	-142.4	0	316	205	0.0	1	0
640	IDGE0002	HB2	HB0	31.0	8.6	71	207.2	-139.7	0	326	250	0.0	1	0
641	IDGE0003	HB0	HB2	10.6	18.6	60	-246.2	43.4	0	170	250	0.0	1	0
642	IDGE0004	HB7	HB2	37.9	27.5	101	-163.6	175.5	0	133	240	0.0	1	0
643	IDGE0005	HB2	HB7	57.6	10.3	99	111.8	-165.8	0	304	200	0.0	1	0
644	IDGF0001	HB6	HB1	2.0	11.0	230	-33.9	383.5	0	95	390	0.0	1	0
645	IDGF0002	HB1	HB6	34.4	24.1	140	190.1	-407.8	0	295	450	0.0	1	0
646	IDGF0003	HB7	HB1	32.0	19.6	119	-95.6	414.1	0	103	425	0.0	1	0
647	VDGE0001	HB6	HB3	-20.6	7.9	111	-135.1	216.2	0	122	255	0.0	1	0
648	VDGE0003	HB7	HB3	-18.9	55.1	105	-102.5	102.5	0	135	145	0.0	1	0
649	VDGE0004	HB7	HB2	53.1	7.9	80	-126.9	88.9	0	145	155	0.0	1	0
650	VDGE0005	HB1	HB6	18.6	34.4	90	5.7	-164.8	0	272	165	0.0	1	0

TABLE 4-3
(Continued)

SEQN NO.	AIRCRAFT DESCRIPT CODE	AIRPORT DEP	AIRPORT ARR	AIRCRAFT POSITION N MI -X-	N MI -Y-	FT-00 -Z-	AIRCRAFT VELOCITY KNOTS -Y-	KNOTS -X-	FT/MN -Z-	BRNG DEGS	SPD KTS	TURN RATE DG/SC	C 0 1	C 0 2
1234567890	1234567890	1234567890	1234567890	1234567890	1234567890	1234567890	1234567890	1234567890	1234567890	1234567890	1234567890	1234567890	1234567890	1234567890
651	ILGA0002	CPM	CPM	15.1	-15.1	47	0.0	80.0	0	90	80	-1.0	1	0
652	ILGA0004	CCB	CCB	33.1	4.8	27	-95.7	-90.3	0	220	125	0.0	1	0
653	ILGA0005	APV	APV	58.6	30.3	33	-140.4	-65.5	0	205	155	0.0	1	0
654	ILGA0006	L66	L66	41.0	1.0	30	-28.2	105.2	-600	105	109	0.0	1	2
655	ILGA0008	L12	L12	73.8	21.7	81	122.8	86.0	0	35	150	0.0	1	0
656	ILGB0001	LGB	LGB	7.5	-1.3	41	-22.5	-128.0	0	260	130	-1.5	1	0
657	ILGB0002	LGB	LGB	1.0	-10.3	49	-142.7	25.1	0	170	145	0.0	1	0
658	ILGB0004	LGB	LGB	32.0	-25.5	49	-90.6	42.2	0	155	100	0.0	1	0
659	ILGB0003	LGB	LGB	12.7	-11.3	42	23.0	85.9	-700	75	89	0.0	1	2
660	ILGB0005	LGB	LGB	41.0	-9.3	35	8.7	-99.6	0	275	100	0.0	1	0
661	ILGB0006	LGB	LGB	19.6	-7.2	21	0.0	-154.0	-1000	270	154	0.0	1	2
662	ILGB0011	SNA	SNA	26.2	-20.8	41	-139.8	7.3	0	177	140	0.0	1	0
663	ILGB0012	SNA	SNA	10.3	-5.1	38	-90.0	-54.0	0	211	105	0.0	1	0
664	ILGB0013	SNA	SNA	34.1	-18.2	22	-60.1	-60.1	0	225	85	0.0	1	0
665	ILGB0017	BUR	BUR	5.1	6.8	44	17.3	-98.4	0	290	100	0.0	1	0
666	ILGB0020	FUL	FUL	21.0	-7.9	23	-3.3	94.9	0	92	95	0.0	1	0
667	ILGB0023	RAL	RAL	56.2	5.8	25	-57.5	55.5	0	136	80	0.0	1	0
668	ILGB0024	L16	L16	26.2	-13.7	26	-93.3	-35.8	0	201	100	0.0	1	0
669	ILGC0001	LGB	LGB	25.1	-8.9	57	86.8	89.9	0	46	125	0.0	1	0
670	ILGC0004	SNA	SNA	32.7	-13.4	22	-16.9	-193.2	-900	265	194	0.0	1	2
671	ILGC0006	HHR	HHR	4.8	-7.5	38	-114.9	96.4	0	140	150	0.0	1	0
672	ILGE0002	POC	POC	16.5	14.4	62	23.2	131.9	1000	80	134	-2.0	1	1
673	ILGE0003	OXR	OXR	-54.1	38.6	69	153.2	128.5	0	40	200	0.0	1	0
674	ILGE0004	ONT	ONT	41.3	6.8	62	44.4	122.1	0	70	130	0.0	1	0
675	VLGA0001	L36	L36	50.7	11.7	24	-35.5	-58.5	500	238	63	0.0	0	1
676	VLGA0005	L36	L36	48.6	10.6	22	-126.8	-59.1	0	205	140	-3.0	0	0
677	VLGA0006	L36	L36	53.8	14.8	31	-103.9	-59.9	0	210	120	0.0	0	0
678	VLGA0010	APV	APV	58.6	48.2	41	82.2	-47.5	0	330	95	0.0	0	0
679	VLGA0011	APV	APV	58.6	44.8	49	89.9	-107.2	0	310	140	0.0	0	0
680	VLGA0014	APV	APV	51.7	55.1	51	0.0	-120.0	0	270	120	0.0	0	0
681	VLGA0016	APV	APV	51.4	56.2	40	-64.9	-112.5	0	240	130	0.0	0	0
682	VLGA0018	APV	APV	58.6	55.1	50	98.6	-35.9	0	340	105	0.0	0	0
683	VLGA0021	L66	L66	40.3	-2.0	8	-1.1	-63.9	500	269	64	0.0	0	1
684	VLGA0022	L66	L66	40.7	-2.7	11	-67.0	43.5	0	147	80	-1.0	0	0
685	VLGA0025	L66	L66	47.2	-9.3	32	148.8	18.2	0	7	150	0.0	0	0
686	VLGA0026	L12	L12	62.7	9.6	17	2.7	-79.9	0	272	80	0.0	0	0
687	VLGA0027	L12	L12	64.1	8.9	20	0.0	74.0	500	90	74	0.0	0	1
688	VLGA0028	L12	L12	66.2	10.3	29	67.9	2.3	0	2	68	-1.0	0	0
689	VLGA0029	L12	L12	68.9	17.2	71	27.3	-75.1	0	290	80	0.0	0	0
690	VLGA0033	L12	L12	68.9	10.3	46	114.3	12.0	0	6	115	0.0	0	0
691	VLGA0034	L12	L12	69.6	22.4	81	125.5	72.4	0	30	145	0.0	0	0
692	VLGA0035	L12	L12	71.0	22.7	88	-27.0	127.1	0	102	130	0.0	0	0
693	VLGA0036	L12	L12	66.9	25.5	70	-109.9	-1.9	0	181	110	0.0	0	0
694	VLGA0040	L12	L12	65.8	12.4	58	53.9	-64.3	100	310	84	0.0	0	1
695	VLGA0039	L12	L12	65.5	31.0	65	98.7	56.9	200	30	114	0.0	0	1
696	VLGA0041	L12	L12	62.0	27.5	45	-8.7	-99.6	0	265	100	0.0	0	0
697	VLGA0042	L12	L12	68.9	34.4	53	147.7	-26.0	0	350	150	0.0	0	0
698	VLGA0043	X17	X17	71.4	-17.2	20	114.9	96.4	0	40	150	-1.5	0	0
699	VLGA0045	X17	X17	73.4	-14.4	43	79.9	2.7	0	2	80	-2.0	0	0
700	VLGA0048	X17	X17	67.6	-3.4	35	143.5	-20.1	0	352	145	0.0	0	0

