

Course Package 1

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Hello.java

/* File: Hello.java

This is a simple sample standalone text-based Java application.

Output is generated to StdOut (Standard Out), which in this case is the user's console.

In a Java application, execution begins with the main() method (defined below).

If you're working from the command line (such as on mislab)
compile and execute this program with the commands:

```
javac Hello.java          (creates Hello.class)
java Hello                (runs the JVM to execute byte code)
```

(Note: The file names in these commands are case-sensitive.)

javac.exe is the Java compiler. javac translates source code (stored in a .java file) into platform-independent byte code (stored in a .class file). Byte code is interpreted and executed by a JVM (Java Virtual Machine).

java.exe is a JVM. Some consumer electronics are hardware JVM's (their electronics can actually interpret and execute Java byte code). A JVM is platform-dependent. That is, you must have a JVM that runs in your environment.

The main method must be defined as it is in the example below. The only thing that you can change is the name of the parameter (args).

The main method receives an Array of String objects.

Some elements of programming style which are demonstrated here:

1. the class name begins with an upper-case letter
2. corresponding curly braces are aligned
3. statements within a body of code are indented
4. blank lines are used to enhance readability
5. comments are used to enhance readability and understandability

```
*/
```

```
public class Hello           // Hello class header
{
    // the body of the class is enclosed in curly braces,
    // which are aligned to enhance readability

    public static void main(String[] args)    // main() method header; execution begins here
    {
        // the body of the method is enclosed in curly braces

        System.out.println("Hello world");    // call the println method to generate output
                                                // to StdOut
    }

}

// You should type this program, compile it, and execute it to test your Java environment.
```

DOS1a.java

```
// You should type this program, compile it, and execute it to test your Java environment.
/* File: DOS1a.java
```

DOS1a uses a "for loop" to calculate the sum of the integers between two hard-coded values.

This program uses three primitive int scalar variables. There are eight types of primitives in Java: boolean, char, byte, short, int, long, float, double. Everything else is object-oriented!

```
*/

public class DOS1a                                // DOS1a class header
{
    public static void main(String[] args)         // main() method header
    {
        int start,stop,sum;                        // define (declare) 3 primitive int variables
                                                // this defines name, data type, and size
                                                // these variables have "block scope"; they are
                                                // visible until the } at the end of this block
                                                // of code (this method)

        start=11;                                // initialize the variables (give each a value)
        stop=20;
        sum=0;

        for(int i=start;i<=stop;i++)              // for loop; "i" has block scope; its life is
                                                // the block of this for loop

        {
            System.out.println(i);                 // print value of "i" to StdOut, followed by LF
            sum=sum+i;                             // accumulate running total
        }

                                                // i is no longer available

        System.out.println("\n"+sum);              // print blank line, then value of "sum"
    }
}
```

DOS1b.java

```
/* File: DOS1b.java
```

DOS1b uses a hard-coded, comma-delimited string of Fahrenheit temperatures as its input.

It uses the String class's split method to split that string apart into its separate values, then converts those values to Centigrade.

This program uses the "split" method from the String class. The documentation of the String class describes the "interface" of the method: what you pass to the method, and what the method returns to you. The following comes from the documentation of the method: (textbook: page 431)

```
public String[] split(String s)
```

This tells you that:

split is an instance method (the method header does not include the word "static");

because it's an instance method, it "operates on" a String object; in calling this method,

use a String object to the left of the dot

the method accepts a String object as its sole parameter

the method returns an array of String objects

This program uses the length property of an Array object to know the number of elements in the array (inputs.length).

This program uses the "parseDouble" method from the Double class. The documentation of the Double class describes the interface of the "parseDouble" method: what you pass to the method, and what the method returns to you. The following comes from the documentation of the method: (textbook: page 445)

```
public static double parseDouble(String s)
```

This tells you that:

parseDouble is a class method (the method header includes the word "static"); in calling

this method, use the name of its class to the left of the dot: Double.parseDouble()

it accepts a String object as its sole parameter

it returns a double primitive

```
*/
```

```
public class DOS1b
```

```
{
```

```
public static void main(String[] args)
```

```

{

String string="0,32,100,212";
String[] inputs=string.split(",");           // define an array of String objects
                                              // split the initial string to populate that array

for(int i=0;i<inputs.length;i++)             // step through the elements in the array
{
    String s=inputs[i];                      // get next element
    double f=Double.parseDouble(s);          // call parseDouble class method (of Double class)
    double c=(f-32)*5/9;                    // now calculate Celsius temp

    System.out.println(f+"F = "+c+"C");       // concatenated items for output
}

}
}

```

DOS1c.java

/* File: DOS1c.java

This program accepts both integer and double input from the keyboard. It uses the `Utility.readInt()` method to read an int value, and the `Utility.readDouble()` method to read doubles. Both of these methods are user-defined methods, contained in the `Utility` class, which is stored in `Utility.java`.

`Utility.java` is a user-defined class that is available on our course web site.

Note that methods from the `Utility` class are not compiled INTO your byte code. A separate `Utility.class` is created by the compiler. You need `Utility.class` in the directory along with your program when you try to run your program.

In this program, the user can enter a series of double values, which are stored in an array. The array is sorted, and the sorted list is displayed

on the screen.

The "sort" method from the Arrays class is used in this program (textbook: page 558).

The Arrays class is stored in the java.util package. The import statement is used to make this class available to the compiler.

```
*/
```

```
import java.util.*;                // make classes and interfaces from the
                                   // java.util package available to the compiler

public class DOS1c
{
    public static void main(String[] args)
    {
        int    limit;                // define int scalar
        double[] doubleArray;        // and array of primitive doubles

                                   // at this point, the value of doubleArray is: null
                                   // if you try to refer to doubleArray's value,
                                   // you will get a NullPointerException

        System.out.println("How many values? ");    // display prompt for input
        limit=Utility.readInt();                    // use Utility.readInt() to accept input

        doubleArray=new double[limit];              // allocate memory for array of "limit" double elements
                                                       // doubleArray is an Array object
                                                       // each element in the array will be a primitive double

        System.out.println();                        // print a blank line
        for(int i=0;i<limit;i++)                    // loop to get input values
        {
            // ++ is the increment operator
            System.out.println("next value? ");
            doubleArray[i]=Utility.readDouble();    // read next double into array
        }

        Arrays.sort(doubleArray);                    // use Arrays.sort to sort our array

        System.out.println("\nYour output is:");
```

```
for(int i=0;i<doubleArray.length;i++)           // step through array, generate output
{
    System.out.println(doubleArray[i]);
}
}
```

DOS2a.java

/* File: DOS2a.java

This program instantiates a "Person" object (an instance of the "Person" class).
It then uses some of the properties and methods of a Person object.

The Person class is defined in Person.java (the next class in this course packet).
This is a user-defined class; it is not part of the standard Java API.

*/

public class DOS2a

{

public static void main(String[] args)

{

Person subject; // define a Person reference variable;

// allocate memory for a reference variable

// that will contain the memory address

// of a Person object

subject=new Person(); // instantiate a Person object by calling the

// Person class's zero-argument constructor

// assign its memory address to the reference

// variable "subject"

subject.lastName="Gilligan"; // assign values to properties

subject.firstName="Thom";

subject.age=61;

System.out.println("\nThe first Person is:");

```

System.out.println(subject.toString()+"\n\n");

subject=new Person("Buck","Logan",52);           // instantiate another Person object
                                                // by calling its constructor method
                                                // that accepts String, String, int

System.out.println("Last Name: "+subject.lastName);    // access the "lastName" property of the object
System.out.println("  First: "+subject.firstName);
System.out.println("  Age: "+subject.age+"\n");

subject.age++;                                     // increment the value of the "age" property

System.out.println("Last Name: "+subject.lastName);
System.out.println("  First: "+subject.firstName);
System.out.println("  Age: "+subject.age+"\n");
System.out.println("  Packed: "+subject.toString());    // use the "toString()" method

}
}

```

Person.java

/* File: Person.java

This file defines the Person class, which can be used to instantiate a Person object.

In object-oriented analysis, design, and programming, you try to identify the objects that are the components of a system. Then you develop a class (a blueprint) for each of these types of objects.

When you write a class to represent an object, such as a Person, ask yourself:

What are the attributes of a Person object?

What methods does the class need, to operate on a Person object?

A "constructor method" is called to instantiate an instance of a class, such as:


```
new Person();
```

The name of a constructor must match the name of the class (in this case, Person).

This is a unique characteristic of constructor methods, when compared to other methods:

a constructor method's name begins with an upper-case letter, since it must match the name of the class (which, by convention, begins with an upper-case letter).

A constructor method may NOT specify a return data type.

```
public Person()      is a constructor method
```

```
public void Person() is not a constructor method
```

```
*/
```

```
public class Person
```

```
{
```

```
    public int    age;                // instance variable (property, attribute)
```

```
    public String lastName,firstName; // instance variables
```

```
    public Person()                  // zero-argument constructor method
```

```
    {
```

```
        this.age=0;                  // initialize properties with default values
```

```
        this.lastName="";
```

```
        this.firstName="";
```

```
    }                                // constructor may not have a return
```

```
                                // and may not specify a return data type
```

```
    public Person(String s1,String s2,int i) // constructor, accepts three parameters
```

```
                                // String, String, int
```

```
    {
```

```
        this.firstName=s1;           // set the properties of this object
```

```
        this.lastName=s2;            // based on received parameters
```

```
        this.age=i;
```

```
    }
```

```
    public String toString()          // instance method (not static)
```

```
    {
```

```
        return this.firstName.trim()+" "+this.lastName.trim(); // build string, then return it
```

```
    }
```

```
}
```

DOS2b.java

```
/* File: DOS2b.java
```

This program uses the NewPerson class rather than the Person class.

NewPerson demonstrates "data hiding" and better "encapsulation" by making its properties private, and providing accessor and mutator methods for those properties.

```
*/
```

```
public class DOS2b
```

```
{
```

```
    public static void main(String[] args)
```

```
    {
```

```
        NewPerson subject=new NewPerson();      // declare a NewPerson reference variable
                                                // and instantiate a NewPerson object
```

```
        subject.setFirstName("Buck");           // call mutator methods to change values
        subject.setLastName("Logan");
        subject.setAge(52);
```

```
        System.out.println("First Name: "+subject.getFirstName());
        System.out.println(" Last Name: "+subject.getLastName());
        System.out.println("    Age: "+subject.getAge());
        System.out.println();
```

```
        subject.setFirstName("Charles");
        subject.setLastName("");                // can you set the last name to null?
        if(!subject.setAge(-1))                 // can you set the age to a negative value?
        {
            System.out.println("Error changing age.\n\n");
        }
```

```
        System.out.println("First Name: "+subject.getFirstName());
```

```
System.out.println(" Last Name: "+subject.getLastName());  
System.out.println("      Age: "+subject.getAge());  
System.out.println();  
}  
}
```

NewPerson.java

`/* File: NewPerson.java`

The NewPerson class modifies the Person class. In particular, the properties of this class are declared private so that outside classes can not directly manipulate the values of the properties. To retrieve or change the value of firstName, lastName, or age (the properties of a NewPerson object), you have to call the appropriate accessor (get...) or mutator (set...) method.

Encapsulation is an important concept in object-oriented programming. When we define a class, we want to include all relevant properties and methods of the class in that class. We want to encapsulate the attributes and behaviors of instances of that class, minimizing interactions with the outside.

By making properties private, we have control over the values assigned to those properties. Our mutator methods can do whatever error-checking is appropriate before modifying a property. Even in accessor methods, we can implement whatever controls are appropriate to access the value of a property.

Although it adds more programming, adding accessor and mutator methods, and making properties private, is an important component of encapsulation.

The name of an accessor method, by convention, begins with the word "get", followed by the name of the associated property (capitalizing the first letter of the property name). See examples in this class.

The name of a mutator method, by convention, begins with the word "set",

followed by the name of the associated property (capitalizing the first letter of the property name). See examples in this class.

```
*/

public class NewPerson
{
    private String firstName,lastName;      // private instance variables (properties)
    private int    age;

    public NewPerson()                      // zero-argument constructor method
    {
        this.firstName="";                 // default values for properties
        this.lastName="";
        this.age=0;
    }

    public String getFirstName()             // accessor method to retrieve value of firstName
    {                                       // returns a String
        return this.firstName;
    }

    public boolean setFirstName(String s)    // method to change value of firstName
    {                                       // returns a primitive boolean
        if(s.length()==0)                 // call length() method of String object
        {                                   // don't change firstName to null String
            return false;
        }

        this.firstName=s;                  // change firstName

        return true;                       // value was changed
    }

    public String getLastName()              // accessor method to retrieve value of lastName
    {                                       // returns a String
        return this.lastName;
    }
}
```

```

public boolean setLastName(String s)      // method to change value of lastName
{
    if(s.length()==0)                    // call length() method of String object
    {
        // don't change lastName to null String
        return false;
    }

    this.lastName=s;                     // change lastName

    return true;                          // value was changed
}

public int getAge()                      // accessor method to retrieve value of age
{
    // returns an int value
    return this.age;                     // return value of this.age
}

public boolean setAge(int i)             // mutator method to change value of age
{
    // returns boolean indicating if value was changed
    if(i<0)                              // don't change age to negative value
    {
        return false;                    // value was not changed
    }
    this.age=i;                          // i >= 0, valid value
    return true;                          // value was changed
}

}

```

DOS2c.java

```
/* File: DOS2c.java
```

This system uses three classes: DOS2c, NewerPerson, and Employee.
 The Employee class is a subclass of the NewerPerson class. This program
 instantiates an Employee object.

```

*/

public class DOS2c
{
    public static void main(String[] args)
    {
        Employee subject;

        subject=new Employee(101,"Barney","Fife",51,17.25);    // instantiate an Employee object

        System.out.println("  EmpNum: "+subject.getEmpNum()); // call several of the object's instance methods
        System.out.println("Last Name: "+subject.getLastName());
        System.out.println("  First: "+subject.getFirstName());
        System.out.println("    Age: "+subject.getAge());
        System.out.println("    Rate: "+subject.getPayRate());
        System.out.println("\n"+subject.toString()+"\n\n\n");
    }
}

```

NewrPerson.java

```

/* File: NewerPerson.java

```

The NewerPerson class modifies the NewPerson class.

The NewPerson class used private instance variables (properties). But we now want to be able to subclass the NewPerson class to further define a specific type of NewPerson, an Employee. The problem is that private properties may not be accessed by other classes, even by a subclass. NewerPerson changes the access modifier on those properties to protected, rather than private.

```

*/

public class NewerPerson
{
    protected String firstName,lastName;    // protected instance variables
    protected int   age;

```

```
public NewerPerson()                // constructor method
{
    this.firstName="";              // default values for properties
    this.lastName="";
    this.age=0;
}

public NewerPerson(String f,String l,int i) // overloaded constructor method
{
    this.firstName=f;               // set values for properties
    this.lastName=l;
    this.age=i;
}

public String getFirstName()        // accessor method to retrieve value of firstName
{
    // returns a String
    return this.firstName;
}

public boolean setFirstName(String s) // method to change value of firstName
{
    if(s.length()==0)              // call length() method of String object
    {
        // don't change firstName to null String
        return false;
    }

    this.firstName=s;              // change firstName

    return true;                  // value was changed
}

public String getLastName()         // accessor method to retrieve value of lastName
{
    // returns a String
    return this.lastName;
}

public boolean setLastName(String s) // method to change value of lastName
{
```

```

if(s.length()==0)                // call length() method of String object
{
    return false;                // don't change lastName to null String
}

this.lastName=s;                  // change lastName

return true;                      // value was changed
}

public String getName()
{
    return this.lastName.trim()+" "+this.firstName.trim();
}

public int getAge()              // accessor method to retrieve value of age
{
    return this.age;             // returns an int value
}

public boolean setAge(int i)      // mutator method to change value of age
{
    if(i<0)                      // don't change age to negative value
    {
        return false;           // value was not changed
    }
    this.age=i;                  // i >= 0, valid value
    return true;                 // value was changed
}
}

```

Employee.java

```
/* File: Employee.java
```

```
Object
```



```

|
+---NewerPerson
    |
    +---Employee

```

The Employee class subclasses the NewerPerson class (which subclasses the Object class). Therefore, Employee inherits properties and methods of the superclass (NewerPerson). It may optionally over-ride any property or method that would otherwise be inherited (this is done with the toString() method, below).

```

*/

public class Employee extends NewerPerson          // subclass the NewerPerson class
{
    protected Integer empNum;                      // add specific properties of the subclass
    protected double payRate;

    public Employee()                              // zero-argument constructor
    {
        super();                                  // call zero-argument constructor of superclass
        this.empNum=new Integer(0);                // then set values of subclass's instance variables
        this.payRate=0;
    }

    public Employee(int i,String s1,String s2,int j,double d)
    {
        super(s1,s2,j);                           // call constructor from superclass
        this.empNum=new Integer(i);                 // then set values of subclass's instance variables
        this.payRate=d;
    }

    public int getEmpNum()                          // accessor method, returns a primitive int
    {
        return this.empNum.intValue();              // use intValue() method of Integer class
    }

    public double getPayRate()
    {
        return this.payRate;
    }
}

```

```

public String toString()                // over-ride toString method from Person class
{
    return this.empNum+" "+this.firstName.trim()+" "+this.lastName.trim()+" rate: "+this.payRate;
}
}

```

DOS2d.java

```

/* File: DOS2d.java

```

This program instantiates a Taxpayer object, then calculates a weekly tax withholding amount using the calcTax() method of the Taxpayer class. This program demonstrates reading records from a sequential data file.

This program uses several classes that are in the java.io package. To help the compiler resolve these external references, the import statement is used. The import statement makes classes and interfaces from the specified package available to the compiler.

The documentation of a class will tell you what package the class is in. Any class that is in the java.lang package is available automatically. You need an import statement for any class (or interface) that is in any package other than java.lang.

```

*/

import java.io.*;                    // import classes and interfaces from the java.io package

public class DOS2d
{
    public static void main(String[] args) throws Exception // this method throws Exception objects to its caller
    {
        int      hours;
        String    record;
        Taxpayer  subject;
        FileReader reader;
    }
}

```

```

BufferedReader in;

reader=new FileReader("Taxpayer.dat");      // specify local file name: Taxpayer.dat
in=new BufferedReader(reader);              // open the file so we can read its records

record=in.readLine();                       // attempt to read next record
while(record!=null)                        // execute loop if record has any characters
{
    subject=new Taxpayer(record);           // pass record data, instantiate taxpayer object

    System.out.println("Taxpayer: "+subject.getName());
    System.out.println("Pay rate: "+subject.getPayRate()+"\n");
    System.out.println("Hours worked?");
    hours=Utility.readInt();                // ask for hours worked; keyboard input

    System.out.println("\n"+subject.getName()+"    taxes: "+subject.calcTax(hours));

    System.out.print(subject.getName()+" formatted: ");
    System.out.println(Utility.padString(subject.calcTax(hours),10,2)+"\n\n");

    record=in.readLine();                  // attempt to read next record
}

in.close();                                // close the file
}
}

```

Taxpayer.java

```
/* File: Taxpayer.java
```

This class includes tax tables. It includes a `calcTax()` method which will calculate the weekly withholding tax for a taxpayer.

To calculate the weekly withholding tax:

calculate weekly gross pay: `gross=hours*payRate`

estimate annual gross pay: `annualized=gross*52`

use tax brackets to estimate annual tax

-18550 in annualized gross is taxed at 15%

-44900 marginal rate of 28%

>44900 marginal rate of 33%

calculate weekly withholding: $\text{weeklyTax} = \text{annualTax} / 52$

*/

```
public class Taxpayer extends Employee           // subclass the Employee class
{
    private static final double TAXRATE1=.15;      // class variable (3 tax rates)
    private static final double TAXRATE2=.28;
    private static final double TAXRATE3=.33;

    private static final double TAXLIMIT1=18550;    // upper limits of tax brackets
    private static final double TAXLIMIT2=44900;

    public Taxpayer(String s)                     // constructor, accepts String parameter
    {
        this.empNum=new Integer(s.substring(0,5)); // extract substrings from record
                                                    // empNum is inherited from Employee

        this.firstName=s.substring(5,20);          // properties inherited from NewerPerson
        this.lastName=s.substring(20,35);
        this.age=Integer.parseInt(s.substring(35,37));
        this.payRate=Double.parseDouble(s.substring(37,43));
    }

    public double calcTax(int hours)               // receive one int parameter
    {
        double gross,annualized,annualTax,weeklyTax; // declare several primitive double items

        gross=hours*this.payRate;                  // 1. calculate weekly gross pay
        annualized=gross*52;                         // 2. annualize it

        if(annualized<=Taxpayer.TAXLIMIT1)          // 3. now handle marginal brackets
        {
            annualTax=Taxpayer.TAXRATE1*gross;       // lowest bracket, simple
        }
        else
        {
            if(annualized<=Taxpayer.TAXLIMIT2)
```

```

{
    // middle bracket; use marginal rate!
    annualTax=Taxpayer.TAXRATE1*Taxpayer.TAXLIMIT1+
        Taxpayer.TAXRATE2*(annualized-Taxpayer.TAXLIMIT1);
}
else
{
    // highest bracket
    annualTax=Taxpayer.TAXRATE1*Taxpayer.TAXLIMIT1+
        Taxpayer.TAXRATE2*(Taxpayer.TAXLIMIT2-Taxpayer.TAXLIMIT1)+
        Taxpayer.TAXRATE3*(annualized-Taxpayer.TAXLIMIT2);
}
}

weeklyTax=annualTax/52;           // 4. calculate weekly tax

return weeklyTax;                 // return a float value
}

}

```

Taxpayer.dat

Taxpayer.dat (fixed-length fields)

each record consists of:

characters 0- 4: employee number

-19: first name

-34: last name

-36: age

-42: pay rate

George Washington 54295.00

Benjamin Franklin 61149.95

RandomNumbers.java

```
/* file: RandomNumbers.java
```

This program generates a list of random numbers without replacement. This program is a text-based

application. It uses the user-defined RandomNumbersWithoutReplacement class, which contains all of the functionality one needs to get random numbers (without replacement).

```
*/

public class RandomNumbers
{

    public static void main(String[] args)
    {

        System.out.println();

        System.out.print("Enter the desired lower limit of your range of random numbers: ");
        int lower=Utility.readInt();

        System.out.print("                                and the upper limit: ");
        int upper=Utility.readInt();

        // instantiate a (user-defined) RandomNumbersWithoutReplacement object
        RandomNumbersWithoutReplacement list=new RandomNumbersWithoutReplacement(lower,upper);

        // get random numbers, one at a time
        int ran=list.next();
        while(ran>-1)
        {
            System.out.println(ran);
            ran=list.next();
        }

        System.out.println();
    }
}
```

RandomNumbersWithoutReplacement.java

/* file: RandomNumbersWithoutReplacement.java

Re-usable class to generate a list of random numbers without replacement.

The two steps to using this class are:

instantiate a RandomNumbersWithoutReplacement object. There are two options for this:

- pass a single integer indicating the desired number of random numbers
- pass two integers, indicating the low number and the high number in the desired range

RandomNumbersWithoutReplacement list=new RandomNumbersWithoutReplacement(16);
will set up a list of random numbers in the range 0 through 15 (16 random numbers)

RandomNumbersWithoutReplacement list=new RandomNumbersWithoutReplacement(11,20);
will set up a list of random numbers in the range 11 through 20 (10 random numbers)

Call this class's next method to get the next random number.

int i=list.next();

*/

import java.util.*; // the Vector class is in the java.util package

public class RandomNumbersWithoutReplacement

{

private Vector v=new Vector(); // instantiate a Vector object

public RandomNumbersWithoutReplacement(int i) // constructor method that receives a single int,
{ // indicating desired number of random numbers
this(0,i-1); // call other constructor; random numbers will be in
} // the range 0 through i-1

public RandomNumbersWithoutReplacement(int low,int high) // constructor method that receives two primitive
ints

{ // indicating beginning and ending values for the
// random numbers
if(high<low) // do a little error checking
{ // make sure that high is not less than low
high=low;
}

for(int j=low;j<=high;j++) // populate the vector with Integer objects

```

{
    Integer val=new Integer(j);           // instantiate next Integer object
    v.addElement(val);                    // add it to the vector
}
}

public int next()                        // method to get next random number
{
    if(v.size()==0)                      // if the vector is already empty,
    {                                    // return a -1 (all the random numbers have
        return -1;                      // already been used)
    }

    int ran=Math.floor(Math.random()*v.size());    // pick a random vector index
    Integer val=(Integer) v.elementAt(ran);        // get the Integer object from the vector
    v.removeElementAt(ran);                        // remove the element from the vector
    return val.intValue();                         // and return an int value of the Integer object
}
}

```

TriviaFileList.java

/* File: TriviaFileList.java

This text-based application reads Trivia events from the sequential file Trivia.fil and displays output to the screen. Since Trivia.fil contains records with fixed-length fields, the String class's substring method is used to extract fields from each record.

This program uses three classes from optional java packages, plus two methods from the user-defined Utility.java:

- java.io.FileReader (textbook: page 672)
- java.io.BufferedReader (textbook: page 676)
- java.util.Date (textbook: page 586)

Some methods in the Data class have been deprecated, meaning that there is a newer (and perhaps better) method, perhaps in some other class, that provides identical functionality. The nice thing about the methods from the Date class is that they are easy to use. And they still work -- deprecated does not mean obsolete.

You will get a warning from the compiler when you use deprecated methods. This is a warning, not an error message.

```
*/

import java.io.*;                // for java.io.BufferedReader and java.io.FileReader
import java.util.*;              // for java.util.Date

public class TriviaFileList
{
    public static void main(String[] args)
    {

        Date date=new Date();      // instantiate a Date object (some methods deprecated)
        int todayMonth=date.getMonth()+1;    // getMonth returns 0-11 (increment by 1 for 1-12)
        int todayDay=date.getDate();    // day of the month (1-31)

        // generate a heading
        System.out.println("\n\nToday is " + Utility.getDayName(date.getDay()+1) + ", " +
            Utility.getMonthName(todayMonth) + " " + todayDay + ", " + (date.getYear()+1900) + "\n");

        System.out.println("On this day in history, the following events happened:\n");

        try                        // put I/O stuff in a try/catch block
        {
            BufferedReader in=new BufferedReader(new FileReader("Trivia.fil")); // data file is now open

            String record=in.readLine();    // attempt to read next record
            while(record!=null)             // execute loop if record was read
            {
                int month=Integer.parseInt(record.substring(0,2)); // extract substrings from data record
                int day=Integer.parseInt(record.substring(3,5));

                if(month==todayMonth && day==todayDay)    // did this event happen on current month/day?
                {
                    int year=Integer.parseInt(record.substring(6,10));

                    String event=record.substring(12);    // extract the event
                    while(event.endsWith(" "))             // strip off trailing spaces
```

```

    {
        event=event.substring(0,event.length()-1);
    }
    System.out.println(year+" "+event);           // generate a line of output
}

    record=in.readLine();                        // attempt to read next record
}
in.close();                                    // close the file
}
catch(Exception e)                            // catch any exceptions
{
    System.out.println("I/O exception");
    System.out.println(e.toString());
}

System.out.println();                          // final blank line
}
}

```

Trivia.fil

01/01/1801 Giuseppe Piazzi discovered 1st asteroid, later named Ceres

01/01/1801 United Kingdom of Great Britain & Ireland established

01/01/1804 Haiti gains its independence

01/01/1863 Emancipation Proclamation issued by Lincoln.

01/01/1892 Brooklyn merges with NY to form present City of NY Ellis Island became reception center for new immigrants

01/01/1901 Commonwealth of Australia established

01/01/1902 first Rose Bowl game held in Pasadena, California.

01/01/1912 first running of SF's famed "Bay to Breakers" race (7.63 miles)

01/01/1934 Alcatraz officially becomes a Federal Prison.

01/01/1956 Sudan gains its independence

01/01/1958 European Economic Community (EEC) starts operation.

01/01/1971 Cigarette advertisements banned on TV

01/01/1984 AT & T broken up into 8 companies.

01/01/1986 Spain & Portugal become 11th & 12th members of Common Market

01/02/1776 first American revolutionary flag displayed.

01/02/1788 Georgia is 4th state to ratify US constitution

01/02/1893 World's Columbian Exposition opens in Chicago

01/02/1921 DeYoung Museum in San Francisco's Golden Gate Park opens.

01/02/1936 first electron tube described, St Louis, Missouri

01/02/1959 USSR launches Mechta, 1st lunar probe & artificial in solar orbit

01/02/1968 Dr Christian Barnard performs 1st successful heart transplant

01/02/1972 Mariner 9 begins mapping Mars

01/03/1521 Martin Luther excommunicated by Roman Catholic Church

01/03/1777 Washington defeats British at Battle of Princeton, NJ

01/03/1852 First Chinese arrive in Hawaii.

01/03/1870 Brooklyn Bridge begun, completed on May 24, 1883

01/03/1888 1st drinking straw is patented.

01/03/1957 first electric watch introduced, Lancaster Pennsylvania

01/03/1959 Alaska becomes the 49th state.

01/03/1977 Apple Computer incorporated.

01/04/1754 Columbia University opens

01/04/1784 US treaty with Great Britain is ratified

01/04/1790 President Washington delivers first "State of the Union" speech.

01/04/1896 Utah becomes 45th state

01/04/1948 Burma gains independence from Britain (National Day)

01/04/1959 Soviet Luna 1 first craft to leave Earth's gravity

01/04/1982 Golden Gate Bridge closed for the 3rd time by fierce storm.

01/05/1809 Treaty of Dardanelles was concluded between Britain & France

01/05/1911 San Francisco has its first official airplane race.

01/05/1933 Work on Golden Gate Bridge begins, on Marin County side.

01/05/1969 USSR Venera 5 launched. 1st successful planet landing - Venus

01/05/1972 NASA announces development of Space Shuttle

01/05/1975 Salyut 4 with crew of 2 is launched for 30 days

01/06/1663 Great earthquake in New England

01/06/1838 first public demonstration of telegraph, by Samuel F. B. Morse

01/06/1914 Stock brokerage firm of Merrill Lynch founded.

01/06/1941 FDR names 4 freedoms (speech, religion; from want, from fear)

01/06/1942 first around world flight by Pan Am "Pacific Clipper"

01/07/1558 Calais, last English possession in France, retaken by French

01/07/1610 Galileo discovers 1st 3 moons of Jupiter, Io, Europa & Ganymede

01/07/1714 The typewriter is patented (it was built years later)

01/07/1785 1st balloon flight across the English Channel.

01/07/1822 Liberia colonized by Americans

01/07/1929 "Tarzan", one of the first adventure comic strips appears.

01/07/1963 First Class postage raised from 4 cents to 5 cents.

01/07/1968 First Class postage raised from 5 cents to 6 cents.

01/08/1815 Battle of New Orleans, made a hero out of Andrew Jackson (the War of 1812 had ended on 12/24/1814, but nobody knew that).

01/08/1880 The passing of Norton I, Emperor of the US, Protector of Mexico

01/08/1932 Ratification of present San Francisco City Charter.

01/08/1935 Spectrophotometer patented, by AC Hardy

01/08/1958 Cuban revolutionary forces capture Havana

01/08/1968 US Surveyor 7 lands near crater Tycho on moon

01/08/1973 USSR launches Luna 21 for moon landing

01/09/1788 Connecticut becomes 5th state

01/09/1793 Jean Pierre Blanchard makes 1st balloon flight in North America

01/09/1799 1st income tax imposed, in England.

01/09/1839 Thomas Henderson measures 1st stellar parallax Alpha Centauri

01/09/1839 The daguerrotype process announced at French Academy of Science

01/09/1843 Caroline Herschel, "1st lady of astronomy," dies at 98 in Germany

01/09/1847 first San Francisco paper, 'California Star', published.

01/09/1978 Commonwealth of Northern Marianas established

01/09/1982 5.9 earthquake in New England/Canada; last one was in 1855.

01/10/1776 "Common Sense" by Thomas Paine is published.

01/10/1840 The Penny Post mail system is started.

01/10/1863 1st underground railway opens in London.

01/10/1945 Los Angeles Railway (with 5 streetcar lines) forced to close.

01/10/1946 UN General Assembly meets for first time

01/10/1946 US Army establishes first radar contact with moon. It's there.

01/10/1949 first Jewish family show - The Goldberg's begin

01/10/1951 first jet passenger trip made

01/10/1969 USSR's Venera 6 launched for parachute landing on Venus

01/10/1978 Soyuz 27 is launched

01/11/1642 Isaac Newton is elected a member of Royal Society

01/11/1787 Titania & Oberon, moons of Uranus, discovered by William Herschel

01/11/1813 First pineapples planted in Hawaii.

01/11/1935 1st woman to fly solo across Pacific left Honolulu, AE Putnam

01/11/1935 Amelia Earhart flies from Hawaii to California, non-stop

01/11/1975 Soyuz 17 is launched

01/12/1777 Mission Santa Clara de Asis founded in California

01/12/1820 Royal Astronomical Society, founded in England

01/12/1986 24th Space Shuttle Mission - Columbia 7 is launched

01/13/1610 Galileo Galilei discovers Callisto, 4th satellite of Jupiter

01/13/1630 Patent to Plymouth Colony issued

01/13/1854 Anthony Foss obtains patent for the Accordion.

01/13/1854 Anthony Foss obtains patent for accordion

01/13/1920 NY Times Editorial says rockets can never fly.

01/13/1930 Mickey Mouse comic strip first appears

01/13/1971 Apollo 14 launched (what was that about rockets can't fly??)

01/14/1784 Revolutionary War ends when Congress ratifies Treaty of Paris

01/14/1914 Henry Ford introduces the Assembly Line for his cars.

01/14/1936 L.M. "Mario" Giannini elected president of Bank of America.

01/14/1939 All commercial ferry service to the East Bay ends.

01/14/1969 Soyuz 4 is launched

01/15/1535 Henry VIII declares himself head of English Church

01/15/1759 British Museum opens

01/15/1778 Nootka Sound discovered by Capt. Cook

01/15/1861 Steam elevator patented by Elisha Otis

01/15/1927 Dunbarton Bridge, 1st bridge in Bay Area, opens.

01/15/1948 World's largest office building, The Pentagon, is completed.

01/15/1968 Soyuz 5 launched

01/16/1883 Pendleton Act creates basis of federal civil service system

01/16/1887 Cliff House badly damaged when a cargo of gunpowder on the schooner "Parallel" explodes nearby.

01/16/1920 18th Amendment, prohibition, goes into effect; repealed in 1933

01/16/1969 Soviet Soyuz 4 & Soyuz 5 perform 1st transfer of crew in space

01/16/1973 USSR's Lunakhod begins radio-controlled exploration of moon

01/16/1979 Iranian revolution overthrows shah.

01/16/1991 US led air forces begin raids on Iraq in response to Iraq's August 1990 takeover of Kuwait.

01/17/1773 Capt James Cook becomes 1st to cross Antarctic Circle (66° 33' S)

01/17/1852 British recognize independence of Transvaal (in South Africa)

01/17/1861 Flush toilet is patented by Mr. Thomas Crapper (Honest!!).

01/17/1871 1st Cable Car is patented by Andrew S. Hallidie.

01/17/1893 Kingdom of Hawaii becomes a republic.

01/17/1899 US takes possession of Wake Island in Pacific

01/17/1943 It was Tin Can Drive Day.

01/17/1945 Liberation Day in Poland (end of Nazi occupation)

01/17/1957 Nine county commission recommends creation of BART.

01/17/1963 Joe Walker takes X-15 to altitude of 82 km

01/17/1976 Hermes rocket launched by ESA

01/18/1644 1st UFO sighting in America, by perplexed Pilgrims in Boston.

01/18/1778 Captain James Cook stumbles over the Hawaiian Islands.

01/18/1869 The elegant California Theatre opens in San Francisco.

01/18/1911 1st shipboard landing of a plane (from Tanforan Park to the USS Pennsylvania).

01/18/1919 Versailles Peace Conference, ending World War I

01/18/1956 Tunisian Revolution Day (National Day)

01/19/1903 1st regular transatlantic radio broadcast between US & England.

01/19/1921 Costa Rica, Guatemala, Honduras & El Salvador sign Pact of Union

01/20/1265 1st English Parliament, called by the Earl of Leicester

01/20/1872 California Stock Exchange Board organized.

01/20/1887 Pearl Harbor obtained by US from Hawaii for use as a naval base

01/20/1929 1st talking motion picture taken outdoors "In Old Arizona"

01/20/1937 Inauguration day, every 4th year

01/20/1981 US embassy hostages freed in Tehran after 444 days.

01/21/1813 The pineapple is introduced to Hawaii.

01/21/1954 The Nautilus launched, first nuclear submarine.

01/21/1962 Snow falls in San Francisco, believe it or not.

01/21/1979 Neptune becomes the outermost planet (Pluto moves closer).

01/22/1850 The Alta California becomes a daily paper, 1st such in Calif.

01/22/1939 Aquatic Park dedicated.

01/22/1968 Apollo 5 launched to moon, Unmanned lunar module tests made

01/22/1975 Landsat 2, an Earth Resources Technology Satellite, is launched

01/23/1579 Union of Utrecht signed, forming protestant Dutch Republic

01/23/1964 24th Amendment ratified, Barred poll tax in federal elections

01/24/1848 James Marshall finds gold in Sutter's Mill in Coloma, Calif

01/24/1899 The rubber heel is patented by Humphrey O'Sullivan.

01/24/1935 1st beer in cans is sold.

01/24/1982 San Francisco 49'ers win their 1st Super Bowl, 26-21.

01/24/1985 15th Space Shuttle Mission - Discovery 3 is launched

01/24/1986 Voyager 2 makes 1st fly-by of Uranus finds new moons, rings

01/25/1915 Alexander Bell in New York calls Thomas Watson in San Francisco.

01/25/1925 Largest diamond, Cullinan (3106 carets), found in South Africa

01/25/1949 first Emmy Awards are presented.

01/25/1949 first popular elections in Israel.

01/25/1959 first transcontinental commercial jet flight (LA to NY for \$301).

01/25/1964 Echo 2, US communications satellite launched

01/26/1788 1st settlement established by the English in Australia.

01/26/1837 Michigan is admitted as the 26th of the United States

01/26/1841 Hong Kong was proclaimed a sovereign territory of Britain

01/26/1871 American income tax repealed. Would that it had lasted!

01/26/1950 India becomes a republic ceasing to be a British dominion

01/26/1954 Ground breaking begins on Disneyland

01/27/1880 Thomas Edison granted patent for an electric incandescent lamp

01/27/1888 National Geographic Society founded in Washington, DC

01/27/1926 1st public demonstration of television.

01/27/1948 1st Tape Recorder is sold.

01/27/1967 Apollo 1 fire kills astronauts Grissom, White & Chaffee

01/27/1973 US & Vietnam sign cease-fire, ending the longest US war

01/28/1807 London's Pall Mall is the 1st street lit by gaslight.

01/28/1821 Bellingshausen discovers Alexander Island off Antarctica

01/28/1878 George W. Coy hired as 1st full-time telephone operator.

01/28/1915 US Coast Guard established, Semper Paratus

01/28/1938 1st Ski Tow starts running (in Vermont).

01/28/1958 Construction began on 1st private thorium-uranium nuclear reactor

01/28/1960 first photograph bounced off moon, Washington DC

01/28/1986 Space Shuttle Challenger explodes, killing a brave crew and NASA.

01/29/1788 Australia Day

01/29/1861 Kansas becomes 34th state

01/29/1904 1st athletic letters given: to Univ of Chicago football team.

01/29/1920 Walt Disney starts 1st job as an artist \$40 week with KC Slide Co

01/29/1959 Walt Disney's "Sleeping Beauty" is released

01/30/1847 Yerba Buena renamed San Francisco.

01/30/1862 US Navy's 1st ironclad warship, the "Monitor", launched.

01/30/1917 1st jazz record in United States is cut.

01/30/1969 US/Canada ISIS 1 launched to study ionosphere

01/31/1851 San Francisco Orphan's Asylum, 1st in California, founded.

01/31/1862 Telescope maker Alvin Clark discovers dwarf companion of Sirius

01/31/1871 Birds fly over the western part of San Francisco in such large numbers that they actually darken the sky.

01/31/1911 Congress passes resolution naming San Francisco as the site of the celebration of the opening of the Panama Canal.

01/31/1950 Pres Truman authorized production of H-Bomb

01/31/1958 1st U.S. satellite launched, Explorer I.

01/31/1958 James van Allen discovers radiation belt

01/31/1961 Ham the chimp is 1st animal sent into space by the US.

01/31/1966 Luna 9 launched for moon

01/31/1971 Apollo 14 launched, 1st landing in lunar highlands.

02/01/1709 Alexander Selkirk (aka Robinson Crusoe) rescued from Juan Fernand

02/01/1790 US Supreme Court convened for first time (NYC)

02/01/1865 13th amendment approved (National Freedom Day)

02/01/1867 Bricklayers start working 8-hour days.

02/01/1920 The first armored car is introduced.

02/01/1958 Egypt & Syria join to form United Arab Republic

02/01/1972 First scientific hand-held calculator (HP-35) introduced

02/02/1848 First shipload of Chinese immigrants arrive in San Francisco.

02/02/1848 Mexico sells California, New Mexico and Arizona to the USA.

02/02/1876 National Baseball League formed with 8 teams.

02/02/1880 SS Strathleven arrives in London with first successful shipment of frozen mutton from Australia.

02/02/1935 Lie detector first used in court in Portage, Wisconsin

02/02/1962 Eight of the planets line up for the first time in 400 years.

02/03/1918 Twin Peaks Tunnel, longest (11,920 feet) streetcar tunnel in the world, begins service in San Francisco.

02/03/1945 Yalta Conference, Russia agrees to enter WWII against Japan

02/03/1966 Soviet Luna 9 first spacecraft to soft-land on moon

02/04/1887 Interstate Commerce Act: Federal regulation of railroads

02/04/1932 First Winter Olympics held (At Lake Placid, NY).

02/04/1936 First radioactive substance produced synthetically - radium E

02/04/1948 Ceylon (now Sri Lanka) gains independence.

02/04/1957 First electric portable typewriter placed on sale, Syracuse NY

02/04/1974 Patricia Hearst kidnapped by Symbionese Liberation Army

02/05/1887 Snow falls on San Francisco.

02/05/1953 Walt Disney's "Peter Pan" released

02/05/1971 Apollo 14, 3rd manned expedition to moon, lands near Fra Mauro

02/05/1974 Mariner 10 takes first close-up photos of Venus' cloud structure

02/05/1979 According to Census Bureau, US population reaches 200 million

02/06/1693 College of William and Mary chartered in Williamsburg, Va

02/06/1900 Spanish-American War ends

02/06/1922 US, UK, France, Italy & Japan sign Washington Naval Arms Limitation Treaty

02/06/1952 Elizabeth II becomes queen of Great Britain

02/07/1889 Astronomical Society of Pacific holds first meeting in SF

02/07/1940 Walt Disney's "Pinocchio" released

02/08/1693 Charter granted for College of William & Mary, 2nd college in US

02/08/1883 Louis Waterman begins experiments that invent the fountain pen.

02/08/1908 Boy Scouts of America founded.

02/08/1922 Radio arrives in the White House.

02/08/1977 Earthquake, at 5.0, strongest since 1966.

02/09/1877 U.S. Weather Service is founded.

02/09/1885 First Japanese arrive in Hawaii.

02/09/1964 First appearance of the Beatles on Ed Sullivan

02/09/1969 The Boeing 747 makes its first commercial flight.

02/10/1720 Edmund Halley is appointed 2nd Astronomer Royal of England

02/10/1763 Treaty of Paris ends French & Indian War

02/10/1870 City of Anaheim incorporated (first time).

02/10/1879 First electric arc light used (in California Theater).

02/11/0660 Traditional founding of Japan by Emperor Jimmu Tenno

02/11/1854 Major streets lit by coal gas for first time.

02/11/1929 Vatican City (world's Smallest Country) made an enclave of Rome

02/11/1970 Japan becomes 4th nation to put a satellite (Osumi) in orbit

02/12/1541 Santiago, Chile founded.

02/12/1924 Gershwin's "Rhapsody In Blue" premieres in Carnegie Hall

02/12/1934 Export-Import Bank incorporated.

02/12/1945 San Francisco selected for site of United Nations Conference.

02/12/1947 A daytime fireball & meteorite fall is seen in eastern Siberia

02/12/1961 USSR launches Venera 1 toward Venus

02/13/1741 First magazine published in America (The American Magazine)

02/13/1867 "Blue Danube" waltz premieres in Vienna

02/13/1937 "Prince Valiant" comic strip appears; known for historical detail and fine detail drawing. Thanks Hal.

02/14/1859 Oregon admitted as 33rd State

02/14/1876 Alexander Graham Bell files for a patent on the telephone.

02/14/1912 Arizona becomes 48th state

02/14/1961 Element 103, lawrencium, first produced in Berkeley California

02/14/1980 Solar Maximum Mission Observatory launched to study solar flares.

02/15/1861 Fort Point completed & garrisoned (but has never fired it's cannon in anger).

02/15/1898 USS Maine sinks in Havana harbor, cause unknown.

02/15/1917 San Francisco Public Library dedicated.

02/15/1950 Walt Disney's "Cinderella" released

02/15/1954 First bevatron in operation - Berkeley, California

02/16/1883 Ladies Home Journal begins publication.

02/16/1914 First airplane flight to Los Angeles from San Francisco.

02/16/1918 Lithuania proclaims its short-lived independence.

02/16/1923 Howard Carter finds the tomb of Pharoah Tutankhamun

02/16/1937 Nylon patented, WH Carothers

02/16/1946 First commercially designed helicopter tested, Bridgeport Ct

02/17/1870 Mississippi readmitted to U.S. after Civil War

02/17/1876 Sardines were first canned, in Eastport, Maine.

02/17/1878 First telephone exchange in San Francisco opens with 18 phones.

02/18/1850 Legislature creates the 9 San Francisco Bay Area counties.

02/18/1930 Pluto, the ninth planet, is discovered by Clyde Tombaugh.

02/18/1939 Golden Gate International Exposition opens on Treasure Island (which was built for the occasion) in

San Francisco Bay.

02/19/1878 Thomas Alva Edison patents the phonograph.

02/19/1945 Marines land on Iwo Jima.

02/19/1977 President Ford pardons Iva Toguri D'Aquino ("Tokyo Rose").

02/20/1873 University of California gets its first Medical School (UC/SF).

02/20/1901 First territorial legislature of Hawaii convenes.

02/20/1915 Panama-Pacific International Exposition opens in San Francisco.

02/20/1931 Congress allows California to build the Oakland-Bay Bridge.

02/20/1962 John Glenn is first American to orbit the Earth.

02/21/1804 First self-propelled locomotive on rails demonstrated, in Wales.

02/21/1878 First Telephone book is issued, in New Haven, Conn.

02/22/1900 Hawaii becomes a US Territory.

02/23/1887 Congress grants Seal Rocks to San Francisco.

02/23/1900 Steamer "Rio de Janeiro" sinks in San Francisco Bay.

02/23/1958 Last SF Municipal arc light, over intersection of Mission & 25th Street, removed (it had been installed in 1913).

02/24/1857 Los Angeles Vineyard Society organized.

02/24/1942 Voice of America begins broadcasting (in German).

02/25/1919 Oregon is first state to tax gasoline (1 cent per gallon).

02/26/1863 President Lincoln signs the National Currency Act.

02/26/1933 Golden Gate Bridge ground-breaking ceremony.

02/27/1844 Dominican Republic gains its independence.

02/27/1991 President Bush declares a cease-fire, halting the Gulf War.

02/28/1849 First steamship enters San Francisco Bay.

02/28/1883 First vaudeville theater opens.

02/28/1914 Construction begins on the Tower of Jewels for the Exposition.

02/28/1956 Forrester issued a patent for computer core memory.

03/01/1781 The Articles of Confederation adopted by Continental Congress.

03/01/1859 Present seal of San Francisco adopted (2nd seal for city).

03/01/1864 Patent issued for taking & projecting motion pictures to Louis Ducos du Hauron (he never did build such a machine, though).

03/01/1867 Nebraska becomes a state.

03/01/1872 Yellowstone becomes world's first national park

03/01/1961 President Kennedy establishes the Peace Corps.

03/01/1966 Venera 3 becomes the first manmade object to impact another planet - Venus.

03/01/1970 End of commercial whale hunting by the US. Japan, stop it!

03/01/1982 Soviet Venera 13 makes a soft landing on Venus.

03/02/1836 Texas declares independence from Mexico.

03/02/1861 Congress creates the Territory of Nevada.

03/02/1917 Puerto Rico territory created, US citizenship granted.

03/02/1929 US Court of Customs & Patent Appeals created by US Congress.

03/02/1949 First automatic street light installed. (In New Milford, CT)

03/02/1958 First surface crossing of the Antarctic continent ends.

03/02/1972 Pioneer 10 launched for Jupiter flyby.

03/02/1974 First Class postage raised to 10 cents from 8 cents.

03/02/1978 Soyuz 28 carries 2 cosmonauts (1 Czechoslovakian) to Salyut 6

03/03/1791 Congress passed a resolution ordering U.S. Mint be established.

03/03/1812 Congress passes first foreign aid bill.

03/03/1845 Florida becomes 27th state

03/03/1849 Gold Coinage Act passed, allowing gold coins to be minted.

03/03/1851 Congress authorizes smallest US silver coin, the 3-cent piece.

03/03/1861 Russian Tsar Alexander II abolishes serfdom

03/03/1863 Abraham Lincoln approves charter for National Academy of Sciences

03/03/1875 A 20-cent coin was authorized by Congress (It lasted 3 years).

03/03/1878 Bulgaria liberated from Turkey

03/03/1885 American Telephone and Telegraph incorporated.

03/03/1923 Time magazine publishes its first issue.

03/03/1931 "Star Spangled Banner" officially becomes US national anthem.

03/03/1956 Morocco gains its independence.

03/03/1969 Apollo 9 launched

03/03/1972 Pioneer 10 launched thru asteroid belt & Jupiter

03/04/1675 John Flamsteed appointed first Astronomer Royal of England.

03/04/1789 Congress declares the Constitution to be in effect.

03/04/1791 Vermont admitted as 14th state.

03/04/1792 Oranges introduced to Hawaii.

03/04/1793 Shortest inauguration speech, 133 words, Washington (2nd time).

03/04/1801 Jefferson is the first President inaugurated in Washington, DC.

03/04/1826 First US railroad chartered, the Granite Railway in Quincy, Mass.

03/04/1841 Longest inauguration speech, 8443 words, William Henry Harrison.

03/04/1861 Confederate States adopt "Stars & Bars" flag

03/04/1902 American Automobile Association (AAA) founded.

03/04/1933 Roosevelt inaugurated, "We have nothing to fear but fear itself"

03/04/1934 Easter Cross on Mt. Davidson dedicated.

03/04/1955 First radio facsimile transmission is sent across the continent.

03/04/1959 Pioneer 4 makes first US lunar flyby.

03/04/1968 Orbiting Geophysical Observatory 5 launched

03/04/1977 First CRAY 1 supercomputer shipped to Los Alamos Labs, NM

03/04/1979 US Voyager I photo reveals Jupiter's rings

03/05/1616 Copernicus' DE REVOLUTIONIBUS placed on Catholic forbidden index

03/05/1770 Boston Massacre

03/05/1845 Congress appropriates \$30,000 to ship camels to western US.

03/05/1908 1st ascent of Mt. Erebus, Antarctica

03/05/1933 FDR proclaims 10-day bank holiday.

03/05/1946 Winston Churchill's "Iron Curtain" speech

03/05/1979 Voyager I's closest approach to Jupiter

03/06/1665 "The Philosophical Transactions of the Royal Society" was first published, and is still published today.

03/06/1836 Alamo falls. Remember it!

03/06/1857 Dred Scott decision rendered.

03/06/1986 Soviet Vega 1 probe passes within 10,000 km of Halley's comet

03/07/1778 James Cook first sights Oregon coast, at Yaquina Bay

03/07/1848 In Hawaii, the Great Mahele (division of lands) is signed.

03/07/1876 Alexander Graham Bell patents the telephone.

03/07/1912 Roald Amundsen announces the discovery of the South Pole

03/07/1926 First transatlantic telephone call (London-New York)

03/07/1933 The game "Monopoly" is invented.

03/07/1936 Hitler breaks Treaty of Versailles, sends troops to Rhineland

03/07/1962 US Orbiting Solar Observatory is launched.

03/07/1981 Walter Cronkite's final CBS anchor appearance. Still unequaled.

03/08/1862 The Confederate ironclad "Merrimack" launched.

03/08/1917 US invades Cuba, for third time. No wonder they're paranoid.

03/08/1934 Edwin Hubble photo shows as many galaxies as Milky Way has stars

03/08/1965 First US forces arrive in Vietnam. Oh unhappy day!

