

# Bird\_Strike\_Incidents\_Database

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**ERD - link:** <https://lucid.app/lucidchart/invitations/accept/89b73b05-fc5a-4295-a3e0-2113e8319cda>

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#Including required packages

```
getwd()
```

```
## [1] "/home/yashk/Documents/DBMS-Workspace/Practicum1"
```

```
# 1. Library (must be installed prior to loading
```

```
library(RMySQL)      ### MySQL
```

```
## Loading required package: DBI
```

```
library(tidyr)        ### tidyr Seperating rows for handling multivalued attributes
```

```
library(sqldf)        ### SQLdf for using SQL commands on dataframes
```

```
## Loading required package: gsubfn
```

```
## Loading required package: proto
```

```
## Loading required package: RSQLite
```

```
##
```

```
## Attaching package: 'RSQLite'
```

```
## The following object is masked from 'package:RMySQL':
```

```
##
```

```
##      isIdCurrent
```

```
## sqldf will default to using MySQL
```

```
options(sqldf.driver = "SQLite")
```

```
library(dplyr)        ### dplyr for splitting dataframes
```

```
##
```

```
## Attaching package: 'dplyr'
```

```
## The following objects are masked from 'package:stats':
```

```
##
```

```
##      filter, lag
```

```
## The following objects are masked from 'package:base':
```

```
##
```

```
##      intersect, setdiff, setequal, union
```

```

#Reading CSV file
#2. CSV File Name:
#setwd("Documents/DBMS-Workspace/Practicum1")
file_csv <- 'BirdStrikesData.csv'

df1 <- read.csv(file_csv)
df2 <- separate_rows(df1, Conditions..Precipitation)

#Setting up the database connection
# 4. Settings
db_user <- 'root'
db_password <- 'Password@123'
db_name <- 'practicum1'

# Local: localhost
db_host <- 'localhost'
db_port <- 3306 # always this port unless you change it during installation

# 4. Connect to DB
mydb <- dbConnect(MySQL(), user = db_user, password = db_password,
                  dbname = db_name, host = db_host, port = db_port)

#To send Local Variables we write the below statement
dbSendQuery(mydb, "SET GLOBAL local_infile = true;")

## <MySQLResult:12,0,0>
#dbListTables(mydb)

#Defining Schema of the database #Dropping Tables
query<- ("DROP TABLE IF EXISTS practicum1.`bird_strike_incident`");
dbSendQuery(mydb, query);

## <MySQLResult:1936287860,0,1>
query<- ("DROP TABLE IF EXISTS practicum1.`airport`");
dbSendQuery(mydb, query);

## <MySQLResult:1802658148,0,2>
query<- ("DROP TABLE IF EXISTS practicum1.`precipitation`");
dbSendQuery(mydb, query);

## <MySQLResult:12,0,3>
query<- ("DROP TABLE IF EXISTS practicum1.`precipitation_type`");
dbSendQuery(mydb, query);

## <MySQLResult:NA,0,4>
query<- ("DROP TABLE IF EXISTS practicum1.`wildlife`");
dbSendQuery(mydb, query);

## <MySQLResult:-25267736,0,5>
query<- ("DROP TABLE IF EXISTS practicum1.`airline_aircrafts`");
dbSendQuery(mydb, query);

```

```
## <MySQLResult:12,0,6>
```

```
query<-"DROP TABLE IF EXISTS practicum1.`airline_operator`";  
dbSendQuery(mydb, query);
```

```
## <MySQLResult:12,0,7>
```

```
query<-"DROP TABLE IF EXISTS practicum1.`aircraft`";  
dbSendQuery(mydb, query);
```

```
## <MySQLResult:12,0,8>
```

```
dbListTables(mydb);
```

```
## character(0)
```

```
#Table Defination aircraft
```

```
query<-"  
  CREATE TABLE IF NOT EXISTS practicum1.`aircraft` (  
    `AircraftTypeID` INT NOT NULL AUTO_INCREMENT,  
    `Type` VARCHAR(45) DEFAULT ' ',  
    `Make_Model` VARCHAR(45) DEFAULT ' ',  
    `IsAircraftLarge` TINYINT DEFAULT 0,  
    CONSTRAINT unique_constraint UNIQUE(Type,Make_Model,IsAircraftLarge),  
    PRIMARY KEY (`AircraftTypeID`));  
";
```

```
dbSendQuery(mydb, query);
```

```
## <MySQLResult:-2828168,0,10>
```

```
#Table Defination airline_operator
```

```
query<-"  
  CREATE TABLE IF NOT EXISTS practicum1.`airline_operator` (  
    `AirlineOperatorId` INT NOT NULL AUTO_INCREMENT,  
    `AirlineOperator` VARCHAR(45) DEFAULT ' ' NULL UNIQUE,  
    PRIMARY KEY (`AirlineOperatorId`));  
";
```

```
dbSendQuery(mydb, query);
```

```
## <MySQLResult:NA,0,11>
```

```
#Table Defination airline_aircrafts
```

```
query <- ("  
  CREATE TABLE IF NOT EXISTS practicum1.`airline_aircrafts` (  
    `PlaneID` INT NOT NULL AUTO_INCREMENT,  
    `AircraftTypeID` INT NULL,  
    `AirlineOperatorID` INT NULL,  
    `NumberOfEngines` INT DEFAULT 0 NULL,  
    CONSTRAINT unique_constraint UNIQUE (AircraftTypeID,AirlineOperatorID,NumberOfEngines),  
    PRIMARY KEY (`PlaneID`),  
    FOREIGN KEY (`AircraftTypeID`) REFERENCES practicum1.`aircraft` (`AircraftTypeID`),  
    FOREIGN KEY (`AirlineOperatorID`) REFERENCES practicum1.`airline_operator` (`AirlineOperatorId`));  
";
```

```
dbSendQuery(mydb, query)
```

```
## <MySQLResult:0,0,12>
```

```
#Table Defination wildlife
```

```
query <- ("  
  CREATE TABLE IF NOT EXISTS practicum1.`wildlife` (  
    `WildlifeID` INT NOT NULL AUTO_INCREMENT,  
    `Species` VARCHAR(45) DEFAULT ' ' NULL,  
    `Size` ENUM('Small', 'Medium', 'Large') DEFAULT 'Small' NULL,  
    CONSTRAINT unique_constraint UNIQUE (Species, Size),  
    PRIMARY KEY (`WildlifeID`));");
```

```
dbSendQuery(mydb, query)
```

```
## <MySQLResult:1,0,13>
```

```
#Table Defination precipitation_type
```

```
query <- ("  
  CREATE TABLE IF NOT EXISTS practicum1.`precipitation_type` (  
    `PrecipitationID` INT NOT NULL AUTO_INCREMENT,  
    `Precipitation_Type` VARCHAR(45) DEFAULT ' ' NULL UNIQUE,  
    PRIMARY KEY (`PrecipitationID`));");
```

```
dbSendQuery(mydb, query)
```

```
## <MySQLResult:0,0,14>
```

```
#Table Defination precipitation
```

```
query <- ("  
  CREATE TABLE IF NOT EXISTS practicum1.`precipitation` (  
    `RecordID` INT NOT NULL,  
    `PrecipitationID` INT NOT NULL,  
    PRIMARY KEY (`RecordID`, `PrecipitationID`),  
    FOREIGN KEY (`PrecipitationID`) REFERENCES practicum1.`precipitation_type` (`PrecipitationID`));");
```

```
dbSendQuery(mydb, query)
```

```
## <MySQLResult:-60977808,0,15>
```

```
#Table Defination airport
```

```
query <- ("  
  CREATE TABLE IF NOT EXISTS practicum1.`airport` (  
    `AirportID` INT NOT NULL AUTO_INCREMENT,  
    `Name` VARCHAR(45) DEFAULT ' ' NULL,  
    `State` VARCHAR(45) DEFAULT ' ' NULL,  
    CONSTRAINT unique_constraint UNIQUE (Name,State),  
    PRIMARY KEY (`AirportID`));");
```

```
dbSendQuery(mydb, query)
```

```
## <MySQLResult:0,0,16>
```

```
#Table Defination bird_strike_incident
```

```

query <- ('CREATE TABLE IF NOT EXISTS practicum1.`bird_strike_incident` (
  `RecordID` INT NOT NULL AUTO_INCREMENT,
  `FlightDate` DATETIME NULL,
  `WildLife_NumberOfStruck` VARCHAR(80) NULL,
  `WildLife_NumberOfStruckActual` INT NULL,
  `Effect_ImpactToFlight` VARCHAR(80) NULL,
  `Altitude_Bin` VARCHAR(10) NULL,
  `EffectIndicatedDamage` VARCHAR(20) NULL,
  `PhaseOfFlight` ENUM("Approach", "Climb", "Descent", "Landing Roll", "Take-off run", "Taxi") NULL,
  `WildLifeRemainsCollected` VARCHAR(50) NULL,
  `WildLifeRemainsSent` VARCHAR(50) NULL,
  `Remarks` LONGTEXT NULL,
  `PilotWarned` VARCHAR(50) NULL,
  `Cost_Total` INT NULL,
  `FeetAboveGround` INT NULL,
  `PeopleInjured` INT NULL,
  `ConditionsSky` VARCHAR(50) NULL,
  `PlaneID` INT NULL,
  `WildlifeID` INT NULL,
  `AirportID` INT NULL,
  PRIMARY KEY (`RecordID`),
  FOREIGN KEY (`PlaneID`) REFERENCES practicum1.`airline_aircrafts` (`PlaneID`),
  FOREIGN KEY (`WildlifeID`) REFERENCES practicum1.`wildlife` (`WildlifeID`),
  FOREIGN KEY (`AirportID`) REFERENCES practicum1.`airport` (`AirportID`));');

dbSendQuery(mydb, query);

## <MySQLResult:0,0,17>

#Loading data into aircraft table

aircraft <- sqldf('SELECT DISTINCT "Aircraft..Make.Model" AS Make_Model, "Aircraft..Type" AS Type, "Is.
aircraft[aircraft$IsAircraftLarge == "Yes",]$IsAircraftLarge <- 1
aircraft[aircraft$IsAircraftLarge == "No",]$IsAircraftLarge <- 0
#aircraft
#aircraft$AircraftTypeID<- 1:354
aircraft$IsAircraftLarge<- as.integer(aircraft$IsAircraftLarge)
dbWriteTable(mydb, name = "aircraft", value= aircraft, append = TRUE,row.names=FALSE, overwrite = FALSE)

## [1] TRUE

#Loading into airline_operator table

airline_operator <- sqldf('SELECT DISTINCT "Aircraft..Airline.Operator" AS AirlineOperator FROM df1')
#airline_operator
#airline_operator$AirlineOperatorID <- 1:293
dbWriteTable(mydb, name = "airline_operator", value= airline_operator, append = TRUE,row.names=FALSE)

## [1] TRUE

#Loading into airline_aircrafts table

aircraft <- dbGetQuery(mydb, "SELECT * FROM `aircraft`;")

airline_operator <- dbGetQuery(mydb, "SELECT * FROM `airline_operator`;")

airline_aircrafts <- sqldf("SELECT DISTINCT aircraft.AircraftTypeID, airline_operator.airlineOperatorID