SEQN NO.	AIRCRAFT DESCRIPT CODE	AIRCRAFT TYP	AIRCRAFT AGR	AIRCRAFT POSITION N MI -X-	AIRCRAFT POSITION N MI -Y-	AIRCRAFT POSITION FT-MS -Z-	AIRCRAFT VELOCITY KNOTS -Y-	AIRCRAFT VELOCITY KNOTS -X-	AIRCRAFT VELOCITY FT/MN -Z-	BRNG DEGS	SPD KTS	TURN RATE DG/SC	0 1	0 2
1234567890	1234567890	1234567890	1234567890	1234567890	1234567890	1234567890	1234567890	1234567890	1234567890	1234567890	1234567890	1234567890		
701	VE 3050	X17	X17	71.4	-22.0	36	86.6	49.9	0	30	100	0.0	0	0
702	VE 3053	X17	X17	63.4	-15.8	38	-140.0	0.0	0	180	140	0.0	0	0
703	VE 3056	SFR	SFR	0.3	22.0	3	-174.7	-71.9	500	210	144	-3.5	0	1
704	VE 3056	SFR	SFR	-4.8	21.3	27	-103.9	60.0	0	150	120	0.0	0	0
705	VE 3057	SFR	SFR	-8.9	22.0	39	18.2	-103.4	0	280	105	0.0	0	0
706	VE 3053	SFR	SFR	-1.7	10.6	35	7.8	97.6	0	85	90	0.0	0	0
707	VE 3059	SFR	SFR	-7.5	29.6	26	-111.0	-53.2	0	220	145	0.0	0	0
708	VE 3060	SFR	SFR	15.8	29.3	60	-8.7	-124.6	0	266	125	0.0	0	0
709	VE 3065	RIR	RIR	52.4	-1.3	37	-79.4	29.0	0	160	85	0.0	0	0
710	VE 3068	RIR	RIR	61.4	2.7	44	103.3	37.6	0	20	110	-2.0	0	0
711	VE 3069	RIR	RIR	47.9	-2.0	35	-99.6	-46.4	0	205	110	0.0	0	0
712	VE 3070	RIR	RIR	50.3	-14.8	36	-98.9	98.9	0	135	140	0.0	0	0
713	VE 3072	RIR	RIR	51.0	11.3	42	-99.8	75.2	0	143	125	0.0	0	0
714	VE 3074	RIR	RIR	67.9	3.1	52	145.6	-53.0	0	340	155	0.0	0	0
715	VE 3075	RIR	RIR	56.9	6.8	36	-59.4	-53.5	0	222	80	0.0	0	0
716	VE 3076	RHP	RHP	5.8	28.6	49	-83.1	118.7	0	125	145	0.0	0	0
717	VE 3077	RHP	RHP	3.6	20.3	22	110.3	92.5	600	40	144	-3.0	0	1
718	VE 3083	X01	X01	8.6	40.3	47	92.0	-98.7	0	313	135	0.0	0	0
719	VE 3085	X01	X01	-10.3	22.7	49	-29.0	79.8	0	110	85	0.0	0	0
720	VE 3086	X01	X01	8.6	55.1	43	-112.8	15.8	-800	172	114	0.0	0	2
721	VE 3087	X01	X01	-4.9	52.7	43	56.9	127.8	0	66	140	0.0	0	0
722	VE 3088	X01	X01	-1[illegible].7	23.2	43	22.8	117.7	0	79	120	0.0	0	0
723	VE 3089	X01	X01	-15.8	20.6	36	122.8	86.0	0	35	150	0.0	0	0
724	VE 3090	X01	X01	-1.0	50.0	48	101.4	-27.1	0	345	105	0.0	0	0
725	VE 3091	X01	X01	5.1	22.4	40	17.3	98.4	0	80	100	-3.0	0	0
726	VE 3092	X01	X01	11.0	55.1	42	63.3	135.9	0	65	150	0.0	0	0
727	VE 3093	X42	X42	56.2	-18.6	28	-85.3	41.6	0	154	95	0.0	0	0
728	VE 3094	X42	X42	57.2	-14.9	45	59.1	126.8	0	65	140	0.0	0	0
729	VE 3095	X42	X42	57.6	-17.9	39	-50.9	-143.0	-400	250	149	0.0	0	2
730	VE 3096	X42	X42	60.7	-31.3	35	107.2	89.9	0	40	140	0.0	0	0
731	VE 3097	X42	X42	49.6	-23.1	22	-60.2	-86.0	0	235	105	0.0	0	0
732	VE 3098	X42	X42	44.8	-28.9	33	-118.7	83.1	0	145	145	0.0	0	0
733	VE 3099	X42	X42	63.8	-23.8	28	101.6	116.9	0	49	155	-2.0	0	0
734	VE 3100	X42	X42	67.4	-1.7	44	63.5	-70.5	0	312	95	0.0	0	0
735	VE 3101	S2P	S2P	-31.7	24.4	34	-81.5	38.0	0	155	90	-3.0	0	0
736	VE 3102	S2P	S2P	-31.0	24.8	37	38.0	81.5	0	65	90	0.0	0	0
737	VE 3103	S2P	S2P	-37.4	31.0	37	-109.3	62.6	0	151	125	0.0	0	0
738	VE 3104	S2P	S2P	-27.9	21.7	21	0.0	-100.0	0	270	100	0.0	0	0
739	VE 3106	S2P	S2P	-54.5	25.5	47	-4.9	114.9	0	92	115	0.0	0	0
740	VE 3108	S2P	S2P	-15.5	32.4	32	117.8	-54.9	0	335	130	0.0	0	0
741	VE 3109	S2P	S2P	-13.7	37.2	39	-112.3	54.7	0	154	125	0.0	0	0
742	VE 3122	X32	X32	6.8	41.7	43	37.0	-114.1	0	288	120	0.0	0	0
743	VE 3124	X32	X32	16.5	44.1	49	-97.7	-35.5	-200	200	104	3.0	0	0
744	VE 3125	X37	X37	[illegible].3	56.2	45	3.4	-94.9	0	272	100	0.0	0	0
745	VE 3127	X37	X37	-1.4	61.4	51	0.0	-90.0	0	270	90	-2.0	0	0
746	VE 3131	X37	X37	12.4	56.9	33	-77.0	-44.4	-300	210	89	0.0	0	2
747	VE 3135	L38	L38	34.8	-28.2	9	0.0	-89.0	250	270	89	0.0	0	1
748	VE 3138	L38	L38	44.1	-24.4	40	-25.3	-86.0	0	253	90	0.0	0	0
749	VE 3139	L38	L38	44.4	-31.7	24	142.7	25.1	0	10	145	0.0	0	0
750	VE 3142	L38	L38	44.5	-21.7	47	-92.0	-39.0	0	203	100	1.5	0	0