03/08/1976 Largest observed falling single stony meteorite (Jiling, China)

03/09/1497 Nicolaus Copernicus first recorded astronomical observation.

03/09/1796 Napoleon Bonaparte marries Josephine de Beauharnais

03/09/1822 Charles Graham of NY granted patent for artificial teeth

03/09/1862 The ironclads "Monitor" (Union) & "Merrimack" (Rebel) battle in Hampton Roads. It was a standoff.

03/09/1954 Edward R. Murrow criticizes Senator McCarthy (See it Now)

03/09/1961 Sputnik 9 carries Chernushka (dog) into orbit

03/09/1979 First extraterrestrial volcano found, (Jupiter's satellite Io).

03/10/1847 First money minted in Hawaii.

03/10/1849 Abraham Lincoln applies for a patent, only US president to do so.

03/10/1876 First telephone call, made by Alexander Graham Bell

03/10/1933 Big earthquake in Long Beach (W.C. Fields was making a movie when it struck & the cameras kept running).

03/10/1977 Rings of Uranus discovered during occultation of SAO

03/11/1810 Emperor Napoleon married by proxy to Archduchess Marie Louise

03/11/1861 Confederate convention in Montgomery, adopts constitution

03/11/1867 Great Mauna Loa eruption (volcano in Hawaii).

03/11/1892 First public game of basketball.

03/11/1938 Germany invades Austria.

03/11/1941 FDR signs Lend-Lease Bill with England.

03/11/1942 Gen MacArthur leaves Bataan for Australia.

03/11/1960 Pioneer 5 launched; orbits sun between Earth & Venus

03/11/1985 Mikhail Gorbachev replaces Konstantin Chernenko.

03/12/1850 First \$20 Gold piece issued.

03/12/1868 Congress abolishes manufacturers tax

03/12/1912 Girl Guides (Girl Scouts) founded in Savannah Ga

03/12/1925 First transatlantic radio broadcast.

03/12/1936 FDR conducts his first "Fireside Chat"

03/12/1981 Soyuz T-4 carries 2 cosmonauts to Salyut 6 space station

03/13/1639 Harvard University is named for clergyman John Harvard.

03/13/1677 Massachusetts gains title to Maine for \$6,000.

03/13/1852 Uncle Sam makes his debut in the New York "Lantern"

03/13/1877 Chester Greenwood patents ear muffler

03/13/1884 US adopts standard time

03/13/1925 Law passed in Tennessee prohibiting teaching evolution

03/13/1930 Clyde Tombaugh announces discovery of Pluto at Lowell Observatory

03/13/1970 Digital Equipment Corp introduces the PDP-11 minicomputer.

03/13/1986 Soyuz T-15 launched

03/14/1629 Royal charter grants Massachusetts Bay Colony

03/14/1644 Royal patent for Providence Plantations (now Rhode Island).

03/14/1794 Eli Whitney patents the cotton gin

03/14/1870 Legislature approves act making Golden Gate Park possible.

03/14/1896 Sutro Baths opens by Cliff House (closed Sept 1, 1952).

03/14/1900 US currency goes on gold standard

03/14/1903 First national bird reserve established in Sebastian, Florida

03/14/1923 President Harding is the first president to file his income tax.

03/14/1948 Freedom Train arrives in San Francisco.

03/14/1965 Israeli cabinet approves diplomatic relations with W Germany

03/14/1983 OPEC cuts oil prices for first time in 23 years.

03/15/1944 Julius C'sar assassinated in Roman Senate. Et tu, Brute?

03/15/1820 Maine admitted as 23rd state

03/15/1913 Woodrow Wilson holds the first Presidential Press Conference.

03/15/1916 Pershing and 15,000 troops chase Pancho Villa into Mexico.

03/15/1917 Nicholas II, last Russian tsar, abdicates

03/15/1937 First blood bank established, Chicago, Illinois

03/15/1956 My Fair Lady opens in New York.

03/15/1960 Key Largo Coral Reef Preserve established (first underwater park)

03/15/1968 US Mint stops buying and selling gold.

03/15/1968 US Mint stops buying and selling gold.

03/15/1999 Pluto again becomes the outermost planet.

03/16/1621 First Indian appears at Plymouth, Massachusetts

03/16/1802 Law signed to establish US Military Academy at West Point, NY

03/16/1827 First US black newspaper, Freedom's Journal, New York

03/16/1916 US and Canada sign Migratory Bird Treaty

03/16/1926 Robert Goddard launches first liquid fuel rocket - 184 feet

03/16/1935 Hitler orders German rearmament, violating Versailles Treaty

03/16/1966 Gemini 8 launched with 2 astronauts

03/16/1975 US Mariner 10 makes 3rd, and final, fly-by of Mercury.

03/17/1906 President Theodore Roosevelt first uses the term "muckrake".

03/17/1910 Camp Fire Girls are organized.

03/17/1941 National Gallery of Art opens in Washington, DC

03/17/1950 Element 98 (Californium) is announced.

03/17/1958 Vanguard 1 measures shape of Earth

03/17/1959 Dalai Lama flees Tibet for India

03/17/1966 US sub locates missing hydrogen bomb in Mediterranean.

03/17/1969 Golda Meir becomes Israeli Prime Minister.

03/18/1541 de Soto is first European to record flooding of the Mississippi

03/18/1766 Britain repeals Stamp Act, partial cause of American Revolution.

03/18/1850 American Express founded.

03/18/1850 American Express founded

03/18/1881 Barnum & Bailey's Greatest Show on Earth opens in Madison Square Garden in New York City.

03/18/1892 Lord Stanley proposes silver cup challenge for Hockey

03/18/1909 Einar Dossau of Denmark - first ham broadcaster.

03/18/1931 First electric razor marketed by Schick.

03/18/1938 Mexico takes control of foreign-owned oil properties.

03/18/1952 First plastic lens for cataract patients fitted, Philadelphia.

03/18/1959 Pres Eisenhower signs Hawaii statehood bill

03/18/1965 Russia launches 2nd Voshkod, first spacewalk - Aleksei Leonov.

03/19/1822 Boston, Mass incorporated

03/19/1859 Faust by Charles Gounod premiers in Paris

03/19/1917 US Supreme Court upheld 8 hour work day for the railroads.

03/19/1918 Congress authorizes time zones & approves daylight time

03/19/1920 US Senate rejects Treaty of Versailles for 2nd time

03/19/1928 Amos & Andy debuts on radio

03/19/1928 'Amos and Andy' debut on radio.

03/19/1931 Nevada legalized gambling

03/19/1949 First museum devoted exclusively to atomic energy, Oak Ridge, TN

03/20/1760 Great Fire of Boston destroys 349 buildings

03/20/1833 US and Siam conclude their first commercial treaty

03/20/1852 Harriet Beecher Stowe's 'Uncle Tom's Cabin,' published

03/20/1886 First commercial AC-power plant begins operation

03/20/1942 MacArthur vows to Phillipinos, "I shall return"

03/21/1851 Yosemite Valley discovered in California, paradise found.

03/21/1965 US Ranger 9 launched takes 5,814 pictures before lunar impact

03/21/1965 Martin Luther King Jr begins march from Selma to Montgomery

03/22/1621 Massasoit & Pilgrims agree on league of friendship (Plymouth)

03/22/1733 Joseph Priestly (father of soda pop) invents carbonated water.

03/22/1765 Britain enacts the now infamous Stamp Act

03/22/1778 Captain Cook sights Cape Flattery, in Washington state

03/22/1882 Congress outlaws polygamy. Male longevity increases.

03/22/1941 Grand Coulee Dam in Washington state goes into operation

03/22/1945 Arab League is founded

03/22/1946 Jordan (formerly Transjordan) gains independence from Britain.

03/22/1957 Earthquake gives San Francisco the shakes.

03/22/1960 Schawlow and Townes obtain a patent for the laser.

03/22/1963 Beatles release their first album, Please Please Me

03/22/1968 President Johnson's daughter, Lynda, ordered off Cable Car because she was eating an ice cream cone (no food on cars!).

03/22/1977 Indira Gandhi resigns as PM of India

03/22/1978 Robert Frost Plaza, at California, Drumm & Market, dedicated.

03/22/1981 First Class Postage raised from 15 cents to 18 cents.

03/22/1981 Soyuz 39 carries 2 cosmonauts (1 Mongolian) to Salyut 6.

03/22/1982 3rd Space Shuttle Mission - Columbia 3 launched

03/23/1743 George Frederic Handel's oratorio "Messiah" premieres in London.

03/23/1752 Pope Stephen II elected to succeed Zacharias, dies 2 days later.

03/23/1775 Patrick Henry asks for Liberty or Death.

03/23/1806 Lewis the Clark reach the Pacific coast.

03/23/1840 First photo of moon is taken.

03/23/1919 Benito Mussolini founds the Fascist movement in Milan, Italy.

03/23/1929 First telephone installed in the White House.

03/23/1933 German Reichstag grants Adolf Hitler dictatorial powers.

03/23/1944 Nicholas Alkemade falls 5,500 m without a parachute and lives.

03/23/1956 Pakistan becomes independent within British Commonwealth.

03/23/1962 President John F. Kennedy visits San Francisco.

03/23/1965 Gemini 3 blasts off, first US 2-man space flight.

03/23/1976 International Bill of Rights goes into effect, 35 nations ratify.

03/24/1765 Britain enacts Quartering Act

03/24/1882 German scientist Robert Koch discovers bacillus cause of TB

03/24/1882 German Robert Koch discovers bacillus, cause of Tuberculosis.

03/24/1934 FDR grants future independence to Philippines

03/24/1955 Tennessee Williams, "Cat on a Hot Tin Roof" opens on Broadway.

03/24/1965 US Ranger 9 strikes moon 10 miles NE of crater Alphonsus

03/24/1972 Great Britain imposes direct rule over Northern Ireland

03/24/1976 Argentine President Isabel Peron deposed by country's military.

03/24/1986 Libya attacks US forces in Gulf of Sidra. US 2, Libya 0.

03/25/1634 Maryland founded as a Catholic colony

03/25/1655 Christiaan Huygens discovers Titan, (Saturn's largest satellite)

03/25/1821 Greece gains its independence.

03/25/1857 Frederick Laggenheim takes the 1st photograph of a solar eclipse

03/25/1951 Purcell and Ewen detect 21-cm radiation at Harvard physics lab

03/25/1954 RCA manufactures the first COLOR television.

03/25/1955 East Germany granted full sovereignty by occupying power, USSR

03/25/1960 First guided missile launched from nuclear powered sub (Halibut)

03/26/1845 Adhesive medicated plaster patented, precursor of bandaid.

03/26/1878 Hastings College of Law founded.

03/26/1885 Eastman Film Company makes first commercial motion picture film

03/26/1937 Spinach growers of Crystal City, Tx, erect statue of Popeye

03/26/1953 Dr Jonas Salk announces new vaccine against polio

03/26/1958 Army launched US's 3rd successful satellite Explorer III

03/26/1970 Golden Gate Park Conservatory made a City Landmark.

03/26/1971 East Pakistan proclaimed independence taking name Bangladesh

03/26/1979 Camp David peace treaty between Israel and Egypt

03/26/1982 Groundbreaking in Washington DC for Vietnam Veterans Memorial

03/27/1512 Spanish explorer Juan Ponce de Leon sights Florida.

03/27/1625 Charles I King of England Scotland & Ireland ascends to throne

03/27/1794 The US Navy is founded. Anchors Aweigh!

03/27/1802 Asteroid Pallas discovered by Heinrich Olbers

03/27/1807 Asteroid Vesta discovered by Olbers

03/27/1836 First Mormon temple dedicated in Kirtland, Ohio.

03/27/1855 Abraham Gesner receives a patent for kerosene

03/27/1860 ML Byrn patents the corkscrew. Bless you sir!

03/27/1933 US Farm Credit Administration authorized.

03/27/1964 Earthquake strikes Alaska, 8.4 on Richter scale.

03/27/1968 SF Japanese Trade and Cultural Center (Japan Center) dedicated.

03/27/1972 Soviet spacecraft Venera 8 launched to Venus

03/27/1980 Mount St. Helens becomes active after 123 years

03/28/1794 Nathan Briggs gets patent for the washing machine.

03/28/1930 Constantinople and Angora change names to Istanbul and Ankara.

03/28/1939 Spanish Civil War ends, facist Francisco Franco wins

03/29/1871 Albert Hall opens it's doors in London.

03/29/1886 Coca-Cola is created (with cocaine). It satisfies your craving.

03/29/1961 23rd Amendment ratified, Washington DC can vote for the president

03/29/1973 US troops leave Vietnam, 9 yrs after Tonkin Resolution

03/29/1974 Mariner 10's first fly-by of Mercury, returns photos

03/30/1842 Dr. Crawford Long, first uses ether as an anesthetic.

03/30/1853 Patent granted to Hyman Lipman for a pencil with an ERASER!

03/30/1867 US purchases Alaska for \$7,200,000 (Seward's Folly)

03/30/1870 15th Amendment passed, guarantees right to vote to all races

03/30/1932 Amelia Earhart is 1st woman to fly across the Atlantic solo

03/30/1950 Invention of the Phototransistor is announced at Murray Hill, NJ

03/31/1854 Commodore Perry makes Japan opens its ports to foreign trade

03/31/1870 Thomas P Mundy became 1st black to vote in US (Perth Amboy NJ)

03/31/1880 Wabash Ind - first town completely illuminated by electric light

03/31/1889 Eiffel Tower completed.

03/31/1932 Ford publicly unveils its first V-8 engine

03/31/1933 Congress authorizes Civilian Conservation Corps (CCC).

03/31/1943 Rodgers & Hammerstein musical "Oklahoma!" opens on Broadway

03/31/1949 Newfoundland becomes 10th Canadian province

03/31/1963 Los Angeles ends streetcar service after nearly 90 years.

03/31/1966 USSR launches Luna 10, first spacecraft to orbit moon

04/01/1778 Oliver Pollock, a New Orleans Businessman, creates the "\$".

04/01/1850 San Francisco County Government established.

04/01/1853 Cincinnati became first US city with salaried firefighters

04/01/1918 Royal Air Force established

04/01/1952 "Big Bang" theory published by Alpher, Bethe and Gamow

04/01/1960 TIROS I (Television and Infra-Red Observation Satellite) launched to improve weather prediction.

04/01/1964 USSR launches Zond 1 towards Venus

04/01/1971 US/Canada ISIS II launched to study ionosphere

04/01/1979 Iran proclaimed an Islamic Republic following fall of the Shah

04/02/1513 Florida discovered, claimed for Spain by Ponce de Le n

04/02/1792 Congress establishes Coin denominations and authorizes US Mint

04/02/1935 Watson Watt granted a patent for RADAR.

04/02/1958 NACA renamed NASA

04/02/1972 Apollo 16's Young and Duke land on the moon and hot-rod with the Boeing Lunar Rover #2

04/03/1910 Highest mountain in North America, Alaska's Mt McKinley climbed

04/03/1948 Harry Truman signs Marshall Plan (Aid to Europe)

04/03/1966 USSR's Luna 10 becomes the first craft to orbit the Moon

04/03/1982 UN Security Council demands Argentina withdraw from Falklands.

04/04/1818 Congress decided US flag is 13 red and white stripes and 20 stars

04/04/1860 Pony Express begins service, from St. Joseph, Missouri.

04/04/1870 Golden Gate Park established by City Order #800.

04/04/1902 Cecil Rhodes scholarship fund established with \$10 million

04/04/1949 NATO established

04/04/1983 Maiden voyage of STS Space shuttle Challenger

04/05/1614 Indian princess Pocahontas marries English colonist John Rolfe

04/05/1973 Pioneer 11 blasts off toward Jupiter

04/05/1991 Atlantis lifts off carrying the 17.5 ton Gamma Ray Observatory.

04/06/0648 BC Earliest total solar eclipse chronicled by Greeks is observed

04/06/1663 Kings Charles II signs Carolina Charter

04/06/1862 Battle of Shiloh.

04/06/1868 Brigham Young marries number 27, his final wife.

04/06/1896 First modern Olympics

04/06/1906 First animated cartoon copyrighted

04/06/1909 North Pole reached by Americans Robert Peary and Matthew Henson

04/06/1909 First credit union established in US

04/06/1917 US declares war on Germany (WWI)

04/06/1926 4 planes take off on first successful around-the-world flight.

04/06/1957 New York City ends trolley car service.

04/06/1965 Intelsat 1 ("Early Bird") first commercial geosynchronous communications satellite

04/06/1973 Pioneer 11 launched to Jupiter and Saturn

04/07/1931 Seals Stadium opens.

04/07/1933 Prohibition ends. "Gimme a beer, Mac."

04/07/1948 World Health Organization is established.

04/07/1953 First jet transatlantic non-stop flight (west to east)

04/07/1959 NASA selects first seven astronauts

04/07/1959 Radar first bounced off sun, from Stanford California.

04/08/1513 Ponce de Leon arrives in Florida.

04/08/1913 17th Amendment, requiring direct election of senators, ratified

04/08/1974 Hank Aaron hits 715th home run, beats Babe Ruth's record.

04/08/1986 Clint Eastwood elected mayor of Carmel, California.

04/09/1831 Robert Jenkins loses an ear: war between Britain and Spain.

04/09/1865 Lee surrenders at Appomattox, ending Civil War.

04/09/1953 TV Guide publishes their first issue.

04/09/1955 United Nations Charter hearing.

04/10/1790 US Patent system established

04/10/1825 First hotel in Hawaii opens.

04/10/1849 Safety pin is patented by Walter Hunt.

04/10/1866 ASPCA (Society for Prevention of Cruelty to Animals) organized.

04/10/1878 California Street Cable Car Railroad Company starts service.

04/10/1882 Matson founds his shipping company (San Francisco and Hawaii)

04/10/1912 RMS Titanic sets sail for its first and last voyage

04/10/1930 Synthetic rubber first produced

04/10/1953 House of Wax, first 3-D movie, released in New York.

04/10/1960 Senate passes landmark Civil Rights Bill

04/11/1876 Benevolent and Protective Order of Elks organized.

04/11/1943 Frank Piasecki, flies his first single-rotor helicopter

04/11/1947 Jackie Robinson becomes first black in major league baseball.

04/11/1970 Apollo 13 launched to moon; unable to land, returns in 6 days

04/12/1204 4th Crusade sacks Constantinople

04/12/1861 Fort Sumter, S. C., shelled by Confederacy, starts Civil War.

04/12/1877 British annex Transvaal, in South Africa

04/12/1898 Army transfers Yerba Buena Island to Navy.

04/12/1933 Moffatt Field (Naval Air Station) is commissioned.

04/12/1938 First US law requiring medical tests for marriage licenses, NY

04/12/1955 Salk polio vaccine safe and effective; four billion dimes marched

04/12/1961 Cosmonaut Yuri Alexeyevich Gagarin becomes first man in orbit.

04/12/1981 Maiden voyage Space Transit System-space shuttle Columbia.

04/13/1796 First elephant brought to America

04/13/1829 English Parliament grants freedom of religion to Catholics

04/13/1976 \$2 bill re-introduced as United States currency, failed again.

04/14/1611 Word "telescope" is first used by Prince Federico Cesi

04/14/1817 First American school for deaf (Hartford, Conn)

04/14/1828 First edition of Noah Webster's dictionary is published.

04/14/1860 First Pony Express rider arrives in SF from St. Joseph, Missouri.

04/14/1865 Abraham Lincoln assassinated in Ford's Theater.

04/14/1894 First public showing of Edison's kinetoscope (moving pictures).

04/14/1956 Ampex Co. demonstrates first commercial videotape recorder.

04/14/1971 Fort Point dedicated as first National Park in SF Bay Area.

04/14/1981 First Space Shuttle - Columbia 1 returns to Earth.

04/15/1598 Edict of Nantes grants political rights to French Huguenots

04/15/1790 First US patent law passed

04/15/1850 City of San Francisco incorporated.

04/15/1912 Titanic sinks in the North Atlantic at 2:20 AM.

04/15/1923 Insulin becomes generally available for diabetics.

04/15/1923 First talking picture is screened before a paying audience.

04/15/1955 Ray Kroc starts the McDonald's fast food restaurants.

04/15/1983 Tokyo Disneyland opens

04/16/1705 Queen Anne of England knights Isaac Newton at Trinity College,

04/16/1866 Nitroglycerine at the Wells Fargo and Co. office explodes.

04/16/1912 Harriet Quimby flies English Channel, first woman to do so

04/16/1917 Lenin returns to Russia to start Bolshevik Revolution

04/16/1972 Apollo 16 launched; 5th lunar landing at Decartes Highlands

04/17/1492 Christopher Columbus contracts with Spain to find the Indies.

04/17/1524 New York Harbor discovered by Giovanni Verrazano.

04/17/1895 Treaty of Shimonoseki, ends first Sino-Japanese War (1894-1895).

04/17/1941 Office of Price Administration established (handled rationing)

04/17/1946 France grants Syria independence (Natl Day)

04/17/1961 Bay of Pigs, how not to run an invasion.

04/18/1775 'The British are Coming!' Paul Revere rides.

04/18/1868 San Francisco Society for Prevention of Cruelty to Animals born.

04/18/1869 First International Cricket Match, held in SF, won by Californian

04/18/1906 San Francisco Earthquake and Fire, "The Big One"

04/18/1907 Fairmont Hotel opens.

04/18/1934 First "Washateria" (laundromat) is opened, in Fort Worth, Texas

04/18/1936 The Pan Am "Clipper" begins regular passenger flights from San Francisco to Honolulu.

04/18/1946 League of Nations went out of business, replaced by UN

04/18/1949 Irish Republic comes into existence

04/18/1950 First transatlantic jet passenger trip

04/18/1978 U S Senate approves transfer of Panama Canal to Panama

04/19/1775 At Lexington Common, the shot 'heard round the world'.

04/19/1852 California Historical Society founded.

04/19/1892 Charles Duryea takes the first American-made auto out for a spin.

04/19/1934 Shirley Temple appears in her first movie, "Stand Up and Cheer"

04/19/1939 Connecticut approves the Bill of Rights (only 148 years late).

04/19/1967 US Surveyor III lands on moon

04/20/1775 British begin siege of Boston

04/20/1902 Marie and Pierre Curie isolated radioactive element radium

04/20/1940 First electron microscope demonstrated, Philadelphia, Pa

04/20/1973 Canadian ANIK A2 became first commercial satellite in orbit

04/20/1978 Korean Air Lines 707 forced to land; violated Soviet airspace

04/21/0753 BC - Rome founded.

04/21/1828 Noah Webster publishes first American dictionary

04/21/1857 A. Douglas patents the bustle (it's all behind us now).

04/21/1862 Congress establishes US Mint in Denver, Colorado.

04/21/1892 First buffalo born in Golden Gate Park.

04/21/1898 Spanish American war begins (Remember the Maine).

04/21/1967 Svetlana Alliluyeva (Stalin's daughter) defected in NYC

04/21/1972 Orbiting Astronomical Observer 4 (Copernicus) is launched

04/21/1977 Broadway play "Annie" opens, first of 2377 performances

04/21/1983 Soyuz T-8 is launched

04/21/1984 Franz Weber of Austria skis downhill at a record 209.8 kph

04/22/1500 Pedro Alvarez Cabral discovers Brazil

04/22/1509 Henry VIII ascends to throne of England

04/22/1529 Spain & Portugal divide eastern hemisphere in Treaty of Saragossa

04/22/1864 US Congress authorized "In God We Trust" on coinage

04/22/1889 Oklahoma land rush officially started; some were Sooner

04/23/1871 Blossom Rock in San Francisco Bay blown up.

04/23/1949 Courtesy Mail Boxes for motorists started in San Francisco.

04/23/1962 First US satellite to reach moon launched from Cape Canaveral

04/23/1965 Launch of first Soviet communications satellite

04/23/1967 Soyuz 1 launched, Vladimir Komarov becomes 1st inflight casualty

04/23/1972 Apollo 16 astronauts explores Moon surface

04/24/1800 Library of Congress founded with a \$5000 allocation.

04/24/1865 SF Fire Alarm and Police Telegraph system put into operation.

04/24/1934 Wind gusts reach 372 kph at Mt Washington, NH

04/24/1953 Winston Churchill knighted by Queen Elizabeth II

04/24/1962 MIT sends TV signal by satellite for first time: CA to MA

04/24/1970 China launches first satellite, transmitting song "East is Red".

04/24/1981 The IBM Personal Computer (PC) is introduced.

04/24/1990 Hubble Space Telescope put into orbit by shuttle Discovery.

04/25/1901 New York becomes first state requiring license plates for cars

04/25/1945 United Nations Conference starts.

04/25/1957 First experimental sodium nuclear reactor is operated.

04/25/1959 St Lawrence Seaway opens to shipping

04/25/1961 Mercury/Atlas rocket lifted off with an electronic mannequin.

04/25/1961 Robert Noyce granted a patent for the integrated circuit.

04/25/1972 Glider pilot Hans Grosse flies a record 1461 km

04/25/1975 First Boeing Jetfoil service, Hong Kong to Macao.

04/26/1607 First British to establish an American colony land at Cape Henry.

04/26/1777 16 year old Sybil Ludington rode from NY to CT rallying her father's militia to fight British in Danbury.

04/26/1920 Shapley and Curtis hold the "Great Debate" on nature of nebulae.

04/26/1954 Nationwide test of the Salk anti-polio begins.

04/26/1962 US/UK launched Ariel; first Intl payload.

04/26/1971 San Francisco Lightship replaced by automatic buoy.

04/26/1986 Chernobyl - world's worst nuclear power plant disaster.

04/27/1565 First Spanish settlement in Phillipines, Cebu City.

04/27/1897 Grant's Tomb (famed of song and legend) is dedicated.

04/27/1937 US Social Security system makes its first benefit payment.

04/27/1945 Founding of the Second Republic, in Austria.

04/27/1946 First radar installation aboard a commercial ship installed.

04/27/1960 First atomic-electric drive submarine launched (Tullibee).

04/27/1986 Captain Midnight (John R MacDougall) interrupts HBO.

04/27/4977 BC - Johannes Kepler's date for creation of universe.

04/28/0585 War between Lydia and Media is ended by a solar eclipse.

04/28/1686 First volume of Isaac Newton's PRINCIPIA is published.

04/28/1754 Mutiny on the HMS Bounty occurs.

04/28/1914 W. H. Carrier patents air conditioner.

04/28/1919 First successful parachute jump is made.

04/28/1942 "WW II" titled so, as result of Gallup Poll.

04/28/1947 Thor Heyerdahl and Kon-Tiki sail from Peru to Polynesia.

04/28/1952 WW II Pacific peace treaty takes effect.

04/28/1974 Last Americans evacuated from Saigon.

04/28/1977 Christopher Boyce convicted for selling satellite secrets.

04/29/1429 Joan of Arc leads Orleans, France, to victory over English.

04/29/1913 Gideon Sundback of Hoboken NJ patents the zipper.

04/29/1971 Salyut 1, world's First space station, launched into earth orbit.

04/30/1789 George Washington inaugurated as first president of the US

04/30/1798 Department of the Navy established.

04/30/1803 US more than doubles its size thru the Louisiana Purchase.

04/30/1900 Hawaii becomes a US Territory

04/30/1939 NBC/RCA make first US demo of TV at opening of NY World's Fair.

04/30/1942 First submarine built on the Great Lakes launched, the "Peto", from Manitowoc, Wisconsin.

04/30/1947 Boulder Dam renamed in honor of Herbert Hoover

04/30/1948 Organization of American States (OAS) charter signed in Bogot .

04/30/1973 Nixon announces resigtration of Haldeman, Ehrlichman, et al

04/30/1975 US forces evacuated Vietnam; Saigon surrenders

04/30/1980 Terrorists seize Iranian Embassy in London

05/01/1840 1st adhesive postage stamps (English "Penny Blacks") issued.

05/01/1850 John Geary becomes 1st mayor of City of San Francisco.

05/01/1860 1st school for the deaf founded.

05/01/1869 Folies-Bergere opens in Paris.

05/01/1884 Construction begins in Chicago on the 1st skyscraper.

05/01/1892 US Quarantine Station opens on Angel Island.

05/01/1928 Lei Day begun (a Hawaiian celebration)

05/02/1925 Kezar Stadium in Golden Gate Park opens.

05/02/1939 Lou Gehrig sets record for most consecutive games (2130)

05/03/1830 1st regular steam train passenger service starts.

05/03/1919 America's 1st passenger flight (New York-Atlantic City)

05/03/1971 national noncommercial network radio begins programming.

05/04/1626 Indians sell Manhattan Island for \$24 in cloth and buttons.

05/04/1851 1st of the major San Francisco fires.

05/04/1878 Phonograph shown for 1st time at the Grand Opera House.

05/05/1908 The Great White Fleet arrives in San Francisco.

05/05/1949 Council of Europe established.

05/05/1961 Alan Shepard becomes 1st American in space (onboard Freedom 7).

05/06/1851 Patent granted to Dr. John Farrie for a "refrigeration machine"

05/06/1860 The Olympic Club, 1st athletic club in US, founded in SF.

05/07/1824 Beethoven's Ninth Symphony presented for first time.

05/07/1927 San Francisco Municipal Airport (Mills Field) dedicated.

05/07/1945 World War II ends in Europe.

05/07/1963 Telstar 2 launched (apogee 6,700 miles).

05/08/1541 Hernando de Soto discovers the Mississippi River.

05/08/1945 Germany surrenders, ending World War II in Europe.

05/10/1775 Continental Congress issues paper currency for 1st time.

05/10/1869 The Driving of the Golden Spike, Promontory Point, Utah: The Transcontinental railroad is completed.

05/10/1930 The first US planetarium opens, in Chicago.

05/11/1752 1st US fire insurance policy is issued, in Philadelphia.

05/11/1929 1st regularly scheduled TV broadcasts (3 nights per week).

05/11/1951 Jay Forrester patents computer core memory.

05/13/1607 English land to found Jamestown (1st permanent settlement)

05/13/1846 US declares war on Mexico.

05/13/1884 Institute for Electrical & Electronics Engineers (IEEE) founded

05/14/1811 Paraguay gains its independence.

05/14/1853 Gail Borden applies for patent for making condensed milk.

05/14/1948 State of Israel proclaimed.

05/14/1973 United States launches space station "Skylab".

05/15/1940 1st nylon stockings are sold in America.

05/15/1963 Last of the Mercury flights, the "Faith 7", launched.

05/16/1866 Congress authorizes nickel 5-cent piece (the silver half-dime was used up to this point).

05/16/1929 1st Oscars announced (best film was 'Wings').

05/16/1971 First Class Mail now costs 8 cents (was 6 cents).

05/17/1792 24 brokers meet to found the New York Stock Exchange

05/17/1804 Lewis & Clark begin their exploration of the Louisiana Purchase

05/17/1954 Supreme Court rules on Brown v. Topeka Board of Education, overthrowing the principle of 'separate but equal'.

05/18/1933 Tennessee Valley Authority Act signed by President Roosevelt.

05/18/1980 Mount St. Helens blew its top in Washington State.

05/19/1862 The Homestead Act becomes law.

05/20/1927 At 7:40am, Lindbergh takes off from New York to cross Atlantic

05/21/1881 The American Red Cross is founded.

05/21/1927 Lindburgh lands in Paris, after 1st solo across Atlantic.

05/23/1898 1st Phillipine Expeditionary Troops sail from San Francisco.

05/23/1908 Dirigible explodes over SF Bay, 16 passengers fall, none die.

05/24/1844 Samuel F.B. Morse taps out "What Hath God Wrought"

05/24/1866 Berkeley named (for George Berkeley, Bishop of Cloyne).

05/24/1883 The Brooklyn Bridge opened by Pres. Arthur & Gov. Cleveland.

05/24/1899 In Boston, the 1st auto repair shop opens.

05/25/1787 Constitutional Convention convenes in Philadelphia.

05/25/1927 Henry Ford stops producing the Model T car (begins Model A).

05/25/1940 Golden Gate International Exposition reopens.

05/25/1978 "Star Wars" is released.

05/25/1983 "Return of the Jedi" (Star Wars 3) is released.

05/26/1868 President Johnson avoids impeachment by 1 vote.

05/26/1937 Golden Gate Bridge opens.

05/26/1946 Patent filed in US for the H-Bomb.

05/27/1907 Bubonic Plague breaks out in San Francisco

05/27/1937 Golden Gate Bridge dedicated.

05/28/1926 United States Customs Court created by Congress.

05/29/1453 Constantinople falls to the Turks (some believe this signalled the end of the Middle Ages).

05/29/1953 Hillary & Norkay reach top of Mount Everest.

05/29/1978 First Class postage now 15 cents (was 13 cents for 3 years).

05/30/1911 Indianapolis 500 car race run for 1st time.

05/31/1433 Joan of Arc has a hot time at the stake...

05/31/1678 Lady Godiva takes a ride through Coventry

05/31/1868 1st recorded bicycle race, 2 kilometers in Paris.

05/31/1879 1st electric railway opens at Berlin Trades Exposition.

05/31/1889 Johnstown Flood

06/01/1638 First earthquake recorded in U.S., at Plymouth, Mass

06/01/1792 Kentucky becomes 15th state

06/01/1796 Tennessee becomes 16th state

06/01/1813 Capt John Lawrence utters Navy motto: 'Don't give up the ship'.

06/01/1845 Homing pigeon ends an 11,000 km trip (Namibia-London) in 55 days.

06/01/1925 Lou Gehrig starts in first of 2130 consecutive games, a record.

06/01/1933 Century of Progress world's fair opens in Chicago

06/01/1965 Penzias and Wilson detect 3 degree Kelvin primordial background.

06/01/1967 Beatles release "Sgt Pepper's Lonely Hearts Club Band".

06/02/0455 Gaiseric sacks Rome, what a Vandal.

06/02/1858 Donati Comet first seen, named after it's discoverer

06/02/1873 Construction of world's first cable car system, begins in SF.

06/02/1910 Pygmies discovered in Dutch New Guinea

06/02/1936 Gen. Anastasio Somoza takes over as dictator of Nicaragua

06/02/1953 Coronation of Queen Elizabeth II in Westminster Abbey

06/02/1966 Surveyor 1 lands in Oceanus Procellarum first moon soft-landing.

06/02/1977 New Jersey legalizes casino gambling in Atlantic City.

06/02/1979 John Paul II first pope to visit a communist country - Poland.

06/03/1539 Hernando De Soto claims Florida for Spain

06/03/1621 Dutch West India Company receives charter for "New Netherlands"

06/03/1770 Mission San Carlos Borromeo de Carmelo founded in California

06/03/1789 Alex Mackenzie began exploration of Mackenzie River

06/03/1888 "Casey at the Bat" is first published (by the SF Examiner)

06/03/1934 Dr Frederick Banting, co-discoverer of insulin knighted.

06/03/1935 French "Normandie" sets Atlantic crossing record: 1077 hours.

06/03/1937 Edward VIII, Duke of Windsor marries Wallis Warfield Simpson.

06/03/1942 Battle of Midway begins: first major battle won by airpower.

06/03/1948 200 inch Hale telescope dedicated at Palomar Observatory.

06/03/1949 "Dragnet" is first broadcast on radio (KFI in Los Angeles).

06/03/1965 Gemini IV is launched Ed White first American to walk in space

06/03/1976 US presented with oldest known copy of Magna Carta

06/03/1980 Crew of Soyuz 36 returns to Earth aboard Soyuz 35

06/04/0780 BC first total solar eclipse reliably recorded by Chinese

06/04/1784 Mme. Thible becomes first woman to fly (in a balloon)

06/04/1896 Henry drives his first Ford through streets of Detroit.

06/04/1940 British complete miracle of Dunkirk by evacuating 300,000 troops

06/04/1944 First submarine captured and boarded on high seas - German U 505

06/04/1947 Taft-Hartley Act approved despite a Truman veto.

06/04/1956 Speech by Khrushchev blasting Stalin is made public.

06/04/1986 Jonathan Pollard, spy for Israel, pleads guilty.

06/05/1783 Joseph and Jacques Montgolfier make first public balloon flight.

06/05/1833 Ada Lovelace (future computer programmer) meets Charles Babbage

06/05/1849 Denmark becomes a constitutional monarchy.

06/05/1875 Formal opening of the Pacific Stock Exchange.

06/05/1947 Sec of State George C. Marshall outlines 'The Marshall Plan'.

06/05/1972 U.N. Conference on the Human Environment opens in Stockholm

06/05/1975 Suez Canal reopens (after 6 Day War caused it to close)

06/05/1980 Soyuz T-2 carries 2 cosmonauts to Salyut 6 space station

06/06/1809 Swedish Constitution and Flag Day (National Day)

06/06/1844 YMCA founded in London

06/06/1932 US Federal gas tax enacted

06/06/1933 First drive-in theatre opens, in Camden, New Jersey.

06/06/1934 Securities and Exchange Commission established

06/06/1944 D-Day, the Allied Invasion of "Festung Europa"

06/06/1946 Henry Morgan is first to take off his shirt on TV.

06/06/1967 Six Day War between Israel and its Arab neighbors begins.

06/06/1971 Soyuz 11 takes 3 cosmonauts to Salyut 1 space station

06/06/1975 British voters decide to remain on Common Market

06/06/1977 Supreme Court tosses out automatic death penalty laws

06/06/1978 Proposition 13 cuts California property taxes 57% Yipee!

06/06/1982 Israel invades Lebanon to drive out PLO

06/06/2012 Transit of Venus (between Earth and Sun) occurs.

06/07/1769 Daniel Boone begins exploring the Bluegrass State of Kentucky.

06/07/1776 Richard Lee of Virginia calls for Declaration of Independence.

06/07/1839 The Hawaiian Declaration of Rights is signed.

06/07/1839 Hawaiian Declaration of Rights is signed

06/07/1905 Norway declares independence from Sweden

06/07/1929 Vatican City becomes a sovereign state

06/07/1938 First Boeing 314 Clipper "Flying Boat" flown by Eddie Allen

06/07/1948 Communists take over Czechoslovakia

06/07/1953 First color network telecast from Boston, Massachusetts.

06/07/1965 Gemini 4 completes 62 orbits

06/07/1971 Soviet Soyuz 11 crew completes first transfer to orbiting Salyut

06/07/1972 German Chancellor Willy Brandt visits Israel

06/07/1977 Anita Bryant leads successful crusade against Miami gay law

06/07/1981 Israel bombs Iraqi plutonium production facility at Osirak.

06/08/1786 First commercially made ice cream sold in New York.

06/08/1869 Ives McGaffey patents his vacuum cleaner.

06/08/1918 Nova Aquila, brightest nova since Kepler's in 1604, is discovered

06/08/1940 Discovery of element 93 "Neptunium" is announced.

06/08/1953 Supreme Court forbids segregated lunch counters in Washington DC.

06/08/1975 Soviets launch Venera 9 to Venus

06/08/1979 The Source, first public computer info. service, goes online.

06/08/2004 Transit of Venus (between Earth and Sun) occurs.

06/09/1732 Royal Charter for Georgia, granted to James Oglethorpe.

06/09/1860 First dime novel published.

06/09/1898 China leases Hong Kong's New Territories to Britain for 99 years.

06/09/1931 Goddard patents rocket-fueled aircraft design.

06/09/1959 First ballistic missile launched from sub "George Washington"

06/10/1639 First American log cabin at Ft Christina (Wilmington, Del).

06/10/1752 Ben Franklin flies a kite in a thunderstorm, shocking!

06/10/1772 British revenue cutter "Gaspee" is burned by Rhode Islanders.

06/10/1801 State of Tripoli declares war on the US

06/10/1854 Georg F.B. Reiman proposes that space is curved

06/10/1869 The 'Agnes' arrives in New Orleans with the first ever shipment of frozen beef.

06/10/1898 US Marines land at Cuba in Spanish-American War.

06/10/1921 Babe Ruth becomes all time homerune champ with 120 of them.

06/10/1932 First demonstration of artificial lightning Pittsfield Mass.

06/10/1935 Alcoholics Anonymous formed in Akron by Dr Robert Smith

06/10/1940 Italy declares war on France and Britain

06/10/1954 PBS reaches San Francisco: KQED (Channel 9) starts broadcasting.

06/10/1977 Apple Computer ships its first Apple II.

06/11/1770 Capt Cook runs aground on Australian Great Barrier Reef

06/11/1859 Comstock silver load discovered near Virginia City, Nevada.

06/11/1895 First auto race.

06/11/1942 US and USSR sign Lend-Lease agreement during WW II.

06/11/1947 WW II sugar rationing finally ends.

06/11/1955 First magnesium jet airplane is flown.

06/11/1970 US leaves Wheelus Air Force Base in Libya.

06/11/1982 Movie "E T, The Extra-Terrestrial" is released.

06/12/1665 English rename New Amsterdam to New York after the Dutch leave.

06/12/1776 Virginia is first to adopt the Bill of Rights.

06/12/1812 Napoleon invades Russia. Classic "what not to" lesson.

06/12/1838 Hopkins Observatory, dedicated in Williamstown, Mass

06/12/1839 The first baseball game is played in America. Thanks Abner!

06/12/1898 Phillipines gains its independence from Spain.

06/12/1934 Black-McKeller Bill splits United Airlines from Boeing.

06/12/1957 Paul Anderson of US back-lifts a record 2850 kg.

06/12/1967 USSR launches Venera 4 for parachute landing on Venus

06/12/1967 Israel wins the Six Day War.

06/12/1979 Bryan Allen flies the "Gossamer Albatross", the first man-powered aircraft, over the English Channel.

06/13/1373 Anglo-Portuguese Treaty of Alliance (world's oldest) is signed

06/13/1611 John Fabricius dedicates the earliest sunspot publication.

06/13/1898 Yukon Territory of Canada organized, Dawson chosen as capital.

06/13/1900 China's Boxer Rebellion begins, against foreigners and Christians

06/13/1963 Valentina Tereshkova aboard Vostok 6, becomes the first woman in space. You've come a long way, baby.

06/13/1967 Thurgood Marshall nominated as first black Supreme Court justice.

06/13/1983 Pioneer 10 is first man-made object to leave the Solar System.

06/14/1775 The US Army is founded.

06/14/1777 Stars and Stripes adopted as US flag, replacing Grand Union flag.

06/14/1846 California (Bear Flag) Republic proclaimed in Sonoma.

06/14/1847 Bunson invents a gas burner.

06/14/1870 All-pro Cincinnati Red Stockings suffer first loss in 130 games.

06/14/1900 Hawaiian Territorial Government begins.

06/14/1919 First direct airplane crossing of the Atlantic.

06/14/1938 Chlorophyll patented by Benjamin Grushkin. How'd he do that?

06/14/1942 Walt Disney's "Bambi" is released.

06/14/1948 TV Guide is first published.

06/14/1951 UNIVAC 1, first commercial computer, is unveiled.

06/14/1952 Keel laid for first nuclear powered submarine, the Nautilus.

06/14/1967 Launch of Mariner V for Venus flyby

06/14/1975 USSR launches Venera 10 for Venus landing

06/14/1982 Britain wins the 74 day war for the Falkland Islands.

06/15/1215 King John reluctantly signs the Magna Carta at Runnymede.

06/15/1520 The pope threatens to toss Luther out of the Catholic Church.

06/15/1664 The state of New Jersey is founded.

06/15/1752 Ben Franklin's kite is struck by lightning, shocking!

06/15/1775 Washington appointed commander-in-chief of the American Army.

06/15/1836 Arkansas becomes 25th state

06/15/1844 Goodyear patents the process for vulcanization of rubber.

06/15/1846 Oregon Treaty signed, setting US-British boundary at 49° North.

06/15/1878 First attempt at motion pictures(using 12 cameras, each taking one picture (to see if all 4 horse's hooves leave the ground

06/15/1919 First flight across Atlantic (Alcock and Brown).

06/15/1940 France surrenders to Hitler.

06/15/1951 First commercial electronic computer dedicated in Philadelphia.

06/15/1975 Soyuz 19 launched

06/15/1977 Spain's first free elections since 1936.

06/15/1978 Soyuz 29 carries 2 cosmonauts to Salyut 6; they stay 139 days.

06/15/1982 Riots in Argentina after Falklands/Malvinas defeat.

06/16/1567 Mary Queen of Scots thrown into Lochleven Castle prison

06/16/1775 The Battle of Bunker Hill (actually it was Breed's Hill).

06/16/1858 "A house divided against itself cannot stand" - Abraham Lincoln.

06/16/1903 Ford Motor Company, a vehicle manufacturer, is founded.

06/16/1933 US Federal Deposit Insurance Corporation (FDIC) is created.

06/16/1963 Valentina Tereshkova becomes first woman in space.

06/16/1977 Leonid Brezhnev named president of USSR

06/16/1984 Edwin Moses wins his 100th consecutive 400-meter hurdles race

06/17/1856 Republican Party opened its first convention in Philadelphia.

06/17/1885 Statue of Liberty arrives in NYC aboard French ship "Isere".

06/17/1944 Republic of Iceland proclaimed at Thingvallir, Iceland.

06/17/1947 First around-the-world civil air service leaves New York.

06/17/1963 Supreme Court strikes down Lord's Prayer recitation

06/17/1971 US returns control of Okinawa to Japanese

06/17/1972 Democratic HQ at Watergate burglarized by Republicans.

06/17/1982 Ronald Reagan delivers "evil empire" speech.

06/18/1178 Proposed time of origin of lunar crater Giordano Bruno.

06/18/1812 War of 1812 begins as US declares war against Britain.

06/18/1815 Battle of Waterloo. Napoleon defeated by Wellington and Blücher.

06/18/1873 Susan B Anthony fined \$100 for attempting to vote for President.

06/18/1892 Macademia nuts first planted in Hawaii.

06/18/1928 Amelia Earhart is the first woman to fly across the Atlantic.

06/18/1953 Egypt is proclaimed a republic.

06/18/1959 First television broadcast transmitted from England to US.

06/18/1977 Space Shuttle test model "Enterprise" carries a crew aloft for first time, It was fixed to a modified Boeing 747

06/18/1981 Sandra Day O'Connor becomes first woman on the US Supreme Court.

06/18/1983 Sally Ride becomes first US woman in space, aboard Challenger.

06/19/0240 BC - Eratosthenes estimates the circumference of the earth.

06/19/1756 146 English people imprisoned in Black Hole of Calcutta.

06/19/1778 Washington's troops finally leave Valley Forge.

06/19/1846 First baseball game: NY Nines 23, Knickerbockers 1 (Hoboken, NJ).

06/19/1862 Slavery outlawed in US territories.

06/19/1910 Father's Day celebrated for first time in Spokane, Washington.

06/19/1931 First commercial photoelectric cell installed in West Haven Ct.

06/19/1932 First concert given in San Francisco's Stern Grove.

06/19/1934 Federal Communications Commission (FCC) created

06/19/1947 First plane to exceed 600 mph - Albert Boyd at Muroc, CA.

06/19/1976 Viking 1 enters Martian orbit after 10 month flight from earth.

06/19/1981 European Space Agency's Ariane carries two satellites into orbit.

06/20/1782 Congress approves Great Seal of US and the Eagle as it's symbol.

06/20/1791 King Louis XVI caught trying to escape French Revolution

06/20/1837 Queen Victoria at 18 ascends British throne following death of uncle King William IV. She ruled for 63 years, until 1901.

06/20/1863 West Virginia became 35th state

06/20/1948 Ed Sullivan has his first really big 'shoe' on Sunday night TV.

06/20/1963 US and USSR agree to set up a "Hot Line".

06/20/1968 Jim Hines becomes first person to run 100 meters in under 10 secs

06/20/1977 Oil enters Trans-Alaska pipeline exits 38 days later at Valdez.

06/20/1982 National Bald Eagle Day was declared.

06/21/1633 Galileo Galilei is forced by the Inquisition to "abjure, curse, and detest" his Copernican heliocentric views. Still in effect!

06/21/1788 US Constitution effective as NH is ninth state to ratify it.

06/21/1834 Cyrus Hall McCormick patents reaping machine.

06/21/1879 F. W. Woolworth opens his first store (failed almost immediately, so he found a new location and you know the rest...)

06/21/1948 First stored computer program run, on the Manchester Mark I.

06/21/1963 Pope Paul VI (Giovanni Battista Montini) succeeds John XXIII

06/22/1611 Henry Hudson set adrift in Hudson Bay during mutiny.

06/22/1675 Royal Greenwich Observatory established in England by Charles II.

06/22/1772 Slavery is outlawed in England.

06/22/1775 First Continental currency authorized

06/22/1807 British board USS Chesapeake, leading to the War of 1812.

06/22/1808 Zebulon Pike reaches his peak, it was all downhill after that.

06/22/1847 The doughnut is invented.

06/22/1910 First passenger carrying airship, the Zeppelin "Deutscheland".

06/22/1911 King George V of England crowned

06/22/1944 FDR signs "GI Bill of Rights" (Servicemen's Readjustment Act)

06/22/1978 The planet Pluto's partner, Charon, is discovered.

06/22/1983 First time a satellite is retrieved from orbit, by Space Shuttle.

06/23/1683 William Penn signs friendship treaty with Leni Lenape Indians in Pennsylvania; the only treaty "not sworn to, nor broken".

06/23/1757 Robert Clive defeats Indians at Plassey, wins control of Bengal

06/23/1868 Christopher Latham Sholes patents the typewriter.

06/23/1955 Walt Disney's "Lady And The Tramp" is released

06/23/1976 CN Tower in Toronto, tallest free-standing structure (555m) opens

06/23/1986 Tip O'Neill refuses to let Reagan address House

06/24/1314 Battle of Bannockburn; Scotland regains independence from England

06/24/1441 Eton College founded by Henry VI

06/24/1497 John Cabot claims eastern Canada for England

06/24/1509 Henry VIII becomes King of England

06/24/1817 First coffee planted in Hawaii, on the Kona coast.

06/24/1930 First radar detection of aircraft, at Anacostia, DC.

06/24/1949 Cargo airlines first licensed by US Civil Aeronautics Board.

06/24/1949 Hopalong Cassidy becomes first network western.

06/24/1963 First demonstration of home video recorder, BBC Studios, London.

06/24/1982 Soyuz T-6 lifts 3 cosmonauts (1 French) to Salyut 7 space station

06/24/1982 Equal Rights Amendment goes down in defeat.

06/24/1986 US Senate approves "tax reform" - taxes went up.

06/25/1178 Five Canterbury monks report something exploding on the Moon (the only known observation of probable meteor strike).

06/25/1630 The Fork is introduced to American dining by Governor Winthrop.

06/25/1835 Pueblo founded with construction of first building (start of Yerba Buena, later to be called San Francisco).

06/25/1938 Federal minimum wage law guarantees workers 40¢ per hour.

06/25/1950 Korean War begins; North Korea invades South.

06/25/1950 El Al begins air service.

06/25/1951 1st color TV broadcast: CBS' Arthur Godfrey from NYC to 4 cities

06/25/1953 First passenger flies commercially around the world < 100 hours.

06/25/1977 Roy C Sullivan of Virginia is struck by lightning for 7th time!

06/26/1483 Richard III crowned King of England. Villified by Thomas More.

06/26/1797 Charles Newbold patents first cast-iron plow.

06/26/1876 Custer's Last Stand

06/26/1900 Walter Reed begins research that beats yellow fever

06/26/1911 Nieuport sets an aircraft speed record of 133 kph

06/26/1934 FDR signs Federal Credit Union Act, establishing Credit Unions.

06/26/1945 UN Charter signed by 50 nations in San Francisco.

06/26/1948 US responses to Soviet blockade of Berlin with an airlift.

06/26/1949 Walter Baade discovers asteroid Icarus INSIDE orbit of Mercury.

06/26/1959 St Lawrence Seaway opens, linking Atlantic Ocean with Great Lakes

06/26/1963 John F. Kennedy visits West Berlin, "Ich bin ein Berliner".

06/26/1968 Iwo Jima and Bonin Islands returned to Japan by US

06/26/1978 First dedicated oceanographic satellite, SEASAT 1 launched.

06/27/1806 Buenos Aires captured by British

06/27/1838 Queen Victoria is crowned

06/27/1929 First color TV demo, in New York

06/27/1942 FBI captures 8 Nazi saboteurs from a sub off Long Island, NY.

06/27/1950 President Truman orders Air Force and Navy into Korean conflict.

06/27/1955 First automobile seat belt legislation enacted Illinois

06/27/1960 Chlorophyll "A" synthesized in Cambridge Mass

06/27/1962 NASA X-15 flies at 4105 mph

06/27/1963 Robert Rushworth in X-15 reaches 87 km

06/27/1978 Soyuz 30 launched

06/27/1982 4th Space Shuttle Mission - Columbia 4 launched

06/27/1983 Soyuz T-9 carries 2 cosmonauts to Salyut 7 space station

06/28/1820 The tomato is proved to be nonpoisonous.

06/28/1919 The Treaty of Versailles, ending World War I, was signed.

06/28/1939 Pan Am begins transatlantic air service with the Dixie Clipper.

06/28/1951 "Amos 'n Andy" show premiers on television (CBS).