```

```

FROM aircraft INNER JOIN airline_operator INNER JOIN df1
WHERE aircraft.`Make_Model` = df1.`Aircraft..Make.Model` AND
airline_operator.AirlineOperator = df1.`Aircraft..Airline.Operator`;")

dbWriteTable(mydb, name = "airline_aircrafts", value= airline_aircrafts, append = TRUE,row.names=FALSE,

## [1] TRUE

#Loading into wildlife table
wildlife <- sqldf('SELECT DISTINCT "Wildlife..Species" AS Species, "Wildlife..Size" AS Size
FROM df1')
#If dbWriteTable
#wildlife$WildlifeID <- 1:395
#wildlife
dbWriteTable(mydb, name = "wildlife", value= wildlife, append = TRUE,row.names=FALSE)

## [1] TRUE

#Loading into airport table
airport <- sqldf('SELECT DISTINCT "Airport..Name" AS NAME, "Origin.State" AS State FROM df1')
#airport
#airport$AirportID<- 1:1141
dbWriteTable(mydb, name = "airport", value= airport, append = TRUE,row.names=FALSE)

## [1] TRUE

#Loading data into precipitation_type table
precipitation_type <- sqldf('SELECT DISTINCT "Conditions..Precipitation" AS Precipitation_Type
FROM df1
WHERE Precipitation_Type NOT LIKE "%,%"')
#precipitation_type
dbWriteTable(mydb, name = "precipitation_type", value= precipitation_type, append = TRUE,row.names=FALSE)

## [1] TRUE

#Loading data into precipitation
precipitation_type <- dbGetQuery(mydb, "SELECT * FROM `precipitation_type`;")

precipitation <- sqldf("SELECT df2.`Record.ID` AS RecordID, PrecipitationID
FROM df2 INNER JOIN precipitation_type
ON df2.'Conditions..Precipitation' = precipitation_type.Precipitation_Type;")
dbWriteTable(mydb, name = "precipitation", value= precipitation, append = TRUE,row.names=FALSE)

## [1] TRUE

#Loading data into bird_strike_incident table
cname <- c("Record.ID", "FlightDate", "Wildlife..Number.struck", "Wildlife..Number.Struck.Actual", "Eff

bird_strike_incident <- df1 %>% select(all_of(cname))
bird_strike_incident$FlightDate <- as.Date(bird_strike_incident$FlightDate, format = "%m/%d/%Y")

airport <- dbGetQuery(mydb, "SELECT * FROM `airport`;")
bird_strike_incident$AirportID <- as.integer(0)

x<-sqldf("SELECT DISTINCT `Record.ID`, AirportID

```

```

        FROM df1 INNER JOIN airport
        ON df1.'Airport..Name' = airport.Name AND df1.`Origin.State` = airport.State ")
bird_strike_incident[bird_strike_incident$Record.ID == x$Record.ID, ]$AirportID<-x[bird_strike_incident$Record.ID == x$Record.ID, ]$AirportID
wildlife <- dbGetQuery(mydb, "SELECT * FROM `wildlife`;")

bird_strike_incident$WildlifeID<- as.integer(0)
x<-sqldf("SELECT DISTINCT df1.'Record.ID',wildlife.WildlifeID FROM df1 INNER JOIN wildlife ON df1.`WildlifeID` = wildlife.WildlifeID")
suppressWarnings(bird_strike_incident[bird_strike_incident$Record.ID == x$Record.ID,]$WildlifeID <- x[bird_strike_incident$Record.ID == x$Record.ID, ]$WildlifeID)

aircraft <- dbGetQuery(mydb, "SELECT * FROM `aircraft`;")
airline_operator <- dbGetQuery(mydb, "SELECT * FROM `airline_operator`;")
airline_aircrafts <- dbGetQuery(mydb, "SELECT * FROM `airline_aircrafts`;")

bird_strike_incident$PlaneID<- as.integer(0)
x1 <- sqldf("SELECT DISTINCT PlaneID, Make_Model, AirlineOperator, NumberOfEngines
            FROM aircraft INNER JOIN airline_operator INNER JOIN airline_aircrafts
            WHERE airline_aircrafts.AircraftTypeID = aircraft.AircraftTypeID AND airline_aircrafts.AirlineOperator = airline_operator.AirlineOperator")
x<-sqldf("SELECT DISTINCT df1.'Record.ID', x1.`PlaneID`
        FROM df1 INNER JOIN x1
        WHERE df1.`Aircraft..Make.Model` = x1.Make_Model AND df1.`Aircraft..Airline.Operator` = x1.AirlineOperator")
suppressWarnings(bird_strike_incident[bird_strike_incident$Record.ID == x$Record.ID,]$PlaneID <- x[bird_strike_incident$Record.ID == x$Record.ID, ]$PlaneID)

colnames(bird_strike_incident) <- c("RecordID", "FlightDate", "WildLife_NumberOfStruck", "Wildlife_NumberOfStruck")
dbWriteTable(mydb, name = "bird_strike_incident", value= bird_strike_incident[, ], append = FALSE, row.names = NULL)

## [1] TRUE

#dbSendQuery(mydb, "ALTER TABLE bird_strike_incidentSET CONSTRAINT `RecordID` PRIMARY KEY")
#dbGetQuery(mydb, "SELECT * FROM bird_strike_incident")

```

#Printing Loaded Data:

```

airport <- dbGetQuery(mydb, "SELECT * FROM airport")
aircraft <- dbGetQuery(mydb, "SELECT * FROM aircraft")
airline_aircrafts <- dbGetQuery(mydb, "SELECT * FROM airline_aircrafts")
precipitation <- dbGetQuery(mydb, "SELECT * FROM precipitation")
precipitation_type <- dbGetQuery(mydb, "SELECT * FROM precipitation_type")
airline_operator <- dbGetQuery(mydb, "SELECT * FROM airline_operator")
wildlife <- dbGetQuery(mydb, "SELECT * FROM wildlife")
head(airport)

```

```

##   AirportID Name      State
## 1      696   Alabama
## 2      675   Alaska
## 3      913   Arizona
## 4      850   Arkansas
## 5      533   California
## 6      588   Florida

```

```
head(aircraft)
```

```

##   AircraftTypeID Type      Make_Model IsAircraftLarge
## 1             180      AEROS 350             NA

```

```
## 2      297      AEROS 355      NA
## 3      213      AEROS SA365      NA
## 4      242      AGUSTA 109      NA
## 5      312      AGUSTA AW 139      NA
## 6      319      BELL-205A1      NA
```

```
head(airline_aircrafts)
```

```
##   PlaneID AircraftTypeID AirlineOperatorID NumberOfEngines
## 1     281             1             1             2
## 2     274             1             3             2
## 3     273             1             4             2
## 4     275             1            13             2
## 5     271             1            14             2
## 6     278             1            29             2
```

```
head(airline_operator)
```

```
##   AirlineOperatorId      AirlineOperator
## 1                39
## 2            239 ABSA AEROLINHAS BRASILEIRAS
## 3                18      ABX AIR
## 4            115      ACM AVIATION
## 5            171      ADI SHUTTLE GROUP
## 6            168      AER LINGUS
```

```
head(wildlife)
```

```
##   WildlifeID      Species      Size
## 1      232  Acadian flycatcher  Small
## 2      265  American alligator  Large
## 3      136  American avocet    Small
## 4      271  American bittern  Medium
## 5      149  American black duck Medium
## 6      391  American coot
```

```
head(precipitation)
```

```
##   RecordID PrecipitationID
## 1      1195             1
## 2      3019             1
## 3      3500             1
## 4      3504             1
## 5      3597             1
## 6      4064             1
```

```
head(precipitation_type)
```

```
##   PrecipitationID Precipitation_Type
## 1                3      Fog
## 2                1      None
## 3                4      Rain
## 4                2      Snow
```

```
head(bird_strike_incident)
```

```
##   RecordID FlightDate Wildlife_NumberOfStruck Wildlife_NumberOfStruckActual
## 1      202152 2000-11-23      Over 100      859
```



## 2	208159	2001-07-25	Over 100	424
## 3	207601	2001-09-14	Over 100	261
## 4	215953	2002-09-05	Over 100	806
## 5	219878	2003-06-23	Over 100	942
## 6	218432	2003-07-24	Over 100	537

##	Effect_ImpactToFlight	Altitude_Bin	EffectIndicatedDamage	PhaseOfFlight
## 1	Engine Shut Down	> 1000 ft	Caused damage	Climb
## 2	None	< 1000 ft	Caused damage	Landing Roll
## 3	None	< 1000 ft	No damage	Approach
## 4	Precautionary Landing	< 1000 ft	No damage	Climb
## 5	None	< 1000 ft	No damage	Approach
## 6	None	< 1000 ft	No damage	Take-off run

##	WildLifeRemainsCollected	WildLifeRemainsSent
## 1	FALSE	FALSE
## 2	FALSE	FALSE
## 3	FALSE	FALSE
## 4	TRUE	FALSE
## 5	FALSE	FALSE
## 6	FALSE	FALSE

## 1 FLT 753. PILOT REPTD A HUNDRED BIRDS ON UNKN TYPE. #1 ENG WAS SHUT DOWN AND DIVERTED TO EWR. SLIGHTLY  
 ## 2  
 ## 3  
 ## 4 NOTAM WARNING. 26 BIRDS HIT THE A/C, FORCING AN EMERGENCY LDG. 77 BIRDS WERE FOUND DEAD ON RWY/TWY  
 ## 5  
 ## 6

##	ConditionsSky	PilotWarned	Cost_Total	FeetAboveGround	PeopleInjured	AirportID
## 1	No Cloud	N	30736	1500	0	1
## 2	Some Cloud	Y	0	0	0	2
## 3	No Cloud	N	0	50	0	3
## 4	Some Cloud	Y	0	50	0	4
## 5	No Cloud	N	0	50	0	5
## 6	No Cloud	N	0	0	0	6

##	WildlifeID	PlaneID
## 1	1	281
## 2	2	1213
## 3	3	688
## 4	3	273
## 5	3	788
## 6	4	36

#Create a SQL query against your database to find the number of bird strike incidents for each airport upon take-off or climb. Include all airlines.

```
sqldf("SELECT A.Name, COUNT(RecordID) AS NumberOfBirdStrikeIncidents FROM bird_strike_incident AS B INNER JOIN A ON B.AirportID = A.AirportID GROUP BY B.AirportID")
```

##	Name	NumberOfBirdStrikeIncidents
## 1	LAGUARDIA NY	263
## 2	DALLAS/FORT WORTH INTL ARPT	803
## 3	LAKEFRONT AIRPORT	15
## 4	SEATTLE-TACOMA INTL	137
## 5	NORFOLK INTL	103
## 6	GUAYAQUIL/S BOLIVAR	6
## 7	NEW CASTLE COUNTY	25