TABLE

SEQN NO.	AIRCRAFT DESCRIPT CODE	AIRPORT DEP	AIRPORT ARR	AIRCRAFT POSITION N MI -X-	N MI -Y-	FT-00 -Z-	AIRCRAFT VELOCITY KNOTS -Y-	KNOTS -X-	FT/MN -Z-	GRNG DEGS	GRND SPD KTS	TURN RATE DG/SC	C D L	C D 2
751	VLGA0150	SBT	SBT	57.2	8.6	18	-8.6	-70.4	400	263	71	0.0	0	1
752	VLGA0151	SBT	SBT	58.3	7.2	25	-47.4	82.2	0	120	95	0.0	0	0
753	VLGA0155	SBT	SBT	76.2	3.4	49	4.0	114.9	0	88	115	0.0	0	0
754	VLGA0156	SBT	SBT	64.8	3.7	37	104.2	44.6	0	25	115	-2.0	0	0
755	VLGA0158	SBT	SBT	63.1	7.2	39	41.0	-89.7	-400	295	99	-3.0	0	2
756	VLGA0159	SBT	SBT	57.2	4.4	49	44.1	118.7	0	55	145	0.0	0	0
757	VLGA0160	SBT	SBT	62.0	4.1	37	113.5	9.9	-200	5	114	0.0	0	0
758	VLGA0161	SBT	SBT	70.0	2.0	54	99.0	-13.9	0	352	100	0.0	0	0
759	VLGA0164	SBT	SBT	53.4	4.8	41	-96.4	-62.6	0	213	115	0.0	0	0
760	VLGA0165	X25	X25	54.8	10.3	27	-13.2	-57.4	-500	257	59	0.0	0	2
761	VLGA0169	X25	X25	65.8	-0.3	35	129.9	74.9	0	30	150	0.0	0	0
762	VLGA0170	X25	X25	73.4	0.0	44	0.0	-95.0	0	270	95	0.0	0	0
763	VLGA0171	X25	X25	69.3	5.1	49	57.5	55.5	0	44	80	0.0	0	0
764	VLGA0172	X25	X25	73.4	10.6	76	-48.8	-91.8	-250	242	104	0.0	0	0
765	VLGA0173	X25	X25	67.9	12.4	58	109.4	95.1	0	41	145	0.0	0	0
766	VLGA0175	X25	X25	54.1	7.5	47	95.4	95.4	0	45	135	0.0	0	0
767	VLGA0177	X15	X15	25.8	47.6	42	38.5	143.9	-200	75	149	-2.0	0	0
768	VLGA0179	X15	X15	32.0	48.2	42	-47.4	82.2	0	120	95	0.0	0	0
769	VLGA0180	X15	X15	31.0	50.3	52	45.0	77.9	0	60	90	0.0	0	0
770	VLGA0184	X31	X31	63.1	-5.5	40	78.0	70.2	0	42	105	0.0	0	0
771	VLGA0186	X31	X31	53.4	-10.6	22	-53.4	-66.0	0	231	85	0.0	0	0
772	VLGA0187	X31	X31	61.4	-11.0	26	68.7	-6.0	-100	355	69	0.0	0	2
773	VLGA0189	X31	X31	66.5	-6.8	27	-106.7	-26.6	0	194	110	0.0	0	0
774	VLGA0192	X33	X33	56.9	-29.3	23	-78.2	-16.6	0	192	80	0.0	0	0
775	VLGA0194	X33	X33	58.6	-20.6	26	51.4	-61.2	0	310	80	0.0	0	0
776	VLGA0197	X18	X18	56.5	27.2	47	96.4	-114.9	0	310	150	0.0	0	0
777	VLGA3199	X18	X18	57.9	27.9	42	118.1	-20.8	0	350	120	0.0	0	0
778	VLGA0200	X18	X18	54.1	25.5	39	-60.5	-50.7	300	220	79	0.0	0	1
779	VLGA0206	X43	X43	16.5	46.9	33	44.4	-77.0	200	300	99	-2.0	0	1
780	VLGA0207	X43	X43	13.7	48.2	48	0.0	-110.0	0	270	110	0.0	0	0
781	VLGA0208	X43	X43	17.2	50.3	46	18.2	-103.4	0	280	105	3.0	0	0
782	VLGA0212	X43	X43	20.6	51.7	42	-100.0	0.0	0	180	100	2.0	0	0
783	VLGA0213	X43	X43	23.4	49.3	57	-81.3	-81.3	0	225	115	0.0	0	0
784	VLGA0216	X43	X43	15.1	46.5	45	-25.0	-141.8	100	260	144	0.0	0	0
785	VLGA0217	X43	X43	24.1	53.1	47	0.0	-110.0	0	270	110	0.0	0	0
786	VLGB0005	LGB	LGB	3.4	-24.1	29	87.6	87.6	0	45	124	0.0	0	0
787	VLGB0006	VNY	VNY	-2.4	15.8	12	-59.3	59.3	600	135	84	-4.0	0	1
788	VLGB0009	VNY	VNY	-5.8	17.2	35	-129.5	-11.3	0	185	130	0.0	0	0
789	VLGB0011	VNY	VNY	-7.9	35.1	41	103.4	86.7	0	40	135	-1.0	0	0
790	VLGB0013	VNY	VNY	-16.5	33.4	51	-137.8	24.3	0	170	140	0.0	0	0
791	VLGB0015	VNY	VNY	-4.1	20.0	27	126.8	-70.2	0	331	145	0.0	0	0
792	VLGB0017	VNY	VNY	-19.3	15.1	30	-5.0	144.9	0	92	145	0.0	0	0
793	VLGB0020	SNA	SNA	36.2	-25.5	42	0.0	120.0	0	90	120	0.0	0	0
794	VLGB0021	TOA	TOA	4.1	-7.5	2	0.0	-59.0	500	270	59	-3.0	0	1
795	VLGB0022	TOA	TOA	4.4	-7.9	5	-53.2	37.2	0	145	65	0.0	0	0
796	VLGB0024	TOA	TOA	3.4	-11.7	30	-11.8	84.1	0	98	85	0.0	0	0
797	VLGB0027	TOA	TOA	11.3	-15.1	22	53.0	145.6	0	70	155	0.0	0	0
798	VLGB0030	TOA	TOA	13.4	-3.4	40	75.8	57.1	0	37	95	0.0	0	0
799	VLGB0031	TOA	TOA	15.1	-9.6	31	54.9	-95.2	0	300	110	0.0	0	0
800	VLGB0032	TOA	TOA	-3.7	-20.6	26	-91.9	-77.1	0	220	120	0.0	0	0