06/29/1776 Mission Dolores founded by San Francisco Bay.

06/29/1854 Congress ratifies Gadsden Purchase of parts of New Mexico, Ariz.

06/29/1863 The very first First National Bank opens in Davenport, Iowa.

06/29/1916 The first Boeing aircraft flies.

06/29/1929 First high-speed jet wind tunnel completed Langley Field, CA.

06/29/1946 British arrest 2700 Jews in Palestine as alleged terrorists

06/29/1952 First aircraft carrier to sail around Cape Horn - the Oriskany.

06/29/1962 First flight of the Vickers VC-10 long-range airliner.

06/29/1971 Soyuz 11 docks with Salyut 1 for 22 days

06/30/1834 Congress creates Indian Territory

06/30/1893 The Excelsior diamond (blue-white, 995 carats) discovered.

06/30/1906 Pure Food and Drug Act and Meat Inspection Act adopted

06/30/1908 Giant fireball impacts in Central Siberia (the Tunguska Event)

06/30/1930 First round-the-world radio broadcast, from Schenectady NY.

06/30/1936 40 hour work week law approved in US.

06/30/1948 Transistor demonstrated Murray Hill, NJ.

06/30/1960 Zaire gains its independence.

06/30/1972 Timekeeping adjusted with the first leap second.

07/01/1535 Sir Thomas More went on trial in England charged with treason

07/01/1847 1st adhesive US postage stamps go on sale

07/01/1850 At least 626 ships lying at anchor around San Francisco Bay.

07/01/1863 Battle of Gettysburg, PA - Lee's northward advance halted.

07/01/1867 Dominion of Canada formed.

07/01/1873 Prince Edward Island becomes 7th Canadian province.

07/01/1898 Teddy Roosevelt and his Rough Riders charge up San Juan Hill.

07/01/1899 SF City Hall turned over to city, after 29 years of building

07/01/1919 First Class Postage DROPS to 2 cents from 3 cents.

07/01/1941 1st TV licenses granted: W2XBS-WNBT (NBC) & WCBW (CBS), New York

07/01/1943 first automatic withholding tax from paychecks

07/01/1944 Bretton Woods Conference starts, establishing world-wide financial systems (like the IMF and the World Bank).

07/01/1960 Italian Somalia gains independence, unites with Somali Republic.

07/01/1960 Ghana becomes a republic.

07/01/1962 Burundi & Rwanda gain independence from Belgium (National Days).

07/01/1966 Medicare goes into effect.

07/01/1968 US, Britain, USSR & 58 nations sign Nuclear Nonproliferation Treaty

07/01/1969 Charles Philip Arthur George invested as the Prince of Wales

07/01/1971 Golden Gate Bridge paid for (so why is there still a toll?).

07/01/1982 Kosmos 1383, 1st search and rescue satellite, launched.

07/02/1890 Sherman Antitrust Act prohibits industrial monopolies.

07/02/1900 first flight of a Zeppelin (the LZ-1).

07/02/1926 US Army Air Corps created

07/02/1937 Amelia Earhart & Fred Noonan disappeared over the Pacific Ocean

07/02/1957 1st submarine built to fire guided missiles launched, "Grayback"

07/02/1964 President Johnson signs the Civil Rights Act.

07/02/1976 Supreme Court ruled death penalty not inherently cruel or unusual

07/02/1985 Proto launched on its way to Halley's Comet

07/03/1608 City of Quebec founded by Samuel de Champlain

07/03/1775 Washington takes command of Continental Army at Cambridge, Mass

07/03/1819 1st savings bank in US (Bank of Savings in NYC) opens its doors

07/03/1861 Pony Express arrives in SF with overland letters from New York.

07/03/1890 Idaho becomes 43rd state.

07/03/1898 US Navy defeats Spanish fleet in the harbor at Santiago Cuba

07/03/1962 Algeria becomes independent after 132 years of French rule

07/03/1983 Calvin Smith (US) becomes fastest man alive (36.25 kph for 100 m)

07/03/1986 Renovated Statue of Liberty is rededicated with great ceremony.

07/04/1054 Brightest known super-nova starts shining, for 23 days.

07/04/1057 Crab Nebula supernova recorded by Chinese & Japanese astronomers.

07/04/1776 Declaration of Independence - US gains independence from Britain

07/04/1802 US Military Academy officially opens at West Point, NY

07/04/1828 first US passenger railroad started, The Baltimore & Ohio

07/04/1845 Thoreau moves into his shack on Walden Pond.

07/04/1862 Lewis Carroll begins inventing "Alice in Wonderland" for his friend Alice Pleasance Liddell during a boating trip

07/04/1863 Boise, Idaho founded (now capital of Idaho).

07/04/1876 1st public exhibition of electric light in San Francisco.

07/04/1882 Telegraph Hill Observatory opens.

07/04/1884 Statue of Liberty is presented to the United States, in Paris.

07/04/1894 Elwood Haynes successfully tests one of the first US autos

07/04/1894 Republic of Hawaii established.

07/04/1903 Pacific Cable (San Francisco, Hawaii, Guam, Phillipines) opens. President Roosevelt sends a message to the Phillipines,

07/04/1933 Work begins on the Oakland Bay Bridge.

07/04/1946 Philippines gains independence from US

07/04/1965 Mariner 4 flies past Mars, sends first close-up photos.

07/04/1967 Freedom of Information Act goes into effect

07/04/1976 Raid on Entebbe - Israel rescues 229 Air France passengers

07/05/1687 Isaac Newton's PRINCIPIA is published by Royal Society in England

07/05/1811 Venezuela gains independence from Spain.

07/05/1859 Captain N.C. Brooks discovers Midway Islands.

07/05/1865 William Booth founds the Salvation Army, in London, England.

07/05/1935 first Hawaii Calls radio program is broadcast.

07/05/1938 Herb Caen gets his first column in the S.F. Chronicle.

07/05/1944 first rocket airplane flown

07/05/1950 Law of Return passes allowing all Jews rights to live in Israel

07/05/1951 Junction transistor invention announced, Murray Hill, NJ

07/05/1975 Cape Verde Islands independent, 500 years under Portuguese rule

07/05/1978 Soyuz 30 is launched

07/06/1885 1st inoculation (for rabies) of a human being, by Louis Pasteur

07/06/1928 Preview of 1st all-talking motion picture took place in NYC

07/06/1932 First Class postage back up to 3 cents from 2 cents.

07/06/1933 1st All-Star baseball game. American League won 5-2.

07/06/1964 Malawi (then Nyasaland) gains independence from Britain

07/06/1975 Comoros Islands gain independence from France (most of them).

07/06/1976 Soyuz 21 carries 2 cosmonauts to Salyut 5 space station.

07/07/1846 United States annexes California

07/07/1891 A patent was granted for the travelers cheque.

07/07/1898 Hawaii annexed to the United States.

07/07/1930 Construction began on Boulder (later Hoover) Dam

07/07/1946 Mother Frances X Cabrini canonized as 1st American saint

07/07/1978 Solomon Islands gains independence from Britain (National Day).

07/07/1980 first solar-powered aircraft crosses English Channel.

07/07/1990 The world's 3 greatest tenors: Carreras, Domingo and Pavarotti appear together, for the only time, in Rome. Simply ahhsome!

07/08/1663 King Charles II of England granted a charter to Rhode Island

07/08/1776 Col. John Nixon gives 1st public reading of Decl of Independence

07/08/1796 1st American Passport issued by the US State Department.

07/08/1835 The Liberty Bell cracks (again).

07/08/1889 Vol 1, No 1, of "The Wall Street Journal" published.

07/08/1896 William Jennings Bryan makes his 'cross of gold' speech at the Democratic Convention in Chicago.

07/08/1905 Part of Angel Island (in SF bay) becomes an Immigration Detention Center (port of entry for immigrants).

07/08/1907 Florenz Ziegfeld staged 1st `Follies' on NY Theater roof

07/08/1947 Demolition begins in New York for headquarters of United Nations

07/08/1977 Sabra Starr finishes longest recorded belly dance (100 hrs).

07/08/1978 Pioneer-Venus 2 Multi-probe launched to Venus.

07/09/1540 Henry VIII's 6-month marriage to Anne of Cleves is annulled.

07/09/1816 Argentina gains its independence.

07/09/1846 Capt Montgomery claims Yerba Buena (San Francisco) for the U.S.

07/09/1953 first helicopter passenger service, in New York

07/09/1957 Announcement of discovery of element 102 - nobelium

07/09/1979 Voyager II flies past Jupiter.

07/10/1890 Wyoming becomes the 44th state.

07/10/1925 USSR's official news agency TASS established.

07/10/1925 The Scopes 'Monkey Trial' on evolution, starts.

07/10/1940 Battle of Britain began as Nazi forces attack by air.

07/10/1962 Telstar, 1st communications satellite launched.

07/10/1966 Orbiter 1 Launched to moon.

07/10/1980 Ayatollah Khomeini releases Iran hostage Richard I. Queen

07/10/1985 French agents sink Greenpeace "Rainbow Warrior" in New Zealand.

07/11/1533 Pope Clement VII excommunicates England's King Henry VIII

07/11/1798 US Marine Corps is created by an act of Congress

07/11/1804 Burr and Hamilton duel. Burr won.

07/11/1864 Confederate forces, led by Gen J Early, invade Washington DC

07/11/1955 USAF Academy dedicated at Lowry AFB in Colorado

07/11/1962 Cosmonaut Micolaev set longevity space flight record-4 days

07/11/1962 1st transatlantic TV transmission via satellite (Telstar I).

07/11/1977 Medal of Freedom awarded posthumously to Martin Luther King

07/11/1979 US Skylab enters atmosphere over Australia & disintegrates.

07/11/1986 Mary Beth Whitehead christens her surrogate "Baby M", Sara.

07/12/1543 Henry VIII marries Catharine Parr (his 6th & last wife).

07/12/1812 US forces lead by Gen. Hull invade Canada (War of 1812).

07/12/1862 Congress authorizes Medal of Honor

07/12/1933 Congress passes 1st minimum wage law (\$0.33 per hour).

07/12/1960 Echo I, 1st passive satellite launched.

07/12/1960 USSR's Sputnik 5 launched with 2 dogs.

07/12/1962 Cosmonaut Popovich in space 1st time 2, manned craft in space

07/12/1977 first free flight test of Space Shuttle Enterprise.

07/12/1979 Kiribati (Gilbert & Ellice Is.) gains independence from Britain.

07/12/1984 Geraldine Ferraro, Democrat, becomes the first woman to be a major-party candidate for Vice President.

07/13/1865 Horace Greeley advises readers to "Go west". He meant Michigan.

07/13/1919 first lighter-than-air transatlantic flight completed.

07/13/1977 New York City experiences a 25 hr black-out

07/13/1984 Sergei Bubka of USSR pole vaults a record 5.89 m.

07/14/1771 Mission San Antonio de Padua founded in California

07/14/1789 Citizens of Paris storm the (near empty) Bastille prison.

07/14/1850 1st public demonstration of ice made by refrigeration.

07/14/1853 Commodore Perry requests trade relations with the Japanese.

07/14/1865 1st ascent of the Matterhorn.

07/14/1953 first national monument dedicated to a Negro - GW Carver

07/14/1958 Iraqi army Iraq overthrew monarchy, a Colonel Saddam Hussein.

07/14/1959 first atomic powered cruiser, the Long Beach, Quincy Mass

07/14/1965 US Mariner IV, 1st Mars probe, passes at 6,100 miles

07/14/1987 Taiwan ends 37 years of martial law

07/15/1662 Charles II grants a charter to establish Royal Society in London.

07/15/1815 Napoleon Bonaparte captured.

07/15/1870 NW Territories created & Manitoba becomes 5th Canadian province.

07/15/1940 first betatron placed in operation, Urbana, Illinois

07/15/1954 first US passenger jet transport airplane tested (Boeing 707).

07/15/1975 Soyuz 19 and Apollo 18 launched; rendezvous 2 days later.

07/16/1212 Battle of Las Navas de Tolosa; end of Moslem power in Spain.

07/16/1548 La Paz, Bolivia is founded.

07/16/1769 Father Serra founds Mission San Diego, 1st mission in Calif.

07/16/1790 Congress establishes the District of Columbia.

07/16/1861 1st major battle of the Civil War -- Bull Run.

07/16/1935 1st automatic parking meter in US installed, Oklahoma City, OK

07/16/1945 1st atomic blast, Trinity Site, Alamogordo, New Mexico.

07/16/1969 Apollo 11, first manned ship to land on the moon is launched with astronauts Buzz Aldrin, Neil Armstrong and Michael Collins.

07/17/1821 Spain ceded Florida to US

07/17/1841 British humor magazine 'Punch' 1st published.

07/17/1850 Harvard Observatory takes 1st photograph of a star (Vega)

07/17/1898 Spanish American War ends, in Santiago, Cuba.

07/17/1917 British royal family adopts the name 'Windsor.'

07/17/1945 Potsdam Conference. FDR, Stalin, Churchill hold first meeting.

07/17/1948 Republic of Korea founded.

07/17/1954 Construction begins on Disneyland...

07/17/1955 ... Disneyland opens its doors in rural Orange County.

07/17/1959 Tibet abolishes serfdom

07/17/1962 Robert White in X-15 sets altitude record of 108 km (354,300 ft).

07/17/1969 Apollo/Soyuz, the first US/USSR linkup in space

07/17/0197 Pioneer 7 launched.

07/17/1984 Soyuz T-12 carries 3 cosmonauts to space station Salyut 7.

07/18/1964 The Great Fire of Rome begins (Nero didn't fiddle).

07/18/1536 Pope's authority declared void in England.

07/18/1872 Britain introduces voting by secret ballot.

07/18/1931 first air-conditioned ship launched - "Mariposa"

07/18/1936 Spanish Civil War begins, Francisco Franco leads uprising.

07/18/1938 Douglas 'Wrong Way' Corrigan lands in Ireland-left NY for Calif

07/18/1955 first electric power generated from atomic energy sold.

07/18/1966 Carl Sagan turns one billion seconds old

07/18/1966 Gemini 10 launched.

07/18/1968 Intel Corporation is incorporated. Made first microchip.

07/18/1980 Rohini 1, first Indian satellite, is launched.

07/18/1984 Svetlana Savitskaya accompanies Vladimir Dzhanibekov on EVA outside Salyut 7, becoming first woman to walk in space.

07/18/1986 Videotapes released showing Titanic's sunken remains

07/19/1848 First Women's Rights Convention. Seneca Falls, NY

07/19/1880 SF Public Library allows patrons to start borrowing books.

07/19/1935 1st parking meters installed in Oklahoma City business district.

07/19/1955 "Balclutha" ties up at SF Pier 43 & becomes a floating museum.

07/19/1961 1st In-flight movie is shown (on TWA).

07/20/1810 Columbia gains its independence.

07/20/1859 admission fee first charged to see a baseball game (50 cents).

07/20/1871 British Columbia becomes 6th Canadian province.

07/20/1960 USSR recovered 2 dogs; 1st living organisms to return from space.

07/20/1960 1st submerged submarine fires Polaris missile, George Washington

07/20/1969 first men land on the moon, aboard Apollo 11 at 09:18 GMT. Neil Armstrong and Edwin Aldrin establish Tranquility Base

07/20/1976 first pictures from Mars surface received (courtesy Viking 2).

07/20/1977 Voyager 2 launched to the outer solar system.

07/21/1831 Belgium gains its independence.

07/21/1873 World's 1st train robbery, by Jesse James.

07/21/1940 Soviet Union annexes Estonia, Latvia, Lithuania.

07/21/1959 first atomic powered merchant ship, Savannah, christened.

07/21/1961 Mercury 4 is launched into sub-orbital flight

07/21/1965 Gemini 5 launched atop Titan V with Cooper and Conrad

07/21/1969 Neil Armstrong steps onto the moon at 02:56:15 GMT. "It's one small step for a man, one giant leap for mankind."

07/21/1969 Independence Day, celebrated in Belgium.

07/22/1933 Wiley Post completes 1st round-the-world solo flight.

07/22/1972 Venera 8 makes a soft landing on Venus.

07/23/1798 Napoleon captures Alexandria, Egypt.

07/23/1829 Typewriter is patented.

07/23/1904 The Ice Cream Cone is invented.

07/23/1937 Isolation of pituitary hormone announced

07/23/1968 PLO's 1st hijacking of an EL AL plane

07/23/1972 ERTS 1 (Earth Resources Technology Satellite) later called LANDSA launched to start its multi-spectral scans of Earth

07/23/1972 1st Earth Resources Technology Satellite (ERTS) is launched

07/23/1980 Soyuz 37 ferries 2 cosmonauts (1 Vietnamese) to Salyut 6.

07/24/1701 French make 1st landing at site of Detroit.

07/24/1704 Great Britain takes Gibraltar from Spain

07/24/1847 Mormon leader Brigham Young & followers arrive at Salt Lake City,

07/24/1929 Hoover proclaims Kellogg-Briand Pact which renounced war

07/24/1946 US detonates atomic bomb at Bikini Atoll. See film Radio Bikini.

07/24/1959 Nixon has the 'Kitchen Debate' with Khrushchev

07/25/1909 first airplane flight across the English Channel.

07/25/1952 Commonwealth of Puerto Rico created.

07/25/1956 Italian liner Andrea Doria sank after collision with Stockholm.

07/25/1963 US Russia & England sign nuclear test ban treaty

07/25/1973 USSR launches Mars 5

07/25/1981 Voyager 2 encounters Saturn, "thousands of rings".

07/25/1987 USSR launches Kosmos 1870, 15-ton earth-study satellite.

07/26/1775 Benjamin Franklin becomes the first Postmaster General.

07/26/1847 Liberia gains its independence.

07/26/1887 first book published in Esperanto. Not a hit.

07/26/1908 Federal Bureau of Investigation established

07/26/1947 Department of Defense established

07/26/1953 Fidel Castro begins revolution against Batista

07/26/1953 Korean War Armistice is signed.

07/26/1956 Egypt seizes the Suez Canal

07/26/1957 USSR launches 1st intercontinental multi-stage ballistic missile.

07/26/1963 US launches Syncom 2, the first geosynchronous satellite

07/26/1965 Republic of Maldives gains independence from Britain (Nat'l Day).

07/26/1971 US launches Apollo 15 to the Moon

07/26/1982 Canada's Anik D1 comsat launched by US delta rocket.

07/27/1501 Copernicus formally installed as canon of Frauenberg Cathedral

07/27/1694 Bank of England is chartered.

07/27/1836 Adelaide, South Australia founded.

07/27/1866 Atlantic telegraph cable successfully laid (1,686 miles long).

07/27/1940 Billboard magazine starts publishing best-seller's charts.

07/27/1955 Austria regains full independence after 4-power occupation.

07/27/1962 Mariner 2 launched on a flyby mission to Venus

07/27/1969 Pioneer 10 Launched.

07/28/1586 Sir Thomas Harriot introduces potatoes to Europe.

07/28/1821 Peru gains its independence.

07/28/1849 "Memmon" is first clipper to reach SF, 120 days out of NY

07/28/1851 total solar eclipse captured on a daguerreotype photograph

07/28/1866 Metric system becomes a legal measurement system in US

07/28/1868 14th Amendment ratified, citizenship to ex-slaves.

07/28/1900 The Hamburger is created by Louis Lassing in Connecticut

07/28/1914 Austria-Hungary attacks Serbia - World War I begins.

07/28/1931 Congress makes The Star-Spangled Banner our 2nd National Anthem

07/28/1932 President Hoover evicts bonus marchers from their encampment.

07/28/1933 1st Singing Telegram is delivered (to Rudy Vallee).

07/28/1964 Ranger 7 launched to the moon; sends back 4308 TV pictures.

07/28/1973 Skylab 3's astronauts are launched

07/28/1976 Eldon Joersz & Geo. Morgan set world airspeed record of 3,530 kph

07/29/1858 1st commercial treaty between US and Japan is signed.

07/29/1914 1st transcontinental phone link. Between NYC and San Francisco.

07/29/1920 1st transcontinental airmail flight: New York to San Francisco

07/29/1957 International Atomic Energy Agency established by UN

07/29/1978 Pioneer 11 transmits images of Saturn & its rings.

07/29/1981 The wedding of Prince Charles and Lady Diana

07/29/1985 19th Space Shuttle Mission - Challenger 8 is launched

07/30/1619 The House of Burgesses in Virginia is formed. 1st elective governing body in a British colony.

07/30/1836 1st English newspaper published in Hawaii.

07/30/1946 1st rocket to attain 100-mile altitude, White Sands, NM

07/30/1956 Motto of US "In God We Trust" authorized

07/30/1971 US Apollo 15 lands on Mare Imbrium.

07/30/1980 Vanuatu (then New Hebrides) gains independence from Britain, Fran

07/30/1983 STS-8 3rd flight of Challenger. 1st night launch & land.

07/30/1984 STS-14 first flight of the shuttle Discovery.

07/31/1498 Christopher Columbus discovers island of Trinidad.

07/31/1588 English fleet attacks Spanish armada

07/31/1790 1st US Patent granted (for a potash process).

07/31/1948 President Truman dedicates Idlewild Field (Kennedy Airport), NY

07/31/1964 Ranger 7 transmits the 1st lunar close-up photos before impact

07/31/1970 Chet Huntley retires from NBC, ending 'Huntley-Brinkley Report' (No more "Goodnight, David", "Goodnight, Chet")

08/01/1291 Everlasting League forms, the basis of the Swiss Confederation

08/01/1790 First U.S. Census

08/01/1794 Whisky Rebellion

08/01/1852 Black Methodists establish 1st black SF church, Zion Methodist

08/01/1901 Burial within San Francisco City limits prohibited.

08/01/1946 President Truman establishes Atomic Energy Commission.

08/01/1953 California introduces its Sales Tax (for Education).

08/01/1958 First Class postage up to 4 cents (had been 3 cents for 26 years

08/02/1873 1st trial run of an SF cable car, on Clay Street between Kearny and Jones, downhill all the way, at 4AM.

08/02/1877 San Francisco Public Library opens with 5000 volumes.

08/02/1990 Saddam Hussein of Iraq invades neighboring Kuwait in the first act of the 1991 Persian Gulf War.

08/03/1492 Columbus sets sail for 'the Indies'.

08/04/1693 Champagne is invented by Dom Perignon.

08/05/1775 The 1st Spanish ship, 'San Carlos', enters San Francisco bay.

08/05/1861 US levies its first Income Tax (3% of incomes over \$800).

08/05/1864 Spectrum of a comet observed for 1st time, by Giovanni Donati

08/05/1963 Nuclear Test Ban Treaty signed.

08/06/1835 Bolivia gains its independence

08/06/1926 The first woman swims the English Channel.

08/06/1945 The first Atom Bomb was dropped on Hiroshima by the 'Enola Gay'.

08/07/1807 1st servicable steamboat, the Cleremont, goes on 1st voyage.

08/09/1842 The US-Canada border defined by the Webster-Ashburton Treaty.

08/09/1945 The 2nd Atom Bomb dropped on Nagasaki.

08/09/1974 Richard Nixon resigns presidency.

08/10/1809 Ecuador gains its independence.

08/10/1981 Pete Rose tops Stan Musial's record of 3630 hits.

08/11/1877 Asaph Hall discovers Mars' moon Deimos

08/11/1929 Babe Ruth hits his 500th homer

08/11/1933 Temp. hits 58°C (136°F) at San Luis Potosí, Mex. (world record)

08/12/1851 Issac Singer granted a patent for his sewing machine.

08/12/1898 The peace protocol ending the Spanish-American War was signed.

08/12/1915 'Of Human Bondage,' by William Somerset Maugham, published.

08/12/1934 Babe Ruth's final game at Fenway Park, 41,766 on hand

08/13/1642 Christiaan Huygens discovers the Martian south polar cap

08/13/1876 Reciprocity Treaty between US and Hawaii ratified.

08/13/1961 Berlin Wall erected in East Germany

08/14/0410 Alaric sacks Rome, he really was a Vandal.

08/14/1457 Oldest exactly dated printed book (c. 3 years after Gutenberg)

08/14/1846 Henry David Thoreau jailed for tax resistance.

08/14/1848 Oregon Territory created

08/14/1935 Social Security Act became law

08/14/1941 Atlantic Charter signed by FDR & Churchill

08/14/1945 VJ Day - Japan surrendered to end World War II.

08/14/1966 First US lunar orbiter does it.

08/15/1901 Arch Rock, danger to Bay shipping, blasted with 30 tons of nitrogelatin (and that ain't jello).

08/15/1945 South Korea liberated from Japanese rule.

08/15/1945 Riot in San Francisco celebrating end of World War II.

08/15/1960 The Congo (Brazzaville) gains its independence.

08/16/1863 Emancipation Proclamation signed

08/16/1969 Woodstock festival begins in New York.

08/16/1970 Venera 7 launched by USSR for soft landing on Venus

08/17/1807 R. Fulton's steamboat Clermont begins 1st trip up Hudson River

08/17/1896 Gold discovered at Bonanza Creek, in Klondike region of the Yukon

08/17/1939 "The Wizard of Oz" opens at Loew's Capitol Theater in NY

08/17/1950 Indonesia gains its independence.

08/18/1868 Pierre Janssen discovers helium in solar spectrum during eclipse

08/18/1914 Pres Wilson issues Proclamation of Neutrality

08/18/1963 James Meredith becomes 1st black graduate of Univ of Miss.

08/18/1976 USSR's Luna 24 softlands on the Moon

08/19/1826 Canada Co. chartered to colonize Upper Canada (Ontario).

08/19/1891 William Huggins describes use of spectrum in astronomy.

08/19/1960 Francis Gary Powers convicted of spying by USSR (U-2 incident)

08/19/1960 Sputnik 5 carries 3 dogs into orbit (recovered alive) Yeaaa!

08/19/1979 The crew of Soyuz 32 returns to Earth aboard Soyuz 34

08/19/1982 Soyuz T-7 is launched

08/20/1866 President Andrew Johnson formally declared the Civil War over

08/20/1920 US's first radio broadcaster, 8MK later WWJ, Detroit begins daily broadcasting.

08/20/1930 Dumont's 1st TV Broadcast for home reception, NY city

08/20/1940 Churchill says of the Royal Air Force, "Never in the field of human conflict was so much owed by so many to so few."

08/20/1942 WW II dimout regulations implemented in San Francisco.

08/20/1977 Voyager II launched.

08/21/1841 John Hampson patents the venetian blind

08/21/1959 Hawaii became the 50th state.

08/21/1965 Gemini 5 launched into earth orbit (2 astronauts)

08/21/1968 Soviet Union invades Czechoslovakia.

08/21/1968 William Dana reaches 80 km (last high-altitude X-15 flight)

08/21/1972 US orbiting astronomy observatory Copernicus is launched

08/22/1485 Richard III slain at Bosworth Field - Last of the Plantagenets

08/22/1787 John Fitch's steamboat completes its tests, years before Fulton

08/22/1851 Gold fields discovered in Australia

08/22/1963 Joe Walker in a NASA X-15, reaches 106 km (67 miles)

08/23/1833 Britain abolishes slavery in colonies; 700,000 slaves freed

08/23/1869 1st carload of freight (boots & shoes) arrives in San Francisco, from Boston, after a 16-day rail trip.

08/23/1919 "Gasoline Alley" cartoon strip premieres in Chicago Tribune

08/23/1957 Digital Equipment Corp. founded

08/23/1966 Lunar Orbiter 1 takes 1st photograph of earth from the moon

08/23/1973 First Intelsat communications satellite launched

08/23/1977 1st man-powered flight (Bryan Allen in Gossamer Condor)

08/24/0079 Mt. Vesuvius erupts; Pompeii & Herculaneum are buried

08/24/1814 British sack Washington, DC. Please, it needs it again!

08/24/1869 The Waffle Iron is invented.

08/24/1909 Workers start pouring concrete for the Panama Canal.

08/24/1932 1st transcontinental non-stop flight by a woman, AE Putnam

08/24/1956 1st non-stop transcontinental helicopter flight arrived Wash DC

08/24/1960 temp. drops to -88ø (-127ø F) at Vostok, Antarctica (world record)

08/24/1989 Voyager II passes Neptune, Triton, finds rings here too.

08/25/1689 Montreal taken by the Iroquois

08/25/1825 Uruguay gains its independence.

08/25/1929 Graf Zeppelin passes over San Francisco, headed for Los Angeles after trans-Pacific voyage from Tokyo.

08/25/1981 Voyager II flies past Saturn. sees not a few, but thousands of rings.

08/25/1981 Voyager 2 in its closest approach to Saturn,

08/26/1955 B.C. Roman forces under Julius Caesar invaded Britain.

08/26/1346 English longbows defeat French in Battle of Cr, cy

08/26/1629 Cambridge Agreement pledged. Massachusetts Bay Co. stockholders agreed to emigrate to New England.

08/26/1791 John Fitch granted a US patent for his working steamboat.

08/26/1846 W. A. Bartlett appointed 1st US mayor of Yerba Buena (SF).

08/26/1907 Houdini escapes from chains underwater at SF's Aquatic Park in 57 seconds.

08/26/1920 19th Amendment passes - Women's Suffrage granted (about time!)

08/26/1952 Fluoridation of San Francisco water begins.

08/26/1962 Mariner 2 launched for 1st planet flyby (Venus)

08/26/1973 Women's Equality Day

08/27/1776 Americans defeated by British in Battle of Long Island

08/27/1783 1st hydrogen-filled balloon ascent (unmanned)

08/27/1859 1st successful oil well drilled near Titusville, Penn.

08/27/1859 1st successful oil well drilled, near Titusville, Penn

08/27/1883 Krakatoa, Java explodes with a force of 1,300 megatons

08/27/1883 Krakatoa, WEST of Java, blew apart (Top that, St Helens).

08/27/1928 Kellogg-Briand Pact, where 60 nations agreed to outlaw war.

08/28/1565 St Augustine, Fla established

08/28/1609 Delaware Bay explored by Henry Hudson for the Netherlands

08/28/1789 William Herschel discovers Enceladus, satellite of Saturn

08/28/1828 Russian novelist Leo Tolstoy was born near Tula.

08/28/1907 United Parcel Service begins service, in Seattle

08/28/1917 10 suffragists were arrested as they picketed the White House

08/28/1965 Astronauts Cooper & Conrad complete 120 Earth orbits in Gemini 5

08/29/1526 Hungary conquered by Turks in Battle of Moh cs

08/29/1533 Last Incan King of Peru, Atahualpa, murdered by Spanish conquerors

08/29/1896 Chop suey invented in NYC by chef of visiting Chinese Ambassador

08/29/1949 USSR explodes its 1st atomic bomb

08/29/1954 San Francisco International Airport (SFO) opens.

08/30/1850 Honolulu, Hawaii becomes a city.

08/30/1979 1st recorded occurrence of a comet hitting the sun (the energy released was about equal to 1 million hydrogen bombs).

08/30/1983 8th Space Shuttle Mission - Challenger 3 is launched

08/30/1984 12th Space Shuttle Mission - Discovery 1 is launched

08/31/1842 US Naval Observatory is authorized by an act of Congress

08/31/1955 1st sun-powered automobile demonstrated, Chicago, IL

08/31/1977 Aleksandr Fedotov sets world aircraft altitude record of 38.26 km (125,524 ft) in a Mikoyan E-266M turbojet

08/31/1980 Solidarity Labor Union in Poland is founded.

09/01/1772 Mission San Luis Obispo de Tolosa founded in California

09/01/1807 Aaron Burr acquitted of charges of plotting to set up an empire.

09/01/1849 California Constitutional Convention held in Monterey.

09/01/1859 Carrington & Hodgson make first observation of a solar flare.

09/01/1878 1st woman telephone operator starts work (Emma Nutt in Boston).

09/01/1905 Alberta and Saskatchewan become 8th and 9th Canadian provinces.

09/01/1939 PHYSICAL REVIEW publishes first paper to deal with "black holes"

09/01/1939 Germany invades Poland, starting World War II.

09/01/1969 Moammar Gadhafi deposes Libya's King Idris

09/01/1977 First TRS-80 Model I computer is sold.

09/01/1979 Pioneer 11 makes 1st fly-by of Saturn, discovers new moon, rings

09/01/1983 A Korean Boeing 747, carrying 269 passengers, strays into Soviet air space and is shot down by a Soviet jet fighter.

09/01/1985 SS Titanic, sunk in 1912, is found by French & American scientists

09/02/1931 BC At the Battle of Actium; Octavian defeats Antony, and becomes the Emperor Augustus.

09/02/0490 BC Phidippides runs the first marathon, seeking aid from Sparta against the Persians.

09/02/1666 Great Fire of London starts; destroys St. Paul's Church

09/02/1789 US Treasury Department established by Congress

09/02/1804 Harding discovers Juno, the 3rd known asteroid

09/02/1898 Lord Kitchener retakes Sudan for Britain

09/02/1945 Vietnam declares independence from France (National Day)

09/02/1945 V-J Day; Japan formally surrenders aboard the USS Missouri.

09/02/1963 CBS & NBC expand network news from 15 to 30 minutes

09/03/1783 Treaty of Paris, ending the Revolutionary War, is signed.

09/03/1849 California State Constitutional Convention convenes in Monterey

09/03/1900 British annex Natal (South Africa)

09/03/1935 First automobile to exceed 300 mph, Sir Malcolm Campbell

09/03/1939 Britain declared war on Germany. France followed six hours later, quickly joined by Australia, New Zealand, South Africa & Canada

09/03/1940 First showing of high definition color television

09/03/1940 US gives Britain 50 destroyers in exchange for military bases

09/03/1976 US Viking 2 lands on Mars at Utopia

09/03/1978 Crew of Soyuz 31 returns to Earth aboard Soyuz 29

09/03/1985 20th Space Shuttle Mission - Discovery 6 returns to Earth

09/04/0476 Romulus Augustulus, last Roman emperor in the west, is deposed.

09/04/1609 Navigator Henry Hudson discovers the island of Manhattan.

09/04/1781 Los Angeles is founded in the Valley of Smokes (Indian Name).

09/04/1833 1st newsboy in the US hired (Barney Flaherty), by the NY Sun

09/04/1870 French republic proclaimed

09/04/1882 First district lit by electricity (NY's Pearl Street Station)

09/04/1886 Geronimo is captured, ending last major US-Indian war

09/04/1888 George Eastman patents 1st rollfilm camera & registers "Kodak".

09/04/1911 Garros sets world altitude record of 4,250 m (13,944 ft)

09/04/1918 US troops land in Archangel, Russia, stay 10 months

09/04/1933 First airplane to exceed 300 mph, JR Wendell, Glenview, Illinois

09/04/1950 First helicopter rescue of American pilot behind enemy lines.

09/04/1951 First transcontinental TV broadcast, by President Truman

09/04/1954 1st passage of McClure Strait, fabled Northwest Passage completed

09/04/1957 Ford introduces the Edsel.

09/04/1964 NASA launches its first Orbital Geophysical Observatory (OGO-1)

09/04/1972 US swimmer Mark Spitz is 1st athlete to win 7 olympic gold medals

09/04/1980 Iraqi troops seize Iranian territory in a border dispute.

09/05/1774 First Continental Congress assembles, in Philadelphia

09/05/1781 Battle of Virginia Capes, where the French Fleet defeats the British rescue fleet, trapping Cornwallis at Yorktown.

09/05/1885 1st gasoline pump is delivered to a gasoline dealer.

09/05/1953 First privately operated atomic reactor - Raleigh NC

09/05/1958 First color video recording on mag. tape shown, Charlotte NC

09/05/1977 Voyager II launched towards Jupiter and Saturn.

09/05/1978 Sadat, Begin and Carter began peace conference at Camp David, Md.

09/05/1980 World's longest auto tunnel, St. Gotthard in Swiss Alps, opens.

09/06/1628 Puritans land at Salem, form Massachusetts Bay Colony.

09/06/1716 First lighthouse in US built, in Boston

09/06/1869 First westbound train arrives in San Francisco.

09/06/1909 Word received: Peary discovered the North Pole five months ago.

09/06/1966 Star Trek appears on TV for the 1st time, on NBC. Beam me up!

09/07/1822 Brazil declares independence from Portugal (National Day).

09/07/1907 Sutro's ornate Cliff House in SF is destroyed by fire.

09/07/1948 First use of synthetic rubber in asphaltic concrete, Akron OH

09/07/1956 Bell X-2 sets Unofficial manned aircraft altitude record 126,000+

09/08/1380 Russians defeat Tatars at Kulikovo, beginning decline of Tatars.

09/08/1565 1st permanent settlement in US founded at St Augustine, Florida

09/08/1565 Turkish siege of Malta broken by Maltese & Knights of St. John.

09/08/1664 Dutch surrender New Amsterdam (NY) to English.

09/08/1771 Mission San Gabriel Archangel founded in California.

09/08/1858 Lincoln makes a speech describing when you can fool people.

09/08/1883 Northern Pacific RR's last spike driven at Independence Creek, Mo

09/08/1920 1st US Air Mail service begins.

09/08/1943 Italy surrenders to the allies in WW II

09/08/1945 US invades Japanese-held Korea.

09/09/1513 Battle of Flodden Fields; English defeat James IV of Scotland.

09/09/1776 Continental Congress authorizes the name "United States".

09/09/1839 John Herschel takes the first glass plate photograph

09/09/1850 California becomes the 31st state.

09/09/1867 Luxembourg gains independence.

09/09/1892 E.E.Barnard at Lick discovers Amalthea, 5th moon of Jupiter.

09/09/1926 NBC created by the Radio Corporation of America.

09/09/1942 First bombing of the continental US, at Mount Emily Oregon by a Japanese plane launched from a submarine.

09/09/1967 First successful test flight of a Saturn V rocket.

09/09/1975 Viking 2 launched toward orbit around Mars, soft landing.

09/09/1982 "Conestoga I", the world's first private rocket, is launched.

09/10/1608 John Smith elected president of Jamestown colony council, Va.

09/10/1813 Oliver H. Perry defeats the British in the Battle of Lake Erie

09/10/1846 Elias Howe receives patent for his sewing machine.

09/10/1919 NYC welcomes home Gen. John J. Pershing and 25,000 WW I soldiers

09/10/1945 Vidkun Quisling sentenced to death for collaborating with Nazis.

09/10/1953 Swanson sells its first "TV Dinner".

09/10/1955 "Gunsmoke" premieres on CBS television.

09/10/1963 Twenty black students enter public schools in Alabama.

09/10/1974 Guinea-Bissau gains independence from Portugal.

09/11/1777 Battle of Brandywine, PA - Americans lose to British.

09/11/1814 Battle of Lake Champlain, NY - British lose to Americans

09/11/1850 Jenny Lind, the "Swedish Nightingale", makes first US concert.

09/11/1910 1st commercially successful electric bus line opens, in Hollywood

09/11/1936 FDR dedicates Boulder Dam, now known as Hoover Dam

09/11/1944 FDR and Churchill meet in Canada at the second Quebec Conference

09/11/1946 First mobile long-distance, car-to-car telephone conversation.

09/11/1947 US Department of Defense is formed.

09/11/1950 First typesetting machine without metal type is exhibited.

09/11/1954 First Miss America TV broadcast

09/11/1967 US Surveyor 5 makes first chemical analysis of lunar material.

09/11/1972 BART begins service with a 26 mile line from Oakland to Fremont

09/11/1985 Pete Rose, Cincinnati Reds, gets hit 4,192 - eclipsing Ty Cobb.

09/12/0490 BC Athenians defeat 2nd Persian invasion of Greece at Marathon.

09/12/1609 Henry Hudson discovers what is now called the Hudson River.

09/12/1758 Charles Messier observes the Crab Nebula and begins catalog.

09/12/1941 First German ship in WW II is captured by US ship (Busko)

09/12/1953 Khrushchev becomes First Secretary of the Communist Party

09/12/1959 Luna 1 launched by USSR; 1st spacecraft to impact on the moon.

09/12/1959 Bonanza, horse opera, premiers on television

09/12/1966 Gemini XI launched

09/12/1970 Luna 16 launched; returns samples from Mare Fecunditatis

09/12/1974 Emperor Haile Selassie of Ethiopia overthrown.

09/13/1788 New York City becomes the capitol of the United States.

09/13/1906 First airplane flight in Europe.

09/13/1959 Soviet Lunik 2 becomes 1st human-made object to crash on moon.

09/13/1963 The Outer Limits premiers

09/14/1716 1st lighthouse in US is lit (in Boston Harbor).

09/14/1752 England and colonies adopt Gregorian calendar, 11 days disappear.

09/14/1812 Napoleon occupies Moscow.

09/14/1814 Francis Scott Key inspired to write 'The Star-Spangled Banner'.

09/14/1847 US troops capture Mexico City.

09/14/1886 The typewriter ribbon is patented.

09/14/1899 While in New York, Henry Bliss becomes 1st automobile fatality

09/14/1940 Congress passes 1st peace time draft law.

09/14/1956 First prefrontal lobotomy performed in Washington DC. Common now.

09/14/1964 Walt Disney awarded the Medal of Freedom at the White House

09/14/1968 USSR's Zond 5 is launched on first circum lunar flight

09/14/1974 Charles Kowal discovers Leda, 13th satellite of Jupiter.

09/15/1776 British forces occupy New York during the American Revolution.

09/15/1789 Department of Foreign Affairs is renamed the Department of State

09/15/1821 Costa Rica, El Salvador, Guatemala, Honduras & Nicaragua all gain their independence.

09/15/1917 Russia is proclaimed a republic by Alexander Kerensky

09/15/1947 First 4 engine jet propelled fighter plane tested, Columbus, Oh

09/15/1950 UN forces land at Inchon during Korean conflict.

09/15/1959 Soviet Premier Khrushchev arrives in US to begin a 13-day visit

09/15/1976 Soyuz 22 carries two cosmonauts into earth orbit for 8 days.

09/16/1620 The Mayflower departs from Plymouth, England with 102 pilgrims.

09/16/1630 Massachusetts village of Shawmut changes its name to Boston

09/16/1662 Flamsteed sees solar eclipse, 1st known astronomical observation

09/16/1795 British capture Capetown

09/16/1857 Patent is issued for the typesetting machine.

09/16/1893 Cherokee Strip, Oklahoma opened to white settlement homesteaders

09/16/1908 William Crapo Durant incorporates General Motors

09/16/1919 The American Legion is incorporated.

09/16/1945 Barometric pressure at 856 mb (25.55") off Okinawa (record low)

09/16/1966 Metropolitan Opera opens at New York's Lincoln Center

09/16/1968 Richard Nixon appears on Laugh-in

09/16/1972 First TV series about mixed marriage - Bridgit Loves Bernie.

09/16/1974 BART begins regular transbay service.

09/16/1974 Pres Ford announces conditional amnesty for Vietnam deserters

09/16/1975 Papua New Guinea gains independence from Australia.

09/16/1976 Episcopal Church approves ordination of women as priests & bishop

09/17/1776 The Presidio of San Francisco was founded as Spanish fort.

09/17/1787 The Constitution of The United States is adopted.

09/17/1789 William Herschel discovers Mimas, satellite of Saturn

09/17/1819 1st whaling ship arrives in Hawaii.

09/17/1908 Thomas Selfridge becomes 1st fatality of powered flight

09/17/1953 First successful separation of Siamese twins

09/17/1968 Zond 5 completes circumnavigation of the Moon

09/17/1972 BART begins passenger service

09/17/1978 Begin, Sadat and Carter sign the Camp David accord.

09/17/1985 Soyuz T-14 carries 3 cosmonauts to Salyut 7 space station

09/18/1755 Fort Ticonderoga, New York opened

09/18/1793 Washington lays cornerstone of Capitol building

09/18/1810 Chile gains its independence.

09/18/1851 "The New York Times" goes on sale, at 2 cents a copy.

09/18/1851 New York Times starts publishing, at 2¢ a copy

09/18/1927 Columbia Broadcasting System goes on the air.

09/18/1966 Gemini X is launched

09/18/1977 US Voyager I takes 1st space photograph of earth & moon together

09/18/1980 Soyuz 38 carries 2 cosmonauts (1 Cuban) to Salyut 6 space station

09/18/1984 Joe Kittinger completes 1st solo balloon crossing of Atlantic

09/19/1356 English defeat French at Battle of Poitiers

09/19/1796 George Washington's presidential farewell address

09/19/1812 Napoleon's retreat from Russia begins

09/19/1848 Bond (US) & Lassell (England) independently discover Hyperion

09/19/1849 First commercial laundry established, in Oakland, California.

09/19/1873 Black Friday: Jay Cooke & Co. fails, causing a securities panic

09/19/1968 Baby born on Golden Gate Bridge (those Marin County folk!).

09/19/1982 Streetcars stop running on Market St after 122 years of service

09/20/1519 Magellan starts 1st successful circumnavigation of the world.

09/20/1797 US frigate "Constitution" (Old Ironsides) launched in Boston.

09/20/1859 Patent granted on the electric range.

09/20/1884 Equal Rights Party founding convention in San Francisco, nominated female candidates for President, Vice President.

09/20/1945 German rocket engineers begin work in US

09/20/1951 First North Pole jet crossing

09/20/1954 First FORTRAN computer program is run

09/20/1970 Luna 16 lands on Moon's Mare Fecunditatis, drills core sample

09/21/1784 1st daily newspaper in US begins publication in Pennsylvania.

09/21/1895 1st auto manufacturer opens -- Duryea Motor Wagon Company.

09/21/1930 Johann Ostermeyer patents his invention, the flashbulb.

09/21/1954 The nuclear submarine "Nautilus" is commissioned.

09/21/1958 1st airplane flight exceeding 1200 hours, lands at Dallas Texas

09/21/1964 Malta gains independence from Britain

09/21/1974 US Mariner 10 makes second fly-by of Mercury

09/21/1981 Sandra Day O'Connor becomes the 1st female Supreme Court Justice

09/21/1982 SF cable cars cease operations for 2 years of repairs

09/22/1789 The US Post Office was established.

09/22/1863 President Lincoln makes his Emancipation Proclamation speech.

09/22/1893 1st auto built in US (by Duryea brothers) runs in Springfield

09/22/1903 Italo Marchiony granted a patent for the ice cream cone

09/22/1980 War between Iran and Iraq begins, lasts eight years. No winner.

09/23/1779 Naval engagement between 'Bonhomme Richard' and 'HMS Serepis'.

09/23/1780 John Andre reveals Benedict Arnold's plot to betray West Point.

09/23/1846 Johann Galle & Heinrich d'Arrest find Neptune

09/23/1912 First Mack Sennett "Keystone Comedy" movie is released.

09/23/1932 Kingdom of Saudi Arabia formed, (National Day)

09/23/1952 First closed circuit pay-TV telecast of a sports event.

09/23/1952 Richard Nixon makes his "Checker's" speech

09/23/1973 Largest known prime, $2^{132,049} - 1$, is calculated.

09/24/1789 Congress creates the Post Office.

09/24/1845 1st baseball team is organized.

09/24/1852 A new invention, the dirigible, is demonstrated.

09/24/1853 1st round-the-world trip by yacht (Cornelius Vanderbilt).

09/24/1869 Black Friday: crashing gold prices causes stock market panic.

09/24/1895 1st round-the-world trip by a woman on a bicycle (took 15 months)

09/24/1929 Lt James H Doolittle guided a Consolidated N-Y-2 Biplane over Mitchell Field in NY in the 1st all-instrument flight

09/24/1934 Babe Ruth makes his farewell appearance as a baseball player

09/24/1941 Nine Allied govts pledged adherence to the Atlantic Charter

09/24/1954 "The Tonight Show" premieres.

09/24/1957 Eisenhower orders US troops to desegregate Little Rock schools

09/24/1960 USS Enterprise, 1st nuclear-powered aircraft carrier, launched

09/24/1963 Senate ratifies treaty with Britain & USSR limit nuclear testing

09/24/1979 CompuServe system starts, first public computer info service.

09/25/1493 Columbus sails on his second voyage to America

09/25/1513 Vasco Nunez de Balboa, the 1st European to see the Pacific Ocean

09/25/1639 First printing press in America goes to work.

09/25/1789 Congress proposes the Bill of Rights.

09/25/1890 Congress establishes Yosemite National Park.

09/25/1926 Henry Ford announces the five day work week

09/25/1956 First transatlantic telephone cable goes into operation

09/25/1973 3-man crew of Skylab II make safe splashdown after 59 days.

09/26/1542 Cabrillo discovers California

09/26/1687 Parthenon destroyed in war between Turks & Venetians

09/26/1789 Jefferson appointed 1st Sec of State; John Jay 1st chief justice; Samuel Osgood 1st Postmaster & Edmund J Randolph 1st Attorney Gen

09/26/1824 Kapiolani defies Pele (Hawaiian volcano goddess) and lives.

09/26/1896 John Philip Sousa's Band's first performance in Plainfield, NJ

09/26/1914 Federal Trade Commission formed to regulate interstate commerce

09/26/1950 UN troops in Korean War recaptured South Korean capital of Seoul

09/26/1966 Japan launches its 1st satellite in to space

09/26/1966 The Staten Island is 1st icebreaker to enter SF bay

09/26/1983 Australia II wins The America's Cup yacht race

09/26/1983 Cosmonauts Titov & Strelakov are saved from exploding Soyuz T-10

09/27/1540 Society of Jesus (Jesuits) founded by Ignatius Loyola

09/27/1787 Constitution submitted to the states for ratification

09/27/1825 Railroad transportation is born with 1st track in England.

09/27/1941 First WWII liberty ship, freighter Patrick Henry, is launched

09/27/1964 Warren Commission finds that Lee Harvey Oswald acted alone. Ha!

09/27/1973 Soyuz 12 launched

09/28/1066 William the Conqueror landed in England

09/28/1542 Juan Cabrillo discovers California, at San Diego Bay.

09/28/1781 Siege of Yorktown begins, last battle of the Revolutionary War

09/28/1858 Donati's comet becomes the 1st to be photographed

09/28/1920 Baseball's biggest scandal, grand jury indicts 8 White Sox for throwing the 1919 World Series with the Cincinnati Reds

09/28/1924 2 US Army planes completed 1st around the world flight

09/28/1965 Jack McKay in X-15 reaches 90 km

09/28/1970 Anwar Sadat replaces Nasser as President of Egypt

09/29/1829 Scotland Yard formed in London

09/29/1859 Spectacular auroral display visible over most of the US

09/29/1923 Steinhart Aquarium in Golden Gate Park opens to public.

09/29/1977 Soviet space station Salyut 6 launched into earth orbit

09/30/1452 1st book published, Johann Guttenberg's Bible

09/30/1659 Robinson Crusoe is shipwrecked (according to Defoe)

09/30/1781 siege of Yorktown begins

09/30/1846 William Morris 1st tooth extraction under anesthetics Charlestown

09/30/1880 Henry Draper takes the first photograph of the Orion Nebula

09/30/1898 City of New York is established

09/30/1939 1st manned rocket flight (by auto maker Fritz von Opel)

09/30/1967 USSR's Kosmos 186 & 188 complete the 1st automatic docking

09/30/1967 Palace of Fine Arts reopens (1st time during 1915 exposition)

10/01/0331 BC Alexander of Macedon defeats Persian army at Gaugamela

10/01/1869 1st postcards are issued in Vienna.

10/01/1896 Yosemite becomes a National Park.

10/01/1903 1st World Series starts between the National & American Leagues

10/01/1908 Henry Ford introduces the Model T car.

10/01/1940 Pennsylvania Turnpike, pioneer toll thruway, opens.

10/01/1949 People's Republic of China proclaimed (National Day)

10/01/1952 first Ultra High Frequency (UHF) TV station, in Portland, Oregon

10/01/1958 Vanguard Project transferred from military to NASA

10/01/1960 Nigeria gains its independence.

10/01/1962 Johnny Carson's Tonight Show and The Lucy Show both premier.

10/01/1962 National Radio Astronomy Observatory gets a 300' radio telescope

10/01/1964 Cable Cars declared a National Landmark.

10/01/1971 Walt Disney World in Orlando, Florida opens.

10/01/1979 US returns Canal Zone, not the canal, to Panama after 75 years.

10/02/1608 Hans Lippershey offers the Dutch a new invention - the telescope

10/02/1836 Darwin returns to England aboard the HMS Beagle.

10/02/1870 Italy annexes Rome & the Papal States; Rome made Italian capital

10/02/1889 first Pan American conference.

10/02/1935 NY Hayden Planetarium, the 4th in the US, opens

10/02/1936 first alcohol power plant established, Atchison, Kansas

10/02/1942 first self-sustaining nuclear reaction demonstrated, in Chicago.

10/02/1950 The comic strip 'Peanuts' first appears, in nine newspapers.

10/02/1958 Guinea gains its independence.

10/02/1967 Thurgood Marshall is sworn as first black Supreme Court Justice

10/03/1789 Washington proclaims the 1st national Thanksgiving Day on Nov 26

10/03/1863 Lincoln designates the last Thursday in November as Thanksgiving

10/03/1913 Federal Income Tax is signed into law (at 1%).