## 8	WASHINGTON DULLES INTL ARPT	270
## 9	ATLANTA INTL	296
## 10	ORLANDO SANFORD INTL AIRPORT	92
## 11	ONTARIO INTL ARPT	145
## 12	CHICAGO O'HARE INTL ARPT	332
## 13	GROTON-NEW LONDON AR	64
## 14	SPIRIT OF ST LOUIS	10
## 15	THEODORE FRANCIS GREEN STATE	111
## 16	KANSAS CITY INTL	452
## 17	LIHUE ARPT	195
## 18	PHOENIX SKY HARBOR	196
## 19	NASHVILLE INTL	364
## 20	JIM HAMILTON L B OWENS ARPT	2
## 21	SOUTHWEST FLORIDA INTL ARPT	215
## 22	ABERDEEN REGIONAL AR	17
## 23	NEWARK LIBERTY INTL ARPT	305
## 24	ASPEN-PITKIN CO/SARD	7
## 25	ROCHESTER INTL	32
## 26	MINNEAPOLIS-ST PAUL INTL	251
## 27	PUEBLO MEMORIAL ARPT	13
## 28	WESTCHESTER COUNTY ARPT	130
## 29	BIRMINGHAM-SHUTTLESWORTH INTL	211
## 30	TAHITI FAAA	2
## 31	ORLANDO INTL	408
## 32	MYRTLE BEACH INTL	39
## 33	LAFAYETTE REGIONAL (LA)	18
## 34	CLEVELAND-HOPKINS INTL ARPT	214
## 35	SAN FRANCISCO INTL ARPT	226
## 36	CENTRAL WISCONSIN ARPT	5
## 37	BARKSDALE AIR FORCE BASE ARPT	39
## 38	DETROIT METRO WAYNE COUNTY ARPT	321
## 39	TOLEDO EXPRESS ARPT	38
## 40	METRO OAKLAND INTL	252
## 41	BEVERLY MUNICIPAL ARPT	7
## 42	TED STEVENS ANCHORAGE INTL	50
## 43	CHARLOTTE/DOUGLAS INTL ARPT	367
## 44	CINCINNATI/NORTHERN KENTUCKY INTL ARPT	302
## 45	GREATER PEORIA REGIONAL ARPT	30
## 46	INDIANAPOLIS INTL	160
## 47	LOUISVILLE INTL ARPT	395
## 48	PORTLAND INTL (OR)	313
## 49	STEWART INTL AIRPORT	26
## 50	LOS ANGELES INTL	217
## 51	BURKE LAKEFRONT	65
## 52	PHILADELPHIA INTL	442
## 53	CAPITAL CITY (MI)	37
## 54	CAPITAL (BEIJING)	1
## 55	PEASE INTL TRADEPORT	18
## 56	SAVANNAH INTL	97
## 57	HILO INTL ARPT	112
## 58	FORT LAUDERDALE/HOLLYWOOD INTL	277
## 59	DALLAS LOVE FIELD ARPT	253
## 60	LOGAN INTL	255
## 61	DENVER INTL AIRPORT	476

## 62	KALAMAZOO/BATTLE CREEK INTL	31
## 63	GERALD R FORD INTL	115
## 64	FORT SMITH MUNICIPAL ARPT	15
## 65	MCCARREN INTL	102
## 66	HESLER-NOBLE FIELD ARPT	3
## 67	PENSACOLA REGIONAL	68
## 68	BALTIMORE WASH INTL	401
## 69	LAURENCE G HANSCOM	29
## 70	PANAMA CITY - BAY COUNTY INTL	26
## 71	SUVA FIJI	1
## 72	OXNARD ARPT	14
## 73	MORRISTOWN MUNICIPAL ARPT	56
## 74	TRENTON MERCER ARPT	18
## 75	TETERBORO AIRPORT	126
## 76	SANFORD REGIONAL ARPT	1
## 77	MEMPHIS INTL	138
## 78	GREATER ROCHESTER INTL	40
## 79	SAINT HUBERT	1
## 80	RALEIGH-DURHAM INTL	165
## 81	DUPAGE AIRPORT	19
## 82	ROANOKE REGIONAL	55
## 83		14
## 84	EL PASO INTL ARPT	58
## 85	PALM BEACH INTL	60
## 86	LEWISTON-NEZ PERCE CO ARPT	12
## 87	BLOOMINGTON/NORMAL	23
## 88	INDIANAPOLIS REGIONAL ARPT	4
## 89	JACKSON EVERS INTL	50
## 90	VANCOUVER INTL	11
## 91	LEHIGH VALLEY INTL	63
## 92	SALT LAKE CITY INTL	479
## 93	QUAD CITY ARPT	109
## 94	PORT COLUMBUS INTL	166
## 95	EPPLEY AIRFIELD	269
## 96	BOB HOPE ARPT	97
## 97	GENERAL MITCHELL INTL	128
## 98	FRESNO YOSEMITE INTL	34
## 99	UNIVERSITY PARK ARPT	4
## 100	COLORADO SPRINGS MUNICIPAL	83
## 101	FORT WAYNE INTL	46
## 102	KEARNEY MUNICIPAL	2
## 103	TOCUMEN INTL	22
## 104	WATERLOO REGIONAL ARPT	10
## 105	SANTO DOMINGO/LAS AM	16
## 106	ALBANY INTL	96
## 107	SACRAMENTO INTL	676
## 108	JOHN F KENNEDY INTL	390
## 109	BUFFALO-NIAGARA INTL	182
## 110	AUSTIN STRAUBEL INTL	20
## 111	DES MOINES INTL	140
## 112	WAUKEGAN REGIONAL ARPT	9
## 113	RONALD REAGAN WASHINGTON NATL	162
## 114	CHARLESTON AFB/INTL ARPT	49
## 115	LOVELL FIELD ARPT	85

## 116	JAMES M COX DAYTON INTL	60
## 117	PUERTO VALLARTA	7
## 118	ALBUQUERQUE INTL	82
## 119	MIAMI INTL	202
## 120	JOSLIN FIELD - MAGIC VALLEY REGIONAL	3
## 121	GREATER PITTSBURGH	237
## 122	TROY MUNICIPAL ARPT	1
## 123	SHEPPARD AIR FORCE BASE	28
## 124	NEW ORLEANS INTL	219
## 125	LAMBERT-ST LOUIS INTL	363
## 126	MINISTRO PISTARINI	16
## 127	BRACKETT FIELD ARPT	14
## 128	HOUSTON-HOBBY	294
## 129	GEORGE BUSH INTERCONTINENTAL	199
## 130	RENTON MUNICIPAL ARPT	6
## 131	THE EASTERN IOWA ARPT	45
## 132	NORTH BEND MUNICIPAL	6
## 133	HARRISBURG INTL	131
## 134	SANTA BARBARA MUNICIPAL	71
## 135	BRADLEY INTL	136
## 136	SAN DIEGO INTL	99
## 137	YEAGER ARPT	32
## 138	CHICAGO MIDWAY INTL ARPT	296
## 139	CHARLES DE GAULLE	16
## 140	ARDMORE MUNICIPAL	2
## 141	SARASOTA-BRADENTON	37
## 142	MONTREAL/PIERRE-ELLIOTT-TRUDEAU INTL	6
## 143	TALLAHASSEE REGIONAL	17
## 144	UNALASKA ARPT	10
## 145	FULTON COUNTY ARPT - BROWN FIELD	7
## 146	GOLDEN TRIANGLE REGIONAL	4
## 147	GULFPORT BILOXI REGIONAL	40
## 148	MINETA SAN JOSE INTL	201
## 149	HUNTSVILLE INTL	28
## 150	JAMESTOWN REGIONAL	3
## 151	AIRBORNE AIRPARK	112
## 152	EVANSVILLE REGIONAL	32
## 153	SPOKANE INTERNATIONAL	39
## 154	SMITH REYOLDS ARPT	2
## 155	LITTLE RIVER ARPT	1
## 156	CONCORD REGIONAL ARPT	1
## 157	AMARILLO INTL	19
## 158	COBB COUNTY ARPT-MC COLLUM FIELD	3
## 159	DANBURY MUNICIPAL ARPT	9
## 160	RALPH WIEN MEMORIAL ARPT	4
## 161	COLUMBUS MUNICIPAL ARPT (IN)	19
## 162	VAN NUYS ARPT	49
## 163	AUSTIN-BERGSTROM INTL	236
## 164	OAKLAND/TROY ARPT	3
## 165	BURLINGTON INTL	33
## 166	KODIAK AIRPORT	7
## 167	NAPA COUNTY ARPT	15
## 168	EXECUTIVE ARPT	31
## 169	WHITEMAN AIRPORT	6

## 170	SCHOLES INTL ARPT AT GALVESTON	3
## 171	ADAMS FIELD ARPT	67
## 172	MONTGOMERY FIELD ARPT	6
## 173	PHOENIX DEER VALLEY ARPT	24
## 174	SKYLARK FIELD	6
## 175	GREATER BINGHAMTON ARPT	16
## 176	KLEBERG COUNTY ARPT	2
## 177	JOPLIN REGIONAL	7
## 178	JONESBORO MUNICIPAL ARPT	1
## 179	HONOLULU INTL ARPT	170
## 180	EGLIN AFB/NW FLORIDA REGIONAL ARPT	8
## 181	SIOUX GATEWAY ARPT	8
## 182	SAN ANTONIO INTL	194
## 183	VALLEY INTL	36
## 184	JACKSON HOLE	9
## 185	JOHN WAYNE AIRPORT	60
## 186	DILLINGHAM AIRFIELD	5
## 187	SHREVEPORT REGIONAL	17
## 188	MCMINN COUNTY ARPT	1
## 189	CUYAHOGA COUNTY ARPT	9
## 190	MANCHESTER AIRPORT	88
## 191	PORTLAND INTL JETPORT (ME)	27
## 192	JEFFERSON CITY MEMORIAL ARPT	3
## 193	NW ARKANSAS REGIONAL	20
## 194	WICHITA MID-CONTINENT ARPT	55
## 195	TYLER POUNDS FIELD	8
## 196	ADDISON	32
## 197	OWENSBORO-DAVIESS	7
## 198	ATLANTIC CITY INTL	70
## 199	LONG ISLAND MAC ARTHUR	86
## 200	ELLINGTON FIELD ARPT	25
## 201	LANCASTER ARPT (PA)	4
## 202	AQUASCALIENTES	2
## 203	NORTHEAST PHILADELPHIA ARPT	12
## 204	LINCOLN MUNICIPAL	65
## 205	SAN CARLOS ARPT	3
## 206	IGOR I SIKORSKY MEMORIAL	9
## 207	MORGANTOWN MUNICIPAL ARPT	10
## 208	SITKA ROCKY GUTIERREZ ARPT	28
## 209	GAINESVILLE REG ARPT	8
## 210	TRI-CITIES REGIONAL TN/VA ARPT	18
## 211	ALLEGHENY COUNTY ARPT	12
## 212	JACKSONVILLE INTL	155
## 213	PIERRE REGIONAL ARPT	3
## 214	NEWPORT NEWS/WILLIAMSBURG INTL	52
## 215	MANLEY HOT SPRINGS ARPT	1
## 216	RICHMOND INTL	53
## 217	KISSIMMEE GATEWAY ARPT	11
## 218	VERO BEACH MUNICIPAL	8
## 219	WAYNE MUNICIPAL ARPT	1
## 220	ROCK SPRINGS-SWEETWATER CO	2
## 221	LA CROSSE MUNICIPAL AIRPORT	5
## 222	RICHARD LLOYD JONES JR ARPT	43
## 223	HEWANORRA ST LUCIA	2