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	11.0	-10.0	39	15.0	[illegible]	[illegible]	0	97	130	0.0	0 0
[illegible]	[illegible]	[illegible]	[illegible]	-0.3	-3.1	35	-1.2.6	[illegible]	[illegible]	0	190	155	0.0	0 0
[illegible]	[illegible]	[illegible]	[illegible]	-1.3	9.[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	600	25	74	-4.0	0 0
[illegible]	[illegible]	[illegible]	[illegible]	-0.[illegible]	4.6	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	40	0.0	0 0
[illegible]	[illegible]	[illegible]	[illegible]	-5.[illegible]	6.[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	315	80	[illegible]	0 0
[illegible]	[illegible]	[illegible]	[illegible]	-14.6	16.[illegible]	45	[illegible]	[illegible]	[illegible]	[illegible]	265	130	0.0	0 0
[illegible]	[illegible]	[illegible]	[illegible]	-15.2	12.[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	131	115	0.0	0 0
[illegible]	[illegible]	[illegible]	[illegible]	15.2	11.[illegible]	[illegible]	[illegible]	156.[illegible]	[illegible]	[illegible]	42	155	0.0	0 0
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	-600	32	6	4.0	[illegible]	2
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	2.[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	221	136	0.0	[illegible]	1
[illegible]	[illegible]	[illegible]	[illegible]	16.2	15.[illegible]	[illegible]	[illegible]	75.[illegible]	0	144	133	0.0	0	0
[illegible]	[illegible]	[illegible]	[illegible]	-3.[illegible]	[illegible]	[illegible]	-117.3	-75.[illegible]		[illegible]	121	[illegible]	[illegible]	0
[illegible]	[illegible]	[illegible]	[illegible]	10.3	[illegible]	[illegible]	[illegible]	53.5		42	95	0.0	[illegible]	0
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	5	27.[illegible]	-91.9	0	211	125	[illegible]	[illegible]	0
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0	[illegible]	[illegible]	[illegible]	[illegible]	0
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	-25.4	0	193	120	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	7	[illegible]	27.[illegible]	147.[illegible]	0	82	150	[illegible]	[illegible]	0
[illegible]	[illegible]	[illegible]	[illegible]	13.[illegible]	6.[illegible]	[illegible]	191.7	[illegible]	0	3[illegible]	127	0.0	[illegible]	0
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	500	268	1[illegible]	0.0	0	0
[illegible]	[illegible]	[illegible]	[illegible]	41.[illegible]	[illegible]	[illegible]	-26.[illegible]	[illegible]	0	233	130	0.0	0	0
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	72.[illegible]	-41.[illegible]	500	312	[illegible]	0.0	0	0
[illegible]	[illegible]	[illegible]	[illegible]	17.[illegible]	[illegible]	[illegible]	57.[illegible]	[illegible]	0	135	95	0.0	0	0
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	-76.[illegible]	[illegible]	0	212	90	0.0	0	0
[illegible]	[illegible]	[illegible]	[illegible]	14.[illegible]	10.[illegible]	27	-93.5	-52.4	0	210	105	0.0	0	0
[illegible]	[illegible]	[illegible]	[illegible]	21.[illegible]	5.5	34	-131.8	131.8	-600	135	144	0.0	0	0
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	4.[illegible]	45	50.3	-46.6	0	306	90	0.0	0	0
[illegible]	[illegible]	[illegible]	[illegible]	15.1	11.[illegible]	24	1.1.6	[illegible]	0	33	145	0.0	0	0
[illegible]	[illegible]	[illegible]	[illegible]	26.[illegible]	12.5	46	133.7	135.[illegible]	0	48	155	0.0	0	0
[illegible]	[illegible]	[illegible]	[illegible]	27.	15.[illegible]	[illegible]	98.[illegible]	98.[illegible]	0	45	140	0.0	0	0
[illegible]	[illegible]	[illegible]	[illegible]	28.9	15.1	42	115.1	-127.[illegible]	0	318	155	0.0	0	0
[illegible]	[illegible]	[illegible]	[illegible]	24.[illegible]	17.9	33	122.3	[illegible]	0	25	135	0.0	0	0
[illegible]	[illegible]	[illegible]	[illegible]	22.7	12.[illegible]	33	172.8	61.8	0	31	120	0.0	0	0
[illegible]	[illegible]	[illegible]	[illegible]	25.5	13.7	49	-94.5	42.5	0	161	100	0.0	0	0
[illegible]	[illegible]	[illegible]	[illegible]	21.7	-3.7	2	-99.8	-83.[illegible]	600	230	130	-5.0	0	1
[illegible]	[illegible]	[illegible]	[illegible]	22.4	-3.7	6	124.5	-4.4	0	92	125	0.0	0	0
[illegible]	[illegible]	[illegible]	[illegible]	5.1	-12.4	36	-78.0	70.2	0	138	105	0.0	0	0
[illegible]	[illegible]	[illegible]	[illegible]	37.9	-6.5	49	-5.2	149.9	0	92	150	0.0	0	0
[illegible]	[illegible]	[illegible]	[illegible]	43.7	-1.8	42	-20.8	-118.1	0	260	120	0.0	0	0
[illegible]	[illegible]	[illegible]	[illegible]	14.6	-5.2	45	-122.8	86.0	0	145	150	0.0	0	0
[illegible]	[illegible]	[illegible]	[illegible]	3.9	-1.3	35	50.7	-106.7	0	155	120	0.0	0	0
[illegible]	[illegible]	[illegible]	[illegible]	9.3	-3.1	7	-2.6	74.[illegible]	0	92	75	0.0	0	0
[illegible]	[illegible]	[illegible]	[illegible]	10.0	-2.7	3	21.7	-41.1	-700	285	84	0.0	0	2
[illegible]	[illegible]	[illegible]	[illegible]	7.2	-3.1	10	-27.8	-131.0	800	258	134	0.0	0	1
[illegible]	[illegible]	[illegible]	[illegible]	11.7	-7.9	40	70.8	90.6	0	52	115	0.0	0	0
[illegible]	[illegible]	[illegible]	[illegible]	14.1	[illegible]	23	120.[illegible]	0.0	0	0	120	0.0	0	0
[illegible]	[illegible]	[illegible]	[illegible]	15.1	-7.9	44	-28.0	132.0	0	102	135	0.0	0	1
[illegible]	[illegible]	[illegible]	[illegible]	2.4	-6.9	35	-112.7	41.0	0	160	170	0.0	0	0
[illegible]	[illegible]	[illegible]	[illegible]	0.6	9.3	41	111.2	44.9	0	22	120	0.0	0	0
[illegible]	[illegible]	[illegible]	[illegible]	19.3	-12.7	35	61.0	137.0	0	66	150	0.0	0	0
[illegible]	[illegible]	[illegible]	[illegible]	11.3	-5.8	33	103.6	33.6	-1000	18	109	0.0	0	2