10/03/1932 Iraq gains full independence from Britain

10/03/1942 Launch of the first A-4 (V-2) rocket to altitude of 53 miles

10/03/1947 first 200 inch telescope lens is completed.

10/03/1955 Captain Kangaroo premieres. Good Morning, Captain!

10/03/1960 San Francisco's White House department store is first to accept the BankAmericard in lieu of cash.

10/03/1962 Wally Schirra in Sigma 7 launched into earth orbit

10/03/1967 AF pilot Pete Knight flies the X-15 to a record 4,534 MPH.

10/04/1636 first code of law for Plymouth Colony

10/04/1824 Mexico becomes a republic

10/04/1926 The dahlia is officially designated as the SF City Flower.

10/04/1957 USSR launches Sputnik, the first artificial earth satellite.

10/04/1958 Transatlantic jet passenger service begins

10/04/1959 USSR's Luna 3 sends back first photos of Moon's far side

10/04/1960 Courier 1B Launched: first active repeater satellite in orbit

10/04/1966 Lesotho (Basutoland) gains independence from Britain

10/04/1985 21st Space Shuttle Mission - Atlantis 1 is launched

10/05/1908 Bulgaria declares independence from Turkey

10/05/1910 Portugal overthrows monarchy, proclaims republic

10/05/1921 first radio broadcast of the World Series.

10/05/1923 Edwin Hubble identifies the first Cepheid variable star

10/05/1931 first nonstop transpacific flight, Japan to Washington state

10/05/1970 PBS becomes a network. TV worth watching.

10/05/1982 Unmanned rocket sled reaches 9,851 kph at White Sands, N. Mexico

10/05/1984 Challenger carries first Canadian, Marc Garneau, into orbit.

10/06/1889 Thomas Edison shows his first motion picture.

10/06/1927 "The Jazz Singer", 1st movie with a sound track, premieres.

10/06/1959 Soviet Luna 3, first successful photo spacecraft, impacts moon.

10/06/1973 Egypt and Syria invade Israel - The Yom Kippur war

10/07/1571 Turkish fleet defeated by Spanish & Italians in Battle of Lepanto

10/07/1765 The Stamp Act Congress convenes in New York

10/07/1777 British defeated by Americans at the Battle of Saratoga

10/07/1826 Granite Railway (1st chartered railway in US) begins operations

10/07/1931 first infra-red photographis taken, in Rochester, NY

10/07/1949 Democratic Republic of Germany (East) is formed.

10/07/1959 Luna 3 photographs the far side of the moon.

10/07/1968 Motion Picture Association of America adopts film rating system.

10/08/1604 The supernova called "Kepler's nova" is first sighted.

10/08/1871 The Great Fire destroys over 4 square miles of Chicago.

10/08/1896 Dow Jones starts reporting an average of industrial stocks

10/08/1933 San Francisco's Coit Tower is dedicated to firefighters.

10/08/1935 Ozzie & Harriet Nelson are married.

10/08/1970 Alexander Solzhenitsyn is awarded the Nobel Prize for Literature.

10/09/1000 Leif Ericson discovers "Vinland" (possibly New England)

10/09/1635 Religious dissident Roger Williams banished from Mass Bay Colony

10/09/1776 Mission Delores is founded by San Francisco Bay.

10/09/1888 Public admitted to Washington Monument.

10/09/1936 Hoover Dam begins transmitting electricity to Los Angeles

10/09/1962 Uganda gains independence from Britain (National Day).

10/09/1975 Andrei Sakharov wins the Nobel Peace Prize

10/10/1845 US Naval academy opens at Annapolis, Maryland

10/10/1846 Neptune's moon Triton discovered by William Lassell

10/10/1911 The Manchu Dynasty is overthrown in China.

10/10/1933 first synthetic detergent for home use marketed

10/10/1963 Nuclear Atmospheric Test Ban treaty is signed by US, UK, USSR.

10/10/1964 18th Summer Olympic Games opened in Tokyo.

10/10/1970 Fiji gains independence from Britain (National Day).

10/10/1973 VP Spiro T. Agnew pleads no contest to tax evasion & resigns.

10/10/1975 Israel formally signs Sinai accord with Egypt

10/10/1980 Very Large Array (VLA) radio telescope network dedicated.

10/10/1985 US jets force Egyptian plane carrying hijackers of Italian ship Achille Lauro to land in Italy. Gunmen are placed in custody.

10/11/1797 British naval forces defeat Dutch off Camperdown, Netherlands

10/11/1811 "Juliana", the first steam-powered ferryboat, begins operation.

10/11/1890 Daughters of the American Revolution founded.

10/11/1958 Pioneer 1 launched; first spacecraft launched by NASA

10/11/1968 Apollo 7 launched, first of the manned Apollo missions.

10/11/1969 Soyuz 6 launched; Soyuz 7 & 8 follow in next two days.

10/11/1980 Cosmonauts Popov & Ryumin set space endurance record of 184 days

10/11/1984 Kathy Sullivan becomes first American woman to walk in space.

10/11/1987 200,000 gays march for civil rights in Washington.

10/12/1492 Columbus arrives in the Bahamas; the real Columbus Day.

10/12/1957 first commercial flight between California and Antarctica.

10/12/1960 Nikita Khrushchev pounds his shoe at UN General Assembly session.

10/12/1963 Archaeological dig begins at Masada, Israel

10/12/1964 USSR launches first 3-man crew into space

10/12/1968 Equatorial Guinea gains independence from Spain.

10/12/1972 Mariner 9 takes pictures of the Martian north pole. No Santa.

10/12/1985 International Physicians for the Prevention of Nuclear War get the Nobel Peace Prize.

10/13/1775 Continental Congress establishes a navy

10/13/1792 George Washington lays the cornerstone of the Executive Mansion

10/13/1969 Soyuz 8 is launched

10/13/1985 13th Space Shuttle Mission - Challenger 6 is launched

10/13/1987 1st military use of trained dolphins, by US Navy in Persian Gulf.

10/14/1066 Battle of Hastings, in which William the Conqueror wins England

10/14/1774 1st declaration of colonial rights in America.

10/14/1947 Chuck Yeager makes 1st supersonic flight, Mach 1.015 at 12,800m.

10/15/1860 Grace Bedell writes to Lincoln, tells him to grow a beard.

10/15/1914 ASCAP founded (American Soc of Composers, Authors & Publishers)

10/15/1964 Kosygin & Brezhnev replace Soviet premier Nikita Khrushchev

10/16/1846 Dentist William T. Morton demonstrates the effectiveness of ether

10/16/1859 John Brown attacks the armory at Harper's Ferry.

10/16/1869 A hotel in Boston becomes the 1st to have indoor plumbing.

10/16/1916 Margaret Sanger opens first birth control clinic, in New York.

10/16/1962 Cuban missile crisis begins: JFK learns of missiles in Cuba.

10/16/1964 Brezhnev & Kosygin replace Khrushchev as head of Russia

10/16/1964 China becomes world's 5th nuclear power

10/16/1970 Anwar Sadat becomes president of Egypt, succeeds Gamal Nassar.

10/16/1973 Henry Kissinger & Le Duc Tho jointly awarded Nobel Peace Prize

10/16/1978 Polish Cardinal Karol Wojtyla elected supreme pontiff-John Paul I

10/16/1982 Mt Palomar Observatory 1st to detect Halley's comet 13th return

10/16/1982 Shultz warns US will withdraw from UN if it excludes Israel.

10/16/1985 Intel introduces 32-bit 80386 microcomputer chip.

10/17/1492 Columbus sights the isle of San Salvador.

10/17/1777 British General John Burgoyne surrenders at Saratoga, NY

10/17/1781 Cornwallis defeated at Yorktown.

10/17/1919 the Radio Corporation of America (RCA), is created.

10/17/1931 Al Capone is sentenced to 11 years in prison for tax evasion.

10/17/1933 Albert Einstein arrives in the US, a refugee from Nazi Germany.

10/17/1941 1st American destroyer torpedoed in WW II, USS Kearny off Iceland

10/17/1973 The Arab oil embargo begins. It will last until March, 1974.

10/17/1977 West German commandos storm hijacked Lufthansa plane in Mogadishu Somalia, freeing 86 hostages & kill three of the four hijackers.

10/17/1979 Mother Teresa of India was awarded the Nobel Peace Prize

10/17/1989 Destructive 7.1 earthquake strikes Northern California.

10/18/1685 Louis XIV revokes Edict of Nantes, outlaws Protestantism.

10/18/1867 US takes formal possession of Alaska from Russia (\$7.2 million).

10/18/1869 The United States take possession of Alaska.

10/18/1873 The Ivy League establishes rules for college football.

10/18/1892 1st commercial long-distance phone line opens (Chicago - NYC)

10/18/1922 British Broadcasting Corporation, the BBC, is established.

10/18/1962 Watson of US, Crick & Wilkins of Britain win Nobel Prize for Medicine for work in determining the structure of DNA.

10/18/1967 Soviet Venera 4 is the first probe to send data back from Venus

10/18/1968 US Olympic Committee suspended Tommie Smith & John Carlos, for giving 'black power' salute as a protest during victory ceremony

10/18/1968 Robert Beaman of US broad jumps a record 8.90 m. Still stands.

10/19/1781 Cornwallis surrenders at 2PM, the fighting is over.

10/19/1845 Wagner's opera Tannhäuser performed for the first time.

10/19/1879 Thomas A. Edison successfully demonstrates the electric light

10/19/1967 Mariner 5 flies by Venus

10/19/1968 Golden Gate Bridge charges tolls only for southbound cars.

10/20/1600 Battle of Sekigahara, which established the Tokugawa clan as rulers of Japan (SHOGUN) until 1865 (basis of Clavell's novel).

10/20/1740 Maria Theresa becomes ruler of Austria, Hungary & Bohemia

10/20/1803 the Senate ratifies the Louisiana Purchase.

10/20/1818 US & Britain agree to joint control of Oregon country.

10/20/1820 Spain gives Florida to the United States.

10/20/1906 Dr Lee DeForest gives a demonstration of his radio tube.

10/20/1944 MacArthur returns to the Philippines, says "I have returned."

10/20/1979 John F. Kennedy Library dedicated in Boston.

10/21/1797 US Navy frigate Constitution, Old Ironsides, launched in Boston

10/21/1805 Battle of Trafalgar, where Nelson established British naval supremacy for the next century.

10/21/1868 Severe earthquake at 7:53AM.

10/21/1879 Thomas Edison commercially perfects the light bulb.

10/21/1897 Yerkes Observatory of the University of Chicago is dedicated.

10/21/1918 Margaret Owen sets world typing speed record of 170 wpm for 1 min

10/21/1923 Deutsches Museum, Walther Bauersfeld's first Zeiss Planetarium.

10/21/1945 Women in France allowed to vote for the first time

10/21/1975 Venera 9, 1st craft to orbit the planet Venus launched

10/21/1976 Saul Bellow wins Nobel Prize for Literature

10/21/1977 US recalls William Bowdler, ambassador to South Africa

10/22/1746 Princeton University in New Jersey received its charter.

10/22/1797 Andr.-Jacques Garnerin makes 1st parachute jump from balloon

10/22/1836 Sam Houston inaugurated as 1st elected pres of Republic of Texas

10/22/1953 Laos gains full independence from France.

10/22/1962 Pacific Science Center opens at Seattle Center.

10/22/1962 JFK imposes naval blockade on Cuba, beginning missile crisis.

10/22/1975 Soviet spacecraft Venera 9 lands on Venus

10/22/1981 US National debt topped \$1 TRILLION (nothing to celebrate).

10/22/1981 Professional Air Traffic Controllers Organization is decertified.

10/22/4004 B.C. Universe created at 8:00 PM, according to the 1650 pronouncement of Anglican archbishop James Ussher.

10/23/1910 Blanche Scott becomes first woman solo a public airplane flight

10/23/1915 25,000 women march in New York, demanding the right to vote

10/23/1941 Walt Disney's "Dumbo" is released

10/23/1946 UN Gen Assembly convenes in NY for 1st time in Flushing Meadow.

10/23/1956 The ill-fated revolt in Communist Hungary starts, later crushed by Soviet tanks.

10/23/1958 Soviet novelist Boris Pasternak, wins Nobel Prize for Literature

10/23/1977 By 2/3 majority, Panamanians vote to approve a new Canal Treaty

10/23/1980 Soviet Premier Alexei Kosygin resigns, due to illness.

10/24/1836 the match is patented.

10/24/1851 William Lassell discovers Ariel & Umbriel, satellites of Unranus.

10/24/1901 Anna Taylor, first to go over Niagara Falls in a barrel & live

10/24/1929 "Black Thursday," the beginning of the stock market crash.

10/24/1945 United Nations Charter goes into effect.

10/24/1964 Zambia (Northern Rhodesia) gains independence from Britain

10/24/1973 Yom Kippur War ends, Israel 65 miles from Cairo, 26 from Damascus

10/25/1415 Battle of Agincourt, Welsh longbow defeats the armored knight

10/25/1671 Giovanni Cassini discovers Iapetus, satellite of Saturn.

10/25/1675 Iapetus, moon of Saturn, Discovered by Giovanni Cassini

10/25/1825 Erie Canal opens for business in New York.

10/25/1854 The Light Brigade charges (Battle of Balaklava) (Crimean War)

10/25/1903 Senate begins investigating Teapot Dome scandals of Harding admin

10/25/1960 first electronic wrist watch placed on sale, New York

10/25/1971 UN General Assembly admits Mainland China & expels Taiwan.

10/25/1971 Roy Disney dedicates Walt Disney World

10/25/1975 USSR Venera 10 made day Venus landing

10/25/1983 US invades Grenada, a country of 1/2000 its population.

10/26/1825 Erie Canal between Hudson River & Lake Erie opened

10/26/1861 Telegraph service inaugurated in US (end of Pony Express).

10/26/1863 Soccer rules standardized; rugby starts as a separate game.

10/26/1881 Shootout at the OK corral, in Tombstone, Arizona.

10/26/1903 "Yerba Buena" is 1st Key System ferry to cross San Francisco Bay.

10/26/1949 Pres Truman increases minimum wage - from 40 cents to 75 cents.

10/26/1956 International Atomic Energy Agency established.

10/26/1957 Vatican Radio begins broadcasting

10/26/1958 PanAm flies the first transatlantic jet trip: New York to Paris.

10/26/1968 Soyuz 3 is launched

10/26/1970 the "Doonesbury" comic strip debuts in 28 newspapers

10/26/1972 Guided tours of Alcatraz (by Park Service) begin.

10/26/1979 St. Vincent & the Grenadines gains independence from Britain.

10/26/1984 "Baby Fae" gets a baboon heart in an experimental transplant in Loma Linda, CA. She will live for 21 days with the animal heart.

10/27/1787 The 'Federalist' letters started appearing in NY newspapers.

10/27/1795 Treaty of San Lorenzo, provides free navigation of Mississippi

10/27/1858 RH Macy & Co. opens 1st store, on 6th Avenue, New York City.

10/27/1896 1st Pali Road completed in Hawaii (the Pali is a cliff where the winds are so strong streams flow UP! Honest!).

10/27/1938 DuPont announces its new synthetic fiber will be called 'nylon'

10/27/1961 first Saturn makes an unmanned flight test

10/27/1971 Republic of the Congo becomes Zaire.

10/27/1972 Golden Gate National Recreation Area created.

10/27/1978 Menachim Begin & Anwar Sadat win the Nobel Peace Prize

10/28/1492 Columbus discovers Cuba.

10/28/1636 Harvard University founded.

10/28/1793 Eli Whitney applies for patent for the cotton gin.

10/28/1886 Grover Cleveland dedicates the Statue of Liberty.

10/28/1904 St. Louis Police try a new investigation method - fingerprints.

10/28/1918 Czechoslovakia declares independence from Austria.

10/28/1919 Volstead Act passed by Congress, starting Prohibition.

10/28/1922 Benito Mussolini takes control of Italy's government.

10/28/1962 Krushchev orders withdrawal of Cuban missiles

10/28/1965 Pope Paul VI says Jews not collectively guilty for crucifixion.

10/28/1965 Gateway Arch (190 meters high) completed in St. Louis, Missouri.

10/28/1970 US/USSR signed an agreement to discuss joint space efforts

10/28/1971 England becomes 6th nation to have a satellite (Prospero) in orbit

10/29/0539 BC Babylon falls to Cyrus the Great of Persia.

10/29/1682 Pennsylvania granted to William Penn by King Charles II.

10/29/1727 a severe earthquake strikes New England.

10/29/1833 1st College Fraternity founded.

10/29/1863 International Committee of the Red Cross founded: It has been awarded Nobel Prizes in 1917, 1944 and 1963.

10/29/1863 Intl Comm. of the Red Cross founded (Nobel 1917, 1944, 1963).

10/29/1923 Turkey is proclaimed to have a republican government.

10/29/1929 "Black Tuesday", the Stock Market crash.

10/29/1939 Golden Gate International Exposition closes (1st closure).

10/29/1956 "Goodnight, David" "Goodnight, Chet" heard on NBC for 1st time. (Chet Huntley & David Brinkley, team up on NBC News).

10/30/1270 the 8th and last crusade is launched.

10/30/1864 Helena, capital of Montana, founded.

10/30/1905 Tsar Nicholas II grants Russia a constitution.

10/30/1938 Orson Welles panics nation with broadcast: "War of the Worlds"

10/30/1945 US govt announces end of shoe rationing.

10/30/1953 General George C. Marshall is awarded Nobel Peace Prize.

10/30/1953 Dr. Albert Schweitzer receives Nobel Peace Prize for 1952.

10/30/1961 Soviet Union detonates a 58 megaton hydrogen bomb

10/30/1961 Soviet Party Congress unanimously approves a resolution removing Josef Stalin's body from Lenin's tomb in Red Square.

10/30/1967 USSR Kosmos 186 & 188 make 1st automatic docking

10/30/1978 Laura Nickel & Curt Noll find 25th Mersenne prime, $2^{21701} - 1$.

10/30/1985 space shuttle Challenger carries 8 crewmen (2 Germans, 1 Dutch).

10/31/1517 Martin Luther posts his 95 Theses, begins Protestant Reformation

10/31/1864 Nevada admitted as 36th state.

10/31/1922 Benito Mussolini (Il Duce) becomes premier of Italy.

10/31/1952 first thermonuclear bomb detonated - Marshall Islands

10/31/1959 Lee Harvey Oswald announces in Moscow he will never return to US

11/01/1870 US Weather Bureau begins operations.

11/01/1943 WW II Dimout ban lifted in San Francisco Bay area.

11/01/1952 first hydrogen bomb exploded at Eniwetok Atoll in the Pacific.

11/01/1981 First Class Mail raised from 18 to 20 cents.

11/02/1917 Lansing-Ishii Agreement

11/02/1920 KDKA (Pittsburgh) on the air as 1st commercial radio station.

11/02/1947 Howard Hughes' Spruce Goose flies for 1st (& last) time.

11/02/1948 Truman beats Dewey, confounding pollsters and newspapers.

11/03/1620 Great Patent granted to Plymouth Colony

11/03/1903 Panama gains its independence from Columbia.

11/03/1917 First Class Mail now costs 3 cents.

11/03/1952 Charles Birdseye markets frozen peas.

11/03/1956 the Wizard of Oz is first televised.

11/03/1957 USSR launches the dog "Laika": the first animal in orbit

11/03/1973 Mariner 10 launched-first Venus pics, first mission to Mercury

11/03/1978 UK grants Dominica independence (National Day)

11/03/1979 63 Americans taken hostage at American Embassy in Teheran, Iran

11/03/1986 Lebanese magazine Ash Shirra reveals secret US arms sales to Iran

11/04/1854 Lighthouse established on Alcatraz Island

11/04/1922 Howard Carter discovers the tomb of Tutankhamen.

11/04/1924 1st woman governor in US elected in Wyoming.

11/04/1984 Nicaragua holds 1st free elections in 56 years; Sandinistas win 63%

11/05/1605 Plot to blow up British parliament fails - first Guy Fawkes day

11/05/1781 John Hanson elected 1st "President of the United States in Congress assembled" (8 years before Washington was elected).

11/05/1875 Susan B Anthony is arrested for attempting to vote

11/05/1895 1st US patent granted for the automobile, to George B Selden

11/05/1967 ATS-3 launched by US to take 1st pictures of full Earth disc

11/06/1844 Spain grants Dominican Rep independence

11/06/1860 Abraham Lincoln is elected the 16th president.

11/06/1862 1st Direct Telegraphic link between New York and San Francisco

11/06/1869 1st intercollegiate football game played (Rutgers 6, Princeton 4

11/06/1917 the Russian Bolshevik revolution begins.

11/06/1939 WGY-TV (Schenectady NY), 1st commercial-license station begins

11/06/1962 Nixon tells press he won't be available to kick around any more

11/07/1805 Lewis and Clark first sighted the Pacific Ocean.

11/07/1811 Battle of Tippecanoe, gave Harrison a presidential slogan.

11/07/1872 Mary Celeste sails from NY to Genoa; found abandoned 4 weeks later

11/07/1875 Verney Cameron is 1st European to cross equatorial Africa from sea to sea.

11/07/1885 Canada completes its own transcontinental railway.

11/07/1917 October Revolution overthrows Russian Provisional Government

11/07/1918 Goddard demonstrates tube-launched solid propellant rocket

11/07/1983 Bomb explodes in US Capitol, causing heavy damage but no injuries

11/08/1793 The Louvre, in Paris, is opened to the public.

11/08/1889 Montana admitted as 41st state

11/08/1895 Wilhelm Röntgen discovers x-rays

11/08/1923 Hitler's "Beer Hall Putsch" failed, In jail, writes "Mein Kampf"

11/08/1939 Life with Father, opens on Broadway, closes in 1947, a record.

11/08/1984 14th Space Shuttle Mission - Discovery 2 is launched

11/09/1799 Napoleon becomes dictator (1st consul) of France

11/09/1865 Lee surrenders to Grant at Appomattox ending the US Civil War.

11/09/1953 Cambodia (now Kampuchea) gains independence within French Union

11/09/1965 at 5:16pm, a massive power failure blacks out New Engl. & Ontario

11/09/1967 first unmanned Saturn V flight to test Apollo 4 reentry module

11/10/1775 US Marine Corps established by Congress

11/10/1801 Kentucky outlaws dueling

11/10/1864 Austrian Archduke Maximilian became emperor of Mexico

11/10/1871 Stanley presumes to meet Livingston in Ujiji, Central Africa.

11/10/1891 1st Woman's Christian Temperance Union meeting held (in Boston)

11/10/1945 Nazi concentration camp at Buchenwald is liberated by US troops.

11/10/1951 1st Long Distance telephone call without operator assistance.

11/10/1968 USSR launches Zond 6 to moon

11/10/1969 Sesame Street premiers

11/10/1970 Luna 17, with unmanned self-propelled Lunokhod 1, is launched

11/10/1975 Ore ship Edmund Fitzgerald lost in a storm on Lake Superior

11/10/1980 Voyager I flies past Saturn, sees many rings, moons.

11/11/1620 41 Pilgrims sign a compact aboard the Mayflower

11/11/1889 Washington admitted as the 42nd state.

11/11/1918 Armistice Day -- WW I ends (at 11AM on the Western Front)

11/11/1921 President Harding dedicates the Tomb of The Unknown Soldier.

11/11/1924 Palace of Legion of Honor in San Francisco is dedicated.

11/11/1939 Kate Smith first sings Irving Berlin's "God Bless America"

11/11/1965 Rhodesia proclaims independence from Britain

11/11/1966 Gemini 12 is launched on a four day flight.

11/11/1975 Portugal grants independence to Angola (National Day).

11/11/1980 Crew of Soyuz 35 returns to Earth aboard Soyuz 37

11/11/1982 Space Shuttle 'Columbia' makes the first commercial flight.

11/11/1987 Van Gogh's "Irises" sells for record \$53.6 million at auction

11/12/1918 Austria becomes a republic

11/12/1927 Trotsky expelled from Soviet CP; Stalin is now total dictator.

11/12/1933 first known photo of Loch Ness monster (or whatever) is taken

11/12/1936 Oakland Bay Bridge opened.

11/12/1946 First "autobank" (banking by car) was established, in Chicago

11/12/1954 Ellis Island, immigration station in NY Harbor, closed

11/12/1965 Venera 2 launched by Soviet Union toward Venus

11/12/1965 Venera 2 launched by Soviet Union toward Venus

11/12/1980 US space probe Voyager I comes within 77,000 miles of Saturn

11/12/1981 First time a spacecraft is launched twice -- the Space Shuttle "Columbia" lifts off again.

11/12/1981 first balloon crossing of Pacific completed (Double Eagle V)

11/12/1984 Space shuttle astronauts snare a satellite: first space salvage.

11/13/1849 Peter Burnett is elected 1st governor of California.

11/13/1921 The Sheik, starring Rudolph Valentino, was released.

11/13/1937 NBC forms first full symphony orchestra exclusively for radio.

11/13/1940 Walt Disney's "Fantasia" is released

11/13/1956 Supreme Court strikes down segregation on public buses.

11/13/1971 Mariner 9, is the first space ship to orbit another planet, Mars.

11/13/1982 Vietnam War Memorial dedicated in Washington DC

11/14/1666 Samuel Pepys reports the first blood transfusion (between dogs)

11/14/1792 George Vancouver is first Englishman to enter San Francisco Bay

11/14/1832 first streetcar appears, in New York

11/14/1851 "Moby Dick", by Herman Melville, is published.

11/14/1889 Nellie Bly beats Phineas Fogg's time for a trip around the world by 8 days (72 days).

11/14/1910 1st airplane flight from the deck of a ship.

11/14/1922 BBC begins domestic radio service

11/14/1935 FDR proclaims the Philippines are a free commonwealth.

11/14/1959 Kilauea's most spectacular eruption (in Hawaii).

11/14/1969 Apollo 12 is launched

11/15/1777 Continental Congress approves the Articles of Confederation

11/15/1869 Free Postal Delivery formally inaugurated.

11/15/1881 American Federation of Labor (AFL) is founded in Pittsburgh

11/15/1920 League of Nations holds 1st meeting, in Geneva

11/15/1926 National Broadcasting Company goes on-the-air, with 24 stations

11/15/1939 Social Security Administration approves 1st unemployment check.

11/15/1949 KRON (Channel 4, San Francisco) signs on, from 7 to 10 PM.

11/16/1532 Pizarro seizes Incan emperor Atahualpa

11/16/1864 Sherman begins his march to sea thru Georgia

11/16/1907 Oklahoma becomes the 46th state

11/16/1933 Roosevelt establishes diplomatic relations with the Soviet Union

11/16/1965 Venera 3 launched, 1st land on another planet (Crashes on Venus)

11/16/1973 Skylab 4 launched into earth orbit. Look out Australia!

11/17/1558 Elizabeth I ascends English throne upon death of Queen Mary

11/17/1800 Congress convened for its 1st Washington, DC session.

11/17/1869 Suez Canal opens.

11/17/1913 Panama Canal opens for use.

11/17/1970 Russia lands unmanned remote-controlled vehicle on Moon

11/17/1977 Egyptian President Sadat accepts an invitation to visit Israel.

11/18/1497 Bartolomeu Dias discovers Cape of Good Hope

11/18/1820 Antarctica discovered by US Navy Captain Nathaniel B. Palmer.

11/18/1903 Hay-Bunau-Varilla Treaty, gave US canal rights thru Panama

11/18/1913 Lincoln Deachey performs the first airplane loop-the-loop

11/18/1918 Latvia declares independence from Russia

11/18/1928 Mickey Mouse debuts in New York in "Steamboat Willy"

11/18/1936 Main span of the Golden Gate Bridge is joined.

11/19/1493 Christopher Columbus discovers Puerto Rico.

11/19/1620 Mayflower pilgrims reach Cape Cod

11/19/1863 Lincoln delivers his famous address in Gettysburg. Expecting a long speech, the photographer wasn't ready before Lincoln left.

11/19/1895 The pencil is invented.

11/19/1919 Treaty of Versailles & League of Nations rejected by US Senate

11/19/1959 Ford cancels Edsel

11/19/1970 Golden Gate Park Conservatory becomes a State Historical Landmark

11/19/1977 Egyptian President Anwar Sadat arrives in Israel.

11/20/1789 New Jersey becomes the first state to ratify the Bill of Rights.

11/20/1888 William Bundy invents the first timecard clock.

11/20/1910 Revolution breaks out in Mexico, led by Francisco Madero.

11/20/1914 The State Department starts requiring photographs for passports

11/20/1931 Commercial teletype service began

11/20/1947 Britain's Princess Elizabeth, marries Duke Philip Mountbatten

11/20/1953 first airplane to exceed 1300 mph - Scott Crossfield.

11/20/1977 Egyptian Pres Sadat is 1st Arab leader to address Israel Knesset

11/20/1980 Steve Patek in Solar Challenger makes 1st solar-powered flight

11/20/1986 UN's WHO announces 1st global effort to combat AIDS.

11/21/1789 NC becomes 12th state

11/21/1933 first US ambassador is sent to the USSR - WC Bullitt

11/21/1959 Jack Benny(Violin) & Richard Nixon(Piano) play their famed duet

11/21/1964 the world's longest suspension bridge, Verrazano Narrows, opens.

11/22/1906 The International Radio Telegraphic Convention adopts "SOS" as the new call for help.

11/22/1943 Lebanon gains its independence (would that it could keep it)

11/22/1963 President John F. Kennedy is assassinated in Dallas.

11/23/1852 Just past midnight an earthquake makes Lake Merced drop 30 feet

11/23/1863 Patent granted for a process of making color photographs.

11/23/1948 Lens to provide zoom effects patented - FG Back

11/23/1948 a patent is granted for the first zoom lens to F.G. Back

11/24/1759 Destructive eruption of Vesuvius

11/24/1874 Patent granted to Joseph Glidden for barbed wire.

11/24/1963 first live murder on TV - Jack Ruby shoots Lee Harvey Oswald.

11/24/1971 "D B Cooper" parachutes from a Northwest 727 with \$200,000.

11/25/1783 Britain evacuate New York, their last military position in US

11/25/1866 Alfred Nobel invents dynamite.

11/25/1884 John B Meyenberg of St Louis patents evaporated milk

11/25/1960 first atomic reactor for research & development, Richland WA.

11/25/1975 Netherlands grants Surinam independence (National Day)

11/25/1983 Soyuz T-9 returns to Earth, 149 days after take-off

11/26/1716 first lion to be exhibited in America (Boston)

11/26/1778 Captain Cook discovers Maui (in the Sandwich Islands).

11/26/1789 first national celebration of Thanksgiving

11/26/1865 Alice in Wonderland is published

11/26/1949 India adopts a constitution as a British Commonwealth Republic

11/26/1965 France launches first satellite, a 92-pound A1 capsule

11/26/1966 first major tidal power plant opened at Rance estuary, France

11/26/1985 23rd Space Shuttle Mission - Atlantis 2 is launched

11/27/1095 Pope Urban II preaches for the First Crusade

11/27/1582 the first Advent Sunday

11/27/1895 Alfred Nobel establishes the Nobel Prize

11/27/1910 New York's Penn Station opens - world's largest railway terminal

11/27/1951 first rocket to intercept an airplane, White Sands, NM

11/27/1971 Soviet Mars 2, is the first to crash land on Mars.

11/27/1985 Space shuttle Atlantis carries the first Mexican astronaut.

11/28/1520 Magellan begins crossing the Pacific Ocean.

11/28/1895 America's auto race starts: 6 cars, 55 miles, winner avgd 7mph

11/28/1912 Albania declares independence from Turkey

11/28/1929 Admiral RE Byrd makes first flight over the South Pole

11/28/1960 Mauritania gains independence from France (National Day)

11/28/1964 Mariner 4 launched; first probe to fly by Mars

11/28/1983 9th Space Shuttle Mission - Columbia 6 is launched

11/28/1986 Reagan administration exceeds SALT II arms agreement for 1st time

11/29/1887 US receives rights to Pearl Harbor, on Oahu, Hawaii.

11/29/1890 1st Army-Navy football game. Score: Navy 25, Army 0.

11/29/1945 Yugoslav Republic Day is first proclaimed.

11/29/1951 first underground atomic explosion, Frenchman Flat, Nevada

11/29/1961 Mercury 5 launches a chimp (Ham/Enos)

11/29/1975 Kilauea Volcano erupts in Hawaii

11/30/1939 USSR invades Finland over a border dispute

11/30/1954 first meteorite known to have struck a woman - Sylacauga Alabama

11/30/1958 first guided missile destroyer launched, the "Dewey", Bath, ME

11/30/1964 USSR launches Zond 2 towards Mars

11/30/1966 Barbados gains independence from Britain

11/30/1967 South Yemen (then Aden) gains independence from Britain

12/01/1640 Portugal becomes independent of Spain

12/01/1821 Santo Domingo (Dominican Rep) proclaims independence from Spain

12/01/1913 1st drive-up gasoline station opens, in Pittsburgh.

12/01/1917 Father Edward Flanagan founds Boys Town

12/01/1918 Iceland becomes independent state under the Danish crown

12/01/1922 first skywriting over the US: "Hello USA" by Capt Turner, RAF.

12/01/1929 Bingo invented by Edwin S Lowe

12/01/1951 Golden Gate Bridge closed because of high winds.

12/01/1958 Central African Republic established (National Day)

12/01/1959 first color photograph of Earth is received from outer space.

12/01/1967 Queen Elizabeth inaugurates 98-inch Isaac Newton Telescope

12/02/1804 Napoleon becomes the first French emperor, crowning himself.

12/02/1805 Napoleon defeats Russians & Austrians at Austerlitz

12/02/1816 1st savings bank in US opens as the Philadelphia Savings Fund

12/02/1823 President James Monroe declares his doctrine.

12/02/1942 1st controlled nuclear reaction at University of Chicago.

12/02/1957 first commercial atomic electric power plant goes to work in PA.

12/02/1971 Soviet Mars 3 is first to soft land on Mars

12/02/1975 Lao People's Democratic Republic founded (National Day)

12/02/1982 1st permanent artificial heart successfully implanted.

12/03/1621 Galileo invents the telescope.

12/03/1954 Joseph McCarthy goes too far in his attacks and is condemned by the U.S. Senate. Not well remembered.

12/03/1967 1st human heart transplant performed, in Capetown, South Africa

12/03/1973 Pioneer 10 passes Jupiter (first fly-by of an outer planet).

12/03/1985 23rd Shuttle Mission - Atlantis 2 returns to Earth

12/04/1783 Gen. Washington bids his officers farewell at Fraunce's Tavern,

12/04/1912 Roald Amundsen reaches South pole

12/04/1915 Panama Pacific International Exposition opens.

12/04/1965 Gemini 7 launched with 2 astronauts

12/05/1492 Columbus discovers Hispaniola

12/05/1776 Phi Beta Kappa, 1st American scholastic fraternity, founded.

12/05/1978 Pioneer Venus 1 begins orbiting Venus

12/06/1492 Haiti discovered by Columbus

12/06/1534 Quito, Ecuador is founded by the Spanish

12/06/1631 first predicted transit of Venus is observed, by Kepler.

12/06/1882 Atmosphere of Venus detected during transit

12/06/1917 Finland gains its independence, from Russia.

12/06/1957 1st US attempt to launch a satellite - Vanguard rocket blows up.

12/07/1787 Delaware ratifies the Constitution, becomes the first state.

12/07/1842 the New York Philharmonic plays its first concert.

12/07/1941 first Japanese submarine sunk by American ship (USS Ward)

12/07/1941 Pearl Harbor is attacked ("A day that will live in infamy.")

12/07/1960 France grants the Ivory Coast independence (National Day)

12/07/1972 Apollo 17, last of the Apollo moon series, launched.

12/08/1931 Coaxial cable is patented

12/09/1792 the first cremation in the US

12/09/1793 Noah Webster establishes New York's 1st daily newspaper.

12/09/1907 1st Christmas Seals sold, in the Wilmington Post Office.

12/09/1961 Tanganyika gains independence from Britain

12/09/1978 Pioneer Venus 2 drops 5 probes into atmosphere of Venus

12/10/1520 Martin Luther publicly burns the papal edict demanding he recant.

12/10/1817 Mississippi becomes 20th state

12/10/1869 Women granted right to vote in Wyoming Territory

12/10/1898 Spanish-American War ends - US acquires Guam from Spain

12/10/1901 first Nobel Peace Prizes (to Jean Henri Dunant, Fr,d,ric Passy).

12/10/1906 Theodore Roosevelt (first American) awarded Nobel Peace Prize.

12/10/1920 President Woodrow Wilson receives Nobel Peace Prize.

12/10/1948 UN Genl Assembly adopts Universal Declaration on Human Rights

12/10/1950 Ralph J. Bunche (1st black American) presented Nobel Peace Prize

12/10/1963 Zanzibar gains independence from Britain

12/10/1975 A. Sakharov's wife Yelena Bonner, accepts his Nobel Peace Prize.

12/10/1982 Soyuz T-5 returns to Earth, 211 days after take-off

12/10/1986 Holocaust survivor Elie Wiesel accepts 1986 Nobel Peace Prize

12/11/1816 Indiana becomes 19th state

12/11/1917 German-occupied Lithuania proclaims independence from Russia

12/11/1932 Snow falls in San Francisco.

12/11/1946 UN Children's Fund (UNICEF) established (Nobel 1965)

12/11/1958 Upper Volta (now Bourkina Fasso) gains autonomy from France

12/11/1975 First Class Mail now costs 13 cents (had been 10 cents).

12/12/1787 Pennsylvania becomes the 2nd state

12/12/1871 Jules Janssen discovers dark lines in solar corona spectrum

12/12/1901 Marconi receives 1st trans-Atlantic radio signal: England to US.

12/12/1937 the first mobile TV unit, in New York.

12/12/1963 Kenya gains its independence from Britain (National Day).

12/12/1964 Russia launches Voshkod I, 1st multi-crew in space (3 men)

12/13/1903 Wright brothers first airplane flight at Kittyhawk.

12/13/1918 Wilson becomes 1st to make a foreign visit while President.

12/13/1920 Interferometer used to measure 1st stellar diameter (Betelgeuse)

12/13/1974 Maltese Republic Day is declared.

12/13/1978 Susan B. Anthony dollar, 1st US coin to honor a woman, issued.

12/13/1981 Solidarity Day, in Poland.

12/14/1819 Alabama becomes 22nd state

12/14/1911 South Pole 1st reached by Amundsen.

12/14/1962 Mariner 2 makes 1st US visit to another planet (Venus)

12/15/1791 Bill of Rights ratified when Virginia gave its approval.

12/15/1859 G.R. Kirchoff describes chemical composition of sun

12/15/1877 Thomas Edison patents the phonograph.

12/15/1939 the first commercial manufacture of nylon yarn.

12/15/1964 American Radio Relay League, is founded. Dit-Dah.

12/15/1965 first rendezvous in space: Gemini 6 and Gemini 7 link up.

12/15/1971 USSR's Venera 7 becomes the first craft to land on Venus.

12/15/1984 USSR launches Vega 1 for rendezvous with Halley's Comet

12/16/1689 English Parlimnt adopts Bill of Rights after Glorious Revolution

12/16/1773 Big Tea Party in Boston Harbor. Indians most welcome.

12/16/1893 Antonin Dvor k's New World Symphony premieres

12/16/1905 "Variety", covering all phases of show business, 1st published.

12/16/1907 Great White Fleet sails from Hampton Downs on its World Cruise

12/16/1965 Gemini VI returns to Earth

12/17/1538 Pope Paul III excommunicates England's King Henry VIII

12/17/1777 France recognizes independance of the 13 colonies in America.

12/17/1790 an Aztec calendar stone is discovered in Mexico City.

12/17/1791 New York City traffic regulation creates the 1st one-way street

12/17/1843 Charles Dickens's classic, "A Christmas Carol" is published.

12/17/1903 1st sustained motorized air flight at 10:35AM, for 12 seconds, by the Wright Brothers (of course).

12/17/1933 1st professional football game: Chicago Bears vs. NY Giants.

12/17/1969 Tiny Tim and Miss Vicki are married on network television in front of 50 million underwhelmed viewers.

12/17/1979 Budweiser rocket car hits 1190 kph (record for wheeled vehicle)

12/18/1787 New Jersey becomes the 3rd state

12/18/1849 William Bond takes first photograph of moon through a telescope

12/18/1865 13th Amendment ratified, slavery abolished

12/18/1958 first voice from space: Christmas message by Eisenhower

12/18/1958 Niger gains autonomy within French Community (National Day)

12/18/1961 India annexes Portuguese colonies of Goa, Damao & Diu

12/18/1965 Borman & Lovell splash down, ending 2 week Gemini VII orbit.

12/18/1969 Britain abolishes the death penalty

12/18/1985 UN Security Council unanimously condemns acts of hostage-taking

12/19/1686 Robinson Crusoe leaves his island after 28 years (as per Defoe)

12/19/1732 Benjamin Franklin begins publication of "Poor Richard's Almanack"

12/19/1777 Washington settles his troops at Valley Forge for the winter.

12/19/1842 US recognizes the independence of Hawaii

12/19/1889 Bishop Museum founded in Hawaii.

12/19/1932 the BBC begins transmitting overseas.

12/19/1946 War breaks out in Indochina as Ho Chi Minh attacks the French.

12/19/1971 NASA launches Intelsat 4 F-3 for COMSAT Corp

12/19/1986 USSR frees dissident Andrei Sakharov from internal exile

12/20/1606 Virginia Company settlers leave London to establish Jamestown

12/20/1699 Peter the Great orders Russian New Year changed: Sept 1 to Jan 1

12/20/1790 first successful US cotton mill, in Pawtucket, Rhode Island

12/20/1803 Louisiana Purchase officially transferred from France to the US.

12/20/1820 Missouri imposes a \$1 bachelor tax on unmarried men from 21-50

12/20/1860 South Carolina becomes the first state to secede from the union.

12/20/1892 the pneumatic automobile tire is patented

12/20/1892 Phileas Fogg completes around world trip, according to Verne

12/20/1919 Canadian National Railways established (longest on continent with more than 50,000 kilometers of track in US & Canada)

12/20/1922 14 states form the Union of Soviet Socialist Republics.

12/20/1939 Radio Australia starts shortwave service

12/21/1620 The pilgrims land at Plymouth Rock.

12/21/1913 1st crossword puzzle (with 32 clues), printed in New York World

12/21/1937 the first feature-length cartoon with color and sound premieres, "Snow White and the Seven Dwarfs". Still one of the best.

12/21/1968 Apollo 8 (Borman, Lovell, Anders), first manned moon voyage

12/21/1973 Israel, Egypt, Syria, Jordan, US & USSR meet in Geneva: peace?

12/22/1964 Lockheed SR-71 spy aircraft reaches 3,530 kph (record for a jet)

12/23/1672 Giovanni Cassini discovers Rhea, a satellite of Saturn

12/23/1690 John Flamsteed sees Uranus but doesn't realize it's undiscovered

12/23/1920 Ireland is divided into two parts, each with its own parliament

12/23/1947 Transistor invented by Bardeen, Brattain & Shockley at Bell Labs

12/23/1968 Borman, Lovell & Anders are the first men to orbit the moon.

12/23/1973 six Persian Gulf nations double their oil prices

12/23/1975 Congress passes Metric Conversion Act

12/23/1986 Rutan & Yeager make 1st around-the-world flight without refueling

12/24/1582 Vasco daGama Day

12/24/1814 Treaty of Ghent signed, ending War of 1812 (this news did not arrive until after the Battle of New Orleans).

12/24/1818 "Silent Night" is composed by Franz Gruber and sung next day

12/24/1851 Library of Congress burns, 35,000 volumes are destroyed.

12/24/1865 Confederate veterans form the Ku Klux Klan in Pulaski, TN

12/24/1871 Giuseppe Verdi's "Aida" premieres in Cairo, at Suez canal opening

12/24/1906 the first radio program is broadcast, in Brant Rock, Mass

12/24/1920 Enrico Caruso gave his last public performance

12/24/1936 first radioactive isotope medicine administered, Berkeley, CA

12/24/1951 Libya gains independence from Italy

12/24/1966 Soviet Luna 13 lands on moon

12/24/1968 Apollo 8 astronauts broadcast seasons greetings from the moon.

12/25/0336 first recorded celebration of Christmas on Dec. 25: in Rome

12/25/1066 William the Conqueror was crowned king of England

12/25/1776 Washington crosses the Delaware and surprises the Hessians.

12/25/1868 Despite bitter opposition, Johnson grants unconditional pardons to everyone involved in the Southern rebellion (the Civil War).

12/25/1926 Hirohito becomes Emperor of Japan

12/25/1939 Montgomery Ward introduces Rudolph the 9th reindeer

12/26/1492 first Spanish settlement in the new world founded, by Columbus.

12/26/1865 James Mason invents the 1st American coffee percolator.

12/26/1933 US foreswears armed intervention in Western Hemisphere. Ha!

12/27/1825 first public steam railroad completed in England.

12/27/1831 Darwin begins his voyage onboard the HMS Beagle.

12/27/1903 "Sweet Adaline", a barbershop quartet favorite, is 1st sung.

12/27/1932 Radio City Music Hall in New York City opens.

12/27/1934 the first youth hostel is opened, in Northfield, Mass

12/27/1945 International Monetary Fund established-World Bank founded

12/27/1979 Soviet troops invade Afghanistan

12/28/1669 A patent for chewing gum is granted to William Semple.

12/28/1846 Iowa becomes the 29th state

12/28/1890 Battle of Wounded Knee, SD - Last major conflict with Indians

12/28/1902 Trans-Pacific cable links Hawaii to US.

12/28/1912 San Francisco Municipal Railway starts operation at Geary St. (MUNI was the 1st municipally-owned transit system)

12/29/1845 Texas becomes the 28th state

12/29/1848 Gas lights installed at White House for 1st time

12/29/1911 San Francisco Symphony formed.

12/29/1931 Identification of heavy water publicly announced, HC Urey

12/29/1937 Pan Am starts San Francisco to Auckland, New Zealand service.

12/29/1949 first UHF TV station operating regular basis, Bridgeport CT

12/29/1952 first transistorized hearing aid offered for sale, Elmsford NY

12/30/1809 Wearing masks at balls is forbidden in Boston

12/30/1817 first coffee planted in Hawaii

12/30/1853 Gadsden Purchase 45,000 sq miles by Gila River from Mexico for \$10 million. Area is now southern Arizona & New Mexico

12/30/1924 Edwin Hubble announces existence of other Milky Way systems

12/30/1938 Electronic television system patented, VK Zworykin

12/30/1975 Democratic Republic of Madagascar founded

12/31/1600 British East India Company chartered

12/31/1744 James Bradley announces earth's motion of nutation (wobbling).

12/31/1857 Queen Victoria chooses Ottawa as new capital of Canada

12/31/1862 Union ironclad ship "Monitor" sinks off Cape Hatteras, NC

12/31/1879 Cornerstone laid for Iolani Palace (only royal palace in US).

12/31/1879 Edison gives public demonstration of his incandescent lamp.

12/31/1890 Ellis Island opens as a US immigration depot

12/31/1946 President Truman officially proclaims the end of World War II

12/31/1961 Marshall Plan expires after distributing more than \$12 billion

12/31/1974 US citizens allowed to buy & own gold for 1st time in 40 years

12/31/1999 Control of the Panama Canal reverts to
Panama

SampleFileWriter.java

```
/* File: SampleFileWriter.java
```

This program demonstrates writing to an ASCII text file using the `FileWriter` class (textbook: page 673). This program handles exceptions that might be thrown to it by enclosing I/O methods in try/catch blocks.

This program does not generate output to the screen (other than a potential error message). Get a directory listing to look for the output file (`SampleFileWriter.txt`), and use your text editor to look at the file.

```
*/

import java.io.*;

public class SampleFileWriter
{
    public static void main(String[] args)
    {
        FileWriter file;

        try                                // put calls to I/O methods in try/catch blocks
        {
            file=new FileWriter("SampleFileWriter.txt");
        }
        catch(Exception e)
        {
            System.out.println("Error opening file");
            return;                        // if exception is encountered, leave the method
        }

        try
        {
            file.write("Hello world.\nThis is a test.\n\nThank your for your business.\n");
        }
        catch(Exception e)
        {
            System.out.println("Error writing to file");
        }

        try
        {
```

```
        file.close();
    }
    catch(Exception e)
    {
        System.out.println("Error closing file");
    }
}
}
```

GUI1.java

/* File: GUI1.java

This is a JFrame-based (GUI) Java application.

GUI1 sub-classes (extends) the Java class hierarchy, defining a new class that is a sub-class (child) of the JFrame class.

The class hierarchy, from top to GUI1, consists of the following classes:

```
java.lang.Object
|--java.awt.Component
   |--java.awt.Container
      |--java.awt.Window
         |--java.awt.Frame
            |--javax.swing.JFrame
               |--GUI1
```

The corresponding class declarations for the classes shown in this hierarchy include:

```
class Object
class Component extends Object
class Container extends Component
class Window extends Container
class Frame extends Window
class JFrame extends Frame
class GUI1 extends JFrame
```

GUI1 inherits methods and properties from its super-classes. It also uses classes that are available in the java.awt and javax.swing packages.

Inherited methods used by GUI1:

- setSize() inherited from the Component class
- setTitle() inherited from the Frame class
- setVisible() inherited from the Component class

```
*/
```

```
import javax.swing.*;
```

```
public class GUI1 extends JFrame                      // sub-class the JFrame class
{
    public static void main(String[] args)            // main() method; execution starts here
    {
        new GUI1();                                    // instantiate a GUI1 object (call its constructor)
    }

    public GUI1()                                      // constructor for the GUI1 class
    {
        JTextArea display;                            // define a JTextArea object (from javax.swing package)

        this.setTitle("Title for GUI1");            // setTitle() is inherited from superclass
        this.setSize(400,600);                      // as is setSize(); operate on current GUI1 object

        display=new JTextArea();                    // instantiate a JTextArea object
        this.add(display);                            // add the object to the current GUI1 object

        this.setVisible(true);                      // switch to GUI and display frame

        for(int i=1;i<=10;i++)
        {
            display.append(i+"\n");                    // append string to display object
        }
    }
}
```


GUI2a.java

```
/* File: GUI2a.java
```

GUI2a demonstrates the use of a layout manager to arrange (and maintain the arrangement of) widgets on the screen. Java has several Layout Managers:

- FlowLayout
- GridLayout
- BorderLayout
- GridBagLayout

This program uses the FlowLayout layout manager.

GUI2a demonstrates placing several GUI components (widgets) on the screen (into a frame). It demonstrates the use of three different widgets, each of which is a class defined in the javax.swing package:

- JLabel
- JTextField
- JButton

GUI2a demonstrates event-driven programming by responding to a button click in the program. The program implements the ActionListener interface by defining an actionPerformed() method. The ActionListener interface has one abstract method: actionPerformed. To implement an interface, you must provide a definition for each of the interfaces abstract methods.

Java uses a delegation-based event-handling model. You can place various Event Sources on your layout (GUI application). Most components (JButtons, JTextFields, etc) can be Event Sources. You then register an Event Listener for each Event Source. An Event Listener is anything that implements one of the Listener interfaces. In this example, for instance, GUI2a implements ActionListener, so GUI2a "is a" ActionListener. It can, therefore, be used as an ActionListener, registered to listen for events on an Event Source.

To incorporate event-handling in your program, you need to do four things:
import classes and interfaces from the awt.event package
include "implements ActionListener" in your class declaration (so that your class
"is a" ActionListener)

actually implement the ActionListener interface -- over-ride the actionPerformed() method
register an Event Listener for any desired Event Source

```
*/
```

```
import java.awt.event.*;           // for the ActionListener interface
import java.awt.*;                 // for the layout managers
import javax.swing.*;              // for the GUI swing components

public class GUI2a extends JFrame implements ActionListener
{
    private JTextField startText,stopText,sumText;
    private JButton    calcButton,doneButton;

    public static void main(String[] args)
    {
        new GUI2a();               // instantiate a GUI2a object
    }

    public GUI2a()                 // the constructor for the GUI2a class
    {
        this.setLayout(new FlowLayout());    // set "this" GUI2a's layout manager to FlowLayout

        this.setTitle("Title for GUI2a");    // setTitle of "this" GUI2a object
        this.setSize(600,350);

        this.add(new JLabel("starting value:"));    // add a JLabel object to the frame

        startText=new JTextField(10);              // instantiate a JTextField object
        this.add(startText);                        // add to frame

        this.add(new JLabel("ending value:"));      // add another JLabel object

        stopText=new JTextField(10);                // and another JTextField object
        this.add(stopText);

        this.add(new JLabel("sum:"));              // another JLabel object

        sumText=new JTextField(10);                // another JTextField object
```

```

sumText.setEditable(false);           // use method to prevent editing of this object
this.add(sumText);

calcButton=new JButton("Calculate");   // instantiate JButton object
calcButton.addActionListener(this);    // register this GUI2a object as Event Listener
                                     // for calcButton (Event Source)

this.add(calcButton);

doneButton=new JButton("Quit");        // another button
doneButton.addActionListener(this);    // register Event Listener for this Event Source
this.add(doneButton);

this.setVisible(true);                 // make frame visible
}

public void actionPerformed(ActionEvent e) // event-handling method, receives(ActionEvent) object
{
    if(e.getSource()==this.calcButton)    // check source of event that occurred
    {
        // was it calcButton?
        int start,stop,sum;                // define three int variables

        start=Integer.parseInt(startText.getText()); // convert startText value to int
        stop =Integer.parseInt(stopText.getText());
        sum=0;                             // initialize sum

        for(int i=start;i<=stop;i++)        // loop to calculate sum
        {
            sum=sum+i;
        }

        sumText.setText(Integer.toString(sum)); // set text of sumText TextField object for display
    }

    if(e.getSource()==doneButton)          // was event caused by doneButton?
    {
        System.exit(0);                    // quit program
    }
}
}

```

GUI2b.java

```
/* File: GUI2b.java
```

GUI2b uses the GridLayout Layout Manager. It reads events from Trivia.fil and displays today's Trivia events in a JTextArea (it uses the Date class to get the current date). Since Trivia.fil contains records with fixed-length fields, the program uses the String class's substring() method to extract individual fields from the records.