## 224	BUTLER COUNTY REGIONAL	3
## 225	SPRINGFIELD-BRANSON NATIONAL	55
## 226	ABRAHAM LINCOLN CAPITAL ARPT	30
## 227	BUCHOLZ AAF MARSHALL	1
## 228	CENTRAL NEBRASKA REGIONAL	8
## 229	TAMPA INTL	146
## 230	WORCESTER REGIONAL	12
## 231	MEMORIAL FIELD	3
## 232	KAHULUI ARPT	79
## 233	SANTIAGO INTL	4
## 234	OAKLAND COUNTY INTL	16
## 235	JOHN C TUNE ARPT	1
## 236	FORT LAUDERDALE EXECUTIVE ARPT	32
## 237	L F WADE INTL ARPT	5
## 238	MELBOURNE INTL	10
## 239	BISMARCK MUNICIPAL ARPT	23
## 240	MINOT INTL AIRPORT	1
## 241	SLIDELL AIRPORT	1
## 242	WALLBLAKE	1
## 243	GREAT FALLS INTL	7
## 244	BRAINERD-CROW WING	2
## 245	BLUE GRASS ARPT	72
## 246	ROGUE VALLEY INTL	10
## 247	STUTTGART MUNICIPAL ARPT	2
## 248	LAWTON-FORT SILL REGIONAL ARPT	4
## 249	YAMPA VALLEY	17
## 250	COLONEL JAMES JABARA ARPT	2
## 251	MIDLAND INTL	40
## 252	MALCOLM MCKINNON ARPT	2
## 253	MILLARD ARPT	1
## 254	ROCK COUNTY	4
## 255	MARTIN STATE ARPT	6
## 256	BUCHANAN FLD	5
## 257	BOIRE FIELD	2
## 258	VALDOSTA REGIONAL	3
## 259	MANASSAS REGIONAL ARPT	12
## 260	ERIE INTL	15
## 261	CINCINNATI MUNI ARPT-LUNKEN FIELD	22
## 262	SACRAMENTO MATHER ARPT	21
## 263	LUIS MUNOZ MARIN INTL -SAN JUAN	62
## 264	MOLOKAI ARPT	45
## 265	MCGHEE TYSON ARPT	41
## 266	ST. PETERSBURG/CLEARWATER INTL	38
## 267	GRANT COUNTY ARPT	45
## 268	TORONTO/LESTER B. PEARSON INTL	11
## 269	DANE COUNTY REGIONAL ARPT-TRUAX FLD	79
## 270	EDWARD G PITKA SR ARPT	1
## 271	UNIV OF ILLINOIS -WILLARD ARPT	37
## 272	ELKO REGIONAL ARPT	5
## 273	DEKALB-PEACHTREE ARPT	31
## 274	CHICAGO EXECUTIVE ARPT	14
## 275	FLORENCE REGIONAL	2
## 276	NORWOOD MEMORIAL ARPT	4
## 277	LIVERMORE MUNICIPAL ARPT	2

## 278	ROCKY MOUNT WILSON RGNL ARPT	1
## 279	TULSA INTL	64
## 280	BATON ROUGE METRO	62
## 281	WILLOUGHBY LOST NATION MUNI ARPT	1
## 282	WILKES-BARRE/SCRANTON INTL	20
## 283	HENDERSON FIELD	48
## 284	FALLS INTL ARPT	2
## 285	LUBBOCK INTL	39
## 286	AUGUSTA STATE	4
## 287	WILMINGTON INTL	31
## 288	JUNEAU INTL ARPT	10
## 289	RENO TAHOE INTL	57
## 290	ST AUGUSTINE	12
## 291	MONTGOMERY REGIONAL ARPT	19
## 292	PORTLAND-HILLSBORO ARPT	14
## 293	PANGBORN MEMORIAL	6
## 294	TRI-CITIES	10
## 295	PURDUE UNIV ARPT	6
## 296	DAYTONA BEACH INTL	61
## 297	EASTERWOOD FIELD AIRPORT	9
## 298	MANAGUA INTL ARPT	14
## 299	HENRY E ROHLSSEN ARPT	19
## 300	IMPERIAL COUNTY ARPT	2
## 301	KLAMATH FALLS INTL	18
## 302	FAIRBANKS INTL ARPT	19
## 303	EUGENIO MARIA DE HOSTOS ARPT	3
## 304	MISSOULA INTL ARPT	10
## 305	DUBUQUE REGIONAL ARPT	12
## 306	SAND POINT ARPT	1
## 307	MONETT MUNICIPAL ARPT	1
## 308	WATERBURY-OXFORD ARPT	9
## 309	AKRON-CANTON MUNICIPAL	25
## 310	READING REGIONAL	13
## 311	COLUMBUS METRO	18
## 312	NANTUCKET MEMORIAL	7
## 313	ROCKY MOUNTAIN METROPOLITAN ARPT	6
## 314	COLUMBIA METRO	45
## 315	WILLIAMSPORT	4
## 316	BUSH FLD	36
## 317	INDIANAPOLIS METROPOLITAN ARPT	2
## 318	BISHOP INTL FLINT	22
## 319	BELLINGHAM INTL	8
## 320	BETZ ARPT	1
## 321	NOGALES INTL ARPT	1
## 322	TOKYO INTL	2
## 323	GANDER INTL	2
## 324	GOSHEN MUNICIPAL ARPT	2
## 325	ADAMS COUNTY- LEGION FIELD	1
## 326	HAMILTON MUNICIPAL ARPT	1
## 327	FALCON FIELD ARPT	3
## 328	KAPALUA ARPT	84
## 329	BROWNSVL/SO PADRE IS	1
## 330	GUAM INTL ARPT	5
## 331	CHESTER COUNTY G O CARLSON ARPT	1

## 332	SNOHOMISH CO (PAINE FIELD)	9
## 333	ST. LUCIE COUNTY INTL ARPT	15
## 334	MEACHAM FT WORTH	8
## 335	GRAND JUNCTION REGIONAL ARPT	4
## 336	IDAHO FALLS REGIONAL ARPT	11
## 337	MBS INTL	42
## 338	REPUBLIC AIRPORT	16
## 339	CAPITAL CITY ARPT (PA)	5
## 340	GREENVILLE-SPARTANBURG INTL	18
## 341	ASHEVILLE REGIONAL ARPT	28
## 342	ST LOUIS DOWNTOWN	18
## 343	MOBILE DOWNTOWN ARPT	9
## 344	PULLMAN-MOSCOW REGIONAL	7
## 345	GENERAL ESCOBEDO INTL	6
## 346	MCNARY FLD ARPT	12
## 347	BOWMAN FIELD	22
## 348	PIEDMONT TRIAD INTL	28
## 349	FLOYD BENNETT MEMORIAL	4
## 350	PU DONG INTL ARPT	3
## 351	AMSTERDAM SCHIPHOL	2
## 352	WEST BEND MUNICIPAL ARPT	2
## 353	GREATER ROCKFORD	49
## 354	GRAND CANYON WEST	2
## 355	KEY WEST INTL ARPT	21
## 356	EPHRAIM- FISH CREEK	1
## 357	NUT TREE AIRPORT	1
## 358	SACRAMENTO EXECUTIVE ARPT	15
## 359	MONTEREY PENINSULA	6
## 360	JOE FOSS FIELD ARPT	23
## 361	CHEYENNE REGIONAL ARPT	3
## 362	TRI-STATE MILTON FERGUSON	17
## 363	CYRIL E KING ARPT	12
## 364	LONG BEACH-DAUGH FLD	86
## 365	ABILENE REGIONAL ARPT	9
## 366	TEXARKANA-WEBB FIELD	3
## 367	INDIRA GANDHI INTL	4
## 368	HAMILTON	2
## 369	WILL ROGERS WORLD ARPT	82
## 370	LEBANON MUNICIPAL ARPT	7
## 371	GRAND FORKS INTL	39
## 372	HILTON HEAD ISLAND	1
## 373	WILLOW RUN ARPT	19
## 374	GROSSE ILE MUNICIPAL ARPT	2
## 375	LAKELAND LINDER REGIONAL	4
## 376	SHEREMETYEVO INTL	1
## 377	CIUDAD DEL ESTE GARCIA	1
## 378	SOUTH BEND REGIONAL	36
## 379	OUTAGAMIE COUNTY REGIONAL	23
## 380	MAHLON SWEET FLD	9
## 381	QUONSET STATE ARPT	9
## 382	CLARK INTL	8
## 383	SOUTHWEST GEORGIA REGIONAL ARPT	5
## 384	EASTERN WEST VIRGINIA REGIONAL ARPT	1
## 385	BOEING FIELD K C INT	21



## 386	SAIPAN INTL	17
## 387	WILLIAMSON COUNTY REGIONAL	9
## 388	CENTENNIAL ARPT	10
## 389	WALLA WALLA REGIONAL	3
## 390	JIM HOGG COUNTY AROT	2
## 391		13
## 392	HAWTHORNE MUNICIPAL ARPT	4
## 393	PETALUMA MUNICIPAL ARPT	1
## 394	SONOMA COUNTY ARPT	3
## 395	LANAI ARPT	11
## 396	TUCSON INTL	48
## 397	JOHNSON COUNTY EXECUTIVE ARPT	3
## 398	ROSWELL INTL AIR CENTER	3
## 399	ALBERT J ELLIS	11
## 400	NEW TOKYO INTL	4
## 401	HECTOR INTERNATIONAL	15
## 402	SCHENECTADY COUNTY	1
## 403	LONDON-LUTON ARPT	1
## 404	PUNTA CANA INTL	10
## 405	DILLANT-HOPKINS ARPT	4
## 406	SALISBURY-WICOMICO	2
## 407	CORPUS CHRISTI INTL ARPT	27
## 408	MONROE REGIONAL ARPT	5
## 409	BARNSTABLE MUNICIPAL	10
## 410	ROBERTSON FIELD	2
## 411	MODESTO CITY-COUNTY	4
## 412	YELLOWSTONE ARPT	1
## 413	DEER PARK ARPT	1
## 414	SANGSTER INTL	19
## 415	ZELIENOPLE MUNICIPAL	1
## 416	LORAIN COUNTY REGIONAL ARPT	9
## 417	CECIL ARPT	4
## 418	BOLTON FIELD ARPT	1
## 419	ST LOUIS REGIONAL	2
## 420	EASTON/NEWMAN FIELD ARPT	2
## 421	CHERRY CAPITAL ARPT	17
## 422	ST. PAUL DOWNTOWN ARPT	22
## 423	OSCEOLA MUNICIPAL ARPT	1
## 424	YELLOWSTONE REGIONAL	4
## 425	DURANGO-LA PLATA CO	5
## 426	SELAWICK ARPT	1
## 427	WALLOPS FLIGHT FACILITY	2
## 428	OHIO STATE UNIVERSITY	15
## 429	SHEBOYGAN COUNTY MEMORIAL ARPT	1
## 430	SITKA (SPB)	2
## 431	THIEF RIVER FALLS REGIONAL	1
## 432	YAKUTAT ARPT	6
## 433	MANCHESTER ENGLAND	5
## 434	MARSHALL ISLANDS INTL ARPT	1
## 435	SYRACUSE HANCOCK INTL	20
## 436	MERCEDITA ARPT	5
## 437	ORMOND BEACH MUNICIPAL ARPT	5
## 438	MONTROSE REGIONAL ARPT	10
## 439	HELENA REGIONAL	6