SEQN NO.	AIRCRAFT DESCRIPT CODE	AIRPORT DEP	AIRPORT ARR	AIRCRAFT POSITION N MI -X-	N MI -Y-	FT-DD -Z-	AIRCRAFT VELOCITY KNOTS -Y-	KNOTS -X-	FT/MN -Z-	GRND TRKG DEGS	GRND SPD KTS	RATE DG/SC	1	2
851	VLGB0121	CPM	CPM	10.3	-19.6	29	148.5	-20.8	0	352	150	0.0	0	0
852	VLGB0123	CPM	CPM	16.2	-4.8	37	60.1	-60.1	0	315	85	0.0	0	0
853	VLGB0124	CPM	CPM	13.1	-10.0	37	21.5	153.4	0	82	155	0.0	0	0
854	VLGB0125	CPM	CPM	23.4	-17.5	40	129.9	-75.0	0	330	150	0.0	0	0
855	VLGB0129	CPM	CPM	32.0	-6.5	38	-3.1	89.9	0	92	90	0.0	0	0
856	VLGB0131	OXR	OXR	-50.3	21.3	25	24.3	137.8	0	80	140	0.0	0	0
857	VLGB0132	OXR	OXR	-45.8	13.7	30	10.4	119.5	0	85	120	0.0	0	0
858	VLGB0133	OXR	OXR	-37.9	28.6	33	-69.2	40.0	0	150	80	0.0	0	0
859	VLGB0139	OXR	OXR	-34.1	21.7	42	-85.6	82.6	-800	136	119	0.0	1	2
860	VLGB0142	OXR	OXR	-45.5	21.0	34	92.3	-118.2	0	308	150	0.0	0	0
861	VLGB0143	OXR	OXR	-38.9	18.6	32	0.0	140.0	0	90	140	0.0	1	0
862	VLGB0146	OXR	OXR	-34.1	9.6	37	-75.0	39.9	0	152	85	0.0	0	0
863	VLGB0148	OXR	OXR	-38.6	16.2	5	0.0	100.0	0	90	100	0.0	0	0
864	VLGB0149	OXR	OXR	-21.3	14.8	23	-62.9	77.7	0	129	100	0.0	0	0
865	VLGB0150	OXR	OXR	-36.9	22.0	47	39.9	75.0	0	62	85	0.0	0	0
866	VLGB0153	RAL	RAL	47.2	1.0	27	-134.9	-4.7	0	182	135	0.0	0	0
867	VLGB0157	RAL	RAL	47.6	-7.2	49	-76.5	23.3	0	163	80	0.0	0	0
868	VLGB0160	RAL	RAL	49.3	-2.0	22	131.5	47.8	0	20	140	0.0	0	0
869	VLGB0166	L16	L16	49.6	-5.1	35	0.0	-90.0	0	270	90	0.0	0	0
870	VLGB0168	L16	L16	46.9	-5.5	45	-56.6	-60.9	0	231	90	0.0	0	0
871	VLGB0171	L16	L16	45.5	-6.2	23	-57.8	-74.0	150	232	94	0.0	0	0
872	VLGB0176	L16	L16	29.3	-5.5	33	-1.3	-79.9	0	269	80	0.0	0	0
873	VLGB0179	L16	L16	20.3	-11.0	37	-152.6	26.9	0	170	155	0.0	0	0
874	VLGB0180	L16	L16	21.7	-8.9	28	-79.7	-49.8	-100	212	94	2.0	0	0
875	VLGB0185	L16	L16	19.6	-17.5	29	73.6	42.4	0	30	85	0.0	0	0
876	VLGB0186	L16	L16	18.2	-18.9	46	80.1	40.8	0	27	90	0.0	0	0
877	VLGB0187	L16	L16	22.7	-17.9	32	143.2	-22.6	0	351	145	0.0	0	0
878	VLGB0188	L16	L16	23.8	-21.0	36	-128.0	22.5	0	170	130	0.0	0	0
879	VLGB0192	L16	L16	22.4	-9.6	43	80.4	75.0	0	43	110	0.0	0	0
880	VLGB0193	L16	L16	25.1	-7.9	22	76.2	117.4	0	57	140	1.0	0	0
881	VLGB0194	L16	L16	28.2	-7.9	27	43.2	133.1	0	72	140	0.0	0	0
882	VLGB0200	L16	L16	46.5	-8.6	37	-19.0	98.1	0	101	100	0.0	0	0
883	VLGB0202	L16	L16	50.3	-9.3	20	10.2	83.3	100	63	84	-2.0	0	0
884	VLGB0203	L16	L16	51.7	-8.6	34	135.2	36.2	0	15	140	0.0	0	0
885	VLGB0205	L16	L16	53.1	-6.2	47	107.9	20.9	0	11	110	-2.0	0	0
886	VLGB0209	WJF	WJF	3.4	51.7	49	22.5	-128.0	0	280	130	0.0	0	0
887	VLGB0210	WJF	WJF	0.0	51.7	46	51.3	-140.9	0	290	150	0.0	0	0
888	VLGB0213	WJF	WJF	3.4	48.2	43	-61.2	51.4	0	140	80	0.0	0	0
889	VLGB0214	WJF	WJF	11.0	50.7	48	-7.4	84.6	0	95	85	0.0	0	0
890	VLGB0215	WJF	WJF	6.5	49.3	58	52.4	-90.9	0	300	105	0.0	0	0
891	VLGB0216	WJF	WJF	-2.0	55.1	46	-34.2	-93.9	0	250	100	0.0	0	0
892	VLGB0218	WJF	WJF	9.6	43.6	44	63.3	-135.9	0	295	150	0.0	0	0
893	VLGB0219	WJF	WJF	12.4	51.0	45	-112.7	41.0	0	160	120	0.0	0	0
894	VLGB0221	WJF	WJF	12.0	47.9	35	-39.4	-68.4	-500	240	79	0.0	0	2
895	VLGB0224	WJF	WJF	-13.7	58.9	41	0.0	100.0	0	90	100	-2.0	0	0
896	VLGB0228	WJF	WJF	-8.6	49.6	49	0.0	-110.0	0	270	110	0.0	0	0
897	VLGB0230	WJF	WJF	0.0	56.5	22	-103.9	60.0	0	150	120	0.0	0	0
898	VLGB0231	WJF	WJF	3.7	63.4	51	44.4	122.1	0	70	130	0.0	0	0
899	VLGB0234	PMD	PMD	15.1	39.6	39	-27.3	-75.1	0	250	80	0.0	1	0
900	VLGB0236	L02	L02	-13.7	13.4	32	48.8	109.6	0	66	120	0.0	0	0

TABLE [illegible]
(Continued)