This program also implements an additional event listener, WindowListener. The WindowListener interface includes seven methods. To implement this interface, you must over-ride all seven of these methods. This program is actually interested in only one of the methods, windowClosing. This program provides code for when the user clicks on the little X in the top right corner of the window to close the window.

```
*/
```

```
import java.awt.*;           // for the layout managers
import java.awt.event.*;     // for the listener interfaces
import javax.swing.*;        // for the GUI swing components
import java.util.*;          // for the Date class
import java.io.*;            // for the I/O classes
```

```
public class GUI2b extends JFrame implements ActionListener, WindowListener
{
    private JButton  triviaButton, clearButton, quitButton; // define three JButton objects
    private JTextArea display;                               // and a JTextArea for output

    public static void main(String[] args)
    {
        new GUI2b();
    }

    public GUI2b()
    {
        this.setTitle("Title for GUI2b");
        this.setSize(600,350);
    }
}
```

```

this.setLayout(new GridLayout(2,1));          // set layout manager of the GUI2b
                                              // object to GridLayout (2 rows, 1 column)

Panel topPanel=new Panel();                  // instantiate a Panel (container) to hold
                                              // three buttons for the top of the GridLayout
topPanel.setLayout(new GridLayout(1,3));      // set the Panel's layout manager

triviaButton=new JButton("Show Trivia");      // instantiate JButton object
triviaButton.addActionListener(this);         // register Event Listener
topPanel.add(triviaButton);                  // add button to Panel container

clearButton=new JButton("Clear");
clearButton.addActionListener(this);
topPanel.add(clearButton);

quitButton=new JButton("Quit");
quitButton.addActionListener(this);
topPanel.add(quitButton);

this.add(topPanel);                          // add Panel to the Frame

display=new JTextArea();                     // instantiate JTextArea object
display.setEditable(false);                  // prevent user editing of the TextArea
this.add(display);                           // add textArea to Frame

this.addWindowListener(this);                // register WindowListener

this.setVisible(true);
}

public void actionPerformed(ActionEvent e)    // event-handling method, receives ActionEvent object
{
    if(e.getSource()==this.triviaButton)      // check source of event that occurred
    {                                           // was it the triviaButton Button object?

        Date date=new Date();                  // instantiate a Date object (deprecated)
        int todayMonth=date.getMonth()+1;      // getMonth returns 0-11 (increment by 1)
        int todayDay=date.getDate();           // day of the month (1-31)
    }
}

```

```

int listCount=0;                // initialize a counter

                                // initialize a string
String string="On "+todayMonth+"/"+todayDay+", the following events happened:\n";

try                            // put I/O stuff in a try/catch block
{
    BufferedReader in=new BufferedReader(new FileReader("Trivia.fil")); // data file is now open

    String record=in.readLine();    // attempt to read next record
    while(record!=null)            // execute loop if record was read
    {
        int thisMonth=Integer.parseInt(record.substring(0,2)); // extract month and day from record
        int thisDay=Integer.parseInt(record.substring(3,5));    // convert from String to int

        if(todayMonth==thisMonth && todayDay==thisDay) // is this trivia event for today?
        {
            string=string+record.substring(6,10)+"\t"+record.substring(12)+"\n";
            listCount++;
        }

        record=in.readLine();        // attempt to read next record
    }
    in.close();                      // close the file

}
catch(Exception ex)                // catch any exceptions
{
    display.setText("error attempting to process Trivia.fil\n"+ex.toString());
    return;
}

string=string+"\n"+listCount+" trivia events listed\n";
display.setText(string);
}

if(e.getSource()==this.clearButton) // was event caused by clearButton?
{
    display.setText("");              // clear the textArea
}

```

```

if(e.getSource()==this.quitButton)           // was event caused by quitButton?
{
    System.exit(0);                           // quit program
}
}

public void windowActivated(WindowEvent e)      // define WindowListener's seven abstract methods
{
}
public void windowClosed(WindowEvent e)
{
}
public void windowClosing(WindowEvent e)
{
    System.exit(0);
}
public void windowDeactivated(WindowEvent e)
{
}
public void windowDeiconified(WindowEvent e)
{
}
public void windowIconified(WindowEvent e)
{
}
public void windowOpened(WindowEvent e)
{
}
}

```

GUI2c.java

```
/* File: GUI2c.java
```

GUI2c uses BorderLayout as the Layout Manager. It provides a JTextField, into which the user can enter a customer number (it responds to pressing Enter in the textfield).

The program reads the records in Customer.dat to find the matching customer, and displays customer information in a JTextArea.

Since Customer.dat contains variable-length, delimited fields, this program uses the String class's split method to split the records apart into their fields.

This program uses a Panel object as a sub-Container. The Panel may have its own Layout Manager. You may add Components to the Panel, then add the Panel to your Frame.

 $\ast/$

```
import java.awt.*;  
import java.awt.event.*;  
import javax.swing.*;  
import java.io.*;
```

```
public class GUI2c extends JFrame implements ActionListener
```

```
{
    private JTextField custNumText;
    private JTextArea display;
    private JButton quitButton;
```

```
public static void main(String[] args)
```

```
{
    new GUI2c();
}
```

```
public GUI2c()
```

```
{
    this.setTitle("Title for GUI2c");
    this.setSize(600,350);
```

```
this.setLayout(new BorderLayout());           // set Frame's Layout Manager
```

```
Panel topPanel=new Panel();           // instantiate a Panel object (container)
```

[illegible]


```

custNumText=new JTextField(10);           // instantiate a JTextField for input
custNumText.addActionListener(this);      // respond to Enter in textfield
topPanel.add(custNumText);

this.add(topPanel,BorderLayout.NORTH);    // add Panel to top of Frame

display=new JTextArea();                  // instantiate JTextArea for output
this.add(display,BorderLayout.CENTER);    // add textArea to center of Frame

quitButton=new JButton("Quit");           // instantiate a JButton
quitButton.addActionListener(this);       // respond to button click
this.add(quitButton,BorderLayout.SOUTH);  // add to bottom of frame

this.setVisible(true);
}

public void actionPerformed(ActionEvent e)
{
    if(e.getSource()==this.custNumText)   // was textfield the event source?
    {
        try                               // put I/O stuff in a try/catch block
        {
            // get customer number from textfield
            int customerNumber=Integer.parseInt(this.custNumText.getText());
            boolean flag=false;            // set a flag to false

            BufferedReader in=new BufferedReader(new FileReader("Customer.dat")); // open data file

            String record=in.readLine();    // attempt to read next record
            while(record!=null)             // execute loop if record was read
            {
                String[] fields=record.split("\t"); // split record apart based on delimiter
                int thisNumber=Integer.parseInt(fields[0]); // convert first field to int

                if(customerNumber==thisNumber) // is this the desired customer?
                {
                    display.setText(fields[0]+"\\n"+fields[1]+", "+fields[2]+"\\n"+fields[4]+
"/"+fields[5]+"/"+fields[3]+"\\n$"+fields[6]);

                    flag=true;              // set flag to true
                    break;                  // and break out of loop
                }
            }
        }
    }
}

```

```

        record=in.readLine();                // attempt to read next record
    }
    in.close();                             // close the file

    if(!flag)                               // if flag is still false,
    {                                         // customer not found
        display.setText("Customer not found");
    }

}

catch(Exception ex)                        // catch any exceptions
{
    display.setText("error attempting to process Customer.dat\n"+ex.toString());
    return;
}

}

if(e.getSource()==this.quitButton)        // quit button
{
    System.exit(0);
}

}
}

```

Customer.dat

```

44 Clark Pamela 1986 3 1 179
94 Harris Rachel 1986 3 1 415
167 Pittman Lagatha 1986 3 1 940
176 Medders Barbara 1986 3 1 2175
207 Prince Leola 1986 3 1 837
208 Coggins Sharon 1986 3 1 3960
210 Ray Tracie O. 1986 3 1 1850
250 Thompson Nettie 1986 3 1 860
295 Hughes Beverly A. 1986 3 1 1640

```

329 Isbell Linda Jean 1986 3 1 1176
334 Mason Ollie Bell 1986 3 1 4462
338 Richardson Jayne 1986 3 1 1280
361 Buchanan Mary 1986 3 1 2000
364 Carr Linda 1986 3 1 400
369 Copeland Charlotte 1986 3 1 1050
372 Davis Catherine 1986 3 1 3280
393 Foster Linda J. 1986 3 1 2400
394 Jackson Mary A 1986 3 1 3270
416 Pippin Bonnie 1986 3 1 4400
427 Stewart Shirley 1986 3 1 3500
459 Banks Marie 1986 3 1 3829
487 Clark Janet Marie 1986 3 1 2450
550 Bishop Bertha 1986 3 1 1561
629 Pennington Deborah 1986 3 1 3772
671 Bright Linda 1986 3 1 4000
744 Williams Vanessa J. 1986 3 1 3200
761 West Wanda L. 1986 3 1 3000
774 Houston Bessie Mae 1986 3 1 4987
814 Baker Mary E. 1986 3 1 250
851 Gandy Wilda Q. 1986 4 1 1050
859 Ward Barbara 1986 4 1 1750
912 Lucious Mary 1986 4 1 50
992 Lyons Allie V. 1986 4 1 2572
1043 Sorrell Valerie Kay 1986 5 1 250
1093 Park Kangsook 1986 5 1 2140
1103 McDavitt Pam 1986 5 1 1400
1252 Roy Mary B. 1986 6 1 250
1288 Love Eddie Mae 1986 6 1 500
1292 Jobe Mattie B. 1986 6 1 400
1308 Orman Mary Jane 1986 6 1 60
1327 Chunn Barbara S 1986 6 1 3000
1360 Guess Barbara 1986 6 1 250
1424 Randle Bernice 1986 7 1 2300
1425 Gray Patricia H. 1986 7 1 250
1449 Blackwell Bernetta L. 1986 7 1 750
1472 Logan Debra 1986 7 1 760
1486 Avery Patricia A 1986 7 1 2245
1496 McCloud Dorothy J. 1986 7 1 1470

1510 Eaves, Jamie 1986 7 1 2000
1515 Emerson, Joyce W 1986 7 1 400
1571 Davis, Sallie M. 1986 7 1 600
1636 Smith, Mary J. 1986 7 1 1800
1675 Bell, Hattie L. 1986 8 1 260
1686 Maxwell, Jo Anne 1986 8 1 600
1713 Whitehead, Teresa C. 1986 8 1 200
1718 Jackson, Annette 1986 8 1 1790
1719 Smith, Gabriela 1986 8 1 200
1773 Page, Earnestine 1986 8 1 160
1777 Bush, Gloria J. 1986 8 1 970
1808 Davis, Barbara A. 1986 8 1 2130
1846 Gilkey, Carrie J. 1986 9 1 1970
1898 Roby, Annie 1986 9 1 1170
1966 Ferguson, Lynn 1986 9 1 3000
1975 Shields, Lois 1986 9 1 320
2063 Knox, Mary D. 1986 9 1 250
2107 Nelson, Elaine 1986 10 1 160
2244 Duck, Brenda 1986 10 1 1600
2247 Dewberry, Sandra 1986 10 1 3200
2268 Boddie, Teresa 1986 10 1 1030
2284 Boykin, Bernice 1986 10 1 400
2317 Ford, Edna Carlean 1986 11 1 500
2409 Gandy, Margaret Jean 1986 11 1 200
2417 Duck, Robbie A. 1986 11 1 475
2435 Tolbert, Debbie 1986 11 1 600
2438 Rosen, Malinda 1986 11 1 3650
2448 Harris, Jean 1986 11 1 3045
2456 Ashford, Viola 1986 12 1 309
2458 Sibley, Yvette 1986 12 1 1000
2560 Hamilton, Linnie 1986 12 1 50
2587 Davis, Patricia 1986 12 1 800
2670 Kinard, Cherry E. 1987 1 1 1532
2752 Moody, Susan 1987 1 1 1000
2775 King, Celeste 1987 1 1 400
2801 Campbell, Diane 1987 1 1 600
2847 McGee, Marion N. 1987 2 1 100
2856 Shurden, Edna 1987 2 1 1007
2939 Henton, Mary A. 1987 2 1 200

2945 Gillespie Dorothy 1987 2 1 200
2958 Doss Marie 1987 2 1 1220
2967 Edwards Melinda 1987 2 1 260
3016 Stricklin Monica 1987 2 1 200
3047 Avant Reola 1987 3 1 500
3091 Huddleston Ann C. 1987 3 1 950
3119 Shelton Jeanette 1987 3 1 400
3179 Williamson Earnestine 1987 3 1 400
3229 Rogers Annie Dell 1987 3 1 4500
3269 Davidson Angela D. 1987 4 1 3080
3311 Mullins Margaret A. 1987 4 1 4300
3365 James Tammie 1987 4 1 250
3385 Gibson Princess 1987 4 1 4500
3537 Pitts Stephanie 1987 5 1 779
3581 Sanford Anne 1987 5 1 350
3591 Smith Deborah K. 1987 5 1 2000
3594 Ellis Ladonna 1987 5 1 220
3603 Maddox Vickie 1987 5 1 1014
3604 McCully Gertrude 1987 5 1 350
3655 Sykes Fannie 1987 6 1 1680
3700 Power Clovis 1987 6 1 4710
3767 Newsom Ellen F. 1987 6 1 500
3848 Petty Betty 1987 7 1 3000
3887 Pate Tammie 1987 7 1 2160
3900 Hampton Lillie B. 1987 7 1 743
3906 Neely Linda Faye 1987 7 1 120
3946 Welford Katri 1987 7 1 3620
3973 Edwards Angela 1987 7 1 1313
3974 Clay Betty J. 1987 7 1 880
3998 Henley Lorraine 1987 7 1 2000
4077 Travis Jackie 1987 8 1 1360
4093 Bush Ruth 1987 8 1 50
4096 Boyd Alicia 1987 8 1 500
4129 Fason Sandra 1987 8 1 1802
4154 Jefferson Dessie 1987 8 1 2200
4156 Burgin Robin E 1987 8 1 1200
4225 Leonard Charlotte Jean 1987 8 1 150
4276 Horton Chiquita 1987 9 1 4300
4297 Montgomery Linda F. 1987 9 1 2230

4352 Stallings Helena 1987 9 1 2170
4404 Kirkwood Daffie 1987 9 1 920
4440 Hindman Pam 1987 10 1 1200
4533 Stewart Bonnie 1987 10 1 388
4561 Conner Janice 1987 10 1 880
4566 Kemp Rosella 1987 10 1 250
4688 Carter Bobbie Estes 1987 11 1 300
4832 Rice Evelyn J. 1987 12 1 1570
4897 Hooper Carlene 1987 12 1 3000
4917 Selvie Barbara 1987 12 1 3200
4932 Townsel Teresia 1987 12 1 1080
5014 Tyson Earvance L. 1988 1 1 165
5029 Petty Irma Jean 1988 1 1 330
5038 Johnson Valerie M. 1988 1 1 600
5119 Wilson Donna Marie 1988 2 1 120
5173 Farmer Goldie 1988 2 1 200
5260 Bishop Latricia 1988 2 1 750
5293 Jones Bertha 1988 2 1 440
5314 Shewmake Michelle Elaine 1988 3 1 660
5358 Burton Lee Onie 1988 3 1 400
5384 Augustus Georgia 1988 3 1 3460
5392 Catledge Elizabeth Ann 1988 3 1 900
5404 Pittman Janna Pauline 1988 3 1 1240
5433 Russell Susan 1988 3 1 150
5480 Davis Earnestine 1988 3 1 3000
5488 Jenkins Ann 1988 3 1 400
5518 Wicks Linda M. 1988 3 1 160
5540 Collier Diane Evans 1988 3 1 3420
5546 Davis Linda Gillespie 1988 4 1 250
5585 Jones Shirley 1988 4 1 500
5593 Fulcher Melissa 1988 4 1 800
5658 Jones Troylin L. 1988 4 1 250
5663 Cunningham Gwen 1988 4 1 230
5693 Randle Jo Ann 1988 4 1 4000
5752 Caldwell Katina D. 1988 5 1 2200
5755 Rodriguez Bobbye L. 1988 5 1 600
5767 Bedford Sherry 1988 5 1 1490
5861 Kelly Deberne 1988 5 1 200
5906 Phillips Penny 1988 5 1 200

5928 Brown Myra 1988 5 1 975
5967 Shell Consuela 1988 6 1 410
5983 Haynes Bobbie 1988 6 1 1620
6032 Johnson Daphne 1988 6 1 410
6033 Bell Dorothy 1988 6 1 275
6038 Domerese Evelyn 1988 6 1 890
6040 Johnson Margie 1988 6 1 1960
6047 Puckett Norma 1988 6 1 450
6093 Manning Bobbie J. 1988 6 1 200
6118 Hill Tomeka 1988 6 1 160
6204 Roberson Grace 1988 7 1 1600
6279 Gunn Linda 1988 7 1 2400
6288 Currie Vicki 1988 7 1 600
6340 Evans Brenda 1988 7 1 310
6368 Reed Gean 1988 8 1 525
6380 McGhee Eva 1988 8 1 2150
6404 Ingram Karen 1988 8 1 550
6428 Fair Cynthia 1988 8 1 2200
6436 Chandler Lisa 1988 8 1 1810
6449 Andrews Clara 1988 8 1 21
6496 Gazaway Glenda 1988 8 1 1188
6512 Dunehew Judy 1988 8 1 250
6513 Dempsey Pauline 1988 8 1 670
6517 Strait Shirley A. 1988 8 1 370
6559 Simmons Mary Jo 1988 8 1 4600
6607 Shotwell Mary 1988 8 28 275
6729 Smith Michelle 1988 9 9 50
6738 Smith Lela 1988 9 9 200
6813 Williams Linda Kay 1988 9 16 950
6856 Williams Lakeshia 1988 9 22 550
6878 Davis Ladonna 1988 9 23 1400
6898 Hill Paula M 1988 9 27 1590
6906 Smith Anne C 1988 9 27 690
7050 Miles Diane 1988 10 13 3000
7061 Ball Jacinda 1988 10 14 200
7086 Hutcheon Laura Wright 1988 10 18 2250
7094 Lyle Missy 1988 10 19 1200
7110 Bibbs Loretta 1988 10 21 2050
7115 Ware Jessie 1988 10 24 1820

7118 McClellan Patricia 1988 10 24 2674
7131 Frazier Mary Louise 1988 10 25 1660
7132 Williams Hattie L 1988 10 25 470
7141 Reed Twana V 1988 10 26 750
7142 Gamble Tiffany B 1988 10 26 290
7164 Evans Freddie K 1988 10 31 3120
7220 Bragg Nancy G 1988 11 3 250
7256 Gaston Addine 1988 11 8 1862
7278 Taylor Antoinette 1988 11 11 320
7301 Ward Unteria 1988 11 14 600
7361 Smith Helen 1988 11 22 450
7372 Cotton Debra 1988 11 25 600
7374 Cameron Linda 1988 11 25 4500
7418 Spencer Monique 1988 12 6 200
7429 Williams Judy 1988 12 7 950
7432 Arrington Patricia 1988 12 7 120
7469 Watson Alesia 1988 12 13 1200
7496 Hannah Essie R 1988 12 19 2930
7544 Parker Nola C 1988 12 28 750
7575 Larry Tamela M 1989 1 3 370
7589 Spears Janice 1989 1 3 3360
7683 Carter Myra G 1989 1 16 3800
7688 Brunschon Stephanie Dawn 1989 1 16 1790
7693 Josey Betty O 1989 1 16 436
7711 Robertson Joyce 1989 1 18 780
7755 Quinn Barbara Ann 1989 1 23 380
7797 Staples Mattie 1989 1 26 2600
7824 Bender Bobbie 1989 1 31 1000
7923 Hendrix Katherine 1989 2 15 20
7968 Cummings Michelle 1989 2 21 1490
7975 Bowen Bulia 1989 2 22 4214
7983 Keel Vicki 1989 2 23 920
8025 Peterson Charlotte 1989 3 1 3392
8081 Wilson Patricia A 1989 3 8 2705
8124 Prescott Anna Marie 1989 3 13 200
8135 Bell Tonya R 1989 3 14 400
8147 Hargrove Nancy 1989 3 16 600
8207 Addington Jean M 1989 3 27 1410
8228 Graham Stephanie 1989 3 28 200

8294 Grice Miami 1989 4 4 2510
8321 Cook Mary Roxanne 1989 4 10 0
8410 Nunn Dorothy M 1989 4 19 52
8456 Bingham Lunie K 1989 4 25 75
8460 Moss Rebecca S 1989 4 26 800
8463 Triplett Paulette 1989 4 26 3810
8468 Loving Sheila 1989 4 27 170
8560 Byrd Mary F 1989 5 15 2050
8562 McIlwain Vicki 1989 5 15 1800
8582 Outlaw Angela 1989 5 17 1875
8604 Spruell Emily Tutton 1989 5 22 2320
8702 Branson Sylvia 1989 6 5 4100
8724 Fondren Ellie 1989 6 6 600
8748 Cooley Alicia M 1989 6 8 300
8841 Smith Rachel V 1989 6 20 58
8863 Mayden Hattie B 1989 6 22 342
8870 Murphy Linda 1989 6 23 500
8906 Bell Maggie 1989 6 29 1610
8940 Patterson Tracy L. 1989 7 5 600
9009 Jones Dorothy 1989 7 17 4375
9024 Thompson Betty 1989 7 18 23
9049 James Erica 1989 7 21 200
9085 Johnson Oddie 1989 7 25 1000
9123 Beckum Betty Dixon 1989 7 31 890
9186 Peters Sabra B 1989 8 4 2950
9190 Griffin Sarah K 1989 8 7 400
9264 Hollis Pam 1989 8 17 500
9272 Higgins Kenya 1989 8 21 3290
9304 Keys Nikita 1989 8 24 690
9334 Peay Minnie 1989 8 28 1806
9380 Martin Judy 1989 9 5 952
9441 Files Rita (Kay) 1989 9 11 275
9446 Cooper Regina 1989 9 12 100
9477 Curtis Martha 1989 9 15 250
9548 Buckner Wendy 1989 9 26 200
9594 Childs Carla 1989 10 2 200
9628 Norris Cynthia 1989 10 6 2540
9671 Walker Charlene 1989 10 12 400
9701 Jordan Kesha 1989 10 16 1795

9734 Sample Gwendolyn 1989 10 23 405
9786 Brassfield Connie 1989 10 31 200
9789 Williams Betty M 1989 10 31 1275
9802 Lowery Teresa L 1989 11 2 200
9834 Sharp Venus 1989 11 7 3375
9838 Cannon Marie 1989 11 8 200
9887 Barnes Donna L 1989 11 15 1233
9899 Hunt Tanya 1989 11 16 200
9936 Akins LaShonda 1989 11 27 200
9939 DeKay Martha 1989 11 27 100
9945 Williams Deidra 1989 11 27 1010
10024 Brooks Amanda 1989 12 8 1000
10084 Rigdon Tammy 1989 12 21 520
10116 Holman Stephanie Ann 1990 1 2 2370
10146 Ray Angela 1990 1 4 4720
10147 Smith Sara Alice 1990 1 5 250
10190 Douglas Nissa 1990 1 10 720
10191 Mohammed Nirmala 1990 1 10 750
10219 Savage Passion 1990 1 15 200
10279 Cotton Odetta 1990 1 22 410
10291 Burrell Tamar M. 1990 1 23 350
10351 Whitaker Pamela 1990 1 29 1300
10366 Knighton Mary 1990 1 30 1509
10367 Deloach Rita Y 1990 1 30 1026
10405 McBride Patricia 1990 2 2 900
10411 Bowman Tonya 1990 2 2 75
10461 Lane Connie 1990 2 12 1765
10465 Simpson Melissa 1990 2 12 2685
10472 Robinson Jennifer 1990 2 13 200
10496 Harrington Nanette 1990 2 16 200
10500 White Joyce 1990 2 16 1125
10544 Ladd Annie 1990 2 22 2000
10558 Gillespie Sandra D 1990 2 23 1690
10579 Gotson Pamela 1990 2 27 1250
10654 Taylor Kimberly 1990 3 7 1500
10683 Rivers Debbie 1990 3 12 1000
10756 Campbell Sarah 1990 3 19 2300
10807 Hairston Barbara A 1990 3 23 810
10830 Brown Cassie 1990 3 26 2340

10843 Watson Kathylen 1990 3 28 450
10855 Malone Jessica Ann 1990 3 28 320
10862 Owen Kayce D. 1990 3 29 1400
10899 Wallace Mary Jo 1990 4 3 650
10908 Hemphill Lisa 1990 4 3 200
10940 White Elander Michelle 1990 4 5 1690
10941 Johnson Jacqueline M. 1990 4 5 725
10945 Chandler Evelyn 1990 4 5 1200
10997 Johnson Shundra Nikita 1990 4 16 200
10999 Lockett Brenda 1990 4 16 1100
11107 Grayer Diann 1990 4 26 1565
11171 Brooks Janice 1990 5 3 320
11192 Rice Angela 1990 5 7 2400
11220 Macon Bertha 1990 5 9 250
11490 Blair Patrina 1990 6 11 3680
11519 Brewer Merie 1990 6 12 410
11520 Barber Mary A 1990 6 12 1270
11584 Colter Christie 1990 6 18 950
11613 Ervin Gloria 1990 6 21 2165
11665 Voon Set Chin 1990 6 26 190
11728 Echols Selesia 1990 7 6 500
11746 Gandy Janice 1990 7 9 200
11771 Webster Cynthia 1990 7 11 900
11774 Crow Cathy 1990 7 12 600
11883 Vickers Annie 1990 7 25 1064
11962 Brooks Mary B 1990 8 1 4900
11984 McCoy Dorothy 1990 8 2 1225
11988 Robinson Denise 1990 8 2 200
11994 Miller Robin M. 1990 8 3 1450
12008 Cole Hazel 1990 8 3 150
12043 Henry Shirley 1990 8 6 275
12067 Creed Marla 1990 8 7 4140
12184 Davis Tina 1990 8 15 200
12276 Dyess Theda 1990 8 22 134
12294 Cooper Gloria J. 1990 8 24 1020
12306 Mitchell Donna R. 1990 8 24 400
12376 Darden Tiffany 1990 8 30 1000
12430 Morgan Sonya 1990 9 5 200
12518 Jackson Takeita 1990 9 12 200

12554□Clay□Lori□1990□9□13□1220
12614□Rushing□Ann Marie□1990□9□19□1025
12662□McMullen□Louise□1990□9□24□1074
12694□Walker□Linda C.□1990□9□26□1500
12753□Craig□Rebecca L.□1990□10□2□4500
12792□Logan□Stacy□1990□10□4□300
12860□Turner□Sherbet□1990□10□10□4500
12891□Tarpley□Crystal□1990□10□12□164
12928□Hill□Glenda M.□1990□10□16□62
12936□Blankenship□Beatrice□1990□10□17□77
12944□King□Shirley□1990□10□18□150
12953□Jennings□Patrice□1990□10□19□670
12976□Elliott□Dwylia□1990□10□22□2000
12992□Moore□Lynn□1990□10□23□470
13090□Tipler□Dianne□1990□11□5□250
13127□Taylor□Nicole□1990□11□7□400
13238□Brandon□Dorothy□1990□11□15□1000
13327□Dent□Deldra□1990□11□26□250
13349□Minor□Geri□1990□11□28□1920
13411□Ware□Uywanda□1990□12□4□200
13415□Fisher□Myra□1990□12□4□1400
13424□Bell□Paulette□1990□12□5□200
13441□Poss□Martha□1990□12□6□1000
13504□Bradford□Melody□1990□12□13□1300
13511□Boone□Mariquita L.□1990□12□14□300
13525□Schaefer□Regina□1990□12□17□200
13528□Long□Trella□1990□12□17□1300
13538□Smith□Tammy□1990□12□18□3400
13566□Henderson□Mary□1990□12□20□786
13570□Glenn□Paterice□1990□12□21□1860
13597□Palmertree□Lorie Lee□1990□12□27□210
13615□Miller□Dylanda□1990□12□28□400
13619□Jones□Robbie□1990□12□31□4500
13684□Stokes□Michelle□1991□1□4□300
13768□Daniels□Brenda□1991□1□9□4500
13775□Tate□Latina□1991□1□10□410
13932□Coleman□Regina□1991□1□22□2970
13938□Harris□Leona□1991□1□22□1650
13980□Seger□Patty O'Connor□1991□1□24□200

13995 Myers Amy 1991 1 25 1200
14009 Harris Barbara 1991 1 28 3077
14083 Lee Lorene 1991 2 1 2760
14164 Lucious Demetra 1991 2 8 450
14180 Robinson Sandra 1991 2 11 159
14298 Lindsey Shirley 1991 2 21 2480
14356 Gunn Tisa Lushone 1991 2 26 4130
14362 Hathcock Melody 1991 2 27 600
14397 Mosley Michelle 1991 2 28 1450
14452 Wise Trina 1991 3 5 550
14482 Carpenter Della 1991 3 7 600
14504 Liddell Angie Allen 1991 3 11 1700
14505 Cheaton Virginia 1991 3 11 842
14588 McMin Penney 1991 3 18 850
14614 Prassenos Tammy 1991 3 19 1235
14620 Hogan Vertis 1991 3 20 800
14644 Roach Pamela 1991 3 21 150
14653 Brooks Thelma 1991 3 22 250
14702 Thomas Mona C. 1991 3 26 1410
14742 Westmoreland Miranda 1991 4 1 1233
14800 Thompson Tammy 1991 4 3 430
14934 Williams Ozzie 1991 4 15 250
14935 Burchfield Carolyn 1991 4 15 4800
14964 Byars Michelle 1991 4 17 1250
14965 Franks Ginger 1991 4 17 700
14973 Ledford Deborah 1991 4 18 150
15027 Ewees Nadia 1991 4 23 4500
15052 Walker Rosella 1991 4 25 250
15079 Rice Rosemary 1991 4 29 1300
15114 McKittrick Rebecca 1991 5 1 600
15115 Kelley Joslyn 1991 5 1 2616
15126 Malone Windy 1991 5 2 300
15137 Elliott Vanessa 1991 5 2 150
15141 Fulgham Pat 1991 5 3 300
15154 Garner Sandy 1991 5 6 1070
15192 Harris Sue 1991 5 8 650
15213 Fulgham Vicky L. 1991 5 10 1450
15238 Windham Carrie 1991 5 13 4500
15267 Gilbert Beverly 1991 5 15 4500

15308 Jackson, Henrietta 1991 5 20 400
15361 Brown, Ethel 1991 5 23 1510
15416 Howard, Sherlanda 1991 5 30 3085
15465 Holliday, Joan 1991 6 3 2398
15504 Carraway, Edna 1991 6 5 1325
15509 Dobbs, Bettie Jean 1991 6 5 2350
15559 Tubbs, Rebecca 1991 6 11 600
15607 Barnhill, Chandra 1991 6 17 1200
15632 Blake, Linda 1991 6 18 850
15701 Miller, Annette 1991 6 24 600
15716 Slone, Sonja 1991 6 24 3460
15730 Moore, Sheila 1991 6 25 1098
15752 Pastchal, Andrea 1991 6 26 620
15770 Haynes, Marilyn 1991 6 27 4500
15883 Medders, Nell 1991 7 10 80
16008 Allison, Joyce 1991 7 23 1120
16034 Coleman, Brenda 1991 7 25 750
16038 Fuller, Willie 1991 7 25 400
16043 Tennyson, Cynthia 1991 7 26 1500
16052 Mitchell, Sharon 1991 7 26 3300
16102 Langford, Mattie 1991 7 31 1150
16250 Smith, Julie 1991 8 14 350
16254 Pomeroy, Eleanor 1991 8 15 525
16380 Roberts, Loretta 1991 8 26 3090
16406 McCarthy, Brenda 1991 8 27 4500
16414 Best, Mentoria 1991 8 27 910
16449 Stevens, Leeta 1991 8 29 500
16510 Evans, Stacey 1991 9 5 200
16530 Lindsey, Courtney 1991 9 6 600
16565 Eichelberger, Shirley D. 1991 9 10 110
16635 Rogers, Wilma 1991 9 16 272
16704 Herrington, Mona 1991 9 23 3055
16771 Hall, Sherry 1991 9 26 200
16833 Hodges, Betty 1991 10 1 100
16846 Bartlett, Sherry Shaw 1991 10 2 577
16878 Hilton, Charles 1991 10 4 4500
16887 Bomar, Alicia 1991 10 4 600
16888 McQueen, Yvette 1991 10 4 900
16942 Scott, Lisa 1991 10 9 1350

17002 Bixler Charlsie M. 1991 10 15 340
17023 Nichols Tammie 1991 10 16 250
17071 Nebeker Carrie 1991 10 21 600
17086 Brown Vanessa 1991 10 22 2360
17100 Harris Elaine M. 1991 10 23 1000
17126 Hurst Stephanie 1991 10 28 450
17156 Radde Lenna 1991 10 30 224
17192 Washington Coronda 1991 11 1 1500
17195 Stubbs Lori 1991 11 1 3767
17230 Greer Sarrita 1991 11 6 1800
17280 Hughes Rita 1991 11 12 150
17286 Clemmons Annie 1991 11 12 250
17317 McGee Earline 1991 11 15 180
17348 Willis Kenisha 1991 11 18 2090
17358 VanDevender Kim 1991 11 19 1255
17401 Heath Susan 1991 11 25 1800
17434 Pickett Sara 1991 12 2 138
17435 Higginbotham Vicky 1991 12 2 400
17485 Johnson Katie mae 1991 12 6 350
17555 Morgan Patricia 1991 12 16 550
17600 Mallard Twissie 1991 12 23 1580
17608 Kennedy Christy 1991 12 26 500
17612 Thomas Debbie 1991 12 26 900

GUI3a.java

```
/* File: GUI3a.java
```

This program demonstrates JScrollBar, AdjustmentListener, and Color objects.

It also demonstrates the concept of an "Adapter class" -- WindowAdapter.

Adapter classes provide an alternative to implementing an interface, subclass the Adapter class instead.

```
*/
```

```
import java.awt.*;
```

```
import java.awt.event.*;
```

```

import javax.swing.*;

// the AdjustmentListener interface listens for sliding of a JScrollBar
public class GUI3a extends JFrame implements AdjustmentListener
{
    private JScrollBar redScroll, greenScroll, blueScroll;
    private JLabel redLabel, greenLabel, blueLabel;
    private JTextArea display;

    public static void main(String[] args)
    {
        new GUI3a();
    }

    public GUI3a()
    {
        this.setTitle("Title for GUI3a");
        this.setSize(600,350);

        this.setLayout(new GridLayout(1,2));           // the application uses GridLayout, 1 row, 2 columns

        Panel leftPanel=new Panel();                   // a Panel to hold components for the left cell
        leftPanel.setLayout(new GridLayout(3,1));       // left panel will be 3 rows, 1 column

        Panel redPanel=new Panel();                     // contents for the first cell in leftPanel
        redPanel.setLayout(new GridLayout(1,2));
        redPanel.setBackground(Color.RED);             // set background color of this panel to red

        redScroll=new JScrollBar(JScrollBar.HORIZONTAL,128,1,0,256); // instantiate a JScrollBar
        redScroll.addAdjustmentListener(this);          // register adjustmentListener

        redLabel=new JLabel(" 128");                   // instantiate JLabel
        redLabel.setForeground(Color.WHITE);           // set its text color to white

        redPanel.add(redScroll);                       // add scrollbar to redPanel
        redPanel.add(redLabel);                         // add label to redPanel
        leftPanel.add(redPanel);                       // add redPanel to leftPanel

        Panel greenPanel=new Panel();                  // the greenPanel

```



```

greenPanel.setLayout(new GridLayout(1,2));
greenPanel.setBackground(Color.GREEN);

greenScroll=new JScrollBar(JScrollBar.HORIZONTAL,128,1,0,256);
greenScroll.addAdjustmentListener(this);

greenLabel=new JLabel(" 128");
greenLabel.setForeground(Color.BLACK);

greenPanel.add(greenScroll);
greenPanel.add(greenLabel);
leftPanel.add(greenPanel);           // add greenPanel to leftPanel

Panel bluePanel=new Panel();           // the bluePanel
bluePanel.setLayout(new GridLayout(1,2));
bluePanel.setBackground(Color.BLUE);

blueScroll=new JScrollBar(JScrollBar.HORIZONTAL,128,1,0,256);
blueScroll.addAdjustmentListener(this);

blueLabel=new JLabel(" 128");
blueLabel.setForeground(Color.WHITE);

bluePanel.add(blueScroll);
bluePanel.add(blueLabel);
leftPanel.add(bluePanel);           // add bluePanel to leftPanel

this.add(leftPanel);           // add the left panel to the overall GridLayout

display=new JTextArea();           // JTextArea for right side of GUI3a
display.setBackground(new Color(128,128,128)); // set to medium gray
this.add(display);           // add textarea to overall GridLayout

this.addWindowListener(new MyWindowListener()); // instantiate a MyWindowListener object,
// register it as a Window Listener

this.setVisible(true);

}

```

```

public void adjustmentValueChanged(AdjustmentEvent e) // respond to sliding any scrollbar
{
    int red=redScroll.getValue();           // get current "value" of each scrollbar
    int green=greenScroll.getValue();
    int blue=blueScroll.getValue();

    display.setBackground(new Color(red,green,blue)); // update backgroundcolor of textarea

    redLabel.setText(" "+red);               // display current value of each scrollbar
    greenLabel.setText(" "+green);           // on its corresponding label
    blueLabel.setText(" "+blue);
}

class MyWindowListener extends WindowAdapter // named inner class, extends WindowAdapter
{
    public void windowClosing(WindowEvent e) // over-ride the windowClosing event
    {
        System.exit(0);
    }
}
}

```

GUI3b.java

```

/* File: GUI3b.java

```

```

This program uses NO Layout Manager: null.

```

```

*/

```

```

import java.awt.*;
import java.awt.event.*;
import javax.swing.*;

```

```

// the AdjustmentListener interface listens for sliding of a JScrollBar
public class GUI3b extends JFrame implements AdjustmentListener

```

```

{
    private JScrollBar redScroll,greenScroll,blueScroll;
    private JLabel redLabel,greenLabel,blueLabel;
    private JTextArea display;

    public static void main(String[] args)
    {
        new GUI3b();
    }

    public GUI3b()
    {
        this.setTitle("Title for GUI3b");
        this.setSize(600,350);

        this.setLayout(null);                // explicitly state NO Layout Manager

        int left=10;
        int top=10;
        int width=250;
        int height=100;

        Panel redPanel=new Panel();           // contents for the first cell in leftPanel
        redPanel.setLayout(null);             // no Layout Manager for panel as well
        redPanel.setSize(width,height);       // manually set the panel's size
        redPanel.setLocation(left,top);        // and location
        redPanel.setBackground(Color.RED);     // set background color of this panel to red

        redScroll=new JScrollBar(JScrollBar.HORIZONTAL,128,1,0,256); // instantiate a JScrollBar
        redScroll.setSize(width-20,height/2); // set its size
        redScroll.setLocation(10,10);          // and location (within redPanel)
        redScroll.addAdjustmentListener(this); // register adjustmentListener

        redLabel=new JLabel("128",SwingConstants.CENTER); // instantiate JLabel
        redLabel.setSize(width-20,20);
        redLabel.setLocation(10,height/2+10);
        redLabel.setForeground(Color.WHITE);  // set its text color to white

        redPanel.add(redScroll);               // add scrollbar to redPanel
    }
}

```

```
redPanel.add(redLabel);                // add label to redPanel
this.add(redPanel);                    // add redPanel directly to application

Panel greenPanel=new Panel();          // the greenPanel
greenPanel.setLayout(null);
greenPanel.setSize(width,height);
greenPanel.setLocation(left,top+height+10);
greenPanel.setBackground(Color.GREEN);

greenScroll=new JScrollBar(JScrollBar.HORIZONTAL,128,1,0,256);
greenScroll.setSize(redScroll.getSize().width,redScroll.getSize().height);
greenScroll.setLocation(redScroll.getLocation().x,redScroll.getLocation().y);
greenScroll.addAdjustmentListener(this);

greenLabel=new JLabel("128",SwingConstants.CENTER);
greenLabel.setSize(redLabel.getSize().width,redLabel.getSize().height);
greenLabel.setLocation(redLabel.getLocation().x,redLabel.getLocation().y);
greenLabel.setForeground(Color.BLACK);

greenPanel.add(greenScroll);
greenPanel.add(greenLabel);
this.add(greenPanel);

Panel bluePanel=new Panel();           // the bluePanel
bluePanel.setLayout(null);
bluePanel.setSize(width,height);
bluePanel.setLocation(left,top+2*(height+10));
bluePanel.setBackground(Color.BLUE);

blueScroll=new JScrollBar(JScrollBar.HORIZONTAL,128,1,0,256);
blueScroll.setSize(redScroll.getSize().width,redScroll.getSize().height);
blueScroll.setLocation(redScroll.getLocation().x,redScroll.getLocation().y);
blueScroll.addAdjustmentListener(this);

blueLabel=new JLabel("128",SwingConstants.CENTER);
blueLabel.setSize(redLabel.getSize().width,redLabel.getSize().height);
blueLabel.setLocation(redLabel.getLocation().x,redLabel.getLocation().y);
blueLabel.setForeground(Color.WHITE);
```

```

bluePanel.add(blueScroll);
bluePanel.add(blueLabel);
this.add(bluePanel);

display=new JTextArea();           // JTextArea for right side of GUI3a
display.setSize(250,320);
display.setLocation(340,10);
display.setBackground(new Color(128,128,128)); // set to medium gray
this.add(display);

this.addWindowListener(new MyWindowListener()); // instantiate a MyWindowListener object,
                                                // register it as a Window Listener

this.setVisible(true);

}

public void adjustmentValueChanged(AdjustmentEvent e) // respond to sliding any scrollbar
{
    int red=redScroll.getValue();           // get current "value" of each scrollbar
    int green=greenScroll.getValue();
    int blue=blueScroll.getValue();

    display.setBackground(new Color(red,green,blue)); // update backgroundcolor of textarea

    redLabel.setText(""+red);               // display current value of each scrollbar
    greenLabel.setText(""+green);           // on its corresponding label
    blueLabel.setText(""+blue);
}

class MyWindowListener extends WindowAdapter // named inner class, extends WindowAdapter
{
    public void windowClosing(WindowEvent e) // over-ride the windowClosing event
    {
        System.exit(0);
    }
}

}

```

GUI4a.java

```
/* File: GUI4a.java
```

```
GUI4a modifies GUI3b, using a menu bar instead of buttons.
```

```
*/
```

```
import java.awt.*;
```

```
import java.awt.event.*;
```

```
import javax.swing.*;
```

```
public class GUI4a extends JFrame implements ActionListener
```

```
{
```

```
    private JMenuItem calculateItem,clearItem,exitItem; // three menu items (to be clicked)
```

```
    private JTextField startText,stopText,sumText;
```

```
    private JTextArea displayArea;
```

```
    public static void main(String[] args)
```

```
    {
```

```
        new GUI4a();
```

```
    }
```

```
    public GUI4a()
```

```
    {
```

```
        JMenuBar menuBar=new JMenuBar();           // instantiate a JMenuBar object
```

```
        this.setJMenuBar(menuBar);                 // add it to the frame
```

```
        JMenu fileMenu=new JMenu("File");           // first main menu option
```

```
        calculateItem=new JMenuItem("Calculate");   // instantiate item for the menu option
```

```
        fileMenu.add(calculateItem);                // and add it to the menu option
```

```
        calculateItem.addActionListener(this);      // register event listener for menu item
```

```
        clearItem=new JMenuItem("Clear");
```

```
        fileMenu.add(clearItem);
```

```
        clearItem.addActionListener(this);
```

```
exitItem=new JMenuItem("Exit");
fileMenu.add(exitItem);
exitItem.addActionListener(this);

menuBar.add(fileMenu);                // add the menu option to the menubar

this.setTitle("Title for GUI4a");
this.setSize(600,350);

this.setLayout(new BorderLayout());    // set layout manager of the frame to BorderLayout

JPanel topPanel=new JPanel();
topPanel.setLayout(new GridLayout(3,2));

Utility.addComponent(topPanel,new Label("starting value:"),FlowLayout.RIGHT);

startText=new JTextField(10);
Utility.addComponent(topPanel,startText);

Utility.addComponent(topPanel,new Label("ending value:"),FlowLayout.RIGHT);

stopText=new JTextField(10);
Utility.addComponent(topPanel,stopText);

Utility.addComponent(topPanel,new Label("sum:"),FlowLayout.RIGHT);

sumText=new JTextField(10);
sumText.setEditable(false);
Utility.addComponent(topPanel,sumText);

this.add(topPanel,BorderLayout.NORTH);

displayArea=new JTextArea();           // instantiate a JTextArea, and put it in a JScrollPane
JScrollPane scroll=new JScrollPane(displayArea,
JScrollPane.VERTICAL_SCROLLBAR_ALWAYS,JScrollPane.HORIZONTAL_SCROLLBAR_NEVER);
this.add(scroll,BorderLayout.CENTER);  // add the JScrollPane to the center region

this.addWindowListener(new MyWindowListener());
```

```
this.setVisible(true);
```

```
}
```

```
public void actionPerformed(ActionEvent e)
```

```
{ // instead of calling e.getSource three times
```

```
JMenuItem thisItem=(JMenuItem) e.getSource(); // call it once, and save its returned value
```

```
// (must cast Object object as JMenuItem object)
```

```
if(thisItem==this.calculateItem) // determine which menu item was clicked
```

```
{
```

```
float start,stop,sum;
```

```
try // put Exception-throwing code in try block
```

```
{
```

```
start=Float.valueOf(startText.getText()).floatValue();
```

```
stop =Float.valueOf(stopText.getText()).floatValue();
```

```
}
```

```
catch(Exception ex) // catch any possible Exceptions from try block
```

```
{
```

```
displayArea.append("invalid input!\n");
```

```
return; // return after handling Exception
```

```
}
```

```
sum=0f;
```

```
displayArea.setText(""); // clear displayArea (note null string, not " ")
```

```
for(float f=start;f<=stop;f++)
```

```
{
```

```
displayArea.append(f+"\n");
```

```
sum=sum+f;
```

```
}
```

```
sumText.setText(Float.toString(sum));
```

```
}
```

```
if(thisItem==this.clearItem) // clear item; reset text components
```

```
{
```



```

startText.setText("");
stopText.setText("");
sumText.setText("");
displayArea.setText("");
}

if(thisItem==this.exitItem)           // exit item; terminate program
{
    System.exit(0);
}
}

class MyWindowListener extends WindowAdapter    // named inner class, extends WindowAdapter
{
    public void windowClosing(WindowEvent e)    // over-ride the windowClosing event
    {
        System.exit(0);
    }
}

}

```

Threader.java

/* File: Threader.java

This GUI application demonstrates multi-threaded programming. To use a Thread in a Java program, you need to subclass the Thread class, over-riding the run() method to provide functionality to your thread. In this program: instantiate your subclassed thread, then call its start() method (the start() method will call the run() method).

This program demonstrates both a running time-of-day clock, and an elapsed time clock. It also demonstrates the difference between an external class (DateClock.java) and a named inner class (TimerClock).

*/

```

import java.awt.*;
import java.awt.event.*;
import javax.swing.*;
import java.util.*;

public class Threader extends JFrame implements ActionListener
{
    private JLabel clockLabel;
    private JTextField counter1,counter2,upperLimit;
    private JButton startButton1,startButton2;

    private DateClock dateClock;           // threaded time-of-day clock
    private Counter counter;               // threaded counter

    public static void main(String[] args)    // main method
    {
        new Threader();                     // instantiate a Threader object
    }

    public Threader()
    {
        this.setTitle("Threader");          // setTitle() is inherited from superclass
        this.setSize(800,600);              // as is setSize(); operate on current GUI1 object

        this.setLayout(new BorderLayout(0,75));    // set the GUI's layout manager

        JPanel bottomPanel=new JPanel();        // instantiate two Panel objects (containers)
        JPanel centerPanel=new JPanel();

        clockLabel=new JLabel();
        this.add(clockLabel,BorderLayout.NORTH);    // add the Label object to NORTH section of screen

        bottomPanel.add(new JLabel("Enter upper limit:")); // start populating a Panel for bottom of screen

        upperLimit=new JTextField(10);
        bottomPanel.add(upperLimit);

        startButton1=new JButton("Unthreaded Start");
        startButton1.addActionListener(this);      // register event listener for event source
    }
}

```

```

bottomPanel.add(startButton1);

startButton2=new JButton("Threaded Start");
startButton2.addActionListener(this);           // register event listener for event source
bottomPanel.add(startButton2);

this.add(bottomPanel, BorderLayout.SOUTH);       // add Panel to SOUTH section of screen

centerPanel.add(new JLabel("unthreaded:"));      // start populating the center Panel

counter1=new JTextField(10);
counter1.setEditable(false);
centerPanel.add(counter1);

centerPanel.add(new JLabel("threaded:"));

counter2=new JTextField(10);
counter2.setEditable(false);
centerPanel.add(counter2);

this.add(centerPanel, BorderLayout.CENTER);       // add third panel to CENTER of screen

dateClock=new DateClock(clockLabel);            // instantiate DateClock object
                                                // (pass label for time display)
dateClock.start();                               // start dateClock execution

this.setVisible(true);                           // make the GUI visible
}

public void actionPerformed(ActionEvent e)       // respond to button click
{
    int maxValue;
    try                                           // try to get numeric representation of
    {                                           // contents of input field
        maxValue=Integer.parseInt(upperLimit.getText());
    }
    catch(Exception ex)                         // catch conversion error
    {
        maxValue=0;
    }
}

```

```

}

if(e.getSource()==startButton1)
{
    counter1.setText("");
    for(int i=1;i<=maxValue;i++)
    {
        counter1.setText(Integer.toString(i));    // change contents in textfield
    }
}

if(e.getSource()==startButton2)
{
    counter2.setText("");
    Counter counter=new Counter(maxValue);    // instantiate new Counter object
    counter.start();    // call its start method

    counter=null;    // remove reference to CounterClock object
}
}

class Counter extends Thread
{
    private int maxValue;

    public Counter(int m)
    {
        this.maxValue=m;
    }

    public void run()    // executes any time thread is running
    {
        for(int i=0;i<=this.maxValue;i++)    // counting loop
        {
            counter2.setText(""+i);    // set label text to count

            try
            {
                Thread.sleep(5);    // put thread to sleep for 5 milliseconds
            }
        }
    }
}

```

```

    }
    catch(InterruptedException e)           // sleep may throw an exception
    {
        break;                             // if so, break from loop
    }
}
}
}
}
}
}
}

```

DateClock.java

/* File: DateClock.java

DateClock subclasses java.util.Thread to implement a running time-of-day clock by creating a separate execution thread for the clock.

In subclassing a Thread, you will usually over-ride the run method to provide the desired functionality of your thread.

*/

import javax.swing.*;

import java.util.*;

public class DateClock extends Thread // subclass the Thread class

{

private JLabel clockLabel; // instance variable

public DateClock(JLabel l) // constructor method

{

this.clockLabel=l; // set instance variable to refer to passed object

}

public void run() // executes any time thread is running

{

while (true) // loop forever

```

{
    GregorianCalendar calendar=new GregorianCalendar(); // instantiate a GregorianCalendar object
    this.clockLabel.setText(calendar.getTime().toString());
    try
    {
        Thread.sleep(1000); // put thread to sleep for 1 second
    }
    catch(InterruptedException e) // sleep may throw an exception
    {
        break; // if so, break from while loop
    }
}
}
}
}

```

ServletHello.java

/* File: ServletHello.java

This is a simple Java servlet that displays Hello World on the user's web browser.