## 440	MOBILE REGIONAL	21
## 441	PALM SPRINGS INTL	10
## 442	DE KALB TAYLOR MUNICIPAL ARPT	1
## 443	EVANSTON-UINTA COUNTY BURNS FIELD	1
## 444	JESSE VIERTEL MEMORIAL ARPT	1
## 445	MCCLELLAN-PALOMAR	7
## 446	EL SALVADOR INTL	13
## 447	MC CLELLAN AIRFIELD	13
## 448	WAYNE COUNTY	1
## 449	CHINO AIRPORT	7
## 450	MILANO MALPENSA	3
## 451	MIDDLE GEORGIA REGIONAL	3
## 452	COMPTON/WOODLEY ARPT	1
## 453	YOUNGSTOWN-WARREN RGNL ARPT	1
## 454	RANGE REGIONAL ARPT	1
## 455	EL MONTE ARPT	6
## 456	ALLENTOWN QUEEN CITY MUNICIPAL	3
## 457	SUGAR LAND REGIONAL ARPT	6
## 458	NORTHEASTERN REGIONAL	1
## 459	LINDEN AIRPORT	1
## 460	MADRID-BARAJAS	6
## 461	ELMIRA/CORNING MUNICIPAL	12
## 462	MANHATTAN REGIONAL	3
## 463	SCOTT CITY MUNICIPAL ARPT	1
## 464	CHILLICOTHE MUNICIPAL ARPT	1
## 465	PLYMOUTH MUNICIPAL ARPT (MA)	4
## 466	BOISE AIR TERMINAL/GOWEN FIELD	39
## 467	ANOKA COUNTY-BLAINE	5
## 468	HAGERSTOWN REGIONAL	10
## 469	USAF ACADEMY BULLSEYE AUX AIRSTRIP	5
## 470	GLASGOW INTL/WOKAL FIELD	2
## 471	MONMOUTH EXECUTIVE ARPT	4
## 472	QUEBEC/JEAN LESAGE INTL	1
## 473	ELK GROVE ARPT	1
## 474	LAKE CHARLES REGIONAL	1
## 475	WINDHAM ARPT	1
## 476	HUNTINGBURG ARPT	2
## 477	DUTCHESS COUNTY ARPT	7
## 478	FERANDINA BEACH MUNICIPAL ARPT	1
## 479	HOBBY FIELD ARPT	1
## 480	CAPE MAY COUNTY ARPT	1
## 481	SALINA MUNICIPAL	1
## 482	BETHEL ARPT	6
## 483	GLADEWATER MUNICIPAL ARPT	1
## 484	CALI/VALLE	4
## 485	CANCUN INTL	17
## 486	OCONEE COUNTY REGIONAL ARPT	2
## 487	KETCHIKAN INTL ARPT	4
## 488	TWEED-NEW HAVEN ARPT	13
## 489	GALLATIN FIELD ARPT	7
## 490	PINAL AIRPARK	1
## 491	MARTHAS VINEYARD	5
## 492	BROOKINGS MUNICIPAL ARPT	4
## 493	EAST HAMPTON ARPT	3

## 494	NATRONA COUNTY INTL	4
## 495	FINDLAY ARPT	3
## 496	ROGERS MUNICIPAL ARPT-CARTER FIELD	2
## 497	FULLERTON MUNICIPAL ARPT	4
## 498	ST CLAIR COUNTY INTL ARPT	3
## 499	KINGS LAND O' LAKES ARPT	1
## 500	RAPID CITY REGIONAL	8
## 501	AURORA MUNICIPAL ARPT	6
## 502	RICKENBACKER INTL	6
## 503	SANTIAGO CIBAO INTL	16
## 504	NORTH CENTRAL WEST VIRGINIA ARPT	15
## 505	KONGIGANAK ARPT	1
## 506	WESTERLY STATE ARPT	3
## 507	CAPE GIRARDEAU MUNICIPAL	4
## 508	KALAELOA ARPT JOHN RODGERS FIELD	9
## 509	JUAN SANTAMARIA INTL	17
## 510	ERNEST A LOVE FIELD	23
## 511	SANTA FE DE BOGOTA	4
## 512	KENDALL-TAMIAMI EXECUTIVE ARPT	9
## 513	GRAND RAPIDS/ITASCA COUNTY ARPT	1
## 514	ADDINGTON FIELD ARPT	1
## 515	WILLMAR MUNICIPAL	4
## 516	MC ALLEN MILLER INTL	21
## 517	PALESTINE MUNICIPAL ARPT	1
## 518	WHEELER-SACK ARMY AIRFIELD	1
## 519	CLEVELAND MUNICIPAL ARPT	2
## 520	DEMOPOLIS MUNICIPAL ARPT	1
## 521	NEW CENTURY AIRCENTER ARPT	3
## 522	FORT DODGE REGIONAL	2
## 523	ARNOLD PALMER REGIONAL	2
## 524	BRANSON ARPT	6
## 525	LAREDO INTL	7
## 526	FRIDAY HARBOR ARPT	1
## 527	WENDOVER ARPT	1
## 528	ROBT L BRADSHAW INTL	2
## 529	ALTOONA-BLAIR COUNTY	1
## 530	REDDING MUNICIPAL	8
## 531	BILLINGS LOGAN INTL	5
## 532	PHOENIX-MESA GATEWAY	21
## 533		21
## 534	COLD BAY ARPT	1
## 535	RAFAEL HERNANDEZ ARPT	2
## 536	DELTA COUNTY ARPT	2
## 537	BOWERMAN ARPT	3
## 538	KEY FLD	1
## 539	BELLEVILLE MUNICIPAL	1
## 540	MONROE COUNTY	6
## 541	COLUMBIA REGIONAL	7
## 542	FORT WORTH SPINKS ARPT	4
## 543	PUNTA GORDA ARPT	6
## 544	DULUTH INTL ARPT	4
## 545	WILLIAM B HEILIG FIELD	6
## 546	PHOENIX GOODYEAR ARPT	7
## 547	JAMES CLEMENTS MUNICIPAL ARPT	1

## 548		6
## 549	ALEXANDRIA INTL	3
## 550	GARY CHICAGO INTL	6
## 551	CAPE COD COAST GUARD AIR STATION	2
## 552	GREENVILLE DOWNTOWN ARPT	4
## 553	RIO VISTA MUNICIPAL ARPT	1
## 554	ELIZABETHTON MUNICIPAL ARPT	1
## 555	PRYOR FIELD REGIONAL ARPT	1
## 556	DANIEL ODUBER QUIROS INTL	8
## 557	CHARLES B WHEELER DOWNTOWN ARPT	22
## 558	KUNSAN	1
## 559	TEHACHAPI MUNICIPAL ARPT	1
## 560	BARKLEY REGIONAL ARPT	3
## 561	JACQUELINE COCHRAN REGIONAL ARPT	2
## 562	BARROW COUNTY ARPT	1
## 563	HAYWARD EXECUTIVE ARPT	3
## 564	TUPELO MUNICIPAL	3
## 565	MIDDLETON MUNI MOREY FIELD	2
## 566	FIUMICINO ARPT	3
## 567	WACO REGIONAL ARPT	8
## 568	LIEGE ARPT	2
## 569	CHESTERFIELD COUNTY ARPT	3
## 570	CASTLE ARPT	2
## 571	SKAGIT REGIONAL	2
## 572	SIMON BOLIVAR INTL	2
## 573	MERRILL FIELD ARPT	2
## 574	GRAND CANYON NATIONAL	2
## 575	LA ROMANA INTL	2
## 576	REID-HILLVIEW ARPT OF SANTA CLARA CNTY	4
## 577	BERZ-MACOMB ARPT	1
## 578	FLYING CLOUD ARPT	4
## 579	SOUTHWEST MINNESOTA REGIONAL ARPT	2
## 580	BEMIDJI REGIONAL ARPT	1
## 581	SPENCER MUNICIPAL AIRPORT	1
## 582	GREATER PORTSMOUTH REGIONAL ARPT	1
## 583	TOMPKINS COUNTY ARPT	5
## 584	GREGG COUNTY ARPT	18
## 585	GREENBRIER VALLEY ARPT	3
## 586	WILEY POST ARPT	6
## 587	VIRU VIRU INTL	4
## 588		10
## 589	ERNESTO CORTISSOZ	1
## 590	LIMA ALLEN COUNTY	1
## 591	MERLE K (MUDHOLE) SMITH ARPT	2
## 592	SOUTHWEST MICHIGAN REGIONAL	2
## 593	TACOMA NARROWS ARPT	6
## 594	MATHIS FIELD (TX)	4
## 595	GREENWOOD MUNICIPAL ARPT	2
## 596	PIARCO TRINIDAD	1
## 597	FAIRMONT MUNICIPAL ARPT	1
## 598	LA AURORA	3
## 599	NAPLES MUNICIPAL	7
## 600	HOUSTON GULF ARPT	1
## 601	MORAN FIELD ARPT	1