SEQN NO.	AIRCRAFT DESCRIPT CODE	AIRPORT DEP	AIRPORT ARR	AIRCRAFT POSITION NAUT MI -X-	NAUT MI -Y-	FT-00 -Z-	AIRCRAFT VELOCITY KNOTS -Y-	KNOTS -X-	FT/MIN -Z-	[illegible] DEGS	[illegible] KTS	[illegible]	[illegible] 1	[illegible] 2
951	VLGR0343	XIT	XIT	72.1	-13.1	23	52.3	-52.3	-400	315	74	0.0	0	2
952	VLGR0345	SFR	SFR	-6.8	32.7	40	50.3	83.5	0	58	95	0.0	0	0
953	VLGR0346	SFR	SFR	-12.0	37.6	43	57.4	-99.5	0	330	115	0.0	0	0
954	VLGR0347	SFR	SFR	-19.3	17.9	31	-149.4	13.6	0	175	150	0.0	0	0
955	VLGR0349	SFR	SFR	-2.4	28.2	39	67.1	-67.1	0	315	95	0.0	0	0
956	VLGR0351	SFR	SFR	-13.7	36.5	36	-6.9	-99.7	0	266	100	0.0	0	0
957	VLGR0352	SFR	SFR	-19.3	33.8	47	-124.9	-2.1	0	181	125	0.0	0	0
958	VLGR0359	RIR	RIR	53.4	1.7	34	-61.3	65.8	0	133	90	0.0	0	0
959	VLGR0360	RIR	RIR	56.9	3.1	49	5.2	99.8	0	87	100	0.0	0	0
960	VLGR0362	RIR	RIR	70.7	9.6	69	-60.1	-79.8	0	233	100	0.0	0	0
961	VLGR0364	RIR	RIR	63.4	4.4	22	-86.7	-103.4	0	230	135	0.0	0	0
962	VLGR0366	RIR	RIR	61.4	6.8	28	-61.3	-125.8	0	244	140	0.0	0	0
963	VLGR0367	RIR	RIR	64.1	5.8	38	104.9	-3.6	0	358	105	0.0	0	0
964	VLGR0368	WHP	WHP	1.3	18.9	12	-53.9	-64.3	750	230	84	0.0	0	1
965	VLGR0369	WHP	WHP	-2.0	19.3	19	0.0	-94.0	800	270	84	-1.0	0	1
966	VLGR0371	WHP	WHP	-11.3	7.5	21	-5.0	144.9	0	92	145	0.0	0	0
967	VLGR0372	WHP	WHP	-2.7	13.4	35	86.7	75.4	0	41	115	0.0	0	0
968	VLGR0373	WHP	WHP	-0.3	29.3	44	-99.1	-13.0	0	191	100	0.0	0	0
969	VLGR0376	WHP	WHP	-9.3	9.6	23	37.1	87.4	0	57	95	0.0	0	0
970	VLGR0377	WHP	WHP	-16.9	11.0	42	-74.6	24.6	0	159	80	-3.0	0	0
971	VLGR0378	WHP	WHP	-17.5	28.2	29	-41.2	101.9	0	112	110	0.0	0	0
972	VLGR0381	WHP	WHP	-8.4	25.5	56	27.0	-127.1	0	282	130	0.0	0	0
973	VLGR0384	WHP	WHP	-9.3	23.8	48	-94.2	56.6	0	149	110	0.0	0	0
974	VLGR0386	XOI	XOI	-5.5	36.9	43	18.7	-98.0	0	282	90	0.0	0	0
975	VLGR0387	XOI	XOI	-10.3	38.2	40	51.4	-61.2	0	310	80	0.0	0	0
976	VLGR0389	XOI	XOI	-8.9	31.0	31	44.9	111.2	0	68	120	0.0	0	0
977	VLGR0390	SZP	SZP	-24.1	32.7	51	54.1	71.8	0	53	90	0.0	0	0
978	VLGR0394	SZP	SZP	-19.3	44.1	49	-107.2	89.9	0	140	140	0.0	0	0
979	VLGR0395	SZP	SZP	-40.3	28.6	35	130.7	50.1	0	21	140	-3.0	0	0
980	VLGR0397	SZP	SZP	-24.8	30.3	51	-68.5	-98.6	-500	236	119	0.0	0	2
981	VLGR0398	SZP	SZP	-3.9	36.5	42	43.7	-72.6	0	301	85	0.0	0	0
982	VLGR0399	SZP	SZP	-31.3	22.4	20	20.3	128.3	0	81	130	0.0	0	0
983	VLGR0402	SZP	SZP	-30.3	14.1	29	-74.8	58.4	0	142	95	0.0	0	0
984	VLGR0406	XJZ	XJZ	-19.3	62.0	84	32.4	-59.2	0	290	95	0.0	0	0
985	VLGR0407	XJZ	XJZ	-13.7	49.2	69	21.7	-123.1	0	280	125	0.0	0	0
986	VLGR0408	XJZ	XJZ	8.4	66.2	32	129.9	-75.0	0	330	150	0.0	0	0
987	VLGR0410	XJZ	XJZ	10.3	58.6	55	118.7	-99.6	0	320	155	0.0	0	0
988	VLGR0412	LJB	LJB	35.8	-27.5	6	-13.7	-77.7	-500	260	79	-3.0	0	2
989	VLGR0418	SBT	SBT	50.3	18.2	48	112.5	-65.0	0	330	130	1.0	0	0
990	VLGR0419	SBT	SBT	52.4	17.2	40	95.8	-67.1	400	322	109	-3.0	0	0
991	VLGR0420	SBT	SBT	52.7	15.1	35	132.9	-40.6	300	343	139	0.0	0	0
992	VLGR0421	XZS	XZS	53.4	23.4	44	95.4	95.4	0	45	135	0.0	0	0
993	VLGR0425	XZS	XZS	39.6	25.1	30	-137.1	-58.2	700	203	149	-3.0	0	0
994	VLGR0427	XZS	XZS	51.7	25.1	49	-80.4	75.0	0	137	110	0.0	0	0
995	VLGR0428	XIS	XIS	27.9	46.9	43	16.4	77.2	200	78	79	0.0	0	0
996	VLGC0001	LGB	LGB	30.0	4.1	46	130.0	0.0	0	0	130	0.0	0	0
997	VLGC0003	LGB	LGB	8.4	-11.0	53	15.2	174.3	0	95	175	0.0	0	0
998	VLGC0004	VNY	VNY	-3.4	14.5	12	-86.3	-162.4	600	242	184	-3.0	0	1
999	VLGC0008	VNY	VNY	-9.3	35.5	33	128.0	-68.0	0	332	145	0.0	0	0
1000	VLGC0009	VNY	VNY	-23.4	27.5	47	3.0	125.0	0	90	125	0.0	0	0