The .class file for this servlet must be stored in your tomcat "classes" subdirectory.

tomcat/webapps/ROOT/WEB-INF/classes

Your tomcat server must be running, and you must specify the correct primary port number when you try to access this class file from your browser.

The servlet must be entered into your web.xml file (which is in your WEB-INF directory):

```

<servlet>
  <servlet-name>ServletHello</servlet-name>
  <servlet-class>ServletHello</servlet-class>
</servlet>
<servlet-mapping>
  <servlet-name>ServletHello</servlet-name>
  <url-pattern>*.ServletHello</url-pattern>
</servlet-mapping>

```

IMPORTANT: Any time you change your web.xml, you must stop tomcat and start tomcat to re-process the web.xml file.

Access the servlet with:

`http://mislab.business.msstate.edu:8080/servlet/abc123.ServletHello`

(substitute your primary port number for "8080" and your net id for "abc123")

```
*/

import java.io.*;                // import statements
import javax.servlet.*;
import javax.servlet.http.*;

public class ServletHello extends HttpServlet    // subclass the HttpServlet class
{
    // over-ride the doGet method so we can respond
    // to a Get method request
    // code in this method may throw an Exception,
    // so this method throws it as well

    public void doGet(HttpServletRequest request, HttpServletResponse response)
        throws ServletException, IOException
    {
        response.setContentType("text/html");    // set the response header (content-type)

        PrintWriter out=response.getWriter();    // get a PrintWriter object to print to browser
        out.println("Hello World");              // use it to generate some output
    }
}
```

ReadFile.java

```
/* File:  ReadFile.java
```

This servlet reads the contents of the file ServletHello.java and displays it to the browser as plain text (not to be rendered by the browser).

Both the .class file for this servlet and the file that it reads (ServletHello.java) must be stored in your tomcat "classes" subdirectory"

The servlet must be entered into your web.xml file (which is in your WEB-INF directory).

```
*/
```

```
import java.io.*;                // import statements
import javax.servlet.*;
import javax.servlet.http.*;

public class ReadFile extends HttpServlet
{
    public void doGet(HttpServletRequest request,HttpServletResponse response)
        throws ServletException,IOException
    {
        response.setContentType("text/plain");        // set the response header (content-type)

        String filename="/home/rpearson/tomcat/webapps/ROOT/WEB-INF/classes/ServletHello.java";
        PrintWriter out=response.getWriter();        // get a PrintWriter object to print to browser

        try                // put I/O stuff in a try/catch block
        {
            BufferedReader in=new BufferedReader(new FileReader(filename)); // data file is now open

            String record=in.readLine();                // attempt to read next record
            while(record!=null)                // execute loop if record was read
            {
                out.println(record);                // print this record, then
                record=in.readLine();                // attempt to read next record
            }
            in.close();                // close the file
        }
        catch(Exception e)                // catch any exceptions
        {
            out.println("error attempting to open "+filename);
```



```
        out.println(e.toString());
    }

}

}
```

AllTrivia.java

```
/* File: AllTrivia.java
```

This servlet reads the contents of the file Trivia.fil and displays its trivia events to the browser as an HTML table (to be rendered by the browser).

Both the .class file for this servlet and the file that it reads (Trivia.fil) must be stored in your tomcat "classes" subdirectory.

The servlet must be entered into your web.xml file (which is in your WEB-INF directory).

Since Trivia.fil contains fixed-length records, this program uses the String class's substring method to extract fields from the records.

```
*/
```

```
import java.io.*;                // import statements
import javax.servlet.*;
import javax.servlet.http.*;
```

```
public class AllTrivia extends HttpServlet    // servlets subclass the HttpServlet class
{
```

```
    public void doGet(HttpServletRequest request,HttpServletResponse response)
        throws ServletException,IOException
```

```
    {
        response.setContentType("text/html");    // set the response header (content-type)
```

```
        PrintWriter out=response.getWriter();    // get a PrintWriter object to print to browser
```

```
        out.println("<!doctype html>");    // generate valid HTML for a web page
        out.println("<html>");
```

```

out.println("<head>");
out.println("<title>AllTrivia</title>");
out.println("<link rel=stylesheet type='text/css' href='/BIS3523.css'>");
out.println("</head>");
out.println("<body>");

out.println("<table>");

try                                // put I/O stuff in a try/catch block
{
    String filename="/home/rpearson/tomcat/webapps/ROOT/WEB-INF/classes/Trivia.fil";
    BufferedReader in=new BufferedReader(new FileReader(filename)); // data file is now open

    String record=in.readLine();      // attempt to read next record
    while(record!=null)              // execute loop if record was read
    {
        String date=record.substring(0,10);
        String event=record.substring(12);
        out.println("<tr><td>"+date+"</td><td>"+event+"</td></tr>");

        record=in.readLine();        // attempt to read next record
    }
    in.close();                      // close the file

}
catch(Exception e)                  // catch any exceptions
{
    out.print("<tr><td>error attempting to process Trivia.fil<br>");
    out.print(e.toString());
    out.println("</td></tr>");
}

out.println("</table>");
out.println("</body>");
out.println("</html>");
}
}

```

BIS3523.css

BIS3523.css

```
table,td
{
    border: thin solid black;
}

table
{
    border-collapse: collapse;
}

td
{
    padding: 6px;
}

.noBorder {border: none}

.left {text-align: left}
.center {text-align: center}
.right {text-align: right}

.highlight:hover
{
    color: black;
    background-color: yellow;
}
```

ServerTrivia.java

/* File: ServerTrivia.java

This servlet reads the contents of the file Trivia.dat and displays today's trivia events to the browser as an HTML table (to be rendered by the browser). "Today" is based on the server's date and time, not the client.

Since Trivia.dat contains variable-length, delimited records, this program uses the String

class's split method to split the records into their subordinate fields.

This program uses methods of the "deprecated" Date class. You will get a warning when you compile, but the methods still work. They're deprecated, they're not obsolete.

```
*/

import java.io.*;                // import statements
import javax.servlet.*;
import javax.servlet.http.*;
import java.util.*;

public class ServerTrivia extends HttpServlet
{
    public void doGet(HttpServletRequest request,HttpServletResponse response)
        throws ServletException,IOException
    {
        response.setContentType("text/html");        // set the response header (content-type)

        Date date=new Date();                // instantiate a Date object (deprecated)
        int todayMonth=date.getMonth()+1;        // getMonth returns 0-11 (increment by 1)
        int todayDay=date.getDate();            // day of the month (1-31)
        int listCount=0;                    // initialize a counter

        // generate a heading
        PrintWriter out=response.getWriter();        // get a PrintWriter object to print to browser

        out.println("<!doctype html>");        // generate valid HTML for a web page
        out.println("<html>");
        out.println("<head>");
        out.println("<title>ServerTrivia</title>");
        out.println("<link rel=stylesheet type='text/css' href='/BIS3523.css'>");
        out.println("</head>");
        out.println("<body>");

        out.println("<table>");
        out.println("<tr><td colspan=2>On "+todayMonth+"/"+todayDay+", the following events
happened:</td></tr>");

        try                            // put I/O stuff in a try/catch block
        {
```

```

String filename="/home/rpearson/tomcat/webapps/ROOT/WEB-INF/classes/Trivia.dat";
BufferedReader in=new BufferedReader(new FileReader(filename)); // data file is now open


String record=in.readLine();           // attempt to read next record
while(record!=null)                    // execute loop if record was read
{
    String[] fields=record.split("\t");
    int thisMonth=Integer.parseInt(fields[0]);
    int thisDay=Integer.parseInt(fields[1]);

    if(todayMonth==thisMonth && todayDay==thisDay)
    {
        out.println("<tr><td>"+fields[2]+"</td><td>"+fields[3]+"</td></tr>");
        listCount++;
    }

    record=in.readLine();               // attempt to read next record
}
in.close();                           // close the file

}
catch(Exception e)                    // catch any exceptions
{
    out.print("<tr><td>error attempting to process Trivia.dat<br>");
    out.print(e.toString());
    out.println("</td></tr>");
}

out.println("<tr><td colspan=2>"+listCount+" trivia events listed</td></tr>");
out.println("</table>");

out.println("</body>");
out.println("</html>");
}
}

```

Trivia.dat

01-01-1801-Giuseppe Piazzi discovered 1st asteroid, later named Ceres

01-01-1801-United Kingdom of Great Britain & Ireland established

01-01-1804-Haiti gains its independence

01-01-1863-Emancipation Proclamation issued by Lincoln.

01-01-1892-Brooklyn merges with NY to form present City of NY Ellis Island became reception center for new immigrants

01-01-1901-Commonwealth of Australia established

01-01-1902-first Rose Bowl game held in Pasadena, California.

01-01-1912-first running of SF's famed "Bay to Breakers" race (7.63 miles)

01-01-1934-Alcatraz officially becomes a Federal Prison.

01-01-1956-Sudan gains its independence

01-01-1958-European Economic Community (EEC) starts operation.

01-01-1971-Cigarette advertisements banned on TV

01-01-1984-AT & T broken up into 8 companies.

01-01-1986-Spain & Portugal become 11th & 12th members of Common Market

01-02-1776-first American revolutionary flag displayed.

01-02-1788-Georgia is 4th state to ratify US constitution

01-02-1893-World's Columbian Exposition opens in Chicago

01-02-1921-DeYoung Museum in San Francisco's Golden Gate Park opens.

01-02-1936-first electron tube described, St Louis, Missouri

01-02-1959-USSR launches Mechta, 1st lunar probe & artificial in solar orbit

01-02-1968-Dr Christian Barnard performs 1st successful heart transplant

01-02-1972-Mariner 9 begins mapping Mars

01-03-1521-Martin Luther excommunicated by Roman Catholic Church

01-03-1777-Washington defeats British at Battle of Princeton, NJ

01-03-1852-First Chinese arrive in Hawaii.

01-03-1870-Brooklyn Bridge begun, completed on May 24, 1883

01-03-1888-1st drinking straw is patented.

01-03-1957-first electric watch introduced, Lancaster Pennsylvania

01-03-1959-Alaska becomes the 49th state.

01-03-1977-Apple Computer incorporated.

01-04-1754-Columbia University opens

01-04-1784-US treaty with Great Britain is ratified

01-04-1790-President Washington delivers first "State of the Union" speech.

01-04-1896-Utah becomes 45th state

01-04-1948-Burma gains independence from Britain (National Day)

01-04-1959-Soviet Luna 1 first craft to leave Earth's gravity

01-04-1982-Golden Gate Bridge closed for the 3rd time by fierce storm.

01-05-1809-Treaty of Dardanelles was concluded between Britain & France

01-05-1911-San Francisco has its first official airplane race.

01-05-1933-Work on Golden Gate Bridge begins, on Marin County side.

01-05-1969-USSR Venera 5 launched. 1st successful planet landing - Venus

01-05-1972-NASA announces development of Space Shuttle

01-05-1975-Salyut 4 with crew of 2 is launched for 30 days

01-06-1663-Great earthquake in New England

01-06-1838-first public demonstration of telegraph, by Samuel F. B. Morse

01-06-1914-Stock brokerage firm of Merrill Lynch founded.

01-06-1941-FDR names 4 freedoms (speech, religion; from want, from fear)

01-06-1942-first around world flight by Pan Am "Pacific Clipper"

01-07-1558-Calais, last English possession in France, retaken by French

01-07-1610-Galileo discovers 1st 3 moons of Jupiter, Io, Europa & Ganymede

01-07-1714-The typewriter is patented (it was built years later)

01-07-1785-1st balloon flight across the English Channel.

01-07-1822-Liberia colonized by Americans

01-07-1929-"Tarzan", one of the first adventure comic strips appears.

01-07-1963-First Class postage raised from 4 cents to 5 cents.

01-07-1968-First Class postage raised from 5 cents to 6 cents.

01-08-1815-Battle of New Orleans, made a hero out of Andrew Jackson (the War of 1812 had ended on 12/24/1814, but nobody knew that).

01-08-1880-The passing of Norton I, Emperor of the US, Protector of Mexico

01-08-1932-Ratification of present San Francisco City Charter.

01-08-1935-Spectrophotometer patented, by AC Hardy

01-08-1958-Cuban revolutionary forces capture Havana

01-08-1968-US Surveyor 7 lands near crater Tycho on moon

01-08-1973-USSR launches Luna 21 for moon landing

01-09-1788-Connecticut becomes 5th state

01-09-1793-Jean Pierre Blanchard makes 1st balloon flight in North America

01-09-1799-1st income tax imposed, in England.

01-09-1839-Thomas Henderson measures 1st stellar parallax Alpha Centauri

01-09-1839-The daguerrotype process announced at French Academy of Science

01-09-1843-Caroline Herschel, "1st lady of astronomy," dies at 98 in Germany

01-09-1847-first San Francisco paper, 'California Star', published.

01-09-1978-Commonwealth of Northern Marianas established

01-09-1982-5.9 earthquake in New England/Canada; last one was in 1855.

01-10-1776-"Common Sense" by Thomas Paine is published.

01-10-1840-The Penny Post mail system is started.

01-10-1863-1st underground railway opens in London.

01-10-1945-Los Angeles Railway (with 5 streetcar lines) forced to close.

01-10-1946-UN General Assembly meets for first time

01-10-1946-US Army establishes first radar contact with moon. It's there.

01-10-1949-first Jewish family show - The Goldberg's begin

01-10-1951-first jet passenger trip made

01-10-1969-USSR's Venera 6 launched for parachute landing on Venus

01-10-1978-Soyuz 27 is launched

01-11-1642-Isaac Newton is elected a member of Royal Society

01-11-1787-Titania & Oberon, moons of Uranus, discovered by William Herschel

01-11-1813-First pineapples planted in Hawaii.

01-11-1935-1st woman to fly solo across Pacific left Honolulu, AE Putnam

01-11-1935-Amelia Earhart flies from Hawaii to California, non-stop

01-11-1975-Soyuz 17 is launched

01-12-1777-Mission Santa Clara de Asis founded in California

01-12-1820-Royal Astronomical Society, founded in England

01-12-1986-24th Space Shuttle Mission - Columbia 7 is launched

01-13-1610-Galileo Galilei discovers Callisto, 4th satellite of Jupiter

01-13-1630-Patent to Plymouth Colony issued

01-13-1854-Anthony Foss obtains patent for the Accordion.

01-13-1854-Anthony Foss obtains patent for accordion

01-13-1920-NY Times Editorial says rockets can never fly.

01-13-1930-Mickey Mouse comic strip first appears

01-13-1971-Apollo 14 launched (what was that about rockets can't fly??)

01-14-1784-Revolutionary War ends when Congress ratifies Treaty of Paris

01-14-1914-Henry Ford introduces the Assembly Line for his cars.

01-14-1936-L.M. "Mario" Giannini elected president of Bank of America.

01-14-1939-All commercial ferry service to the East Bay ends.

01-14-1969-Soyuz 4 is launched

01-15-1535-Henry VIII declares himself head of English Church

01-15-1759-British Museum opens

01-15-1778-Nootka Sound discovered by Capt. Cook

01-15-1861-Steam elevator patented by Elisha Otis

01-15-1927-Dunbarton Bridge, 1st bridge in Bay Area, opens.

01-15-1948-World's largest office building, The Pentagon, is completed.

01-15-1968-Soyuz 5 launched

01-16-1883-Pendleton Act creates basis of federal civil service system

01-16-1887-Cliff House badly damaged when a cargo of gunpowder on the schooner "Parallel" explodes nearby.

01-16-1920-18th Amendment, prohibition, goes into effect; repealed in 1933

01-16-1969-Soviet Soyuz 4 & Soyuz 5 perform 1st transfer of crew in space

01-16-1973-USSR's Lunakhod begins radio-controlled exploration of moon

01-16-1979-Iranian revolution overthrows shah.

01-16-1991-US led air forces begin raids on Iraq in response to Iraq's August 1990 takeover of Kuwait.

01-17-1773-Capt James Cook becomes 1st to cross Antarctic Circle (66° 33' S)

01-17-1852-British recognize independence of Transvaal (in South Africa)

01-17-1861-Flush toilet is patented by Mr. Thomas Crapper (Honest!!).

01-17-1871-1st Cable Car is patented by Andrew S. Hallidie.

01-17-1893-Kingdom of Hawaii becomes a republic.

01-17-1899-US takes possession of Wake Island in Pacific

01-17-1943-It was Tin Can Drive Day.

01-17-1945-Liberation Day in Poland (end of Nazi occupation)

01-17-1957-Nine county commission recommends creation of BART.

01-17-1963-Joe Walker takes X-15 to altitude of 82 km

01-17-1976-Hermes rocket launched by ESA

01-18-1644-1st UFO sighting in America, by perplexed Pilgrims in Boston.

01-18-1778-Captain James Cook stumbles over the Hawaiian Islands.

01-18-1869-The elegant California Theatre opens in San Francisco.

01-18-1911-1st shipboard landing of a plane (from Tanforan Park to the USS Pennsylvania).

01-18-1919-Versailles Peace Conference, ending World War I

01-18-1956-Tunisian Revolution Day (National Day)

01-19-1903-1st regular transatlantic radio broadcast between US & England.

01-19-1921-Costa Rica, Guatemala, Honduras & El Salvador sign Pact of Union

01-20-1265-1st English Parliament, called by the Earl of Leicester

01-20-1872-California Stock Exchange Board organized.

01-20-1887-Pearl Harbor obtained by US from Hawaii for use as a naval base

01-20-1929-1st talking motion picture taken outdoors "In Old Arizona"

01-20-1937-Inauguration day, every 4th year

01-20-1981-US embassy hostages freed in Tehran after 444 days.

01-21-1813-The pineapple is introduced to Hawaii.

01-21-1954-The Nautilus launched, first nuclear submarine.

01-21-1962-Snow falls in San Francisco, believe it or not.

01-21-1979-Neptune becomes the outermost planet (Pluto moves closer).

01-22-1850-The Alta California becomes a daily paper, 1st such in Calif.

01-22-1939-Aquatic Park dedicated.

01-22-1968-Apollo 5 launched to moon, Unmanned lunar module tests made

01-22-1975-Lansat 2, an Earth Resources Technology Satellite, is launched

01-23-1579-Union of Utrecht signed, forming protestant Dutch Republic

01-23-1964-24th Amendment ratified, Barred poll tax in federal elections

01-24-1848-James Marshall finds gold in Sutter's Mill in Coloma, Calif

01-24-1899-The rubber heel is patented by Humphrey O'Sullivan.

01-24-1935-1st beer in cans is sold.

01-24-1982-San Francisco 49'ers win their 1st Super Bowl, 26-21.

01-24-1985-15th Space Shuttle Mission - Discovery 3 is launched

01-24-1986-Voyager 2 makes 1st fly-by of Uranus finds new moons, rings

01-25-1915-Alexander Bell in New York calls Thomas Watson in San Francisco.

01-25-1925-Largest diamond, Cullinan (3106 carets), found in South Africa

01-25-1949-first Emmy Awards are presented.

01-25-1949-first popular elections in Israel.

01-25-1959-first transcontinental commercial jet flight (LA to NY for \$301).

01-25-1964-Echo 2, US communications satellite launched

01-26-1788-1st settlement established by the English in Australia.

01-26-1837-Michigan is admitted as the 26th of the United States

01-26-1841-Hong Kong was proclaimed a sovereign territory of Britain

01-26-1871-American income tax repealed. Would that it had lasted!

01-26-1950-India becomes a republic ceasing to be a British dominion

01-26-1954-Ground breaking begins on Disneyland

01-27-1880-Thomas Edison granted patent for an electric incandescent lamp

01-27-1888-National Geographic Society founded in Washington, DC

01-27-1926-1st public demonstration of television.

01-27-1948-1st Tape Recorder is sold.

01-27-1967-Apollo 1 fire kills astronauts Grissom, White & Chaffee

01-27-1973-US & Vietnam sign cease-fire, ending the longest US war

01-28-1807-London's Pall Mall is the 1st street lit by gaslight.

01-28-1821-Bellingshausen discovers Alexander Island off Antarctica

01-28-1878-George W. Coy hired as 1st full-time telephone operator.

01-28-1915-US Coast Guard established, Semper Paratus

01-28-1938-1st Ski Tow starts running (in Vermont).

01-28-1958-Construction began on 1st private thorium-uranium nuclear reactor

01-28-1960-first photograph bounced off moon, Washington DC

01-28-1986-Space Shuttle Challenger explodes, killing a brave crew and NASA.

01-29-1788-Australia Day

01-29-1861-Kansas becomes 34th state

01-29-1904-1st athletic letters given: to Univ of Chicago football team.

01-29-1920-Walt Disney starts 1st job as an artist \$40 week with KC Slide Co

01-29-1959-Walt Disney's "Sleeping Beauty" is released

01-30-1847-Yerba Buena renamed San Francisco.

01-30-1862-US Navy's 1st ironclad warship, the "Monitor", launched.

01-30-1917-1st jazz record in United States is cut.

01-30-1969-US/Canada ISIS 1 launched to study ionosphere

01-31-1851-San Francisco Orphan's Asylum, 1st in California, founded.

01-31-1862-Telescope maker Alvin Clark discovers dwarf companion of Sirius

01-31-1871-Birds fly over the western part of San Francisco in such large numbers that they actually darken the sky.

01-31-1911-Congress passes resolution naming San Francisco as the site of the celebration of the opening of the Panama Canal.

01-31-1950-Pres Truman authorized production of H-Bomb

01-31-1958-1st U.S. satellite launched, Explorer I.

01-31-1958-James van Allen discovers radiation belt

01-31-1961-Ham the chimp is 1st animal sent into space by the US.

01-31-1966-Luna 9 launched for moon

01-31-1971-Apollo 14 launched, 1st landing in lunar highlands.

02-01-1709-Alexander Selkirk (aka Robinson Crusoe) rescued from Juan Fernand

02-01-1790-US Supreme Court convened for first time (NYC)

02-01-1865-13th amendment approved (National Freedom Day)

02-01-1867-Bricklayers start working 8-hour days.

02-01-1920-The first armored car is introduced.

02-01-1958-Egypt & Syria join to form United Arab Republic

02-01-1972-First scientific hand-held calculator (HP-35) introduced

02-02-1848-First shipload of Chinese immigrants arrive in San Francisco.

02-02-1848-Mexico sells California, New Mexico and Arizona to the USA.

02-02-1876-National Baseball League formed with 8 teams.

02-02-1880-SS Strathleven arrives in London with first successful shipment of frozen mutton from Australia.

02-02-1935-Lie detector first used in court in Portage, Wisconsin

02-02-1962-Eight of the planets line up for the first time in 400 years.

02-03-1918-Twin Peaks Tunnel, longest (11,920 feet) streetcar tunnel in the world, begins service in San Francisco

02-03-1945-Yalta Conference, Russia agrees to enter WWII against Japan

02-03-1966-Soviet Luna 9 first spacecraft to soft-land on moon

02-04-1887-Interstate Commerce Act: Federal regulation of railroads

02-04-1932-First Winter Olympics held (At Lake Placid, NY).

02-04-1936-First radioactive substance produced synthetically - radium E

02-04-1948-Ceylon (now Sri Lanka) gains independence.

02-04-1957-First electric portable typewriter placed on sale, Syracuse NY

02-04-1974-Patricia Hearst kidnapped by Symbionese Liberation Army

02-05-1887-Snow falls on San Francisco.

02-05-1953-Walt Disney's "Peter Pan" released

02-05-1971-Apollo 14, 3rd manned expedition to moon, lands near Fra Mauro

02-05-1974-Mariner 10 takes first close-up photos of Venus' cloud structure

02-05-1979-According to Census Bureau, US population reaches 200 million

02-06-1693-College of William and Mary chartered in Williamsburg, Va

02-06-1900-Spanish-American War ends

02-06-1922-US, UK, France, Italy & Japan sign Washington Naval Arms Limitation Treaty

02-06-1952-Elizabeth II becomes queen of Great Britain

02-07-1889-Astronomical Society of Pacific holds first meeting in SF

02-07-1940-Walt Disney's "Pinocchio" released

02-08-1693-Charter granted for College of William & Mary, 2nd college in US

02-08-1883-Louis Waterman begins experiments that invent the fountain pen.

02-08-1908-Boy Scouts of America founded.

02-08-1922-Radio arrives in the White House.

02-08-1977-Earthquake, at 5.0, strongest since 1966.

02-09-1877-U.S. Weather Service is founded.

02-09-1885-First Japanese arrive in Hawaii.

02-09-1964-First appearance of the Beatles on Ed Sullivan

02-09-1969-The Boeing 747 makes its first commercial flight.

02-10-1720-Edmund Halley is appointed 2nd Astronomer Royal of England

02-10-1763-Treaty of Paris ends French & Indian War

02-10-1870-City of Anaheim incorporated (first time).

02-10-1879-First electric arc light used (in California Theater).

02-11-0660-Traditional founding of Japan by Emperor Jimmu Tenno

02-11-1854-Major streets lit by coal gas for first time.

02-11-1929-Vatican City (world's Smallest Country) made an enclave of Rome

02-11-1970-Japan becomes 4th nation to put a satellite (Osumi) in orbit

02-12-1541-Santiago, Chile founded.

02-12-1924-Gershwin's "Rhapsody In Blue" premieres in Carnegie Hall

02-12-1934-Export-Import Bank incorporated.

02-12-1945-San Francisco selected for site of United Nations Conference.

02-12-1947-A daytime fireball & meteorite fall is seen in eastern Siberia

02-12-1961-USSR launches Venera 1 toward Venus

02-13-1741-First magazine published in America (The American Magazine)

02-13-1867-"Blue Danube" waltz premieres in Vienna

02-13-1937-"Prince Valiant" comic strip appears; known for historical detail and fine detail drawing. Thanks Hal.

02-14-1859-Oregon admitted as 33rd State

02-14-1876-Alexander Graham Bell files for a patent on the telephone.

02-14-1912-Arizona becomes 48th state

02-14-1961-Element 103, lawrencium, first produced in Berkeley California

02-14-1980-Solar Maximum Mission Observatory launched to study solar flares.

02-15-1861-Fort Point completed & garrisoned (but has never fired it's cannon in anger).

02-15-1898-USS Maine sinks in Havana harbor, cause unknown.

02-15-1917-San Francisco Public Library dedicated.

02-15-1950-Walt Disney's "Cinderella" released

02-15-1954-First bevatron in operation - Berkeley, California

02-16-1883-Ladies Home Journal begins publication.

02-16-1914-First airplane flight to Los Angeles from San Francisco.

02-16-1918-Lithuania proclaims its short-lived independence.

02-16-1923-Howard Carter finds the tomb of Pharoah Tutankhamun

02-16-1937-Nylon patented, WH Carothers

02-16-1946-First commercially designed helicopter tested, Bridgeport Ct

02-17-1870-Mississippi readmitted to U.S. after Civil War

02-17-1876-Sardines were first canned, in Eastport, Maine.

02-17-1878-First telephone exchange in San Francisco opens with 18 phones.

02-18-1850-Legislature creates the 9 San Francisco Bay Area counties.

02-18-1930-Pluto, the ninth planet, is discovered by Clyde Tombaugh.

02-18-1939-Golden Gate International Exposition opens on Treasure Island (which was built for the occasion) in San Francisco Bay.

02-19-1878-Thomas Alva Edison patents the phonograph.

02-19-1945-Marines land on Iwo Jima.

02-19-1977-President Ford pardons Iva Toguri D'Aquino ("Tokyo Rose").

02-20-1873-University of California gets its first Medical School (UC/SF).

02-20-1901-First territorial legislature of Hawaii convenes.

02-20-1915-Panama-Pacific International Exposition opens in San Francisco.

02-20-1931-Congress allows California to build the Oakland-Bay Bridge.

02-20-1962-John Glenn is first American to orbit the Earth.

02-21-1804-First self-propelled locomotive on rails demonstrated, in Wales.

02-21-1878-First Telephone book is issued, in New Haven, Conn.

02-22-1900-Hawaii becomes a US Territory.

02-23-1887-Congress grants Seal Rocks to San Francisco.

02-23-1900-Steamer "Rio de Janiero" sinks in San Francisco Bay.

02-23-1958-Last SF Municipal arc light, over intersection of Mission & 25th Street, removed (it had been installed in 1913).

02-24-1857-Los Angeles Vineyard Society organized.

02-24-1942-Voice of America begins broadcasting (in German).

02-25-1919-Oregon is first state to tax gasoline (1 cent per gallon).

02-26-1863-President Lincoln signs the National Currency Act.

02-26-1933-Golden Gate Bridge ground-breaking ceremony.

02-27-1844-Dominican Republic gains it's independence.

02-27-1991-President Bush declares a cease-fire, halting the Gulf War.

02-28-1849-First steamship enters San Francisco Bay.

02-28-1883-First vaudeville theater opens.

02-28-1914-Construction begins on the Tower of Jewels for the Exposition.

02-28-1956-Forrester issued a patent for computer core memory.

03-01-1781-The Articles of Confederation adopted by Continental Congress.

03-01-1859-Present seal of San Francisco adopted (2nd seal for city).

03-01-1864-Patent issued for taking & projecting motion pictures to Louis Ducos du Hauron (he never did build such a machine, though).

03-01-1867-Nebraska becomes a state.

03-01-1872-Yellowstone becomes world's first national park

03-01-1961-President Kennedy establishes the Peace Corps.

03-01-1966-Venera 3 becomes the first manmade object to impact another planet - Venus.

03-01-1970-End of commercial whale hunting by the US. Japan, stop it!

03-01-1982-Soviet Venera 13 makes a soft landing on Venus.

03-02-1836-Texas declares independence from Mexico.

03-02-1861-Congress creates the Territory of Nevada.

03-02-1917-Puerto Rico territory created, US citizenship granted.

03-02-1929-US Court of Customs & Patent Appeals created by US Congress.

03-02-1949-First automatic street light installed. (In New Milford, CT)

03-02-1958-First surface crossing of the Antarctic continent ends.

03-02-1972-Pioneer 10 launched for Jupiter flyby.

03-02-1974-First Class postage raised to 10 cents from 8 cents.

03-02-1978-Soyuz 28 carries 2 cosmonauts (1 Czechoslovakian) to Salyut 6

03-03-1791-Congress passed a resolution ordering U.S. Mint be established.

03-03-1812-Congress passes first foreign aid bill.

03-03-1845-Florida becomes 27th state

03-03-1849-Gold Coinage Act passed, allowing gold coins to be minted.

03-03-1851-Congress authorizes smallest US silver coin, the 3-cent piece.

03-03-1861-Russian Tsar Alexander II abolishes serfdom

03-03-1863-Abraham Lincoln approves charter for National Academy of Sciences

03-03-1875-A 20-cent coin was authorized by Congress (It lasted 3 years).

03-03-1878-Bulgaria liberated from Turkey

03-03-1885-American Telephone and Telegraph incorporated.

03-03-1923-Time magazine publishes its first issue.

03-03-1931-"Star Spangled Banner" officially becomes US national anthem.

03-03-1956-Morocco gains its independence.

03-03-1969-Apollo 9 launched

03-03-1972-Pioneer 10 launched thru asteroid belt & Jupiter

03-04-1675-John Flamsteed appointed first Astronomer Royal of England.

03-04-1789-Congress declares the Constitution to be in effect.

03-04-1791- Vermont admitted as 14th state.

03-04-1792- Oranges introduced to Hawaii.

03-04-1793- Shortest inauguration speech, 133 words, Washington (2nd time).

03-04-1801- Jefferson is the first President inaugurated in Washington, DC.

03-04-1826- First US railroad chartered, the Granite Railway in Quincy, Mass.

03-04-1841- Longest inauguration speech, 8443 words, William Henry Harrison.

03-04-1861- Confederate States adopt "Stars & Bars" flag

03-04-1902- American Automobile Association (AAA) founded.

03-04-1933- Roosevelt inaugurated, "We have nothing to fear but fear itself"

03-04-1934- Easter Cross on Mt. Davidson dedicated.

03-04-1955- First radio facsimile transmission is sent across the continent.

03-04-1959- Pioneer 4 makes first US lunar flyby.

03-04-1968- Orbiting Geophysical Observatory 5 launched

03-04-1977- First CRAY 1 supercomputer shipped to Los Alamos Labs, NM

03-04-1979- US Voyager I photo reveals Jupiter's rings

03-05-1616- Copernicus' DE REVOLUTIONIBUS placed on Catholic forbidden index

03-05-1770- Boston Massacre

03-05-1845- Congress appropriates \$30,000 to ship camels to western US.

03-05-1908- 1st ascent of Mt. Erebus, Antarctica

03-05-1933- FDR proclaims 10-day bank holiday.

03-05-1946- Winston Churchill's "Iron Curtain" speech

03-05-1979- Voyager I's closest approach to Jupiter

03-06-1665- "The Philosophical Transactions of the Royal Society" was first published, and is still published today.

03-06-1836- Alamo falls. Remember it!

03-06-1857- Dred Scott decision rendered.

03-06-1986- Soviet Vega 1 probe passes within 10,000 km of Halley's comet

03-07-1778- James Cook first sights Oregon coast, at Yaquina Bay

03-07-1848- In Hawaii, the Great Mahele (division of lands) is signed.

03-07-1876- Alexander Graham Bell patents the telephone.

03-07-1912- Roald Amundsen announces the discovery of the South Pole

03-07-1926- First transatlantic telephone call (London-New York)

03-07-1933- The game "Monopoly" is invented.

03-07-1936- Hitler breaks Treaty of Versailles, sends troops to Rhineland

03-07-1962- US Orbiting Solar Observatory is launched.

03-07-1981- Walter Cronkite's final CBS anchor appearance. Still unequaled.

03-08-1862- The Confederate ironclad "Merrimack" launched.

03-08-1917- US invades Cuba, for third time. No wonder they're paranoid.

03-08-1934- Edwin Hubble photo shows as many galaxies as Milky Way has stars

03-08-1965- First US forces arrive in Vietnam. Oh unhappy day!

03-08-1976-Largest observed falling single stony meteorite (Jiling, China)

03-09-1497-Nicolaus Copernicus first recorded astronomical observation.

03-09-1796-Napoleon Bonaparte marries Josephine de Beauharnais

03-09-1822-Charles Graham of NY granted patent for artificial teeth

03-09-1862-The ironclads "Monitor" (Union) & "Merrimack" (Rebel) battle in Hampton Roads. It was a standoff.

03-09-1954-Edward R. Murrow criticizes Senator McCarthy (See it Now)

03-09-1961-Sputnik 9 carries Chernushka (dog) into orbit

03-09-1979-First extraterrestrial volcano found, (Jupiter's satellite Io).

03-10-1847-First money minted in Hawaii.

03-10-1849-Abraham Lincoln applies for a patent, only US president to do so.

03-10-1876-First telephone call, made by Alexander Graham Bell

03-10-1933-Big earthquake in Long Beach (W.C. Fields was making a movie when it struck & the cameras kept running).

03-10-1977-Rings of Uranus discovered during occultation of SAO

03-11-1810-Emperor Napoleon married by proxy to Archduchess Marie Louise

03-11-1861-Confederate convention in Montgomery, adopts constitution

03-11-1867-Great Mauna Loa eruption (volcano in Hawaii).

03-11-1892-First public game of basketball.

03-11-1938-Germany invades Austria.

03-11-1941-FDR signs Lend-Lease Bill with England.

03-11-1942-Gen MacArthur leaves Bataan for Australia.

03-11-1960-Pioneer 5 launched; orbits sun between Earth & Venus

03-11-1985-Mikhail Gorbachev replaces Konstantin Chernenko.

03-12-1850-First \$20 Gold piece issued.

03-12-1868-Congress abolishes manufacturers tax

03-12-1912-Girl Guides (Girl Scouts) founded in Savannah Ga

03-12-1925-First transatlantic radio broadcast.

03-12-1936-FDR conducts his first "Fireside Chat"

03-12-1981-Soyuz T-4 carries 2 cosmonauts to Salyut 6 space station

03-13-1639-Harvard University is named for clergyman John Harvard.

03-13-1677-Massachusetts gains title to Maine for \$6,000.

03-13-1852-Uncle Sam makes his debut in the New York "Lantern"

03-13-1877-Chester Greenwood patents ear muffler

03-13-1884-US adopts standard time

03-13-1925-Law passed in Tennessee prohibiting teaching evolution

03-13-1930-Clyde Tombaugh announces discovery of Pluto at Lowell Observatory

03-13-1970-Digital Equipment Corp introduces the PDP-11 minicomputer.

03-13-1986-Soyuz T-15 launched

03-14-1629-Royal charter grants Massachusetts Bay Colony

03-14-1644-Royal patent for Providence Plantations (now Rhode Island).

03-14-1794-Eli Whitney patents the cotton gin

03-14-1870-Legislature approves act making Golden Gate Park possible.

03-14-1896-Sutro Baths opens by Cliff House (closed Sept 1, 1952).

03-14-1900-US currency goes on gold standard

03-14-1903-First national bird reserve established in Sebastian, Florida

03-14-1923-President Harding is the first president to file his income tax.

03-14-1948-Freedom Train arrives in San Francisco.

03-14-1965-Israeli cabinet approves diplomatic relations with W Germany

03-14-1983-OPEC cuts oil prices for first time in 23 years.

03-15-1944-Julius C'sar assassinated in Roman Senate. Et tu, Brute?

03-15-1820-Maine admitted as 23rd state

03-15-1913-Woodrow Wilson holds the first Presidential Press Conference.

03-15-1916-Pershing and 15,000 troops chase Pancho Villa into Mexico.

03-15-1917-Nicholas II, last Russian tsar, abdicates

03-15-1937-First blood bank established, Chicago, Illinois

03-15-1956-My Fair Lady opens in New York.

03-15-1960-Key Largo Coral Reef Preserve established (first underwater park)

03-15-1968-US Mint stops buying and selling gold.

03-15-1968-US Mint stops buying and selling gold.

03-15-1999-Pluto again becomes the outermost planet.

03-16-1621-First Indian appears at Plymouth, Massachusetts

03-16-1802-Law signed to establish US Military Academy at West Point, NY

03-16-1827-First US black newspaper, Freedom's Journal, New York

03-16-1916-US and Canada sign Migratory Bird Treaty

03-16-1926-Robert Goddard launches first liquid fuel rocket - 184 feet

03-16-1935-Hitler orders German rearmament, violating Versailles Treaty

03-16-1966-Gemini 8 launched with 2 astronauts

03-16-1975-US Mariner 10 makes 3rd, and final, fly-by of Mercury.

03-17-1906-President Theodore Roosevelt first uses the term "muckrake".

03-17-1910-Camp Fire Girls are organized.

03-17-1941-National Gallery of Art opens in Washington, DC

03-17-1950-Element 98 (Californium) is announced.

03-17-1958-Vanguard 1 measures shape of Earth

03-17-1959-Dalai Lama flees Tibet for India

03-17-1966-US sub locates missing hydrogen bomb in Mediterranean.

03-17-1969-Golda Meir becomes Israeli Prime Minister.

03-18-1541-de Soto is first European to record flooding of the Mississippi

03-18-1766-Britain repeals Stamp Act, partial cause of American Revolution.

03-18-1850-American Express founded.

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03-18-1881-Barnum & Bailey's Greatest Show on Earth opens in Madison Square Garden in New York City.

03-18-1892-Lord Stanley proposes silver cup challenge for Hockey

03-18-1909-Einar Dossou of Denmark - first ham broadcaster.

03-18-1931-First electric razor marketed by Schick.

03-18-1938-Mexico takes control of foreign-owned oil properties.

03-18-1952-First plastic lens for cataract patients fitted, Philadelphia.

03-18-1959-Pres Eisenhower signs Hawaii statehood bill

03-18-1965-Russia launches 2nd Voshkod, first spacewalk - Aleksei Leonov.

03-19-1822-Boston, Mass incorporated

03-19-1859-Faust by Charles Gounod premiers in Paris

03-19-1917-US Supreme Court upheld 8 hour work day for the railroads.

03-19-1918-Congress authorizes time zones & approves daylight time

03-19-1920-US Senate rejects Treaty of Versailles for 2nd time

03-19-1928-Amos & Andy debuts on radio

03-19-1928-'Amos and Andy' debut on radio.

03-19-1931-Nevada legalized gambling

03-19-1949-First museum devoted exclusively to atomic energy, Oak Ridge, TN

03-20-1760-Great Fire of Boston destroys 349 buildings

03-20-1833-US and Siam conclude their first commercial treaty

03-20-1852-Harriet Beecher Stowe's 'Uncle Tom's Cabin,' published

03-20-1886-First commercial AC-power plant begins operation

03-20-1942-MacArthur vows to Phillipinos, "I shall return"

03-21-1851-Yosemite Valley discovered in California, paradise found.

03-21-1965-US Ranger 9 launched takes 5,814 pictures before lunar impact

03-21-1965-Martin Luther King Jr begins march from Selma to Montgomery

03-22-1621-Massasoit & Pilgrims agree on league of friendship (Plymouth)

03-22-1733-Joseph Priestly (father of soda pop) invents carbonated water.

03-22-1765-Britain enacts the now infamous Stamp Act

03-22-1778-Captain Cook sights Cape Flattery, in Washington state

03-22-1882-Congress outlaws polygamy. Male longevity increases.

03-22-1941-Grand Coulee Dam in Washington state goes into operation

03-22-1945-Arab League is founded

03-22-1946-Jordan (formerly Transjordan) gains independence from Britain.

03-22-1957-Earthquake gives San Francisco the shakes.

03-22-1960-Schawlow and Townes obtain a patent for the laser.

03-22-1963-Beatles release their first album, Please Please Me

03-22-1968-President Johnson's daughter, Lynda, ordered off Cable Car because she was eating an ice cream cor

(no food on cars!).

03-22-1977-Indira Gandhi resigns as PM of India

03-22-1978-Robert Frost Plaza, at California, Drumm & Market, dedicated.

03-22-1981-First Class Postage raised from 15 cents to 18 cents.

03-22-1981-Soyuz 39 carries 2 cosmonauts (1 Mongolian) to Salyut 6.

03-22-1982-3rd Space Shuttle Mission - Columbia 3 launched

03-23-1743-George Frederic Handel's oratorio "Messiah" premieres in London.

03-23-1752-Pope Stephen II elected to succeed Zacharias, dies 2 days later.

03-23-1775-Patrick Henry asks for Liberty or Death.

03-23-1806-Lewis and Clark reach the Pacific coast.

03-23-1840-First photo of moon is taken.

03-23-1919-Benito Mussolini founds the Fascist movement in Milan, Italy.

03-23-1929-First telephone installed in the White House.

03-23-1933-German Reichstag grants Adolf Hitler dictatorial powers.

03-23-1944-Nicholas Alkemade falls 5,500 m without a parachute and lives.

03-23-1956-Pakistan becomes independent within British Commonwealth.

03-23-1962-President John F. Kennedy visits San Francisco.

03-23-1965-Gemini 3 blasts off, first US 2-man space flight.

03-23-1976-International Bill of Rights goes into effect, 35 nations ratify.

03-24-1765-Britain enacts Quartering Act

03-24-1882-German scientist Robert Koch discovers bacillus cause of TB

03-24-1882-German Robert Koch discovers bacillus, cause of Tuberculosis.

03-24-1934-FDR grants future independence to Philippines

03-24-1955-Tennessee Williams, "Cat on a Hot Tin Roof" opens on Broadway.

03-24-1965-US Ranger 9 strikes moon 10 miles NE of crater Alphonsus

03-24-1972-Great Britain imposes direct rule over Northern Ireland

03-24-1976-Argentine President Isabel Peron deposed by country's military.

03-24-1986-Libya attacks US forces in Gulf of Sidra. US 2, Libya 0.

03-25-1634-Maryland founded as a Catholic colony

03-25-1655-Christiaan Huygens discovers Titan, (Saturn's largest satellite)

03-25-1821-Greece gains its independence.

03-25-1857-Frederick Laggenheim takes the 1st photograph of a solar eclipse

03-25-1951-Purcell and Ewen detect 21-cm radiation at Harvard physics lab

03-25-1954-RCA manufactures the first COLOR television.

03-25-1955-East Germany granted full sovereignty by occupying power, USSR

03-25-1960-First guided missile launched from nuclear powered sub (Halibut)

03-26-1845-Adhesive medicated plaster patented, precursor of bandaid.

03-26-1878-Hastings College of Law founded.

03-26-1885-Eastman Film Company makes first commercial motion picture film

03-26-1937-Spinach growers of Crystal City, Tx, erect statue of Popeye

03-26-1953-Dr Jonas Salk announces new vaccine against polio

03-26-1958-Army launched US's 3rd successful satellite Explorer III

03-26-1970-Golden Gate Park Conservatory made a City Landmark.

03-26-1971-East Pakistan proclaimed independence taking name Bangladesh

03-26-1979-Camp David peace treaty between Israel and Egypt

03-26-1982-Groundbreaking in Washington DC for Vietnam Veterans Memorial

03-27-1512-Spanish explorer Juan Ponce de Leon sights Florida.

03-27-1625-Charles I King of England Scotland & Ireland ascends to throne

03-27-1794-The US Navy is founded. Anchors Aweigh!

03-27-1802-Asteroid Pallas discovered by Heinrich Olbers

03-27-1807-Asteroid Vesta discovered by Olbers

03-27-1836-First Mormon temple dedicated in Kirtland, Ohio.

03-27-1855-Abraham Gesner receives a patent for kerosene

03-27-1860-ML Byrn patents the corkscrew. Bless you sir!

03-27-1933-US Farm Credit Administration authorized.

03-27-1964-Earthquake strikes Alaska, 8.4 on Richter scale.

03-27-1968-SF Japanese Trade and Cultural Center (Japan Center) dedicated.

03-27-1972-Soviet spacecraft Venera 8 launched to Venus

03-27-1980-Mount St. Helens becomes active after 123 years

03-28-1794-Nathan Briggs gets patent for the washing machine.

03-28-1930-Constantinople and Angora change names to Istanbul and Ankara.

03-28-1939-Spanish Civil War ends, facist Francisco Franco wins

03-29-1871-Albert Hall opens it's doors in London.

03-29-1886-Coca-Cola is created (with cocaine). It satisfies your craving.

03-29-1961-23rd Amendment ratified, Washington DC can vote for the president

03-29-1973-US troops leave Vietnam, 9 yrs after Tonkin Resolution

03-29-1974-Mariner 10's first fly-by of Mercury, returns photos

03-30-1842-Dr. Crawford Long, first uses ether as an anesthetic.

03-30-1853-Patent granted to Hyman Lipman for a pencil with an ERASER!

03-30-1867-US purchases Alaska for \$7,200,000 (Seward's Folly)

03-30-1870-15th Amendment passed, guarantees right to vote to all races

03-30-1932-Amelia Earhart is 1st woman to fly across the Atlantic solo

03-30-1950-Invention of the Phototransistor is announced at Murray Hill, NJ

03-31-1854-Commodore Perry makes Japan opens its ports to foreign trade

03-31-1870-Thomas P Mundy became 1st black to vote in US (Perth Amboy NJ)

03-31-1880-Wabash Ind - first town completely illuminated by electric light

03-31-1889-Eiffel Tower completed.

03-31-1932-Ford publicly unveils its first V-8 engine

03-31-1933-Congress authorizes Civilian Conservation Corps (CCC).

03-31-1943-Rodgers & Hammerstein musical "Oklahoma!" opens on Broadway

03-31-1949-Newfoundland becomes 10th Canadian province

03-31-1963-Los Angeles ends streetcar service after nearly 90 years.

03-31-1966-USSR launches Luna 10, first spacecraft to orbit moon

04-01-1778-Oliver Pollock, a New Orleans Businessman, creates the "\$".

04-01-1850-San Francisco County Government established.

04-01-1853-Cincinnati became first US city with salaried firefighters

04-01-1918-Royal Air Force established

04-01-1952-"Big Bang" theory published by Alpher, Bethe and Gamow

04-01-1960-TIROS I (Television and Infra-Red Observation Satellite) launched to improve weather prediction.

04-01-1964-USSR launches Zond 1 towards Venus

04-01-1971-US/Canada ISIS II launched to study ionosphere

04-01-1979-Iran proclaimed an Islamic Republic following fall of the Shah

04-02-1513-Florida discovered, claimed for Spain by Ponce de Le n

04-02-1792-Congress establishes Coin denominations and authorizes US Mint

04-02-1935-Watson Watt granted a patent for RADAR.

04-02-1958-NACA renamed NASA

04-02-1972-Apollo 16's Young and Duke land on the moon and hot-rod with the Boeing Lunar Rover #2

04-03-1910-Highest mountain in North America, Alaska's Mt McKinley climbed

04-03-1948-Harry Truman signs Marshall Plan (Aid to Europe)

04-03-1966-USSR's Luna 10 becomes the first craft to orbit the Moon

04-03-1982-UN Security Council demands Argentina withdraw from Falklands.

04-04-1818-Congress decided US flag is 13 red and white stripes and 20 stars

04-04-1860-Pony Express begins service, from St. Joseph, Missouri.

04-04-1870-Golden Gate Park established by City Order #800.

04-04-1902-Cecil Rhodes scholarship fund established with \$10 million

04-04-1949-NATO established

04-04-1983-Maiden voyage of STS Space shuttle Challenger

04-05-1614-Indian princess Pocahontas marries English colonist John Rolfe

04-05-1973-Pioneer 11 blasts off toward Jupiter

04-05-1991-Atlantis lifts off carrying the 17.5 ton Gamma Ray Observatory.

04-06-0648-BC Earliest total solar eclipse chronicled by Greeks is observed

04-06-1663-Kings Charles II signs Carolina Charter

04-06-1862-Battle of Shiloh.

04-06-1868-Brigham Young marries number 27, his final wife.

04-06-1896-First modern Olympics

04-06-1906-First animated cartoon copyrighted

04-06-1909-North Pole reached by Americans Robert Peary and Matthew Henson

04-06-1909-First credit union established in US

04-06-1917-US declares war on Germany (WWI)

04-06-1926-4 planes take off on first successful around-the-world flight.

04-06-1957-New York City ends trolley car service.

04-06-1965-Intelsat 1 ("Early Bird") first commercial geosynchronous communications satellite

04-06-1973-Pioneer 11 launched to Jupiter and Saturn

04-07-1931-Seals Stadium opens.

04-07-1933-Prohibition ends. "Gimme a beer, Mac."

04-07-1948-World Health Organization is established.

04-07-1953-First jet transatlantic non-stop flight (west to east)

04-07-1959-NASA selects first seven astronauts

04-07-1959-Radar first bounced off sun, from Stanford California.

04-08-1513-Ponce de Leon arrives in Florida.

04-08-1913-17th Amendment, requiring direct election of senators, ratified

04-08-1974-Hank Aaron hits 715th home run, beats Babe Ruth's record.

04-08-1986-Clint Eastwood elected mayor of Carmel, California.

04-09-1831-Robert Jenkins loses an ear: war between Britain and Spain.

04-09-1865-Lee surrenders at Appomattox, ending Civil War.

04-09-1953-TV Guide publishes their first issue.

04-09-1955-United Nations Charter hearing.

04-10-1790-US Patent system established

04-10-1825-First hotel in Hawaii opens.

04-10-1849-Safety pin is patented by Walter Hunt.

04-10-1866-ASPCA (Society for Prevention of Cruelty to Animals) organized.

04-10-1878-California Street Cable Car Railroad Company starts service.

04-10-1882-Matson founds his shipping company (San Francisco and Hawaii)

04-10-1912-RMS Titanic sets sail for its first and last voyage

04-10-1930-Synthetic rubber first produced

04-10-1953-House of Wax, first 3-D movie, released in New York.

04-10-1960-Senate passes landmark Civil Rights Bill

04-11-1876-Benevolent and Protective Order of Elks organized.

04-11-1943-Frank Piasecki, flies his first single-rotor helicopter

04-11-1947-Jackie Robinson becomes first black in major league baseball.

04-11-1970-Apollo 13 launched to moon; unable to land, returns in 6 days

04-12-1204-4th Crusade sacks Constantinople

04-12-1861-Fort Sumter, S. C., shelled by Confederacy, starts Civil War.

04-12-1877-British annex Transvaal, in South Africa

04-12-1898-Army transfers Yerba Buena Island to Navy.

04-12-1933-Moffatt Field (Naval Air Station) is commissioned.

04-12-1938-First US law requiring medical tests for marriage licenses, NY

04-12-1955-Salk polio vaccine safe and effective; four billion dimes marched

04-12-1961-Cosmonaut Yuri Alexeyevich Gagarin becomes first man in orbit.

04-12-1981-Maiden voyage Space Transit System-space shuttle Columbia.

04-13-1796-First elephant brought to America

04-13-1829-English Parliament grants freedom of religion to Catholics

04-13-1976-\$2 bill re-introduced as United States currency, failed again.

04-14-1611-Word "telescope" is first used by Prince Federico Cesi

04-14-1817-First American school for deaf (Hartford, Conn)

04-14-1828-First edition of Noah Webster's dictionary is published.

04-14-1860-First Pony Express rider arrives in SF from St. Joseph, Missouri.