## 602	MASON COUNTY ARPT (MI)	1
## 603	PUERTO PLATA INTL	5
## 604	ASHTABULA COUNTY	1
## 605	COLEMAN A YOUNG MUNICIPAL ARPT	4
## 606	MANSFIELD LAHM MUNICIPAL	2
## 607	LYNDEN PINDLING INTL ARPT	9
## 608	HERLONG ARPT	1
## 609	CAPT FEAR REGIONAL JETPORT	1
## 610	CARRABELLE-THOMPSON	1
## 611	FRANCIS S GABRESKI ARPT	4
## 612	HAWKINS ARPT	1
## 613	HEMET-RYAN ARPT	3
## 614	CUBA MUNICIPAL ARPT	1
## 615	PAGE FIELD ARPT	2
## 616	MERRILL C MEIGS ARPT	4
## 617	LOS CABOS INTL	3
## 618	DECATUR ARPT	4
## 619	TERRE HAUTE INTL ARPT-HULMAN FIELD	7
## 620	TOLUCA/LIC ADOLFO	1
## 621	CHARLOTTESVILLE-ALBEMARLE ARPT	5
## 622	ELKHART MUNICIPAL ARPT	3
## 623	KINSTON REGL JETPORT	1
## 624	SIGONELLA	1
## 625	MT PLEASANT MUNICIPAL ARPT	2
## 626	LIBERAL MUNICIPAL	2
## 627	NORFOLK REGIONAL ARPT	2
## 628	ESSEX COUNTY AIRPORT	10
## 629	DANVILLE REGIONAL ARPT	2
## 630	COLUMBUS MUNICIPAL ARPT (NE)	1
## 631	GUANAJUATO DEL BAJIO INTL	3
## 632	SAN LUIS COUNTY REGIONAL ARPT	14
## 633	PALMDALE REGIONAL ARPT	5
## 634	STOCKTON METRO	6
## 635		4
## 636	GUNNISON COUNTY	2
## 637	LLANO MUNICIPAL ARPT	1
## 638	CHARLOTTE-MONROE EXECUTIVE ARPT	1
## 639	OWEN ROBERTS INTL	3
## 640	W K KELLOGG ARPT	7
## 641	FORT WORTH ALLIANCE	5
## 642		2
## 643	ALBERT WHITTED	1
## 644	STELLAR AIRPARK	1
## 645	DESTIN-FORT WALTON BEACH ARPT	2
## 646	CALGARY INTL	3
## 647	DELAWARE COUNTY REGIONAL ARPT	2
## 648	YAKIMA AIR TERMINAL	9
## 649	RALEIGH EXEC JETPORT AT SANFORD-LEE CNTY ARPT	2
## 650	DAVID'S ARPT	1
## 651	BUFFALO AIRFIELD ARPT	1
## 652	HAWKINS FIELD ARPT	2
## 653	ASHE COUNTY	1
## 654	NORTH PLATTE REGIONAL	2
## 655	GATWICK - LONDON	5

## 656	CLARK COUNTY REGIONAL ARPT (IN)	2
## 657	TIANJIN (CHINA)	1
## 658	BENITO JUAREZ INTL	7
## 659	KENT STATE UNIVERSITY	4
## 660	CORTEZ MUNICIPAL ARPT	2
## 661	SANTA MARIA PUBLIC	14
## 662	SANTA FE MUNICIPAL	5
## 663	MANITOWOC COUNTY ARPT	1
## 664	LAKE HAVASU CITY ARPT	1
## 665	BARNES MUNICIPAL ARPT	2
## 666	FORD ARPT	1
## 667	PROVO MUNICIPAL ARPT	2
## 668	FOUR CORNERS REGIONAL	2
## 669	DELAND MUNICIPAL ARPT	4
## 670	FORBES FIELD AIRPORT	3
## 671	H L SONNY CALLAHAN ARPT	1
## 672	WM FAIRCHILD INTL ARPT	2
## 673		2
## 674	MID-DELTA REGIONAL	1
## 675		2
## 676		5
## 677	ANN ARBOR MUNICIPAL	2
## 678	TSTC WACO	2
## 679	ST. CLOUD REGIONAL	3
## 680	FAYETTVILLE MUNICIPAL	2
## 681	BESSEMER ARPT	2
## 682	BRENNER FIELD ARPT	1
## 683	ANNISTON METROPOLITAN ARPT	2
## 684	COZUMEL MEXICO	3
## 685	BLOCK ISLAND STATE	1
## 686	CLEARVIEW AIRPARK	1
## 687	MUIR ARMY AIRFIELD	1
## 688	LAKE IN THE HILLS	3
## 689	LOUISA COUNTY ARPT/FREEMAN FLD	1
## 690	MEADOW LAKE ARPT	2
## 691	JOHN F KENNEDY MEMORIAL	4
## 692	TYONEK ARPT	1
## 693	PEARLAND REGIONAL ARPT	1
## 694	HURON REGIONAL ARPT	3
## 695	NORTH LAS VEGAS	2
## 696		4
## 697	SOUTHBRIDGE MUNICIPAL ARPT	1
## 698	LARAMIE REGIONAL	3
## 699	HAMILTON ISLAND	1
## 700	JOHNSTON ATOLL ARPT	1
## 701	ROSEAU MUNI ARPT/RUDY BILLBERG FLD	1
## 702	GAINESVILLE MUNICIPAL ARPT	1
## 703	LITCHFIELD MUNICIPAL	2
## 704	GRIFFING SANDUSKY ARPT	1
## 705	PUT IN BAY	1
## 706	WALDRONAIRE ARPT	1
## 707	SANTA MONICA MUNICIPAL	3
## 708	GREATER KANKAKEE ARPT	2
## 709	GREELEY-WELD COUNTY ARPT	2

## 710	ST. GEORGE ARPT (AK)	1
## 711	WORTHINGTON MUNICIPAL ARPT	1
## 712	BEAVER COUNTY ARPT	1
## 713	OHIO UNIVERSITY ARPT	3
## 714	WINGS FIELD ARPT	2
## 715	RIVERTON REGIONAL	1
## 716	GILLETTE CAMPBELL CO	4
## 717	EDWARDS AIR FORCE BASE	1
## 718	EMMONAK ARPT	1
## 719	BANGOR INTL	3
## 720	CHESTER ARPT	1
## 721	LYNCHBURG REGIONAL	2
## 722	SPACE COAST REGIONAL	2
## 723	SIDNEY MUNICIPAL ARPT	2
## 724	PAGO PAGO INTL	9
## 725	GNOSS FIELD ARPT	3
## 726	SCOTTSDALE ARPT	6
## 727	GARDEN CITY REGIONAL	3
## 728	INCHEON INTL	2
## 729	PAGE MUNICIPAL	2
## 730	MILLVILLE MUNICIPAL ARPT	1
## 731	ROSTRAVER	1
## 732	MCCORD FIELD ARPT	1
## 733	DYERSBURG REGIONAL ARPT	1
## 734	ARCATA AIRPORT	2
## 735	T B LETTSOME INTL	1
## 736	ORCAS ISLAND ARPT	1
## 737	OLYMPIA ARPT	2
## 738	ATHENS/BEN EPPS ARPT	1
## 739	FREEPORT INTL	2
## 740	SAWYER INTL	3
## 741	PORT-AU-PRINCE INTL	4
## 742	BIG PINEY-MARBLETON	1
## 743	DEADHORSE ARPT	2
## 744	OGDEN-HINCKLEY ARPT	3
## 745	MIDDLE BASS-EAST POINT	1
## 746	MEADOWS FIELD ARPT	5
## 747	NEWTOK ARPT	1
## 748	LT WARREN EATON ARPT	1
## 749	DAVID WAYNE HOOKS MEMORIAL ARPT	4
## 750	HOUSTON-SOUTHWEST ARPT	2
## 751	MANKATO REGIONAL ARPT	1
## 752	PETERSBURG JAMES A JOHNSON ARPT	2
## 753	MUSKEGON COUNTY ARPT	6
## 754	CREVE COEUR ARPT	1
## 755	FLAGSTAFF PULLIAM	3
## 756	ADIRONDAK REGIONAL ARPT	1
## 757	OCEAN CITY MUNICIPAL ARPT (MD)	2
## 758		1
## 759	AUBURN-LEWISTON MUNICIPAL	2
## 760	CARROLL COUNTY-TOLSON ARPT	1
## 761	MIAMI COUNTY ARPT	1
## 762	INCIRLIK AIR BASE	2
## 763	CAMARILLO	8

## 764	RYAN FIELD ARPT	1
## 765	ORANJESTAD/REINA BEA	2
## 766	BELIZE INTERNATIONAL ARPT	3
## 767	MANDAN MUNICIPAL	1
## 768	CHICO MUNICIPAL ARPT	1
## 769	DUBOIS REGIONAL ARPT	2
## 770	LEESBURG EXECUTIVE ARPT	3
## 771	PORTLAND-TROUTDALE ARPT	2
## 772		3
## 773	HOUSTON MEMORIAL ARPT	1
## 774	BARCELONA ARPT	2
## 775	SHREVEPORT DOWNTOWN ARPT	1
## 776	MELVILLE HALL AIRPORT	1
## 777	LENAAWEE COUNTY ARPT	2
## 778	DOUBLE EAGLE II ARPT	1
## 779	CEDAR MILLS	1
## 780	PRICE COUNTY ARPT	1
## 781	HATTIESBURG-LAUREL	4
## 782	SOUTHERN ILLINOIS	1
## 783	ROLLA NATIONAL ARPT	1
## 784	RUTLAND STATE ARPT	2
## 785	ALBERT LEA MUNICIPAL ARPT	2
## 786	MOUNT HAWLEY	1
## 787	FRENCH LICK MUNICIPAL ARPT	1
## 788	QUINCY REGIONAL ARPT - BALDWIN FLD	1
## 789	SPRINGFIELD BECKLEY MUNICIPAL	1
## 790	PROVIDENCIALES INTL	3
## 791	ANDERSON REGIONAL	1
## 792	OCEAN REEF CLUB	2
## 793	MANSFIELD MUNICIPAL	1
## 794	CHIPPEWA COUNTY INTL ARPT	2
## 795	CHEFORNAK ARPT	2
## 796	MARCO ISLAND ARPT	1
## 797	SALINAS MUNICIPAL ARPT	2
## 798	SUNDANCE AIRPARK	1
## 799	HUSLIA ARPT	1
## 800	JASPER COUNTY ARPT-BELL FIELD	1
## 801	LAWRENCE MUNICIPAL ARPT (MA)	2
## 802	GUADALAJARA, MEXICO	3
## 803	ROTA	2
## 804	JACK MCNAMARA FLD	1
## 805	COLLIN COUNTY RGNL ARPT AT MCKINNEY	5
## 806	COTE D AZUR	1
## 807	NORTHAMPTON ARPT	1
## 808	FAIRMONT MUNI-FRANKMAN FLD	2
## 809	KONA INTL ARPT	3
## 810	BRANDYWINE ARPT	1
## 811	SKYHAVEN	5
## 812	HEATHROW - LONDON	4
## 813	WINONA MUNICIPAL ARPT	1
## 814	CROOKSTON MUNI ARPT-KIRKWOOD FIELD	3
## 815	SOUTH VALLEY REGIONAL ARPT	2
## 816	KICKAPOO DOWNTOWN ARPT	1
## 817	LAKE HOOD (SPB)	3