AIRCRAFT	DEP	ARR	AIRCRAFT POSITION X	Y	Z	VELOCITY X (KNOTS)	Y	Z FT/MIN	BRNG DEG	SPD KTS	TURN RATE DEG/S		
[illegible]	VNY	VNY	-13.3	45.[illegible]	67	[illegible]	135.[illegible]	[illegible]	270	135	0.0	0	0
[illegible]	SNA	SNA	27.[illegible]	-12.4	26	-121.3	98.8	-1200	142	154	1.0	0	2
[illegible]14	SNA	SNA	42.7	[illegible]	[illegible]	16.5	139.2	0	85	190	0.0	0	0
[illegible]	TOA	TOA	28.[illegible]	-2.6	[illegible]	64.8	[illegible]	0	72	145	0.0	0	0
[illegible]	TOA	TOA	30.3	-13.7	[illegible]	107.6	[illegible]	0	46	155	0.0	0	0
1006 [illegible]0021	TOA	TOA	[illegible]	-5.[illegible]	28	-32.8	-130.1	800	260	139	-3.0	0	1
[illegible]0026	SMO	SMO	-13.[illegible]	34.4	69	[illegible]	[illegible]	0	278	145	[illegible]	[illegible]	0
[illegible]028	SMO	SMO	-12.7	15.1	[illegible]	[illegible]	[illegible]	0	242	155	[illegible]	[illegible]	0
[illegible]	HHR	HHR	27.[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0	280	120	0.0	0	0
[illegible]30	HHR	HHR	[illegible]	-11.7	38	[illegible]	101.[illegible]	0	126	125	0.0	0	0
1011 [illegible]031	HHR	HHR	7.[illegible]	[illegible]	[illegible]	-102.[illegible]	[illegible]	0	130	160	0.0	0	
[illegible]32	HHR	HHR	[illegible]	[illegible]	[illegible]	56.[illegible]	-109.5	-1000	293	119	0.0	0	2
[illegible]035	[illegible]	[illegible]	13.7	[illegible]	[illegible]	-3.	[illegible]	0	91	180	0.0	0	[illegible]
[illegible]36	[illegible]	[illegible]	[illegible]	27.[illegible]	[illegible]	64.[illegible]	[illegible]	0	67	165	0.0	0	0
[illegible]	[illegible]	[illegible]	-17.[illegible]	37.[illegible]	38	-143.[illegible]	-126.6	0	221	[illegible]	0.0	0	0
[illegible]039	[illegible]	[illegible]	[illegible]	11.0	68	158.9	-79.6	0	353	175	2.5	0	0
[illegible]	[illegible]	[illegible]	31.7	13.7	35	[illegible]	93.[illegible]	0	[illegible]	[illegible]	0.0	0	0
[illegible]	[illegible]	[illegible]	37.[illegible]	[illegible]	[illegible]	[illegible]	-139.7	0	313	150	0.0	1	0
[illegible]43	[illegible]	[illegible]	[illegible]	12.7	[illegible]	[illegible]	-82.[illegible]	0	331	170	0.0	0	0
[illegible]	[illegible]	[illegible]	33.[illegible]	[illegible]	30	138.1	-71.2	800	327	129	0.0	0	0
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	35	[illegible]	-113.4	0	289	120	[illegible]	0	0
[illegible]	[illegible]	[illegible]	38.[illegible]	[illegible]	[illegible]	-150.2	-92.4	0	210	185	-3.0	0	0
[illegible]	[illegible]	[illegible]	21.0	[illegible]	81	-14.8	-167.3	0	265	170	0.0	0	0
[illegible]050	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	-144.9	-5.0	0	182	145	0.0	0	0
[illegible]	[illegible]	[illegible]	[illegible]	21.7	[illegible]	-3.2	184.9	0	91	155	0.0	0	0
[illegible]	[illegible]	[illegible]	30.0	[illegible]	56	[illegible]	-115.[illegible]	0	239	135	0.0	0	0
[illegible]	[illegible]	[illegible]	[illegible]	-12.7	58	[illegible]	97.[illegible]	0	46	135	-3.0	0	0
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	-3.1	[illegible]	0	91	180	0.0	0	0
[illegible]	[illegible]	[illegible]	11.[illegible]	[illegible]	[illegible]	[illegible]	166.0	-800	90	164	-3.0	0	2
[illegible]	[illegible]	[illegible]	[illegible]	36.[illegible]	61	-137.8	-115.7	0	220	180	0.0	0	0
[illegible]	[illegible]	[illegible]	-42.[illegible]	[illegible]	56	135.8	[illegible]	0	41	180	0.0	0	0
[illegible]	[illegible]	[illegible]	56.[illegible]	20.3	[illegible]	[illegible]	[illegible]	400	79	154	-2.0	0	0
[illegible]	RAL	RAL	45.1	[illegible]	[illegible]	-53.7	187.[illegible]	0	106	195	0.0	0	0
[illegible]	RAL	RAL	63.[illegible]	21.1	[illegible]	-162.[illegible]	-24.6	0	190	165	0.0	0	0
[illegible]	RAL	RAL	69.[illegible]	36.[illegible]	[illegible]	-154.[illegible]	[illegible]	0	192	155	0.0	0	0
[illegible]81	L16	L16	17.6	-13.6	68	-157.5	27.7	0	170	160	0.0	0	0
[illegible]082	L16	L16	22.0	-20.3	60	-115.9	124.3	0	133	170	-2.5	0	0
[illegible]083	L16	L16	22.7	-13.7	28	135.4	[illegible]	0	314	195	0.0	0	0
[illegible]085	WJF	WJF	[illegible]	45.8	50	97.7	76.3	800	38	124	0.0	0	0
[illegible]	WJF	WJF	34.4	50.0	[illegible]	[illegible]	128.3	0	39	130	0.0	0	0
[illegible]	PMD	PMD	-13.7	53.8	52	121.[illegible]	-70.0	0	330	140	0.0	0	0
[illegible]	PMD	PMD	-16.[illegible]	53.7	57	-120.7	32.3	0	165	125	0.0	0	0
[illegible]	L02	L02	-12.7	19.[illegible]	16	70.0	0.0	0	0	70	0.0	0	0
[illegible]	L02	[illegible]	-35.1	17.[illegible]	67	109.[illegible]	[illegible]	0	50	170	0.0	0	0
[illegible]	L02	[illegible]	[illegible]	27.2	31	-32.[illegible]	[illegible]	0	100	190	0.0	0	0
[illegible]	L02	L02	-21.[illegible]	46.5	62	-157.7	[illegible]	0	197	165	0.0	0	0
[illegible]	L02	L02	-11.3	26.[illegible]	57	-127.7	96.[illegible]	0	143	160	0.0	0	0
[illegible]214	[illegible]	CCF	29.[illegible]	[illegible]	[illegible]	-32.1	-142.1	0	260	185	0.0	0	0
[illegible]135	[illegible]	L66	13.3	24.4	[illegible]	[illegible]	179.9	0	89	180	0.0	0	0
[illegible]	SFR	SFR	-8.2	33.[illegible]	38	100.3	-20.3	0	318	135	0.0	0	0

TABLE 4-2
(Continued)