04-14-1865-Abraham Lincoln assassinated in Ford's Theater.

04-14-1894-First public showing of Edison's kinetoscope (moving pictures).

04-14-1956-Ampex Co. demonstrates first commercial videotape recorder.

04-14-1971-Fort Point dedicated as first National Park in SF Bay Area.

04-14-1981-First Space Shuttle - Columbia 1 returns to Earth.

04-15-1598-Edict of Nantes grants political rights to French Huguenots

04-15-1790-First US patent law passed

04-15-1850-City of San Francisco incorporated.

04-15-1912-Titanic sinks in the North Atlantic at 2:20 AM.

04-15-1923-Insulin becomes generally available for diabetics.

04-15-1923-First talking picture is screened before a paying audience.

04-15-1955-Ray Kroc starts the McDonald's fast food restaurants.

04-15-1983-Tokyo Disneyland opens

04-16-1705-Queen Anne of England knights Isaac Newton at Trinity College,

04-16-1866-Nitroglycerine at the Wells Fargo and Co. office explodes.

04-16-1912-Harriet Quimby flies English Channel, first woman to do so

04-16-1917-Lenin returns to Russia to start Bolshevik Revolution

04-16-1972-Apollo 16 launched; 5th lunar landing at Decartes Highlands

04-17-1492-Christopher Columbus contracts with Spain to find the Indies.

04-17-1524-New York Harbor discovered by Giovanni Verrazano.

04-17-1895-Treaty of Shimonoseki, ends first Sino-Japanese War (1894-1895).

04-17-1941-Office of Price Administration established (handled rationing)

04-17-1946-France grants Syria independence (Nat'l Day)

04-17-1961-Bay of Pigs, how not to run an invasion.

04-18-1775-'The British are Coming!' Paul Revere rides.

04-18-1868-San Francisco Society for Prevention of Cruelty to Animals born.

04-18-1869-First International Cricket Match, held in SF, won by Californian

04-18-1906-San Francisco Earthquake and Fire, "The Big One"

04-18-1907-Fairmont Hotel opens.

04-18-1934-First "Washateria" (laundromat) is opened, in Fort Worth, Texas

04-18-1936-The Pan Am "Clipper" begins regular passenger flights from San Francisco to Honolulu.

04-18-1946-League of Nations went out of business, replaced by UN

04-18-1949-Irish Republic comes into existence

04-18-1950-First transatlantic jet passenger trip

04-18-1978-U S Senate approves transfer of Panama Canal to Panama

04-19-1775-At Lexington Common, the shot 'heard round the world'.

04-19-1852-California Historical Society founded.

04-19-1892-Charles Duryea takes the first American-made auto out for a spin.

04-19-1934-Shirley Temple appears in her first movie, "Stand Up and Cheer"

04-19-1939-Connecticut approves the Bill of Rights (only 148 years late).

04-19-1967-US Surveyor III lands on moon

04-20-1775-British begin siege of Boston

04-20-1902-Marie and Pierre Curie isolated radioactive element radium

04-20-1940-First electron microscope demonstrated, Philadelphia, Pa

04-20-1973-Canadian ANIK A2 became first commercial satellite in orbit

04-20-1978-Korean Air Lines 707 forced to land; violated Soviet airspace

04-21-0753-BC - Rome founded.

04-21-1828-Noah Webster publishes first American dictionary

04-21-1857-A. Douglas patents the bustle (it's all behind us now).

04-21-1862-Congress establishes US Mint in Denver, Colorado.

04-21-1892-First buffalo born in Golden Gate Park.

04-21-1898-Spanish American war begins (Remember the Maine).

04-21-1967-Svetlana Alliluyeva (Stalin's daughter) defected in NYC

04-21-1972-Orbiting Astronomical Observer 4 (Copernicus) is launched

04-21-1977-Broadway play "Annie" opens, first of 2377 performances

04-21-1983-Soyuz T-8 is launched

04-21-1984-Franz Weber of Austria skis downhill at a record 209.8 kph

04-22-1500-Pedro Alvarez Cabral discovers Brazil

04-22-1509-Henry VIII ascends to throne of England

04-22-1529-Spain & Portugal divide eastern hemisphere in Treaty of Saragossa

04-22-1864-US Congress authorized "In God We Trust" on coinage

04-22-1889-Oklahoma land rush officially started; some were Sooner

04-23-1871-Blossom Rock in San Francisco Bay blown up.

04-23-1949-Courtesy Mail Boxes for motorists started in San Francisco.

04-23-1962-First US satellite to reach moon launched from Cape Canaveral

04-23-1965-Launch of first Soviet communications satellite

04-23-1967-Soyuz 1 launched, Vladimir Komarov becomes 1st inflight casualty

04-23-1972-Apollo 16 astronauts explore Moon surface

04-24-1800-Library of Congress founded with a \$5000 allocation.

04-24-1865-SF Fire Alarm and Police Telegraph system put into operation.

04-24-1934-Wind gusts reach 372 kph at Mt Washington, NH

04-24-1953-Winston Churchill knighted by Queen Elizabeth II

04-24-1962-MIT sends TV signal by satellite for first time: CA to MA

04-24-1970-China launches first satellite, transmitting song "East is Red".

04-24-1981-The IBM Personal Computer (PC) is introduced.

04-24-1990-Hubble Space Telescope put into orbit by shuttle Discovery.

04-25-1901-New York becomes first state requiring license plates for cars

04-25-1945-United Nations Conference starts.

04-25-1957-First experimental sodium nuclear reactor is operated.

04-25-1959-St Lawrence Seaway opens to shipping

04-25-1961-Mercury/Atlas rocket lifted off with an electronic mannequin.

04-25-1961-Robert Noyce granted a patent for the integrated circuit.

04-25-1972-Glider pilot Hans Grosse flies a record 1461 km

04-25-1975-First Boeing Jetfoil service, Hong Kong to Macao.

04-26-1607-First British to establish an American colony land at Cape Henry.

04-26-1777-16 year old Sybil Ludington rode from NY to CT rallying her father's militia to fight British in Danbury.

04-26-1920-Shapley and Curtis hold the "Great Debate" on nature of nebulae.

04-26-1954-Nationwide test of the Salk anti-polio begins.

04-26-1962-US/UK launched Ariel; first Intl payload.

04-26-1971-San Francisco Lightship replaced by automatic buoy.

04-26-1986-Chernobyl - world's worst nuclear power plant disaster.

04-27-1565-First Spanish settlement in Phillipines, Cebu City.

04-27-1897-Grant's Tomb (famed of song and legend) is dedicated.

04-27-1937-US Social Security system makes its first benefit payment.

04-27-1945-Founding of the Second Republic, in Austria.

04-27-1946-First radar installation aboard a commercial ship installed.

04-27-1960-First atomic-electric drive submarine launched (Tullibee).

04-27-1986-Captain Midnight (John R MacDougall) interrupts HBO.

04-27-4977-BC - Johannes Kepler's date for creation of universe.

04-28-0585-War between Lydia and Media is ended by a solar eclipse.

04-28-1686-First volume of Isaac Newton's PRINCIPIA is published.

04-28-1754-Mutiny on the HMS Bounty occurs.

04-28-1914-W. H. Carrier patents air conditioner.

04-28-1919-First successful parachute jump is made.

04-28-1942-"WW II" titled so, as result of Gallup Poll.

04-28-1947-Thor Heyerdahl and Kon-Tiki sail from Peru to Polynesia.

04-28-1952-WW II Pacific peace treaty takes effect.

04-28-1974-Last Americans evacuated from Saigon.

04-28-1977-Christopher Boyce convicted for selling satellite secrets.

04-29-1429-Joan of Arc leads Orleans, France, to victory over English.

04-29-1913-Gideon Sundback of Hoboken NJ patents the zipper.

04-29-1971-Salyut 1, world's First space station, launched into earth orbit.

04-30-1789-George Washington inaugurated as first president of the US

04-30-1798-Department of the Navy established.

04-30-1803-US more than doubles its size thru the Louisiana Purchase.

04-30-1900-Hawaii becomes a US Territory

04-30-1939-NBC/RCA make first US demo of TV at opening of NY World's Fair.

04-30-1942-First submarine built on the Great Lakes launched, the "Peto", from Manitowoc, Wisconsin.

04-30-1947-Boulder Dam renamed in honor of Herbert Hoover

04-30-1948-Organization of American States (OAS) charter signed in Bogot .

04-30-1973-Nixon announces resignation of Haldeman, Ehrlichman, et al

04-30-1975-US forces evacuated Vietnam; Saigon surrenders

04-30-1980-Terrorists seize Iranian Embassy in London

05-01-1840-1st adhesive postage stamps (English "Penny Blacks") issued.

05-01-1850-John Geary becomes 1st mayor of City of San Francisco.

05-01-1860-1st school for the deaf founded.

05-01-1869-Folies-Bergere opens in Paris.

05-01-1884-Construction begins in Chicago on the 1st skyscraper.

05-01-1892-US Quarantine Station opens on Angel Island.

05-01-1928-Lei Day begun (a Hawaiian celebration)

05-02-1925-Kezar Stadium in Golden Gate Park opens.

05-02-1939-Lou Gehrig sets record for most consecutive games (2130)

05-03-1830-1st regular steam train passenger service starts.

05-03-1919-America's 1st passenger flight (New York-Atlantic City)

05-03-1971-national noncommercial network radio begins programming.

05-04-1626-Indians sell Manhattan Island for \$24 in cloth and buttons.

05-04-1851-1st of the major San Francisco fires.

05-04-1878-Phonograph shown for 1st time at the Grand Opera House.

05-05-1908-The Great White Fleet arrives in San Francisco.

05-05-1949-Council of Europe established.

05-05-1961-Alan Shepard becomes 1st American in space (onboard Freedom 7).

05-06-1851-Patent granted to Dr. John Farrie for a "refrigeration machine"

05-06-1860-The Olympic Club, 1st athletic club in US, founded in SF.

05-07-1824-Beethoven's Ninth Symphony presented for first time.

05-07-1927-San Francisco Municipal Airport (Mills Field) dedicated.

05071945World War II ends in Europe.

05071963Telstar 2 launched (apogee 6,700 miles).

05081541Hernando de Soto discovers the Mississippi River.

05081945Germany surrenders, ending World War II in Europe.

05101775Continental Congress issues paper currency for 1st time.

05101869The Driving of the Golden Spike, Promontory Point, Utah: The Transcontinental railroad is completed

05101930The first US planetarium opens, in Chicago.

051117521st US fire insurance policy is issued, in Philadelphia.

051119291st regularly scheduled TV broadcasts (3 nights per week).

05111951Jay Forrester patents computer core memory.

05131607English land to found Jamestown (1st permanent settlement)

05131846US declares war on Mexico.

05131884Institute for Electrical & Electronics Engineers (IEEE) founded

05141811Paraguay gains its independence.

05141853Gail Borden applies for patent for making condensed milk.

05141948State of Israel proclaimed.

05141973United States launches space station "Skylab".

051519401st nylon stockings are sold in America.

05151963Last of the Mercury flights, the "Faith 7", launched.

05161866Congress authorizes nickel 5-cent piece (the silver half-dime was used up to this point).

051619291st Oscars announced (best film was 'Wings').

05161971First Class Mail now costs 8 cents (was 6 cents).

0517179224 brokers meet to found the New York Stock Exchange

05171804Lewis & Clark begin their exploration of the Louisiana Purchase

05171954Supreme Court rules on Brown v. Topeka Board of Education, overthrowing the principle of 'separate but equal'.

05181933Tennessee Valley Authority Act signed by President Roosevelt.

05181980Mount St. Helens blew its top in Washington State.

05191862The Homestead Act becomes law.

05201927At 7:40am, Lindbergh takes off from New York to cross Atlantic

05211881The American Red Cross is founded.

05211927Lindburgh lands in Paris, after 1st solo across Atlantic.

052318981st Phillipine Expeditionary Troops sail from San Francisco.

05231908Dirigible explodes over SF Bay, 16 passengers fall, none die.

05241844Samual F.B. Morse taps out "What Hath God Wrought"

05241866Berkeley named (for George Berkeley, Bishop of Cloyne).

05241883The Brooklyn Bridge opened by Pres. Arthur & Gov. Cleveland.

05241899In Boston, the 1st auto repair shop opens.

05251787Constitutional Convention convenes in Philadelphia.

05-25-1927-Henry Ford stops producing the Model T car (begins Model A).

05-25-1940-Golden Gate International Exposition reopens.

05-25-1978-"Star Wars" is released.

05-25-1983-"Return of the Jedi" (Star Wars 3) is released.

05-26-1868-President Johnson avoids impeachment by 1 vote.

05-26-1937-Golden Gate Bridge opens.

05-26-1946-Patent filed in US for the H-Bomb.

05-27-1907-Bubonic Plague breaks out in San Francisco

05-27-1937-Golden Gate Bridge dedicated.

05-28-1926-United States Customs Court created by Congress.

05-29-1453-Constantinople falls to the Turks (some believe this signalled the end of the Middle Ages).

05-29-1953-Hillary & Norkay reach top of Mount Everest.

05-29-1978-First Class postage now 15 cents (was 13 cents for 3 years).

05-30-1911-Indianapolis 500 car race run for 1st time.

05-31-1433-Joan of Arc has a hot time at the stake...

05-31-1678-Lady Godiva takes a ride through Coventry

05-31-1868-1st recorded bicycle race, 2 kilometers in Paris.

05-31-1879-1st electric railway opens at Berlin Trades Exposition.

05-31-1889-Johnstown Flood

06-01-1638-First earthquake recorded in U.S., at Plymouth, Mass

06-01-1792-Kentucky becomes 15th state

06-01-1796-Tennessee becomes 16th state

06-01-1813-Capt John Lawrence utters Navy motto: 'Don't give up the ship'.

06-01-1845-Homing pigeon ends an 11,000 km trip (Namibia-London) in 55 days.

06-01-1925-Lou Gehrig starts in first of 2130 consecutive games, a record.

06-01-1933-Century of Progress world's fair opens in Chicago

06-01-1965-Penzias and Wilson detect 3 degree Kelvin primordial background.

06-01-1967-Beatles release "Sgt Pepper's Lonely Hearts Club Band".

06-02-0455-Gaiseric sacks Rome, what a Vandal.

06-02-1858-Donati Comet first seen, named after it's discoverer

06-02-1873-Construction of world's first cable car system, begins in SF.

06-02-1910-Pygmyies discovered in Dutch New Guinea

06-02-1936-Gen. Anastasio Somoza takes over as dictator of Nicaragua

06-02-1953-Coronation of Queen Elizabeth II in Westminster Abbey

06-02-1966-Surveyor 1 lands in Oceanus Procellarum first moon soft-landing.

06-02-1977-New Jersey legalizes casino gambling in Atlantic City.

06-02-1979-John Paul II first pope to visit a communist country - Poland.

06-03-1539-Hernando De Soto claims Florida for Spain

06-03-1621-Dutch West India Company receives charter for "New Netherlands"

06-03-1770-Mission San Carlos Borromeo de Carmelo founded in California

06-03-1789-Alex Mackenzie began exploration of Mackenzie River

06-03-1888-"Casey at the Bat" is first published (by the SF Examiner)

06-03-1934-Dr Frederick Banting, co-discoverer of insulin knighted.

06-03-1935-French "Normandie" sets Atlantic crossing record: 1077 hours.

06-03-1937-Edward VIII, Duke of Windsor marries Wallis Warfield Simpson.

06-03-1942-Battle of Midway begins: first major battle won by airpower.

06-03-1948-200 inch Hale telescope dedicated at Palomar Observatory.

06-03-1949-"Dragnet" is first broadcast on radio (KFI in Los Angeles).

06-03-1965-Gemini IV is launched Ed White first American to walk in space

06-03-1976-US presented with oldest known copy of Magna Carta

06-03-1980-Crew of Soyuz 36 returns to Earth aboard Soyuz 35

06-04-0780-BC first total solar eclipse reliably recorded by Chinese

06-04-1784-Mme. Thible becomes first woman to fly (in a balloon)

06-04-1896-Henry drives his first Ford through streets of Detroit.

06-04-1940-British complete miracle of Dunkirk by evacuating 300,000 troops

06-04-1944-First submarine captured and boarded on high seas - German U 505

06-04-1947-Taft-Hartley Act approved despite a Truman veto.

06-04-1956-Speech by Khrushchev blasting Stalin is made public.

06-04-1986-Jonathan Pollard, spy for Israel, pleads guilty.

06-05-1783-Joseph and Jacques Montgolfier make first public balloon flight.

06-05-1833-Ada Lovelace (future computer programmer) meets Charles Babbage

06-05-1849-Denmark becomes a constitutional monarchy.

06-05-1875-Formal opening of the Pacific Stock Exchange.

06-05-1947-Sec of State George C. Marshall outlines 'The Marshall Plan'.

06-05-1972-U.N. Conference on the Human Environment opens in Stockholm

06-05-1975-Suez Canal reopens (after 6 Day War caused it to close)

06-05-1980-Soyuz T-2 carries 2 cosmonauts to Salyut 6 space station

06-06-1809-Swedish Constitution and Flag Day (National Day)

06-06-1844-YMCA founded in London

06-06-1932-US Federal gas tax enacted

06-06-1933-First drive-in theatre opens, in Camden, New Jersey.

06-06-1934-Securities and Exchange Commission established

06-06-1944-D-Day, the Allied Invasion of "Festung Europa"

06-06-1946-Henry Morgan is first to take off his shirt on TV.

06-06-1967-Six Day War between Israel and its Arab neighbors begins.

06-06-1971-Soyuz 11 takes 3 cosmonauts to Salyut 1 space station

06-06-1975-British voters decide to remain on Common Market

06-06-1977-Supreme Court tosses out automatic death penalty laws

06-06-1978-Proposition 13 cuts California property taxes 57% Yipee!

06-06-1982-Israel invades Lebanon to drive out PLO

06-06-2012-Transit of Venus (between Earth and Sun) occurs.

06-07-1769-Daniel Boone begins exploring the Bluegrass State of Kentucky.

06-07-1776-Richard Lee of Virginia calls for Declaration of Independence.

06-07-1839-The Hawaiian Declaration of Rights is signed.

06-07-1839-Hawaiian Declaration of Rights is signed

06-07-1905-Norway declares independence from Sweden

06-07-1929-Vatican City becomes a sovereign state

06-07-1938-First Boeing 314 Clipper "Flying Boat" flown by Eddie Allen

06-07-1948-Communists take over Czechoslovakia

06-07-1953-First color network telecast from Boston, Massachusets.

06-07-1965-Gemini 4 completes 62 orbits

06-07-1971-Soviet Soyuz 11 crew completes first transfer to orbiting Salyut

06-07-1972-German Chancellor Willy Brandt visits Israel

06-07-1977-Anita Bryant leads successful crusade against Miami gay law

06-07-1981-Israel bombs Iraqi plutonium production facility at Osirak.

06-08-1786-First commercially made ice cream sold in New York.

06-08-1869-Ives McGaffey patents his vacuum cleaner.

06-08-1918-Nova Aquila, brightest nova since Kepler's in 1604, is discovered

06-08-1940-Discovery of element 93 "Neptunium" is announced.

06-08-1953-Supreme Court forbids segregated lunch counters in Washington DC.

06-08-1975-Soviets launch Venera 9 to Venus

06-08-1979-The Source, first public computer info. service, goes online.

06-08-2004-Transit of Venus (between Earth and Sun) occurs.

06-09-1732-Royal Charter for Georgia, granted to James Oglethorpe.

06-09-1860-First dime novel published.

06-09-1898-China leases Hong Kong's New Territories to Britain for 99 years.

06-09-1931-Goddard patents rocket-fueled aircraft design.

06-09-1959-First ballistic missile launched from sub "George Washington"

06-10-1639-First American log cabin at Ft Christina (Wilmington, Del).

06-10-1752-Ben Franklin flies a kite in a thunderstorm, shocking!

06-10-1772-British revenue cutter "Gaspee" is burned by Rhode Islanders.

06-10-1801-State of Tripoli declares war on the US

06-10-1854-Georg F.B. Reiman proposes that space is curved

06-10-1869-The 'Agnes' arrives in New Orleans with the first ever shipment of frozen beef.

06-10-1898-US Marines land at Cuba in Spanish-American War.

06-10-1921-Babe Ruth becomes all time homerune champ with 120 of them.

06-10-1932-First demonstration of artificial lightning Pittsfield Mass.

06-10-1935-Alcoholics Anonymous formed in Akron by Dr Robert Smith

06-10-1940-Italy declares war on France and Britain

06-10-1954-PBS reaches San Francisco: KQED (Channel 9) starts broadcasting.

06-10-1977-Apple Computer ships its first Apple II.

06-11-1770-Capt Cook runs aground on Australian Great Barrier Reef

06-11-1859-Comstock silver load discovered near Virginia City, Nevada.

06-11-1895-First auto race.

06-11-1942-US and USSR sign Lend-Lease agreement during WW II.

06-11-1947-WW II sugar rationing finally ends.

06-11-1955-First magnesium jet airplane is flown.

06-11-1970-US leaves Wheelus Air Force Base in Libya.

06-11-1982-Movie "E T, The Extra-Terrestrial" is released.

06-12-1665-English rename New Amsterdam to New York after the Dutch leave.

06-12-1776-Virginia is first to adopt the Bill of Rights.

06-12-1812-Napoleon invades Russia. Classic "what not to" lesson.

06-12-1838-Hopkins Observatory, dedicated in Williamstown, Mass

06-12-1839-The first baseball game is played in America. Thanks Abner!

06-12-1898-Phillipines gains its independence from Spain.

06-12-1934-Black-McKeller Bill splits United Airlines from Boeing.

06-12-1957-Paul Anderson of US back-lifts a record 2850 kg.

06-12-1967-USSR launches Venera 4 for parachute landing on Venus

06-12-1967-Israel wins the Six Day War.

06-12-1979-Bryan Allen flies the "Gossamer Albatross", the first man-powered aircraft, over the English Channel.

06-13-1373-Anglo-Portuguese Treaty of Alliance (world's oldest) is signed

06-13-1611-John Fabricius dedicates the earliest sunspot publication.

06-13-1898-Yukon Territory of Canada organized, Dawson chosen as capital.

06-13-1900-China's Boxer Rebellion begins, against foreigners and Christians

06-13-1963-Valentina Tereshkova aboard Vostok 6, becomes the first woman in space. You've come a long way, baby.

06-13-1967-Thurgood Marshall nominated as first black Supreme Court justice.

06-13-1983-Pioneer 10 is first man-made object to leave the Solar System.

06-14-1775-The US Army is founded.

06-14-1777-Stars and Stripes adopted as US flag, replacing Grand Union flag.

06-14-1846-California (Bear Flag) Republic proclaimed in Sonoma.

06-14-1847-Bunson invents a gas burner.

06-14-1870-All-pro Cincinnati Red Stockings suffer first loss in 130 games.

06-14-1900-Hawaiian Territorial Government begins.

06-14-1919-First direct airplane crossing of the Atlantic.

06-14-1938-Chlorophyll patented by Benjamin Grushkin. How'd he do that?

06-14-1942-Walt Disney's "Bambi" is released.

06-14-1948-TV Guide is first published.

06-14-1951-UNIVAC 1, first commercial computer, is unveiled.

06-14-1952-Keel laid for first nuclear powered submarine, the Nautilus.

06-14-1967-Launch of Mariner V for Venus flyby

06-14-1975-USSR launches Venera 10 for Venus landing

06-14-1982-Britain wins the 74 day war for the Falkland Islands.

06-15-1215-King John reluctantly signs the Magna Carta at Runnymede.

06-15-1520-The pope threatens to toss Luther out of the Catholic Church.

06-15-1664-The state of New Jersey is founded.

06-15-1752-Ben Franklin's kite is struck by lightning, shocking!

06-15-1775-Washington appointed commander-in-chief of the American Army.

06-15-1836-Arkansas becomes 25th state

06-15-1844-Goodyear patents the process for vulcanization of rubber.

06-15-1846-Oregon Treaty signed, setting US-British boundary at 49° North.

06-15-1878-First attempt at motion pictures(using 12 cameras, each taking one picture (to see if all 4 horse's hooves leave the ground

06-15-1919-First flight across Atlantic (Alcock and Brown).

06-15-1940-France surrenders to Hitler.

06-15-1951-First commercial electronic computer dedicated in Philadelphia.

06-15-1975-Soyuz 19 launched

06-15-1977-Spain's first free elections since 1936.

06-15-1978-Soyuz 29 carries 2 cosmonauts to Salyut 6; they stay 139 days.

06-15-1982-Riots in Argentina after Falklands/Malvinas defeat.

06-16-1567-Mary Queen of Scots thrown into Lochleven Castle prison

06-16-1775-The Battle of Bunker Hill (actually it was Breed's Hill).

06-16-1858-"A house divided against itself cannot stand" - Abraham Lincoln.

06-16-1903-Ford Motor Company, a vehicle manufacturer, is founded.

06-16-1933-US Federal Deposit Insurance Corporation (FDIC) is created.

06-16-1963-Valentina Tereshkova becomes first woman in space.

06-16-1977-Leonid Brezhnev named president of USSR

06-16-1984-Edwin Moses wins his 100th consecutive 400-meter hurdles race

06-17-1856-Republican Party opened its first convention in Philadelphia.

06-17-1885-Statue of Liberty arrives in NYC aboard French ship "Isere".

06-17-1944-Republic of Iceland proclaimed at Thingvallir, Iceland.

06-17-1947-First around-the-world civil air service leaves New York.

06-17-1963-Supreme Court strikes down Lord's Prayer recitation

06-17-1971-US returns control of Okinawa to Japanese

06-17-1972-Democratic HQ at Watergate burglarized by Republicans.

06-17-1982-Ronald Reagan delivers "evil empire" speech.

06-18-1178-Proposed time of origin of lunar crater Giordano Bruno.

06-18-1812-War of 1812 begins as US declares war against Britain.

06-18-1815-Battle of Waterloo. Napoleon defeated by Wellington and Blücher.

06-18-1873-Susan B Anthony fined \$100 for attempting to vote for President.

06-18-1892-Macademia nuts first planted in Hawaii.

06-18-1928-Amelia Earhart is the first woman to fly across the Atlantic.

06-18-1953-Egypt is proclaimed a republic.

06-18-1959-First television broadcast transmitted from England to US.

06-18-1977-Space Shuttle test model "Enterprise" carries a crew aloft for first time, It was fixed to a modified Boeing 747

06-18-1981-Sandra Day O'Connor becomes first woman on the US Supreme Court.

06-18-1983-Sally Ride becomes first US woman in space, aboard Challenger.

06-19-0240-BC - Eratosthenes estimates the circumference of the earth.

06-19-1756-146 English people imprisoned in Black Hole of Calcutta.

06-19-1778-Washington's troops finally leave Valley Forge.

06-19-1846-First baseball game: NY Nines 23, Knickerbockers 1 (Hoboken, NJ).

06-19-1862-Slavery outlawed in US territories.

06-19-1910-Father's Day celebrated for first time in Spokane, Washington.

06-19-1931-First commercial photoelectric cell installed in West Haven Ct.

06-19-1932-First concert given in San Francisco's Stern Grove.

06-19-1934-Federal Communications Commission (FCC) created

06-19-1947-First plane to exceed 600 mph - Albert Boyd at Muroc, CA.

06-19-1976-Viking 1 enters Martian orbit after 10 month flight from earth.

06-19-1981-European Space Agency's Ariane carries two satellites into orbit.

06-20-1782-Congress approves Great Seal of US and the Eagle as it's symbol.

06-20-1791-King Louis XVI caught trying to escape French Revolution

06-20-1837-Queen Victoria at 18 ascends British throne following death of uncle King William IV. She ruled for 63 years, until 1901.

06-20-1863-West Virginia became 35th state

06-20-1948-Ed Sullivan has his first really big 'shoe' on Sunday night TV.

06-20-1963-US and USSR agree to set up a "Hot Line".

06-20-1968-Jim Hines becomes first person to run 100 meters in under 10 secs

06-20-1977-Oil enters Trans-Alaska pipeline exits 38 days later at Valdez.

06-20-1982-National Bald Eagle Day was declared.

06-21-1633-Galileo Galilei is forced by the Inquisition to "abjure, curse, and detest" his Copernican heliocentric views. Still in effect!

06-21-1788-US Constitution effective as NH is ninth state to ratify it.

06-21-1834-Cyrus Hall McCormick patents reaping machine.

06-21-1879-F. W. Woolworth opens his first store (failed almost immediately, so he found a new location and you know the rest...)

06-21-1948-First stored computer program run, on the Manchester Mark I.

06-21-1963-Pope Paul VI (Giovanni Battista Montini) succeeds John XXIII

06-22-1611-Henry Hudson set adrift in Hudson Bay during mutiny.

06-22-1675-Royal Greenwich Observatory established in England by Charles II.

06-22-1772-Slavery is outlawed in England.

06-22-1775-First Continental currency authorized

06-22-1807-British board USS Chesapeake, leading to the War of 1812.

06-22-1808-Zebulon Pike reaches his peak, it was all downhill after that.

06-22-1847-The doughnut is invented.

06-22-1910-First passenger carrying airship, the Zeppelin "Deutschland".

06-22-1911-King George V of England crowned

06-22-1944-FDR signs "GI Bill of Rights" (Servicemen's Readjustment Act)

06-22-1978-The planet Pluto's partner, Charon, is discovered.

06-22-1983-First time a satellite is retrieved from orbit, by Space Shuttle.

06-23-1683-William Penn signs friendship treaty with Lenni Lenape indians in Pennsylvania; the only treaty "not sworn to, nor broken".

06-23-1757-Robert Clive defeats Indians at Plassey, wins control of Bengal

06-23-1868-Christopher Latham Sholes patents the typewriter.

06-23-1955-Walt Disney's "Lady And The Tramp" is released

06-23-1976-CN Tower in Toronto, tallest free-standing structure (555m) opens

06-23-1986-Tip O'Neill refuses to let Reagan address House

06-24-1314-Battle of Bannockburn; Scotland regains independence from England

06-24-1441-Eton College founded by Henry VI

06-24-1497-John Cabot claims eastern Canada for England

06-24-1509-Henry VIII becomes King of England

06-24-1817-First coffee planted in Hawaii, on the Kona coast.

06-24-1930-First radar detection of aircraft, at Anacostia, DC.

06-24-1949-Cargo airlines first licensed by US Civil Aeronautics Board.

06-24-1949-Hopalong Cassidy becomes first network western.

06-24-1963-First demonstration of home video recorder, BBC Studios, London.

06-24-1982-Soyuz T-6 lifts 3 cosmonauts (1 French) to Salyut 7 space station

06-24-1982-Equal Rights Amendment goes down in defeat.

06-24-1986-US Senate approves "tax reform" - taxes went up.

06-25-1178-Five Canterbury monks report something exploding on the Moon (the only known observation of probable meteor strike).

06-25-1630-The Fork is introduced to American dining by Governor Winthrop.

06-25-1835-Pueblo founded with construction of first building (start of Yerba Buena, later to be called San

Francisco).

06-25-1938- Federal minimum wage law guarantees workers 40¢ per hour.

06-25-1950- Korean War begins; North Korea invades South.

06-25-1950- El Al begins air service.

06-25-1951- 1st color TV broadcast: CBS' Arthur Godfrey from NYC to 4 cities

06-25-1953- First passenger flies commercially around the world < 100 hours.

06-25-1977- Roy C Sullivan of Virginia is struck by lightning for 7th time!

06-26-1483- Richard III crowned King of England. Villified by Thomas More.

06-26-1797- Charles Newbold patents first cast-iron plow.

06-26-1876- Custer's Last Stand

06-26-1900- Walter Reed begins research that beats yellow fever

06-26-1911- Nieuport sets an aircraft speed record of 133 kph

06-26-1934- FDR signs Federal Credit Union Act, establishing Credit Unions.

06-26-1945- UN Charter signed by 50 nations in San Francisco.

06-26-1948- US responds to Soviet blockade of Berlin with an airlift.

06-26-1949- Walter Baade discovers asteroid Icarus INSIDE orbit of Mercury.

06-26-1959- St Lawrence Seaway opens, linking Atlantic Ocean with Great Lakes

06-26-1963- John F. Kennedy visits West Berlin, "Ich bin ein Berliner".

06-26-1968- Iwo Jima and Bonin Islands returned to Japan by US

06-26-1978- First dedicated oceanographic satellite, SEASAT 1 launched.

06-27-1806- Buenos Aires captured by British

06-27-1838- Queen Victoria is crowned

06-27-1929- First color TV demo, in New York

06-27-1942- FBI captures 8 Nazi saboteurs from a sub off Long Island, NY.

06-27-1950- President Truman orders Air Force and Navy into Korean conflict.

06-27-1955- First automobile seat belt legislation enacted Illinois

06-27-1960- Chlorophyll "A" synthesized in Cambridge Mass

06-27-1962- NASA X-15 flies at 4105 mph

06-27-1963- Robert Rushworth in X-15 reaches 87 km

06-27-1978- Soyuz 30 launched

06-27-1982- 4th Space Shuttle Mission - Columbia 4 launched

06-27-1983- Soyuz T-9 carries 2 cosmonauts to Salyut 7 space station

06-28-1820- The tomato is proved to be nonpoisonous.

06-28-1919- The Treaty of Versailles, ending World War I, was signed.

06-28-1939- Pan Am begins transatlantic air service with the Dixie Clipper.

06-28-1951- "Amos 'n Andy" show premiers on television (CBS).

06-29-1776- Mission Dolores founded by San Francisco Bay.

06-29-1854- Congress ratifies Gadsden Purchase of parts of New Mexico, Ariz.

06-29-1863- The very first First National Bank opens in Davenport, Iowa.

06-29-1916- The first Boeing aircraft flies.

06-29-1929- First high-speed jet wind tunnel completed Langley Field, CA.

06-29-1946- British arrest 2700 Jews in Palestine as alleged terrorists

06-29-1952- First aircraft carrier to sail around Cape Horn - the Oriskany.

06-29-1962- First flight of the Vickers VC-10 long-range airliner.

06-29-1971- Soyuz 11 docks with Salyut 1 for 22 days

06-30-1834- Congress creates Indian Territory

06-30-1893- The Excelsior diamond (blue-white, 995 carats) discovered.

06-30-1906- Pure Food and Drug Act and Meat Inspection Act adopted

06-30-1908- Giant fireball impacts in Central Siberia (the Tunguska Event)

06-30-1930- First round-the-world radio broadcast, from Schenectady NY.

06-30-1936- 40 hour work week law approved in US.

06-30-1948- Transistor demonstrated Murray Hill, NJ.

06-30-1960- Zaire gains its independence.

06-30-1972- Timekeeping adjusted with the first leap second.

07-01-1535- Sir Thomas More went on trial in England charged with treason

07-01-1847- 1st adhesive US postage stamps go on sale

07-01-1850- At least 626 ships lying at anchor around San Francisco Bay.

07-01-1863- Battle of Gettysburg, PA - Lee's northward advance halted.

07-01-1867- Dominion of Canada formed.

07-01-1873- Prince Edward Island becomes 7th Canadian province.

07-01-1898- Teddy Roosevelt and his Rough Riders charge up San Juan Hill.

07-01-1899- SF City Hall turned over to city, after 29 years of building

07-01-1919- First Class Postage DROPS to 2 cents from 3 cents.

07-01-1941- 1st TV licenses granted: W2XBS-WNBT (NBC) & WCBW (CBS), New York

07-01-1943- first automatic withholding tax from paychecks

07-01-1944- Bretton Woods Conference starts, establishing world-wide financial systems (like the IMF and the World Bank).

07-01-1960- Italian Somalia gains independence, unites with Somali Republic.

07-01-1960- Ghana becomes a republic.

07-01-1962- Burundi & Rwanda gain independence from Belgium (National Days).

07-01-1966- Medicare goes into effect.

07-01-1968- US, Britain, USSR & 58 nations sign Nuclear Nonproliferation Treaty

07-01-1969- Charles Philip Arthur George invested as the Prince of Wales

07-01-1971- Golden Gate Bridge paid for (so why is there still a toll?).

07-01-1982- Kosmos 1383, 1st search and rescue satellite, launched.

07-02-1890- Sherman Antitrust Act prohibits industrial monopolies.

07-02-1900- first flight of a Zeppelin (the LZ-1).

07-02-1926- US Army Air Corps created

07-02-1937-Amelia Earhart & Fred Noonan disappeared over the Pacific Ocean

07-02-1957-1st submarine built to fire guided missiles launched, "Grayback"

07-02-1964-President Johnson signs the Civil Rights Act.

07-02-1976-Supreme Court ruled death penalty not inherently cruel or unusual

07-02-1985-Proto launched on its way to Halley's Comet

07-03-1608-City of Quebec founded by Samuel de Champlain

07-03-1775-Washington takes command of Continental Army at Cambridge, Mass

07-03-1819-1st savings bank in US (Bank of Savings in NYC) opens its doors

07-03-1861-Pony Express arrives in SF with overland letters from New York.

07-03-1890-Idaho becomes 43rd state.

07-03-1898-US Navy defeats Spanish fleet in the harbor at Santiago Cuba

07-03-1962-Algeria becomes independent after 132 years of French rule

07-03-1983-Calvin Smith (US) becomes fastest man alive (36.25 kph for 100 m)

07-03-1986-Renovated Statue of Liberty is rededicated with great ceremony.

07-04-1054-Brightest known super-nova starts shining, for 23 days.

07-04-1057-Crab Nebula supernova recorded by Chinese & Japanese astronomers.

07-04-1776-Declaration of Independence - US gains independence from Britain

07-04-1802-US Military Academy officially opens at West Point, NY

07-04-1828-first US passenger railroad started, The Baltimore & Ohio

07-04-1845-Thoreau moves into his shack on Walden Pond.

07-04-1862-Lewis Carroll begins inventing "Alice in Wonderland" for his friend Alice Pleasance Liddell during a boating trip

07-04-1863-Boise, Idaho founded (now capital of Idaho).

07-04-1876-1st public exhibition of electric light in San Francisco.

07-04-1882-Telegraph Hill Observatory opens.

07-04-1884-Statue of Liberty is presented to the United States, in Paris.

07-04-1894-Elwood Haynes successfully tests one of the first US autos

07-04-1894-Republic of Hawaii established.

07-04-1903-Pacific Cable (San Francisco, Hawaii, Guam, Phillipines) opens. President Roosevelt sends a message to the Phillipines,

07-04-1933-Work begins on the Oakland Bay Bridge.

07-04-1946-Philippines gains independence from US

07-04-1965-Mariner 4 flies past Mars, sends first close-up photos.

07-04-1967-Freedom of Information Act goes into effect

07-04-1976-Raid on Entebbe - Israel rescues 229 Air France passengers

07-05-1687-Isaac Newton's PRINCIPIA is published by Royal Society in England

07-05-1811-Venezuela gains independence from Spain.

07-05-1859-Captain N.C. Brooks discovers Midway Islands.

07-05-1865-William Booth founds the Salvation Army, in London, England.

07-05-1935-first Hawaii Calls radio program is broadcast.

07-05-1938-Herb Caen gets his first column in the S.F. Chronicle.

07-05-1944-first rocket airplane flown

07-05-1950-Law of Return passes allowing all Jews rights to live in Israel

07-05-1951- Junction transistor invention announced, Murray Hill, NJ

07-05-1975-Cape Verde Islands independent, 500 years under Portuguese rule

07-05-1978-Soyuz 30 is launched

07-06-1885-1st inoculation (for rabies) of a human being, by Louis Pasteur

07-06-1928-Preview of 1st all-talking motion picture took place in NYC

07-06-1932-First Class postage back up to 3 cents from 2 cents.

07-06-1933-1st All-Star baseball game. American League won 5-2.

07-06-1964-Malawi (then Nyasaland) gains independence from Britain

07-06-1975-Comoros Islands gain independence from France (most of them).

07-06-1976-Soyuz 21 carries 2 cosmonauts to Salyut 5 space station.

07-07-1846-United States annexs California

07-07-1891-A patent was granted for the travelers cheque.

07-07-1898-Hawaii annexed to the United States.

07-07-1930-Construction began on Boulder (later Hoover) Dam

07-07-1946-Mother Frances X Cabrini canonized as 1st American saint

07-07-1978-Solomon Islands gains independence from Britain (National Day).

07-07-1980-first solar-powered aircraft crosses English Channel.

07-07-1990-The world's 3 greatest tenors: Carreras, Domingo and Pavarotti appear together, for the only time, in Rome. Simply ahhsome!

07-08-1663-King Charles II of England granted a charter to Rhode Island

07-08-1776-Col. John Nixon gives 1st public reading of Decl of Independence

07-08-1796-1st American Passport issued by the US State Department.

07-08-1835-The Liberty Bell cracks (again).

07-08-1889-Vol 1, No 1, of "The Wall Street Journal" published.

07-08-1896-William Jennings Bryan makes his 'cross of gold' speech at the Democratic Convention in Chicago.

07-08-1905-Part of Angel Island (in SF bay) becomes an Immigration Detention Center (port of entry for immigrants).

07-08-1907-Florenz Ziegfeld staged 1st `Follies' on NY Theater roof

07-08-1947-Demolition begins in New York for headquarters of United Nations

07-08-1977-Sabra Starr finishes longest recorded belly dance (100 hrs).

07-08-1978-Pioneer-Venus 2 Multi-probe launched to Venus.

07-09-1540-Henry VIII's 6-month marriage to Anne of Cleves is annulled.

07-09-1816-Argentina gains its independence.

07-09-1846-Capt Montgomery claims Yerba Buena (San Francisco) for the U.S.

07-09-1953-first helicopter passenger service, in New York

07-09-1957-Announcement of discovery of element 102 - nobelium

07-09-1979-Voyager II flies past Jupiter.

07-10-1890-Wyoming becomes the 44th state.

07-10-1925-USSR's official news agency TASS established.

07-10-1925-The Scopes 'Monkey Trial' on evolution, starts.

07-10-1940-Battle of Britain began as Nazi forces attack by air.

07-10-1962-Telstar, 1st communications satellite launched.

07-10-1966-Orbiter 1 Launched to moon.

07-10-1980-Ayatollah Khomeini releases Iran hostage Richard I. Queen

07-10-1985-French agents sink Greenpeace "Rainbow Warrior" in New Zealand.

07-11-1533-Pope Clement VII excommunicates England's King Henry VIII

07-11-1798-US Marine Corps is created by an act of Congress

07-11-1804-Burr and Hamilton duel. Burr won.

07-11-1864-Confederate forces, led by Gen J Early, invade Washington DC

07-11-1955-USAF Academy dedicated at Lowry AFB in Colorado

07-11-1962-Cosmonaut Micolaev set longevity space flight record-4 days

07-11-1962-1st transatlantic TV transmission via satellite (Telstar I).

07-11-1977-Medal of Freedom awarded posthumously to Martin Luther King

07-11-1979-US Skylab enters atmosphere over Australia & disintegrates.

07-11-1986-Mary Beth Whitehead christens her surrogate "Baby M", Sara.

07-12-1543-Henry VIII marries Catharine Parr (his 6th & last wife).

07-12-1812-US forces lead by Gen. Hull invade Canada (War of 1812).

07-12-1862-Congress authorizes Medal of Honor

07-12-1933-Congress passes 1st minimum wage law (\$0.33 per hour).

07-12-1960-Echo I, 1st passive satellite launched.

07-12-1960-USSR's Sputnik 5 launched with 2 dogs.

07-12-1962-Cosmonaut Popovich in space 1st time 2, manned craft in space

07-12-1977-first free flight test of Space Shuttle Enterprise.

07-12-1979-Kiribati (Gilbert & Ellice Is.) gains independence from Britain.

07-12-1984-Geraldine Ferraro, Democrat, becomes the first woman to be a major-party candidate for Vice President.

07-13-1865-Horace Greeley advises readers to "Go west". He meant Michigan.

07-13-1919-first lighter-than-air transatlantic flight completed.

07-13-1977-New York City experiences a 25 hr black-out

07-13-1984-Sergei Bubka of USSR pole vaults a record 5.89 m.

07-14-1771-Mission San Antonio de Padua founded in California

07-14-1789-Citizens of Paris storm the (near empty) Bastille prison.

07-14-1850-1st public demonstration of ice made by refrigeration.

07-14-1853-Commodore Perry requests trade relations with the Japanese.

07-14-1865-1st ascent of the Matterhorn.

07-14-1953-first national monument dedicated to a Negro - GW Carver

07-14-1958-Iraqi army Iraq overthrew monarchy, a Colonel Saddam Hussein.

07-14-1959-first atomic powered cruiser, the Long Beach, Quincy Mass

07-14-1965-US Mariner IV, 1st Mars probe, passes at 6,100 miles

07-14-1987-Taiwan ends 37 years of martial law

07-15-1662-Charles II grants a charter to establish Royal Society in London.

07-15-1815-Napoleon Bonaparte captured.

07-15-1870-NW Territories created & Manitoba becomes 5th Canadian province.

07-15-1940-first betatron placed in operation, Urbana, Illinois

07-15-1954-first US passenger jet transport airplane tested (Boeing 707).

07-15-1975-Soyuz 19 and Apollo 18 launched; rendezvous 2 days later.

07-16-1212-Battle of Las Navas de Tolosa; end of Moslem power in Spain.

07-16-1548-La Paz, Bolivia is founded.

07-16-1769-Father Serra founds Mission San Diego, 1st mission in Calif.

07-16-1790-Congress establishes the District of Columbia.

07-16-1861-1st major battle of the Civil War -- Bull Run.

07-16-1935-1st automatic parking meter in US installed, Oklahoma City, OK

07-16-1945-1st atomic blast, Trinity Site, Alamogordo, New Mexico.

07-16-1969-Apollo 11, first manned ship to land on the moon is launched with astronauts Buzz Aldrin, Neil Armstrong and Michael Collins.

07-17-1821-Spain ceded Florida to US

07-17-1841-British humor magazine 'Punch' 1st published.

07-17-1850-Harvard Observatory takes 1st photograph of a star (Vega)

07-17-1898-Spanish American War ends, in Santiago, Cuba.

07-17-1917-British royal family adopts the name 'Windsor.'

07-17-1945-Potsdam Conference. FDR, Stalin, Churchill hold first meeting.

07-17-1948-Republic of Korea founded.

07-17-1954-Construction begins on Disneyland...

07-17-1955-... Disneyland opens its doors in rural Orange County.

07-17-1959-Tibet abolishes serfdom

07-17-1962-Robert White in X-15 sets altitude record of 108 km (354,300 ft).

07-17-1969-Apollo/Soyuz, the first US/USSR linkup in space

07-17-0197-Pioneer 7 launched.

07-17-1984-Soyuz T-12 carries 3 cosmonauts to space station Salyut 7.

07-18-1964-The Great Fire of Rome begins (Nero didn't fiddle).

07-18-1536-Pope's authority declared void in England.

07-18-1872-Britain introduces voting by secret ballot.

07-18-1931-first air-conditioned ship launched - "Mariposa"

07-18-1936-Spanish Civil War begins, Francisco Franco leads uprising.

07-18-1938-Douglas 'Wrong Way' Corrigan lands in Ireland-left NY for Calif

07-18-1955-first electric power generated from atomic energy sold.

07-18-1966-Carl Sagan turns one billion seconds old

07-18-1966-Gemini 10 launched.

07-18-1968-Intel Corporation is incorporated. Made first microchip.

07-18-1980-Rohini 1, first Indian satellite, is launched.

07-18-1984-Svetlana Savitskaya accompanies Vladimir Dzhanibekov on EVA outside Salyut 7, becoming first woman to walk in space.

07-18-1986-Videotapes released showing Titanic's sunken remains

07-19-1848-First Women's Rights Convention. Seneca Falls, NY

07-19-1880-SF Public Library allows patrons to start borrowing books.

07-19-1935-1st parking meters installed in Oklahoma City business district.

07-19-1955-"Balclutha" ties up at SF Pier 43 & becomes a floating museum.

07-19-1961-1st In-flight movie is shown (on TWA).

07-20-1810-Columbia gains its independence.

07-20-1859-admission fee first charged to see a baseball game (50 cents).

07-20-1871-British Columbia becomes 6th Canadian province.

07-20-1960-USSR recovered 2 dogs; 1st living organisms to return from space.

07-20-1960-1st submerged submarine fires Polaris missile, George Washington

07-20-1969-first men land on the moon, aboard Apollo 11 at 09:18 GMT. Neil Armstrong and Edwin Aldrin establish Tranquility Base

07-20-1976-first pictures from Mars surface received (courtesy Viking 2).

07-20-1977-Voyager 2 launched to the outer solar system.

07-21-1831-Belgium gains its independence.

07-21-1873-World's 1st train robbery, by Jesse James.

07-21-1940-Soviet Union annexes Estonia, Latvia, Lithuania.

07-21-1959-first atomic powered merchant ship, Savannah, christened.

07-21-1961-Mercury 4 is launched into sub-orbital flight

07-21-1965-Gemini 5 launched atop Titan V with Cooper and Conrad

07-21-1969-Neil Armstrong steps onto the moon at 02:56:15 GMT. "It's one small step for a man, one giant leap for mankind."

07-21-1969-Independence Day, celebrated in Belgium.

07-22-1933-Wiley Post completes 1st round-the-world solo flight.

07-22-1972-Venera 8 makes a soft landing on Venus.

07-23-1798-Napoleon captures Alexandria, Egypt.

07-23-1829-Typewriter is patented.

07-23-1904-The Ice Cream Cone is invented.

07-23-1937-Isolation of pituitary hormone announced

07/23/1968 PLO's 1st hijacking of an EL AL plane

07/23/1972 ERTS 1 (Earth Resources Technology Satellite) later called LANDSA launched to start its multi-spectral scans of Earth

07/23/1972 1st Earth Resources Technology Satellite (ERTS) is launched

07/23/1980 Soyuz 37 ferries 2 cosmonauts (1 Vietnamese) to Salyut 6.

07/24/1701 French make 1st landing at site of Detroit.

07/24/1704 Great Britain takes Gibraltar from Spain

07/24/1847 Mormon leader Brigham Young & followers arrive at Salt Lake City,

07/24/1929 Hoover proclaims Kellogg-Briand Pact which renounced war

07/24/1946 US detonates atomic bomb at Bikini Atoll. See film Radio Bikini.

07/24/1959 Nixon has the 'Kitchen Debate' with Khrushchev

07/25/1909 first airplane flight across the English Channel.

07/25/1952 Commonwealth of Puerto Rico created.

07/25/1956 Italian liner Andrea Doria sank after collision with Stockholm.

07/25/1963 US Russia & England sign nuclear test ban treaty

07/25/1973 USSR launches Mars 5

07/25/1981 Voyager 2 encounters Saturn, "thousands of rings".

07/25/1987 USSR launches Kosmos 1870, 15-ton earth-study satellite.

07/26/1775 Benjamin Franklin becomes the first Postmaster General.

07/26/1847 Liberia gains its independence.

07/26/1887 first book published in Esperanto. Not a hit.

07/26/1908 Federal Bureau of Investigation established

07/26/1947 Department of Defense established

07/26/1953 Fidel Castro begins revolution against Batista

07/26/1953 Korean War Armistice is signed.

07/26/1956 Egypt seizes the Suez Canal

07/26/1957 USSR launches 1st intercontinental multi-stage ballistic missile.

07/26/1963 US launches Syncom 2, the first geosynchronous satellite

07/26/1965 Republic of Maldives gains independence from Britain (Nat'l Day).

07/26/1971 US launches Apollo 15 to the Moon

07/26/1982 Canada's Anik D1 comsat launched by US delta rocket.

07/27/1501 Copernicus formally installed as canon of Frauenberg Cathedral

07/27/1694 Bank of England is chartered.

07/27/1836 Adelaide, South Australia founded.

07/27/1866 Atlantic telegraph cable successfully laid (1,686 miles long).

07/27/1940 Billboard magazine starts publishing best-seller's charts.

07/27/1955 Austria regains full independence after 4-power occupation.

07/27/1962 Mariner 2 launched on a flyby mission to Venus

07/27/1969 Pioneer 10 Launched.

07-28-1586-Sir Thomas Harriot introduces potatoes to Europe.

07-28-1821-Peru gains its independence.

07-28-1849-"Memmon" is first clipper to reach SF, 120 days out of NY

07-28-1851-total solar eclipse captured on a daguerreotype photograph

07-28-1866-Metric system becomes a legal measurement system in US

07-28-1868-14th Amendment ratified, citizenship to exslaves.

07-28-1900-The Hamburger is created by Louis Lassing in Connecticut

07-28-1914-Austria-Hungary attacks Serbia - World War I begins.

07-28-1931-Congress makes The Star-Spangled Banner our 2nd National Anthem

07-28-1932-President Hoover evicts bonus marchers from their encampment.

07-28-1933-1st Singing Telegram is delivered (to Rudy Vallee).

07-28-1964-Ranger 7 launched to the moon; sends back 4308 TV pictures.