## 818	CLINTON COUNTY ARPT	1
## 819	MADISONVILLE MUNICIPAL	1
## 820	MASSEY RANCH AIRPARK	1
## 821	ROBT J MILLER AIR PARK	1
## 822	PETER O KNIGHT ARPT	2
## 823	PALM BEACH COUNTY PARK ARPT	3
## 824	VENANGO REGIONAL	3
## 825	FRIEDMAN MEMORIAL	3
## 826	SOUTHWEST WASHINGTON REGIONAL ARPT	3
## 827	RIVERSIDE MUNICIPAL ARPT	2
## 828	ISLESBORO	1
## 829	IOWA FALLS MUNICIPAL ARPT	1
## 830	FELTS FIELD ARPT	1
## 831	DENTON MUNICIPAL ARPT	3
## 832	MARIANNA MUNICIPAL ARPT	1
## 833	COLOGNE-BONN	6
## 834	MCCOOK MUNICIPAL ARPT	4
## 835	KANSAI INTL	1
## 836	BAIYUN AIRPORT	4
## 837	HANCOCK COUNTY-BAR HARBOR	1
## 838	FERGUS FALLS MUNICIPAL ARPT	1
## 839	ANKENY REGIONAL	2
## 840	BAUDETTE INTL ARPT	1
## 841	DALLAS EXECUTIVE ARPT	1
## 842	MURFREESBORO MUNICIPAL ARPT	1
## 843	SPRINGERVILLE MUNICIPAL	1
## 844	LAUGHLIN BULLHEAD INTL	2
## 845	UNIV OF OKLAHOMA WESTHEIMER ARPT	2
## 846	TREVISO ARPT	1
## 847	OGDENSBURG INTL ARPT	1
## 848	PINE MOUNTAIN LAKE ARPT	2
## 849	VIRACOPOS-CAMPINAS INTL ARPT	1
## 850		1
## 851	FRONT RANGE ARPT	2
## 852	HARTFORD-BRAINARD ARPT	2
## 853	FRANKLIN FIELD ARPT	1
## 854	MUNICH INTL ARPT	1
## 855	BOMBAY/MUMBAI	3
## 856	PETER PRINCE FIELD ARPT	1
## 857	WEST BRANCH COMMUNITY ARPT	2
## 858	KINGMAN	2
## 859	HONG KONG INTL	3
## 860	FERIHEGY ARPT	2
## 861	MALMO-STURUP ARPT	2
## 862	PONCA CITY MUNICIPAL ARPT	3
## 863	KNOXVILLE DOWNTOWN ISLAND ARPT	1
## 864	ONA AIRPARK ARPT	1
## 865		1
## 866	DANIEL FIELD ARPT	1
## 867	DOVER AIR FORCE BASE	1
## 868	JOHN H BATTEN ARPT	1
## 869	BERMUDA DUNES ARPT	2
## 870	MASON CITY MUNICIPAL	5
## 871	TONCONTIN INTL	2

## 872	VALENCIA AIRPORT	1
## 873	KENAI MUNICIPAL ARPT	2
## 874	GENERAL IGNACIO P GARCIA INTL	1
## 875	SUBIC BAY INTL	1
## 876	SUNRIVER	1
## 877	ST. LUCIA-VIGIE	1
## 878	CHANDLER MUNICIPAL ARPT	2
## 879	JEFFERSON COUNTY INTL	1
## 880	MADISON COUNTY ARPT	1
## 881	NEWARK-HEATH ARPT	2
## 882	DODGE CITY REGIONAL ARPT	1
## 883	PALO ALTO ARPT OF SANTA CLARA COUNTY	3
## 884	GRATIOT COMMUNITY	1
## 885	LEIPZIG-HALLE	2
## 886	NORTHERN MAINE REGIONAL	1
## 887	GREENWOOD LAKE ARPT	2
## 888	HAYS REGIONAL	7
## 889	CUSTER ARPT	1
## 890	VIENNA INTL	2
## 891	M GRAHAM CLARK - TANEY COUNTY ARPT	1
## 892	RAMONA ARPT	1
## 893	KILLEEN/FT HOOD REGIONAL	1
## 894	RICHARD I BONG ARPT	1
## 895	TRIPLE W ARPT	1
## 896	WINSTON FIELD ARPT	1
## 897	EDWARD F KNAPP STATE ARPT	1
## 898	LEESBURG INTL ARPT	2
## 899	ANIMAS AIR PARK	1
## 900	LAKE CITY MUNICIPAL ARPT	1
## 901	CRYSTAL ARPT	2
## 902	FRANKFURT MAIN	3
## 903	ST GEORGE MUNICIPAL ARPT	2
## 904	SOLDOTNA AIRPORT	1
## 905	GILLESPIE COUNTY	1
## 906	MARCH ARB ARPT	1
## 907	HENRI COANDA INTL ARPT	1
## 908	BROOKS COUNTY	1
## 909	FARMINGTON REGIONAL	1
## 910	MIDDLE PENINSULA REGIONAL ARPT	1
## 911	CLAYTON COUNTY ARPT- TARA FIELD	2
## 912	PATUXENT RIVER NAS	1
## 913		4
## 914	PENANG INTL	1
## 915	GENESEE COUNTY ARPT	1
## 916	GRANTLEY ADAMS BARBA	2
## 917	WASHINGTON COUNTY	1
## 918	STANSTEAD-LONDON	1
## 919	ANDREWS AIR FORCE BASE	1
## 920	FLAGLER COUNTY ARPT	2
## 921	GUARULHOS INTL	3
## 922	BERT MOONEY	1
## 923		1
## 924	DICKINSON-THEODORE ROOSEVELT RGNL	3
## 925	JOSE MARIA CORDOVE ARPT	1

## 926	FESTUS MEMORIAL ARPT	1
## 927	STUTTGART GERMANY	1
## 928	PERRY COUNTY MUNICIPAL	1
## 929	EASTERN OREGON REGIONAL ARPT	1
## 930	DAKAY-YOFF-LEOPOLD SEDAR SENGHOR	1
## 931	GLENDALE MUNICIPAL ARPT	4
## 932	FOWLER ARPT	7
## 933	HEBER CITY MUNICIPAL	1
## 934	PEARSON FIELD ARPT	1
## 935		1
## 936	NORTH PALM BEACH CNTY GEN AVTN	1
## 937	RIYAH AIR BASE	1
## 938	LAWRENCE J TIMMERMAN ARPT	1
## 939	BOLINGBROOKS CLOW INTL	1
## 940	UGNU-KUPARUK ARPT	1
## 941		2
## 942	WASHINGTON COUNTY MEMORIAL	1
## 943	NOME ARPT	1
## 944	SOUTHEAST TEXAS REGIONAL ARPT	2
## 945		4
## 946	MILLINGTON REGIONAL JETPORT ARPT	1
## 947	DONALDSON CENTER ARPT	1
## 948	CORDOVA MUNICIPAL ARPT	1
## 949	LIVINGSTON COUNTY SPENCER J HARDY	1
## 950	SCOTT AFB/MIDAMERICA	3
## 951	KIRKSVILLE REGIONAL	2
## 952	FORT COLLINS-LOVELAND	4
## 953	SAN PEDRO SULA LA MESA	3
## 954	HOMER ARPT	1
## 955	VALKARIA	1
## 956	HANA ARPT	1
## 957	SEBRING REGIONAL ARPT	1
## 958	BAHRAIN INTL	1
## 959	HENDERSON CITY-COUNTY ARPT	2
## 960	CHADRON MUNICIPAL ARPT	1
## 961	NEW BEDFORD REGIONAL ARPT	6
## 962	KIPNUK ARPT	1
## 963	RAS TANAJIB	1
## 964	FREDERICK MUNICIPAL ARPT	2
## 965	GRIFFISS INTL	2
## 966	MANISTEE COUNTY-BLACKER ARPT	2
## 967	MAGNOLIA MUNICIPAL	1
## 968	ROCK HILL (YORK CO) BRYANT FLD	1
## 969	MC GUIRE AIR FORCE BASE	2
## 970		8
## 971	MURTALA MUHAMMED	2
## 972	NIAGARA FALLS INTL	2
## 973	LA CHINITA INTL	3
## 974	MCCONNELL AIR FORCE BASE	3
## 975	SAN SALVADOR INTL	1
## 976	KIT CARSON COUNTY	2
## 977	TRAVIS AIR FORCE BASE	1
## 978	DOHA INTL	1
## 979	WATERTOWN	1

## 980	NEW SMYRNA BEACH MUNICIPAL ARPT	2
## 981	BRITTON MUNICIPAL ARPT SD	1
## 982	LOGAN-CACHE ARPT	1
## 983	ARLINGTON MUNICIPAL ARPT (TX)	1
## 984	VISALIA MUNICIPAL ARPT	3
## 985	PHILIP BILLARD MUNICIPAL ARPT	1
## 986	MARSHFIELD MUNI/G HARLOW FLD	1
## 987	RUSSELLVILLE REGIONAL ARPT	1
## 988	COLES COUNTY MEMORIAL ARPT	1
## 989	HARVEY FIELD	1
## 990	ZAMPERINI FIELD ARPT	1
## 991	POPLAR BLUFF MUNICIPAL	1
## 992		3
## 993	WAYNESVILLE-ST ROBERT REGIONAL FORNEY FIELD	2
## 994	HERNANDO COUNTY	1
## 995	NEWPORT STATE ARPT	1
## 996	VANDENBERG ARPT	1
## 997	ENTERPRISE MUNICIPAL ARPT	1
## 998	PROVINCETOWN MUNICIPAL ARPT	2
## 999	HIGGINSVILLE INDUSTRIAL MUNICIPAL ARPT	1
## 1000	NORTH TEXAS REGIONAL ARPT	1
## 1001	NEVADA COUNTY AIR PARK	1
## 1002	HOMESTEAD AIR RESERVE BASE	2
## 1003	SOUTHEAST IOWA REGIONAL ARPT	2
## 1004	CLAREMONT MUNICIPAL ARPT	1
## 1005	ONTARIO MUNICIPAL ARPT	1
## 1006	ELEFThERIOS VENIZELOS INTL	2
## 1007	OPA-LOCKA EXECUTIVE ARPT	3
## 1008	CRAIG MUNICIPAL ARPT	2
## 1009	WILEY POST-WILL ROGERS MEM	2
## 1010	LEE'S SUMMIT MUNICIPAL ARPT	2
## 1011	WARSAW MUNICIPAL (IN)	2
## 1012	ALPENA COUNTY REG	1
## 1013	POMPANO BEACH AIRPARK	1
## 1014	ODESSA-SCHLEMEYER FIELD ARPT	2
## 1015	ALLIANCE MUNICIPAL ARPT	2
## 1016		1
## 1017	GRANITE FALLS MUNICIPAL ARPT	1
## 1018	WASHINGTON EXECUTIVE ARPT HYDE FIELD	1
## 1019	LEA COUNTY REGIONAL ARPT	1
## 1020	OTTAWA/MACDONALD-CARTIER INTL	1
## 1021	GREAT BENT MUNICIPAL	4
## 1022	DELPHI MUNICIPAL ARPT	1
## 1023	CANYONLANDS FIELD	2
## 1024	BRAZORIA COUNTY ARPT	1
## 1025	VANCE BRAND ARPT	1
## 1026	MARCO POLO INTL	1
## 1027	STILLWATER REGIONAL ARPT	3
## 1028	BOLIVAR MUNICIPAL ARPT	2
## 1029	JOHNSTOWN-CAMBRIA	3
## 1030	SHOW LOW REGIONAL ARPT	1
## 1031	BALDWIN COUNTY ARPT	1
## 1032	KALAUPAPA ARPT	1
## 1033	MERCED MUNICIPAL	2