SEQN NO.	AIRCRAFT DESCRIPT CODE	AIRPORT DEP	AIRPORT ARR	AIRCRAFT POSITION N MI -X-	N MI -Y-	FT-10 -Z-	AIRCRAFT VELOCITY KNOTS -Y-	KNOTS -X-	FT/MIN -Z-	BRNG DEG	GRND SPD KTS	TURN RATE DG/SC	C 1	C 2
1051	VLG00002	LGB	LGB	7.9	-10.6	50	64.7	178.5	0	70	190	0.0	0	0
1052	VLG00003	VNY	VNY	-6.8	11.3	39	-87.5	145.7	0	121	170	0.0	0	0
1054	VLG00005	SNA	SNA	51.7	-26.9	66	154.5	41.4	0	69	160	-3.0	0	0
1054	VLG00006	HOR	HOR	23.4	20.6	65	32.1	-182.1	0	280	185	0.0	0	0
1055	VLG00007	HOR	HOR	31.0	30.0	91	-22.8	117.7	0	101	120	0.0	0	0
1056	VLG00011	ONT	ONT	44.1	4.3	62	-126.3	-79.9	-1000	212	149	0.0	1	2
1057	VLG00016	SXR	SXR	-47.2	27.5	49	129.5	-113.0	200	318	169	0.0	0	0
1058	VLG00017	SXR	SXR	-38.9	14.1	21	-113.7	153.9	1000	127	189	0.0	0	1
1059	VLG00018	SXR	SXR	-24.1	36.9	54	152.1	29.5	0	11	155	-3.0	0	0
1060	VLG00019	ONT	ONT	55.1	27.5	96	154.3	-17.6	0	353	160	0.0	0	0
1061	VLG00020	PAL	PAL	53.4	1.3	22	64.9	178.5	0	70	190	0.0	0	0
1062	VLG00021	PAL	PAL	73.4	5.5	96	2.9	-169.9	0	271	170	0.0	0	0
1063	VLG00023	ONT	ONT	42.0	6.4	70	-34.3	176.6	0	101	180	0.0	1	0
1064	VLG00025	PMD	PMD	33.4	31.7	65	102.4	80.0	0	38	130	0.0	0	0
1065	VLG00026	FMT	FMT	23.4	21.7	50	0.0	-179.0	300	270	179	0.0	0	0
1066	VLG00034	FUL	FUL	41.3	-14.4	35	173.2	-100.0	0	330	200	0.0	0	0
1067	VIM00001	LGB	NZJ	30.4	-4.6	33	-68.8	98.2	0	125	120	0.0	0	0
1068	VIM00001	NZJ	LGB	23.6	-14.4	21	84.7	-135.6	0	302	160	0.0	0	0
1069	VIM00001	X14	FOB	35.8	33.1	55	-86.1	-110.3	0	232	140	0.0	0	0
1070	VIM00002	FOB	X14	41.3	51.7	47	-113.1	113.1	0	135	160	0.0	0	0
1071	VIM00003	HOR	ONT	14.5	16.5	53	12.5	179.5	0	86	180	0.0	0	0
1072	VIM00001	NZJ	X14	37.9	7.5	110	181.2	84.5	0	25	200	0.0	0	0
1073	VIMF0002	REV	FOB	40.0	21.7	119	186.5	-151.0	0	321	240	0.0	0	0
1074	VIMF0003	X14	PMD	29.6	27.9	119	137.8	-115.7	0	320	180	0.0	0	0
1075	VIMF0004	SBD	X14	57.6	1.0	22	-116.3	-24.7	-1000	192	119	0.0	0	2
1076	VIMF0005	NZJ	SBD	56.2	-11.0	35	102.2	109.7	0	47	150	0.0	0	0
1077	VIMF0006	HBI	VNY	-37.9	44.8	100	-282.8	282.8	0	135	400	0.0	0	0
1078	VIMF0007	FOB	HBI	54.9	-37.9	119	-332.0	233.6	0	139	440	0.0	0	0
1079	IIM00001	X14	REV	52.7	20.6	64	-147.7	26.0	0	170	150	0.0	0	0
1080	IIMF0001	FOB	SBD	32.7	41.3	75	-161.8	117.5	0	146	200	0.0	0	0
1081	IIMF0001	NZJ	X14	48.2	20.0	95	149.1	15.6	0	6	150	0.0	0	0
1082	IIMF0002	NZJ	FOB	31.0	37.9	75	180.0	0.0	0	0	180	0.0	0	0
1083	IIMF0003	X14	NZJ	39.3	33.8	65	-111.0	-42.6	400	201	119	0.0	0	1
1084	IIMF0004	SBD	NZJ	54.1	-12.7	40	-15.2	-124.0	0	263	125	0.0	0	0
1085	IIMF0005	HBI	X14	71.4	45.2	45	-157.4	-181.1	0	229	240	0.0	0	0
1086	IIMF0006	FOB	HBD	20.5	62.0	35	216.3	-34.2	1000	351	219	0.0	0	1
1087	IIMF0007	HBI	SBD	24.4	24.8	200	-162.6	365.4	0	114	400	0.0	0	0
1088	VLM00001	PMD	PMD	23.6	37.9	45	16.6	78.2	0	78	80	0.0	0	0
1089	VLM00001	ONT	ONT	43.1	14.1	44	2.4	-139.9	0	271	140	0.0	0	0
1090	VLM00001	ONT	ONT	35.4	16.9	70	-133.8	40.9	0	163	140	0.0	0	0
1091	VLM00002	PMD	PMD	35.5	31.0	62	91.2	-112.6	0	309	145	0.0	0	0
1092	VLMF0001	FOB	FOB	44.4	65.5	62	37.4	92.7	0	68	100	-2.0	0	0
1093	VLMF0002	ONT	ONT	44.5	23.4	34	141.8	-110.5	0	322	180	0.0	0	0
1094	VLMF0001	LGB	LGB	20.6	-31.0	105	0.0	140.0	0	90	140	0.0	0	0
1095	VLMF0002	LGB	LGB	27.5	-24.1	120	208.3	215.8	0	46	300	0.0	0	0
1096	VLMF0002	VNY	VNY	-27.5	33.3	95	-323.5	157.8	0	154	360	0.0	0	0
1097	VLMF0004	SBD	SBD	-12.0	33.1	70	-254.3	407.0	0	122	480	0.0	0	0
1098	VLMF0005	X14	X14	56.1	62.0	64	-201.4	-194.5	0	224	280	0.0	0	0
1099	VLMF0006	X14	X14	41.2	54.6	78	-118.0	135.8	0	131	180	1.5	0	0
1100	IIMF0001	REV	REV	54.1	-15.5	65	-33.0	115.3	0	106	120	0.0	0	0

TABLE 4-1
(Concluded)

SEQN NO.	AIRCRAFT DESCRIPT CODE	AIRPORT DEP	AIRPORT ARR	AIRCRAFT POSITION N MI -X-	N MI -Y-	FT-00 -Z-	AIRCRAFT VELOCITY KNOTS -Y-	KNOTS -X-	FT/MN -Z-	BRNG DEGS	GRND SPD KTS	TURN RATE DG/SC	C 1	C 2
1234567890	1234567890	1234567890	1234567890	1234567890	1234567890	1234567890	1234567890	1234567890	1234567890	1234567890	1234567890	1234567890	1234567890	
1101	ILMD0001	FDW	FDW	37.9	65.5	60	-56.2	-110.4	-1200	243	124	0.0	0	2
1102	ILMF0001	PMD	PMD	-3.4	53.1	82	-157.6	123.1	0	142	200	0.0	0	0
1103	ILMF0001	X14	X14	51.7	44.8	45	-149.0	0.0	-1500	180	149	0.0	0	2
1104	ILMF0002	X14	X14	31.0	62.0	60	-125.4	326.7	0	111	350	0.0	0	0
1105	ILMF0003	FDW	FDW	18.6	66.5	120	297.2	-267.6	0	318	400	0.0	0	0

APPENDIX A

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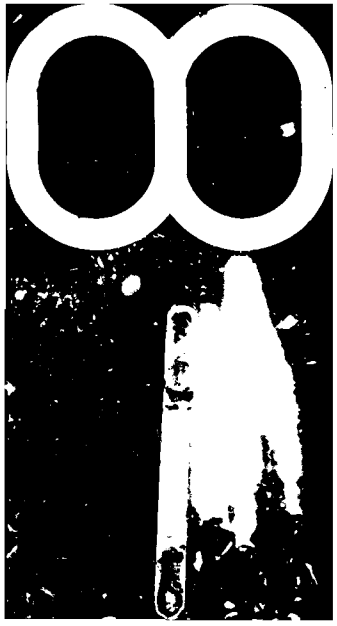
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