## 1034		5
## 1035	NEWTON CITY/COUNTY ARPT	1
## 1036	PELLSTON REGIONAL	1
## 1037	SPRINGDALE MUNICIPAL ARPT	1
## 1038	BRUNSWICK GOLDEN ISLES	1
## 1039	SHALZ FIELD ARPT	1
## 1040	DILLINGHAM ARPT	1
## 1041	MESQUITE METRO ARPT	1
## 1042	FRANK WILEY FIELD ARPT	1
## 1043	GILLESPIE FIELD ARPT	1
## 1044	DELAWARE AIRPARK	1
## 1045	VICKSBURG TALLULAH REGIONAL ARPT	1
## 1046	WARREN FIELD ARPT	1
## 1047	IXTAPA-ZIHUATENEJO	1
## 1048	WAUKESHA COUNTY ARPT	1
## 1049	MOUNT AIRY/SURRY COUNTY ARPT	1
## 1050	GENERAL WM J FOX AIRFIELD	1
## 1051	ROWAN COUNTY ARPT	1
## 1052		1
## 1053	CINCINNATI-BLUE ASH ARPT	1
## 1054	WATERTOWN MUNICIPAL ARPT	1
## 1055	CEDAR CITY REGIONAL	1
## 1056	POTSDAM MUNICIPAL ARPT	1
## 1057	AUBURN-OPELIKA RG PITTS	1
## 1058	SCAMMON BAY AIRPORT	1
## 1059	GEORGETOWN MUNICIPAL ARPT	1
## 1060	GALEAO INTL (RIO)	2
## 1061	SASKATOON/JOHN G. DIEFENBAKER INTL	1
## 1062	SHELL LAKE MUNICIPAL ARPT	1
## 1063	DEVILS LAKE REGIONAL ARPT	1
## 1064	GWINNER-ROGER MELROE FIELD ARPT	1
## 1065	SIDNEY-RICHLAND MUNICIPAL ARPT	1
## 1066	NORTHWEST FLORIDA BEACHES INTL	3
## 1067	BOLINDER FIELD - TOOEE VALLEY ARPT	1
## 1068	PRINCEVILLE ARPT	1
## 1069	CHEVRON USA INC SEAPLANE BASE	1
## 1070	LAWRENCE MUNICIPAL ARPT (KS)	1
## 1071	TULIP CITY ARPT	1
## 1072	KNOX COUNTY REGIONAL	1
## 1073	GEORGE M BRYAN ARPT	1
## 1074	HARRISON COUNTY ARPT	1
## 1075	HAVRE CITY-COUNTY ARPT	1
## 1076	YAZOO COUNTY ARPT	1
## 1077	EAGLE COUNTY REGIONAL	3
## 1078		1
## 1079	STENNIS INTL ARPT	1
## 1080	PAUL C MILLER-SPARTA ARPT	1
## 1081	MC KELLER FLD ARPT	1
## 1082	PITT-GREENVILLE ARPT	2
## 1083	DARE COUNTY REGIONAL ARPT	2
## 1084	SHENZHEN	1
## 1085	TRACY MUNICIPAL ARPT	1
## 1086	HARDY-ANDERS FLD NATCHEZ-ADAMS CNTY	1
## 1087		2

## 1088	GLACIER PARK INTL	1
## 1089	DUBLIN INTL ARPT	1
## 1090	WAUPACA MUNICIPAL ARPT	1
## 1091	NORMAN MANLEY INTL	2
## 1092	COLUMBIA GORGE REGIONAL ARPT	1
## 1093		2
## 1094	VICTORIA INTL	1
## 1095	CORPUS CHRISTI NAS/TRUAX FIELD	2
## 1096	IMMOKALEE REGIONAL ARPT	1
## 1097	CHAUTAUQUA COUNTY/JAMESTOWN ARPT	1
## 1098	ANIAK AIRPORT	1
## 1099	SHANNON INTL	1
## 1100	WATERTOWN INTL ARPT	1
## 1101	GENERAL RAFAEL BUELNA INTL	1
## 1102	DAVIS MONTHAN AIR FORCE BASE	1
## 1103	SHERIDAN COUNTY ARPT	1
## 1104		1
## 1105	BASEL-MULHOUSE-FREIBURG	1
## 1106	PALMYRA (COOPER) AIRPORT	1
## 1107	KENTMORR AIRPARK	1
## 1108	EAGLE CREEK AIRPARK	1
## 1109	MALAGA ARPT	1
## 1110	GENERAL ROBERTO FIERRO VILLALOBOS INTL	2
## 1111	RICHLAND ARPT	1
## 1112	ZURICH	1
## 1113	GUSTAVO ROJAS PINILLA INTL ARPT	1
## 1114	BOB SIKES ARPT	1
## 1115	V C BIRD INTL ARPT	1
## 1116	BOULDER CITY MUNICIPAL ARPT	1
## 1117	UKIAH MUNICIPAL ARPT	1
## 1118	WEST PLAINS REGIONAL ARPT	1
## 1119	TUNICA MUNI ARPT	1
## 1120	RAMSTEIN AIR FORCE BASE	1
## 1121	THE FLORIDA KEYS MARATHON	1
## 1122	NORTH BIG HORN COUNTY ARPT	1
## 1123	MACKINAC COUNTY ARPT	1
## 1124	HUTCHINSON MUNICIPAL	1
## 1125	DELAWARE MUNICIPAL ARPT	1
## 1126	GALILEO GALILEI ARPT	1
## 1127		1
## 1128	MEFFORD FIELD ARPT	1
## 1129	CRAWFORDSVILLE MUNI ARPT	1
## 1130	HICKORY REGIONAL ARPT	1
## 1131	QUINN FIELD ARPT	1
## 1132		2
## 1133	MONTREAL INTL (MIRABEL)	1
## 1134	PORT GRAHAM ARPT	1
## 1135		1
## 1136	MARANA REGIONAL ARPT	1
## 1137	MERRIT ISLAND ARPT	1
## 1138	GRAYSON COUNTY ARPT	1
## 1139	LAKE PALOURDE BASE HELIPORT	1
## 1140	CULPEPER REGIONAL ARPT	1
## 1141	PRINCESS JULIANA	1

#Create a SQL query against your database to find the airports that had the most bird strike incidents (during any flight phase). Include all airlines.

```
sqldf("SELECT airport.Name, MAX(Count) AS NumberOfBirdStrikeIncidents FROM (SELECT AirportID, COUNT(RecordID) AS Count FROM bird_strike_incident GROUP BY AirportID HAVING WildLife_NumberOfStruckActual>0 ORDER BY COUNT(RecordID) DESC) AS A INNER JOIN airport ON A.AirportID = airport.AirportID")
```

```
##                               Name NumberOfBirdStrikeIncidents
## 1 DALLAS/FORT WORTH INTL ARPT                      803
```

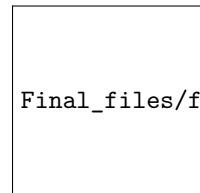
#Create a SQL query against your database to find the number of bird strike incidents by year. Include all airlines.

```
year<-substr(bird_strike_incident$FlightDate, 1, 4)
abd<-sqldf("SELECT * FROM bird_strike_incident")
abd$FlightDate <- year
ans<-sqldf("SELECT FlightDate, COUNT(RecordID) AS NumberOfBirdStrikes FROM abd GROUP BY FlightDate")
ans
```

```
##      FlightDate NumberOfBirdStrikes
## 1      <NA>          129
## 2      2000          1367
## 3      2001          1230
## 4      2002          1681
## 5      2003          1568
## 6      2004          1692
## 7      2005          1853
## 8      2006          2159
## 9      2007          2301
## 10     2008          2258
## 11     2009          3247
## 12     2010          3121
## 13     2011          2952
```

#Using the above data, build a line graph that visualizes the number of bird strikes incidents per year from 2000 to 2011. Adorn the graph with appropriate axis labels.

```
plot(ans, type = "o")
```



#Creating a stored procedure in MySQL that adds a new bird strike incident to the database. Including the following data: airport name, aircraft type, flight date, airline, flight phase. The remaining columns can be set with default values as defined by the table definitions. Show that the insertion worked as expected by retrieving and displaying the inserted data. Add any additional arguments to the stored procedure as needed.

```
dbSendQuery(mydb, "DROP PROCEDURE InsertData");
```

```
## <MySQLResult:96404728,0,52>
```

```
query1 = "CREATE PROCEDURE InsertData (IN AirportName nvarchar(30), IN AircraftType nvarchar(45), IN FlightDate date, IN Airline nvarchar(45), IN FlightPhase nvarchar(45))
BEGIN
INSERT INTO practicum1.airport (`Name`) VALUES(AirportName);
INSERT INTO practicum1.aircraft (`Type`) VALUES(AircraftType);
```

```

INSERT INTO practicum1.airline_operator (`AirlineOperator`) VALUES(AirlineOperator);
INSERT INTO practicum1.bird_strike_incident (`FlightDate`, `PhaseOfFlight`) VALUES(FlightDate, FlightPhase);
UPDATE bird_strike_incident SET `AirportID` = (SELECT AirportID FROM airport WHERE Name = AirportName);
INSERT INTO practicum1.airline_aircrafts (`AircraftTypeID`, `AirlineOperatorID`) SELECT `AircraftTypeID`, `AirlineOperatorID`
FROM practicum1.airline_operator INNER JOIN practicum1.airline_aircrafts ON `AirlineOperatorID` = `AirlineOperatorID`;
UPDATE bird_strike_incident SET `PlaneID` = (SELECT PlaneID FROM airline_aircrafts INNER JOIN aircraft ON `AircraftTypeID` = `AircraftTypeID`);
END"

```

```
dbSendQuery(mydb, query1);
```

```
## <MySQLResult:-58024480,0,53>
```

```
dbSendQuery(mydb,"call practicum1.InsertData('Delhi', 'Airplane1', '2001/10/15', 'Air India', 'Climb');");
```

```
## <MySQLResult:0,0,54>
```

```
SELECT * FROM aircraft WHERE `Type` = 'Airplane1';
```

Table 1: 1 records

AircraftTypeID	Type	Make_Model	IsAircraftLarge
512	Airplane1		0

```
SELECT * FROM airport WHERE `Name` = 'Delhi';
```

Table 2: 1 records

AirportID	Name	State
2048	Delhi	

```
dbDisconnect(mydb)
```

```
## [1] TRUE
```