07-28-1973-Skylab 3's astronauts are launched

07-28-1976-Eldon Joersz & Geo. Morgan set world airspeed record of 3,530 kph

07-29-1858-1st commercial treaty between US and Japan is signed.

07-29-1914-1st transcontinental phone link. Between NYC and San Francisco.

07-29-1920-1st transcontinental airmail flight: New York to San Francisco

07-29-1957-International Atomic Energy Agency established by UN

07-29-1978-Pioneer 11 transmits images of Saturn & its rings.

07-29-1981-The wedding of Prince Charles and Lady Diana

07-29-1985-19th Space Shuttle Mission - Challenger 8 is launched

07-30-1619-The House of Burgesses in Virginia is formed. 1st elective governing body in a British colony.

07-30-1836-1st English newspaper published in Hawaii.

07-30-1946-1st rocket to attain 100-mile altitude, White Sands, NM

07-30-1956-Motto of US "In God We Trust" authorized

07-30-1971-US Apollo 15 lands on Mare Imbrium.

07-30-1980-Vanuatu (then New Hebrides) gains independence from Britain, Fran

07-30-1983-STs-8 3rd flight of Challenger. 1st night launch & land.

07-30-1984-STs-14 first flight of the shuttle Discovery.

07-31-1498-Christopher Columbus discovers island of Trinidad.

07-31-1588-English fleet attacks Spanish armada

07-31-1790-1st US Patent granted (for a potash process).

07-31-1948-President Truman dedicates Idlewild Field (Kennedy Airport), NY

07-31-1964-Ranger 7 transmits the 1st lunar close-up photos before impact

07-31-1970-Chet Huntley retires from NBC, ending 'Huntley-Brinkley Report' (No more "Goodnight, David", "Goodnight, Chet")

08-01-1291-Everlasting League forms, the basis of the Swiss Confederation

08-01-1790-First U.S. Census

08-01-1794-Whisky Rebellion

08011852Black Methodists establish 1st black SF church, Zion Methodist

08011901Burial within San Francisco City limits prohibited.

08011946President Truman establishes Atomic Energy Commission.

08011953California introduces its Sales Tax (for Education).

08011958First Class postage up to 4 cents (had been 3 cents for 26 years

080218731st trial run of an SF cable car, on Clay Street between Kearny and Jones, downhill all the way, at 4A

08021877San Francisco Public Library opens with 5000 volumes.

08021990Saddam Hussein of Iraq invades neighboring Kuwait in the first act of the 1991 Persian Gulf War.

08031492Columbus sets sail for 'the Indies'.

08041693Champagne is invented by Dom Perignon.

08051775The 1st Spanish ship, 'San Carlos', enters San Francisco bay.

08051861US levies its first Income Tax (3% of incomes over \$800).

08051864Spectrum of a comet observed for 1st time, by Giovanni Donati

08051963Nuclear Test Ban Treaty signed.

08061835Bolivia gains its independence

08061926The first woman swims the English Channel.

08061945The first Atom Bomb was dropped on Hiroshima by the 'Enola Gay'.

080718071st servicable steamboat, the Cleremont, goes on 1st voyage.

08091842The US-Canada border defined by the Webster-Ashburton Treaty.

08091945The 2nd Atom Bomb dropped on Nagasaki.

08091974Richard Nixon resigns presidency.

08101809Ecuador gains its independence.

08101981Pete Rose tops Stan Musial's record of 3630 hits.

08111877Asaph Hall discovers Mars' moon Deimos

08111929Babe Ruth hits his 500th homer

08111933Temp. hits 58øC (136øF) at San Luis Potosi, Mex. (world record)

08121851Issac Singer granted a patent for his sewing machine.

08121898The peace protocol ending the Spanish-American War was signed.

08121915'Of Human Bondage,' by William Somerset Maugham, published.

08121934Babe Ruth's final game at Fenway Park, 41,766 on hand

08131642Christiaan Huygens discovers the Martian south polar cap

08131876Reciprocity Treaty between US and Hawaii ratified.

08131961Berlin Wall erected in East Germany

08140410Alaric sacks Rome, he really was a Vandal.

08141457Oldest exactly dated printed book (c. 3 years after Gutenberg)

08141846Henry David Thoreau jailed for tax resistance.

08141848Oregon Territory created

08141935Social Security Act became law

08141941Atlantic Charter signed by FDR & Churchill

08□14□1945□VJ Day - Japan surrendered to end World War II.

08□14□1966□First US lunar orbiter does it.

08□15□1901□Arch Rock, danger to Bay shipping, blasted with 30 tons of nitrogelatin (and that ain't jello).

08□15□1945□South Korea liberated from Japanese rule.

08□15□1945□Riot in San Francisco celebrating end of World War II.

08□15□1960□The Congo (Brazzaville) gains its independence.

08□16□1863□Emancipation Proclamation signed

08□16□1969□Woodstock festival begins in New York.

08□16□1970□Venera 7 launched by USSR for soft landing on Venus

08□17□1807□R. Fulton's steamboat Clermont begins 1st trip up Hudson River

08□17□1896□Gold discovered at Bonanza Creek, in Klondike region of the Yukon

08□17□1939□"The Wizard of Oz" opens at Loew's Capitol Theater in NY

08□17□1950□Indonesia gains its independence.

08□18□1868□Pierre Janssan discovers helium in solar spectrum during eclipse

08□18□1914□Pres Wilson issues Proclamation of Neutrality

08□18□1963□James Meredith becomes 1st black graduate of Univ of Miss.

08□18□1976□USSR's Luna 24 softlands on the Moon

08□19□1826□Canada Co. chartered to colonize Upper Canada (Ontario).

08□19□1891□William Huggins describes use of spectrum in astronomy.

08□19□1960□Francis Gary Powers convicted of spying by USSR (U-2 incident)

08□19□1960□Sputnik 5 carries 3 dogs into orbit (recovered alive) Yeaaa!

08□19□1979□The crew of Soyuz 32 returns to Earth aboard Soyuz 34

08□19□1982□Soyuz T-7 is launched

08□20□1866□President Andrew Johnson formally declared the Civil War over

08□20□1920□US's first radio broadcaster, 8MK later WWJ, Detroit begins daily broadcasting.

08□20□1930□Dumont's 1st TV Broadcast for home reception, NY city

08□20□1940□Churchill says of the Royal Air Force, "Never in the field of human conflict was so much owed by so many to so few."

08□20□1942□WW II dimout regulations implemented in San Francisco.

08□20□1977□Voyager II launched.

08□21□1841□John Hampson patents the venetian blind

08□21□1959□Hawaii became the 50th state.

08□21□1965□Gemini 5 launched into earth orbit (2 astronauts)

08□21□1968□Soviet Union invades Czechoslovakia.

08□21□1968□William Dana reaches 80 km (last high-altitude X-15 flight)

08□21□1972□US orbiting astronomy observatory Copernicus is launched

08□22□1485□Richard III slain at Bosworth Field - Last of the Plantagenets

08□22□1787□John Fitch's steamboat completes its tests, years before Fulton

08□22□1851□Gold fields discovered in Australia

08-22-1963-Joe Walker in a NASA X-15, reaches 106 km (67 miles)

08-23-1833-Britain abolishes slavery in colonies; 700,000 slaves freed

08-23-1869-1st carload of freight (boots & shoes) arrives in San Francisco, from Boston, after a 16-day rail trip.

08-23-1919-"Gasoline Alley" cartoon strip premieres in Chicago Tribune

08-23-1957-Digital Equipment Corp. founded

08-23-1966-Lunar Orbiter 1 takes 1st photograph of earth from the moon

08-23-1973-First Intelsat communications satellite launched

08-23-1977-1st man-powered flight (Bryan Allen in Gossamer Condor)

08-24-0079-Mt. Vesuvius erupts; Pompeii & Herculaneum are buried

08-24-1814-British sack Washington, DC. Please, it needs it again!

08-24-1869-The Waffle Iron is invented.

08-24-1909-Workers start pouring concrete for the Panama Canal.

08-24-1932-1st transcontinental non-stop flight by a woman, AE Putnam

08-24-1956-1st non-stop transcontinental helicopter flight arrived Wash DC

08-24-1960-temp. drops to -88ø (-127ø F) at Vostok, Antarctica (world record)

08-24-1989-Voyager II passes Neptune, Triton, finds rings here too.

08-25-1689-Montreal taken by the Iroquois

08-25-1825-Uruguay gains its independence.

08-25-1929-Graf Zeppelin passes over San Francisco, headed for Los Angeles after trans-Pacific voyage from Tokyo.

08-25-1981-Voyager II flies past Saturn. sees not a few, but thousands of rings.

08-25-1981-Voyager 2 in its closest approach to Saturn,

08-26-1955-B.C. Roman forces under Julius Caesar invaded Britain.

08-26-1346-English longbows defeat French in Battle of Cr, cy

08-26-1629-Cambridge Agreement pledged. Massachusetts Bay Co. stockholders agreed to emigrate to New England.

08-26-1791-John Fitch granted a US patent for his working steamboat.

08-26-1846-W. A. Bartlett appointed 1st US mayor of Yerba Buena (SF).

08-26-1907-Houdini escapes from chains underwater at SF's Aquatic Park in 57 seconds.

08-26-1920-19th Amendment passes - Women's Suffrage granted (about time!)

08-26-1952-Fluoridation of San Francisco water begins.

08-26-1962-Mariner 2 launched for 1st planet flyby (Venus)

08-26-1973-Women's Equality Day

08-27-1776-Americans defeated by British in Battle of Long Island

08-27-1783-1st hydrogen-filled balloon ascent (unmanned)

08-27-1859-1st successful oil well drilled near Titusville, Penn.

08-27-1859-1st successful oil well drilled, near Titusville, Penn

08-27-1883-Krakatoa, Java explodes with a force of 1,300 megatons

08-27-1883-Krakatoa, WEST of Java, blew apart (Top that, St Helens).

08-27-1928-Kellogg-Briand Pact, where 60 nations agreed to outlaw war.

08-28-1565-St Augustine, Fla established

08-28-1609-Delaware Bay explored by Henry Hudson for the Netherlands

08-28-1789-William Herschel discovers Enceladus, satellite of Saturn

08-28-1828-Russian novelist Leo Tolstoy was born near Tula.

08-28-1907-United Parcel Service begins service, in Seattle

08-28-1917-10 suffragists were arrested as they picketed the White House

08-28-1965-Astronauts Cooper & Conrad complete 120 Earth orbits in Gemini 5

08-29-1526-Hungary conquered by Turks in Battle of Mohács

08-29-1533-Last Incan King of Peru, Atahualpa, murdered by Spanish conquerors

08-29-1896-Chop suey invented in NYC by chef of visiting Chinese Ambassador

08-29-1949-USSR explodes its 1st atomic bomb

08-29-1954-San Francisco International Airport (SFO) opens.

08-30-1850-Honolulu, Hawaii becomes a city.

08-30-1979-1st recorded occurrence of a comet hitting the sun (the energy released was about equal to 1 million hydrogen bombs).

08-30-1983-8th Space Shuttle Mission - Challenger 3 is launched

08-30-1984-12th Space Shuttle Mission - Discovery 1 is launched

08-31-1842-US Naval Observatory is authorized by an act of Congress

08-31-1955-1st sun-powered automobile demonstrated, Chicago, IL

08-31-1977-Aleksandr Fedotov sets world aircraft altitude record of 38.26 km (125,524 ft) in a Mikoyan E-266M turbojet

08-31-1980-Solidarity Labor Union in Poland is founded.

09-01-1772-Mission San Luis Obispo de Tolosa founded in California

09-01-1807-Aaron Burr acquitted of charges of plotting to set up an empire.

09-01-1849-California Constitutional Convention held in Monterey.

09-01-1859-Carrington & Hodgson make first observation of a solar flare.

09-01-1878-1st woman telephone operator starts work (Emma Nutt in Boston).

09-01-1905-Alberta and Saskatchewan become 8th and 9th Canadian provinces.

09-01-1939-PHYSICAL REVIEW publishes first paper to deal with "black holes"

09-01-1939-Germany invades Poland, starting World War II.

09-01-1969-Muammar Gadhafi deposes Libya's King Idris

09-01-1977-First TRS-80 Model I computer is sold.

09-01-1979-Pioneer 11 makes 1st fly-by of Saturn, discovers new moon, rings

09-01-1983-A Korean Boeing 747, carrying 269 passengers, strays into Soviet air space and is shot down by a Soviet jet fighter.

09-01-1985-SS Titanic, sunk in 1912, is found by French & American scientists

09-02-1931-BC At the Battle of Actium; Octavian defeats Antony, and becomes the Emperor Augustus.

09-02-0490-BC Phidippides runs the first marathon, seeking aid from Sparta against the Persians.

09-02-1666- Great Fire of London starts; destroys St. Paul's Church

09-02-1789- US Treasury Department established by Congress

09-02-1804- Harding discovers Juno, the 3rd known asteroid

09-02-1898- Lord Kitchener retakes Sudan for Britain

09-02-1945- Vietnam declares independence from France (National Day)

09-02-1945- V-J Day; Japan formally surrenders aboard the USS Missouri.

09-02-1963- CBS & NBC expand network news from 15 to 30 minutes

09-03-1783- Treaty of Paris, ending the Revolutionary War, is signed.

09-03-1849- California State Constitutional Convention convenes in Monterey

09-03-1900- British annex Natal (South Africa)

09-03-1935- First automobile to exceed 300 mph, Sir Malcolm Campbell

09-03-1939- Britain declared war on Germany. France followed six hours later, quickly joined by Australia, New Zealand, South Africa & Canada

09-03-1940- First showing of high definition color television

09-03-1940- US gives Britain 50 destroyers in exchange for military bases

09-03-1976- US Viking 2 lands on Mars at Utopia

09-03-1978- Crew of Soyuz 31 returns to Earth aboard Soyuz 29

09-03-1985- 20th Space Shuttle Mission - Discovery 6 returns to Earth

09-04-0476- Romulus Augustulus, last Roman emperor in the west, is deposed.

09-04-1609- Navigator Henry Hudson discovers the island of Manhattan.

09-04-1781- Los Angeles is founded in the Valley of Smokes (Indian Name).

09-04-1833- 1st newsboy in the US hired (Barney Flaherty), by the NY Sun

09-04-1870- French republic proclaimed

09-04-1882- First district lit by electricity (NY's Pearl Street Station)

09-04-1886- Geronimo is captured, ending last major US-Indian war

09-04-1888- George Eastman patents 1st rollfilm camera & registers "Kodak".

09-04-1911- Garros sets world altitude record of 4,250 m (13,944 ft)

09-04-1918- US troops land in Archangel, Russia, stay 10 months

09-04-1933- First airplane to exceed 300 mph, JR Wendell, Glenview, Illinois

09-04-1950- First helicopter rescue of American pilot behind enemy lines.

09-04-1951- First transcontinental TV broadcast, by President Truman

09-04-1954- 1st passage of McClure Strait, fabled Northwest Passage completed

09-04-1957- Ford introduces the Edsel.

09-04-1964- NASA launches its first Orbital Geophysical Observatory (OGO-1)

09-04-1972- US swimmer Mark Spitz is 1st athlete to win 7 olympic gold medals

09-04-1980- Iraqi troops seize Iranian territory in a border dispute.

09-05-1774- First Continental Congress assembles, in Philadelphia

09-05-1781- Battle of Virginia Capes, where the French Fleet defeats the British rescue fleet, trapping Cornwallis at Yorktown.

09-05-1885-1st gasoline pump is delivered to a gasoline dealer.

09-05-1953-First privately operated atomic reactor - Raleigh NC

09-05-1958-First color video recording on mag. tape shown, Charlotte NC

09-05-1977-Voyager II launched towards Jupiter and Saturn.

09-05-1978-Sadat, Begin and Carter began peace conference at Camp David, Md.

09-05-1980-World's longest auto tunnel, St. Gotthard in Swiss Alps, opens.

09-06-1628-Puritans land at Salem, form Massachusetts Bay Colony.

09-06-1716-First lighthouse in US built, in Boston

09-06-1869-First westbound train arrives in San Francisco.

09-06-1909-Word received: Peary discovered the North Pole five months ago.

09-06-1966-Star Trek appears on TV for the 1st time, on NBC. Beam me up!

09-07-1822-Brazil declares independence from Portugal (National Day).

09-07-1907-Sutro's ornate Cliff House in SF is destroyed by fire.

09-07-1948-First use of synthetic rubber in asphaltic concrete, Akron OH

09-07-1956-Bell X-2 sets Unofficial manned aircraft altitude record 126,000+

09-08-1380-Russians defeat Tatars at Kulikovo, beginning decline of Tatars.

09-08-1565-1st permanent settlement in US founded at St Augustine, Florida

09-08-1565-Turkish siege of Malta broken by Maltese & Knights of St. John.

09-08-1664-Dutch surrender New Amsterdam (NY) to English.

09-08-1771-Mission San Gabriel Archangel founded in California.

09-08-1858-Lincoln makes a speech describing when you can fool people.

09-08-1883-Northern Pacific RR's last spike driven at Independence Creek, Mo

09-08-1920-1st US Air Mail service begins.

09-08-1943-Italy surrenders to the allies in WW II

09-08-1945-US invades Japanese-held Korea.

09-09-1513-Battle of Flodden Fields; English defeat James IV of Scotland.

09-09-1776-Continental Congress authorizes the name "United States".

09-09-1839-John Herschel takes the first glass plate photograph

09-09-1850-California becomes the 31st state.

09-09-1867-Luxembourg gains independence.

09-09-1892-E.E.Barnard at Lick discovers Amalthea, 5th moon of Jupiter.

09-09-1926-NBC created by the Radio Corporation of America.

09-09-1942-First bombing of the continental US, at Mount Emily Oregon by a Japanese plane launched from a submarine.

09-09-1967-First successful test flight of a Saturn V rocket.

09-09-1975-Viking 2 launched toward orbit around Mars, soft landing.

09-09-1982-"Conestoga I", the world's first private rocket, is launched.

09-10-1608-John Smith elected president of Jamestown colony council, Va.

09-10-1813-Oliver H. Perry defeats the British in the Battle of Lake Erie

09-10-1846-Elias Howe receives patent for his sewing machine.

09-10-1919-NYC welcomes home Gen. John J. Pershing and 25,000 WW I soldiers

09-10-1945-Vidkun Quisling sentenced to death for collaborating with Nazis.

09-10-1953-Swanson sells its first "TV Dinner".

09-10-1955-"Gunsmoke" premieres on CBS television.

09-10-1963-Twenty black students enter public schools in Alabama.

09-10-1974-Guinea-Bissau gains independence from Portugal.

09-11-1777-Battle of Brandywine, PA - Americans lose to British.

09-11-1814-Battle of Lake Champlain, NY - British lose to Americans

09-11-1850-Jenny Lind, the "Swedish Nightingale", makes first US concert.

09-11-1910-1st commercially successful electric bus line opens, in Hollywood

09-11-1936-FDR dedicates Boulder Dam, now known as Hoover Dam

09-11-1944-FDR and Churchill meet in Canada at the second Quebec Conference

09-11-1946-First mobile long-distance, car-to-car telephone conversation.

09-11-1947-US Department of Defense is formed.

09-11-1950-First typesetting machine without metal type is exhibited.

09-11-1954-First Miss America TV broadcast

09-11-1967-US Surveyor 5 makes first chemical analysis of lunar material.

09-11-1972-BART begins service with a 26 mile line from Oakland to Fremont

09-11-1985-Pete Rose, Cincinnati Reds, gets hit 4,192 - eclipsing Ty Cobb.

09-12-0490-BC Athenians defeat 2nd Persian invasion of Greece at Marathon.

09-12-1609-Henry Hudson discovers what is now called the Hudson River.

09-12-1758-Charles Messier observes the Crab Nebula and begins catalog.

09-12-1941-First German ship in WW II is captured by US ship (Busko)

09-12-1953-Khrushchev becomes First Secretary of the Communist Party

09-12-1959-Luna 1 launched by USSR; 1st spacecraft to impact on the moon.

09-12-1959-Bonanza, horse opera, premieres on television

09-12-1966-Gemini XI launched

09-12-1970-Luna 16 launched; returns samples from Mare Fecunditatis

09-12-1974-Emperor Haile Selassie of Ethiopia overthrown.

09-13-1788-New York City becomes the capitol of the United States.

09-13-1906-First airplane flight in Europe.

09-13-1959-Soviet Lunik 2 becomes 1st human-made object to crash on moon.

09-13-1963-The Outer Limits premieres

09-14-1716-1st lighthouse in US is lit (in Boston Harbor).

09-14-1752-England and colonies adopt Gregorian calendar, 11 days disappear.

09-14-1812-Napoleon occupies Moscow.

09-14-1814-Francis Scott Key inspired to write 'The Star-Spangled Banner'.

09-14-1847-US troops capture Mexico City.

09-14-1886- The typewriter ribbon is patented.

09-14-1899- While in New York, Henry Bliss becomes 1st automobile fatality

09-14-1940- Congress passes 1st peace time draft law.

09-14-1956- First prefrontal lobotomy performed in Washington DC. Common now.

09-14-1964- Walt Disney awarded the Medal of Freedom at the White House

09-14-1968- USSR's Zond 5 is launched on first circum lunar flight

09-14-1974- Charles Kowal discovers Leda, 13th satellite of Jupiter.

09-15-1776- British forces occupy New York during the American Revolution.

09-15-1789- Department of Foreign Affairs is renamed the Department of State

09-15-1821- Costa Rica, El Salvador, Guatamala, Honduras & Nicaragua all gain their independence.

09-15-1917- Russia is proclaimed a republic by Alexander Kerensky

09-15-1947- First 4 engine jet propelled fighter plane tested, Columbus, Oh

09-15-1950- UN forces land at Inchon during Korean conflict.

09-15-1959- Soviet Premier Khrushchev arrives in US to begin a 13-day visit

09-15-1976- Soyuz 22 carries two cosmonauts into earth orbit for 8 days.

09-16-1620- The Mayflower departs from Plymouth, England with 102 pilgrims.

09-16-1630- Massachuset village of Shawmut changes its name to Boston

09-16-1662- Flamsteed sees solar eclipse, 1st known astronomical observation

09-16-1795- British capture Capetown

09-16-1857- Patent is issued for the typesetting machine.

09-16-1893- Cherokee Strip, Oklahoma opened to white settlement homesteaders

09-16-1908- William Crapo Durant incorporates General Motors

09-16-1919- The American Legion is incorporated.

09-16-1945- Barometric pressure at 856 mb (25.55") off Okinawa (record low)

09-16-1966- Metropolitan Opera opens at New York's Lincoln Center

09-16-1968- Richard Nixon appears on Laugh-in

09-16-1972- First TV series about mixed marriage - Bridgit Loves Bernie.

09-16-1974- BART begins regular transbay service.

09-16-1974- Pres Ford announces conditional amnesty for Vietnam deserters

09-16-1975- Papua New Guinea gains independence from Australia.

09-16-1976- Episcopal Church approves ordination of women as priests & bishop

09-17-1776- The Presidio of San Francisco was founded as Spanish fort.

09-17-1787- The Constitution of The United States is adopted.

09-17-1789- William Herschel discovers Mimas, satellite of Saturn

09-17-1819- 1st whaling ship arrives in Hawaii.

09-17-1908- Thomas Selfridge becomes 1st fatality of powered flight

09-17-1953- First successful separation of Siamese twins

09-17-1968- Zond 5 completes circumnavigation of the Moon

09-17-1972- BART begins passenger service

09-17-1978-Begin, Sadat and Carter sign the Camp David accord.

09-17-1985-Soyuz T-14 carries 3 cosmonauts to Salyut 7 space station

09-18-1755-Fort Ticonderoga, New York opened

09-18-1793-Washington lays cornerstone of Capitol building

09-18-1810-Chile gains its independence.

09-18-1851-"The New York Times" goes on sale, at 2 cents a copy.

09-18-1851-New York Times starts publishing, at 2¢ a copy

09-18-1927-Columbia Broadcasting System goes on the air.

09-18-1966-Gemini X is launched

09-18-1977-US Voyager I takes 1st space photograph of earth & moon together

09-18-1980-Soyuz 38 carries 2 cosmonauts (1 Cuban) to Salyut 6 space station

09-18-1984-Joe Kittinger completes 1st solo balloon crossing of Atlantic

09-19-1356-English defeat French at Battle of Poitiers

09-19-1796-George Washington's presidential farewell address

09-19-1812-Napoleon's retreat from Russia begins

09-19-1848-Bond (US) & Lassell (England) independently discover Hyperion

09-19-1849-First commercial laundry established, in Oakland, California.

09-19-1873-Black Friday: Jay Cooke & Co. fails, causing a securities panic

09-19-1968-Baby born on Golden Gate Bridge (those Marin County folk!).

09-19-1982-Streetcars stop running on Market St after 122 years of service

09-20-1519-Magellan starts 1st successful circumnavigation of the world.

09-20-1797-US frigate "Constitution" (Old Ironsides) launched in Boston.

09-20-1859-Patent granted on the electric range.

09-20-1884-Equal Rights Party founding convention in San Francisco, nominated female candidates for President Vice President.

09-20-1945-German rocket engineers begin work in US

09-20-1951-First North Pole jet crossing

09-20-1954-First FORTRAN computer program is run

09-20-1970-Luna 16 lands on Moon's Mare Fecunditatis, drills core sample

09-21-1784-1st daily newspaper in US begins publication in Pennsylvania.

09-21-1895-1st auto manufacturer opens -- Duryea Motor Wagon Company.

09-21-1930-Johann Ostermeyer patents his invention, the flashbulb.

09-21-1954-The nuclear submarine "Nautilus" is commissioned.

09-21-1958-1st airplane flight exceeding 1200 hours, lands at Dallas Texas

09-21-1964-Malta gains independence from Britain

09-21-1974-US Mariner 10 makes second fly-by of Mercury

09-21-1981-Sandra Day O'Connor becomes the 1st female Supreme Court Justice

09-21-1982-SF cable cars cease operations for 2 years of repairs

09-22-1789-The US Post Office was established.

09-22-1863- President Lincoln makes his Emancipation Proclamation speech.

09-22-1893- 1st auto built in US (by Duryea brothers) runs in Springfield

09-22-1903- Italo Marchiony granted a patent for the ice cream cone

09-22-1980- War between Iran and Iraq begins, lasts eight years. No winner.

09-23-1779- Naval engagement between 'Bonhomme Richard' and 'HMS Serepis'.

09-23-1780- John Andre reveals Benedict Arnold's plot to betray West Point.

09-23-1846- Johann Galle & Heinrich d'Arrest find Neptune

09-23-1912- First Mack Sennett "Keystone Comedy" movie is released.

09-23-1932- Kingdom of Saudi Arabia formed, (National Day)

09-23-1952- First closed circuit pay-TV telecast of a sports event.

09-23-1952- Richard Nixon makes his "Checker's" speech

09-23-1973- Largest known prime, $2^{132,049} - 1$, is calculated.

09-24-1789- Congress creates the Post Office.

09-24-1845- 1st baseball team is organized.

09-24-1852- A new invention, the dirigible, is demonstrated.

09-24-1853- 1st round-the-world trip by yacht (Cornelius Vanderbilt).

09-24-1869- Black Friday: crashing gold prices causes stock market panic.

09-24-1895- 1st round-the-world trip by a woman on a bicycle (took 15 months)

09-24-1929- Lt James H Doolittle guided a Consolidated N-Y-2 Biplane over Mitchell Field in NY in the 1st all-instrument flight

09-24-1934- Babe Ruth makes his farewell appearance as a baseball player

09-24-1941- Nine Allied govts pledged adherence to the Atlantic Charter

09-24-1954- "The Tonight Show" premieres.

09-24-1957- Eisenhower orders US troops to desegregate Little Rock schools

09-24-1960- USS Enterprise, 1st nuclear-powered aircraft carrier, launched

09-24-1963- Senate ratifies treaty with Britain & USSR limit nuclear testing

09-24-1979- CompuServe system starts, first public computer info service.

09-25-1493- Columbus sails on his second voyage to America

09-25-1513- Vasco Nunez de Balboa, the 1st European to see the Pacific Ocean

09-25-1639- First printing press in America goes to work.

09-25-1789- Congress proposes the Bill of Rights.

09-25-1890- Congress establishes Yosemite National Park.

09-25-1926- Henry Ford announces the five day work week

09-25-1956- First transatlantic telephone cable goes into operation

09-25-1973- 3-man crew of Skylab II make safe splashdown after 59 days.

09-26-1542- Cabrillo discovers California

09-26-1687- Parthenon destroyed in war between Turks & Venetians

09-26-1789- Jefferson appointed 1st Sec of State; John Jay 1st chief justice; Samuel Osgood 1st Postmaster & Edmund J Randolph 1st Attorney Gen

09-26-1824-Kapiolani defies Pele (Hawaiian volcano goddess) and lives.

09-26-1896-John Philip Sousa's Band's first performance in Plainfield, NJ

09-26-1914-Federal Trade Commission formed to regulate interstate commerce

09-26-1950-UN troops in Korean War recaptured South Korean capital of Seoul

09-26-1966-Japan launches its 1st satellite in to space

09-26-1966-The Staten Island is 1st icebreaker to enter SF bay

09-26-1983-Australia II wins The America's Cup yacht race

09-26-1983-Cosmonauts Titov & Strekalov are saved from exploding Soyuz T-10

09-27-1540-Society of Jesus (Jesuits) founded by Ignatius Loyola

09-27-1787-Constitution submitted to the states for ratification

09-27-1825-Railroad transportation is born with 1st track in England.

09-27-1941-First WWII liberty ship, freighter Patrick Henry, is launched

09-27-1964-Warren Commission finds that Lee Harvey Oswald acted alone. Ha!

09-27-1973-Soyuz 12 launched

09-28-1066-William the Conqueror landed in England

09-28-1542-Juan Cabrillo discovers California, at San Diego Bay.

09-28-1781-Siege of Yorktown begins, last battle of the Revolutionary War

09-28-1858-Donati's comet becomes the 1st to be photographed

09-28-1920-Baseball's biggest scandal, grand jury indicts 8 White Sox for throwing the 1919 World Series with the Cincinnati Reds

09-28-1924-2 US Army planes completed 1st around the world flight

09-28-1965-Jack McKay in X-15 reaches 90 km

09-28-1970-Anwar Sadat replaces Nasser as President of Egypt

09-29-1829-Scotland Yard formed in London

09-29-1859-Spectacular auroral display visible over most of the US

09-29-1923-Steinhart Aquarium in Golden Gate Park opens to public.

09-29-1977-Soviet space station Salyut 6 launched into earth orbit

09-30-1452-1st book published, Johann Guttenberg's Bible

09-30-1659-Robinson Crusoe is shipwrecked (according to Defoe)

09-30-1781-Siege of Yorktown begins

09-30-1846-William Morris 1st tooth extraction under anesthetics Charlestown

09-30-1880-Henry Draper takes the first photograph of the Orion Nebula

09-30-1898-City of New York is established

09-30-1939-1st manned rocket flight (by auto maker Fritz von Opel)

09-30-1967-USSR's Kosmos 186 & 188 complete the 1st automatic docking

09-30-1967-Palace of Fine Arts reopens (1st time during 1915 exposition)

10-01-0331-BC Alexander of Macedon defeats Persian army at Gaugamela

10-01-1869-1st postcards are issued in Vienna.

10-01-1896-Yosemite becomes a National Park.

100119031st World Series starts between the National & American Leagues

10011908Henry Ford introduces the Model T car.

10011940Pennsylvania Turnpike, pioneer toll thruway, opens.

10011949People's Republic of China proclaimed (National Day)

10011952first Ultra High Frequency (UHF) TV station, in Portland, Oregon

10011958Vanguard Project transferred from military to NASA

10011960Nigeria gains its independence.

10011962Johnny Carson's Tonight Show and The Lucy Show both premier.

10011962National Radio Astronomy Observatory gets a 300' radio telescope

10011964Cable Cars declared a National Landmark.

10011971Walt Disney World in Orlando, Florida opens.

10011979US returns Canal Zone, not the canal, to Panama after 75 years.

10021608Hans Lippershey offers the Dutch a new invention - the telescope

10021836Darwin returns to England aboard the HMS Beagle.

10021870Italy annexes Rome & the Papal States; Rome made Italian capital

10021889first Pan American conference.

10021935NY Hayden Planetarium, the 4th in the US, opens

10021936first alcohol power plant established, Atchison, Kansas

10021942first self-sustaining nuclear reaction demonstrated, in Chicago.

10021950The comic strip 'Peanuts' first appears, in nine newspapers.

10021958Guinea gains its independence.

10021967Thurgood Marshall is sworn as first black Supreme Court Justice

10031789Washington proclaims the 1st national Thanksgiving Day on Nov 26

10031863Lincoln designates the last Thursday in November as Thanksgiving

10031913Federal Income Tax is signed into law (at 1%).

10031932Iraq gains full independence from Britain

10031942Launch of the first A-4 (V-2) rocket to altitude of 53 miles

10031947first 200 inch telescope lens is completed.

10031955Captain Kangaroo premieres. Good Morning, Captain!

10031960San Francisco's White House department store is first to accept the BankAmericard in lieu of cash.

10031962Wally Schirra in Sigma 7 launched into earth orbit

10031967AF pilot Pete Knight flies the X-15 to a record 4,534 MPH.

10041636first code of law for Plymouth Colony

10041824Mexico becomes a republic

10041926The dahlia is officially designated as the SF City Flower.

10041957USSR launches Sputnik, the first artificial earth satellite.

10041958Transatlantic jet passenger service begins

10041959USSR's Luna 3 sends back first photos of Moon's far side

10041960Courier 1B Launched: first active repeater satellite in orbit

100419661Lesotho (Basutoland) gains independence from Britain

10041985121st Space Shuttle Mission - Atlantis 1 is launched

100519081Bulgaria declares independence from Turkey

100519101Portugal overthrows monarchy, proclaims republic

100519211first radio broadcast of the World Series.

100519231Edwin Hubble identifies the first Cepheid variable star

100519311first nonstop transpacific flight, Japan to Washington state

100519701PBS becomes a network. TV worth watching.

100519821Unmanned rocket sled reaches 9,851 kph at White Sands, N. Mexico

100519841Challenger carries first Canadian, Marc Garneau, into orbit.

100618891Thomas Edison shows his first motion picture.

100619271"The Jazz Singer", 1st movie with a sound track, premieres.

100619591Soviet Luna 3, first successful photo spacecraft, impacts moon.

100619731Egypt and Syria invade Israel - The Yom Kippur war

100715711Turkish fleet defeated by Spanish & Italians in Battle of Lepanto

100717651The Stamp Act Congress convenes in New York

100717771British defeated by Americans at the Battle of Saratoga

100718261Granite Railway (1st chartered railway in US) begins operations

100719311first infra-red photographis taken, in Rochester, NY

100719491Democratic Republic of Germany (East) is formed.

100719591Luna 3 photographs the far side of the moon.

100719681Motion Picture Association of America adopts film rating system.

100816041The supernova called "Kepler's nova" is first sighted.

100818711The Great Fire destroys over 4 square miles of Chicago.

100818961Dow Jones starts reporting an average of industrial stocks

100819331San Francisco's Coit Tower is dedicated to firefighters.

100819351Ozzie & Harriet Nelson are married.

100819701Alexander Solzhenitsyn is awarded the Nobel Prize for Literature.

100910001Leif Ericson discovers "Vinland" (possibly New England)

100916351Religious dissident Roger Williams banished from Mass Bay Colony

100917761Mission Delores is founded by San Francisco Bay.

100918881Public admitted to Washington Monument.

100919361Hoover Dam begins transmitting electricity to Los Angeles

100919621Uganda gains independence from Britain (National Day).

100919751Andrei Sakharov wins the Nobel Peace Prize

101018451US Naval academy opens at Annapolis, Maryland

101018461Neptune's moon Triton discovered by William Lassell

101019111The Manchu Dynasty is overthrown in China.

101019331first synthetic detergent for home use marketed

10-10-1963- Nuclear Atmospheric Test Ban treaty is signed by US, UK, USSR.

10-10-1964- 18th Summer Olympic Games opened in Tokyo.

10-10-1970- Fiji gains independence from Britain (National Day).

10-10-1973- VP Spiro T. Agnew pleads no contest to tax evasion & resigns.

10-10-1975- Israel formally signs Sinai accord with Egypt

10-10-1980- Very Large Array (VLA) radio telescope network dedicated.

10-10-1985- US jets force Egyptian plane carrying hijackers of Italian ship Achille Lauro to land in Italy. Gunmen are placed in custody.

10-11-1797- British naval forces defeat Dutch off Camperdown, Netherlands

10-11-1811- "Juliana", the first steam-powered ferryboat, begins operation.

10-11-1890- Daughters of the American Revolution founded.

10-11-1958- Pioneer 1 launched; first spacecraft launched by NASA

10-11-1968- Apollo 7 launched, first of the manned Apollo missions.

10-11-1969- Soyuz 6 launched; Soyuz 7 & 8 follow in next two days.

10-11-1980- Cosmonauts Popov & Ryumin set space endurance record of 184 days

10-11-1984- Kathy Sullivan becomes first American woman to walk in space.

10-11-1987- 200,000 gays march for civil rights in Washington.

10-12-1492- Columbus arrives in the Bahamas; the real Columbus Day.

10-12-1957- first commercial flight between California and Antarctica.

10-12-1960- Nikita Khrushchev pounds his shoe at UN General Assembly session.

10-12-1963- Archaeological dig begins at Masada, Israel

10-12-1964- USSR launches first 3-man crew into space

10-12-1968- Equatorial Guinea gains independence from Spain.

10-12-1972- Mariner 9 takes pictures of the Martian north pole. No Santa.

10-12-1985- International Physicians for the Prevention of Nuclear War get the Nobel Peace Prize.

10-13-1775- Continental Congress establishes a navy

10-13-1792- George Washington lays the cornerstone of the Executive Mansion

10-13-1969- Soyuz 8 is launched

10-13-1985- 13th Space Shuttle Mission - Challenger 6 is launched

10-13-1987- 1st military use of trained dolphins, by US Navy in Persian Gulf.

10-14-1066- Battle of Hastings, in which William the Conqueror wins England

10-14-1774- 1st declaration of colonial rights in America.

10-14-1947- Chuck Yeager makes 1st supersonic flight, Mach 1.015 at 12,800m.

10-15-1860- Grace Bedell writes to Lincoln, tells him to grow a beard.

10-15-1914- ASCAP founded (American Soc of Composers, Authors & Publishers)

10-15-1964- Kosygin & Brezhnev replace Soviet premier Nikita Khrushchev

10-16-1846- Dentist William T. Morton demonstrates the effectiveness of ether

10-16-1859- John Brown attacks the armory at Harper's Ferry.

10-16-1869- A hotel in Boston becomes the 1st to have indoor plumbing.

10□16□1916□Margaret Sanger opens first birth control clinic, in New York.

10□16□1962□Cuban missile crisis begins: JFK learns of missiles in Cuba.

10□16□1964□Brezhnev & Kosygin replace Krushchev as head of Russia

10□16□1964□China becomes world's 5th nuclear power

10□16□1970□Anwar Sadat becomes president of Egypt, succeeds Gamal Nassar.

10□16□1973□Henry Kissinger & Le Duc Tho jointly awarded Nobel Peace Prize

10□16□1978□Polish Cardinal Karol Wojtyla elected supreme pontiff-John Paul I

10□16□1982□Mt Palomar Observatory 1st to detect Halley's comet 13th return

10□16□1982□Shultz warns US will withdraw from UN if it excludes Israel.

10□16□1985□Intel introduces 32-bit 80386 microcomputer chip.

10□17□1492□Columbus sights the isle of San Salvador.

10□17□1777□British General John Burgoyne surrenders at Saratoga, NY

10□17□1781□Cornwallis defeated at Yorktown.

10□17□1919□the Radio Corporation of America (RCA), is created.

10□17□1931□Al Capone is sentenced to 11 years in prison for tax evasion.

10□17□1933□Albert Einstein arrives in the US, a refugee from Nazi Germany.

10□17□1941□1st American destroyer torpedoed in WW II, USS Kearny off Iceland

10□17□1973□The Arab oil embargo begins. It will last until March, 1974.

10□17□1977□West German commandos storm hijacked Lufthansa plane in Mogadishu Somalia, freeing 86 hostage & kill three of the four hijackers.

10□17□1979□Mother Teresa of India was awarded the Nobel Peace Prize

10□17□1989□Destructive 7.1 earthquake strikes Northern California.

10□18□1685□Louis XIV revokes Edict of Nantes, outlaws Protestantism.

10□18□1867□US takes formal possession of Alaska from Russia (\$7.2 million).

10□18□1869□The United States take possession of Alaska.

10□18□1873□The Ivy League establishes rules for college football.

10□18□1892□1st commercial long-distance phone line opens (Chicago - NYC)

10□18□1922□British Broadcasting Corporation, the BBC, is established.

10□18□1962□Watson of US, Crick & Wilkins of Britain win Nobel Prize for Medicine for work in determining the structure of DNA.

10□18□1967□Soviet Venera 4 is the first probe to send data back from Venus

10□18□1968□US Olympic Committee suspended Tommie Smith & John Carlos, for giving `black power' salute as a protest during victory ceremony

10□18□1968□Robert Beaman of US broad jumps a record 8.90 m. Still stands.

10□19□1781□Cornwallis surrenders at 2PM, the fighting is over.

10□19□1845□Wagner's opera Tannh„user performed for the first time.

10□19□1879□Thomas A. Edison successfully demonstrates the electric light

10□19□1967□Mariner 5 flies by Venus

10□19□1968□Golden Gate Bridge charges tolls only for southbound cars.

10-20-1600-Battle of Sekigahara, which established the Tokugawa clan as rulers of Japan (SHOGUN) until 1865 (basis of Clavell's novel).

10-20-1740-Maria Theresa becomes ruler of Austria, Hungary & Bohemia

10-20-1803-the Senate ratifies the Louisiana Purchase.

10-20-1818-US & Britain agree to joint control of Oregon country.

10-20-1820-Spain gives Florida to the United States.

10-20-1906-Dr Lee DeForest gives a demonstration of his radio tube.

10-20-1944-MacArthur returns to the Phillipines, says "I have returned."

10-20-1979-John F. Kennedy Library dedicated in Boston.

10-21-1797-US Navy frigate Constitution, Old Ironsides, launched in Boston

10-21-1805-Battle of Trafalgar, where Nelson established British naval supremacy for the next century.

10-21-1868-Severe earthquake at 7:53AM.

10-21-1879-Thomas Edison commercially perfects the light bulb.

10-21-1897-Yerkes Observatory of the University of Chicago is dedicated.

10-21-1918-Margaret Owen sets world typing speed record of 170 wpm for 1 min

10-21-1923-Deutsches Museum, Walther Bauersfeld's first Zeiss Planetarium.

10-21-1945-Women in France allowed to vote for the first time

10-21-1975-Venera 9, 1st craft to orbit the planet Venus launched

10-21-1976-Saul Bellow wins Nobel Prize for Literature

10-21-1977-US recalls William Bowdler, ambassador to South Africa

10-22-1746-Princeton University in New Jersey received its charter.

10-22-1797-Andr,-Jacques Garnerin makes 1st parachute jump from balloon

10-22-1836-Sam Houston inaugurated as 1st elected pres of Republic of Texas

10-22-1953-Laos gains full independence from France.

10-22-1962-Pacific Science Center opens at Seattle Center.

10-22-1962-FK imposes naval blockade on Cuba, beginning missile crisis.

10-22-1975-Soviet spacecraft Venera 9 lands on Venus

10-22-1981-US National debt topped \$1 TRILLION (nothing to celebrate).

10-22-1981-Professional Air Traffic Controllers Organization is decertified.

10-22-4004-B.C. Universe created at 8:00 PM, according to the 1650 pronouncement of Anglican archbishop James Ussher.

10-23-1910-Blanche Scott becomes first woman solo a public airplane flight

10-23-1915-25,000 women march in New York, demanding the right to vote

10-23-1941-Walt Disney's "Dumbo" is released

10-23-1946-UN Gen Assembly convenes in NY for 1st time in Flushing Meadow.

10-23-1956-The ill-fated revolt in Communist Hungary starts, later crushed by Soviet tanks.

10-23-1958-Soviet novelist Boris Pasternak, wins Nobel Prize for Literature

10-23-1977-By 2/3 majority, Panamanians vote to approve a new Canal Treaty

10-23-1980-Soviet Premier Alexei Kosygin resigns, due to illness.

10241836the match is patented.

10241851William Lassell discovers Ariel & Umbriel, satellites of Unranus.

10241901Anna Taylor, first to go over Niagara Falls in a barrel & live

10241929"Black Thursday," the beginning of the stock market crash.

10241945United Nations Charter goes into effect.

10241964Zambia (Northern Rhodesia) gains independence from Britain

10241973Yom Kippur War ends, Israel 65 miles from Cairo, 26 from Damascus

10251415Battle of Agincourt, Welsh longbow defeats the armored knight

10251671Giovanni Cassini discovers Iapetus, satellite of Saturn.

10251675Iapetus, moon of Saturn, Discovered by Giovanni Cassini

10251825Erie Canal opens for business in New York.

10251854The Light Brigade charges (Battle of Balaklava) (Crimean War)

10251903Senate begins investigating Teapot Dome scandals of Harding admin

10251960first electronic wrist watch placed on sale, New York

10251971UN General Assembly admits Mainland China & expels Taiwan.

10251971Roy Disney dedicates Walt Disney World

10251975USSR Venera 10 made day Venus landing

10251983US invades Grenada, a country of 1/2000 its population.

10261825Erie Canal between Hudson River & Lake Erie opened

10261861Telegraph service inaugurated in US (end of Pony Express).

10261863Soccer rules standardized; rugby starts as a separate game.

10261881Shootout at the OK corral, in Tombstone, Arizona.

10261903"Yerba Buena" is 1st Key System ferry to cross San Francisco Bay.

10261949Pres Truman increases minimum wage - from 40 cents to 75 cents.

10261956International Atomic Energy Agency established.

10261957Vatican Radio begins broadcasting

10261958PanAm flies the first transatlantic jet trip: New York to Paris.

10261968Soyuz 3 is launched

10261970the "Doonesbury" comic strip debuts in 28 newspapers

10261972Guided tours of Alcatraz (by Park Service) begin.

10261979St. Vincent & the Grenadines gains independence from Britain.

10261984"Baby Fae" gets a baboon heart in an experimental transplant in Loma Linda, CA. She will live for 21 days with the animal heart.

10271787The 'Federalist' letters started appearing in NY newspapers.

10271795Treaty of San Lorenzo, provides free navigation of Mississippi

10271858RH Macy & Co. opens 1st store, on 6th Avenue, New York City.

102718961st Pali Road completed in Hawaii (the Pali is a cliff where the winds are so strong streams flow UP! Honest!).

10271938DuPont announces its new synthetic fiber will be called 'nylon'

10271961first Saturn makes an unmanned flight test

10271971Republic of the Congo becomes Zaire.

10271972Golden Gate National Recreation Area created.

10271978Menachim Begin & Anwar Sadat win the Nobel Peace Prize

10281492Columbus discovers Cuba.

10281636Harvard University founded.

10281793Eli Whitney applies for patent for the cotton gin.

10281886Grover Cleveland dedicates the Statue of Liberty.

10281904St. Louis Police try a new investigation method - fingerprints.

10281918Czechoslovakia declares independence from Austria.

10281919Volstead Act passed by Congress, starting Prohibition.

10281922Benito Mussolini takes control of Italy's government.

10281962Krushchev orders withdrawal of Cuban missiles

10281965Pope Paul VI says Jews not collectively guilty for crucifixion.

10281965Gateway Arch (190 meters high) completed in St. Louis, Missouri.

10281970US/USSR signed an agreement to discuss joint space efforts

10281971England becomes 6th nation to have a satellite (Prospero) in orbit

10290539BC Babylon falls to Cyrus the Great of Persia.

10291682Pennsylvania granted to William Penn by King Charles II.

10291727a severe earthquake strikes New England.

102918331st College Fraternity founded.

10291863International Committee of the Red Cross founded: It has been awarded Nobel Prizes in 1917, 1944 and 1963.

10291863Intl Comm. of the Red Cross founded (Nobel 1917, 1944, 1963).

10291923Turkey is proclaimed to have a republican government.

10291929"Black Tuesday", the Stock Market crash.

10291939Golden Gate International Exposition closes (1st closure).

10291956"Goodnight, David" "Goodnight, Chet" heard on NBC for 1st time. (Chet Huntley & David Brinkley, team up on NBC News).

10301270the 8th and last crusade is launched.

10301864Helena, capital of Montana, founded.

10301905Tsar Nicholas II grants Russia a constitution.

10301938Orson Welles panics nation with broadcast: "War of the Worlds"

10301945US govt announces end of shoe rationing.

10301953General George C. Marshall is awarded Nobel Peace Prize.

10301953Dr. Albert Schweitzer receives Nobel Peace Prize for 1952.

10301961Soviet Union detonates a 58 megaton hydrogen bomb

10301961Soviet Party Congress unanimously approves a resolution removing Josef Stalin's body from Lenin's tomb in Red Square.

10-30-1967-USSR Kosmos 186 & 188 make 1st automatic docking

10-30-1978-Laura Nickel & Curt Noll find 25th Mersenne prime, $2^{21701} - 1$.

10-30-1985-space shuttle Challenger carries 8 crewmen (2 Germans, 1 Dutch).

10-31-1517-Martin Luther posts his 95 Theses, begins Protestant Reformation

10-31-1864-Nevada admitted as 36th state.

10-31-1922-Benito Mussolini (Il Duce) becomes premier of Italy.

10-31-1952-first thermonuclear bomb detonated - Marshall Islands

10-31-1959-Lee Harvey Oswald announces in Moscow he will never return to US

11-01-1870-US Weather Bureau begins operations.

11-01-1943-WW II Dimout ban lifted in San Francisco Bay area.

11-01-1952-first hydrogen bomb exploded at Eniwetok Atoll in the Pacific.

11-01-1981-First Class Mail raised from 18 to 20 cents.

11-02-1917-Lansing-Ishii Agreement

11-02-1920-KDKA (Pittsburgh) on the air as 1st commercial radio station.

11-02-1947-Howard Hughes' Spruce Goose flies for 1st (& last) time.

11-02-1948-Truman beats Dewey, confounding pollsters and newspapers.

11-03-1620-Great Patent granted to Plymouth Colony

11-03-1903-Panama gains its independence from Columbia.

11-03-1917-First Class Mail now costs 3 cents.

11-03-1952-Charles Birdseye markets frozen peas.

11-03-1956-the Wizard of Oz is first televised.

11-03-1957-USSR launches the dog "Laika": the first animal in orbit

11-03-1973-Mariner 10 launched-first Venus pics, first mission to Mercury

11-03-1978-UK grants Dominica independence (National Day)

11-03-1979-63 Americans taken hostage at American Embassy in Teheran, Iran

11-03-1986-Lebanese magazine Ash Shirra reveals secret US arms sales to Iran

11-04-1854-Lighthouse established on Alcatraz Island

11-04-1922-Howard Carter discovers the tomb of Tutankhamen.

11-04-1924-1st woman governor in US elected in Wyoming.

11-04-1984-Nicaragua holds 1st free elections in 56 years; Sandinistas win 63%

11-05-1605-Plot to blow up British parliament fails - first Guy Fawkes day

11-05-1781-John Hanson elected 1st "President of the United States in Congress assembled" (8 years before Washington was elected).

11-05-1875-Susan B Anthony is arrested for attempting to vote

11-05-1895-1st US patent granted for the automobile, to George B Selden

11-05-1967-ATS-3 launched by US to take 1st pictures of full Earth disc

11-06-1844-Spain grants Dominican Rep independence

11-06-1860-Abraham Lincoln is elected the 16th president.

11-06-1862-1st Direct Telegraphic link between New York and San Francisco

11-06-1869-1st intercollegiate football game played (Rutgers 6, Princeton 4)

11-06-1917-the Russian Bolshevik revolution begins.

11-06-1939-WGY-TV (Schenectady NY), 1st commercial-license station begins

11-06-1962-Nixon tells press he won't be available to kick around any more

11-07-1805-Lewis and Clark first sighted the Pacific Ocean.

11-07-1811-Battle of Tippecanoe, gave Harrison a presidential slogan.

11-07-1872-Mary Celeste sails from NY to Genoa; found abandoned 4 weeks later

11-07-1875-Verney Cameron is 1st European to cross equatorial Africa from sea to sea.

11-07-1885-Canada completes its own transcontinental railway.

11-07-1917-October Revolution overthrows Russian Provisional Government

11-07-1918-Goddard demonstrates tube-launched solid propellant rocket

11-07-1983-Bomb explodes in US Capitol, causing heavy damage but no injuries

11-08-1793-The Louvre, in Paris, is opened to the public.

11-08-1889-Montana admitted as 41st state

11-08-1895-Wilhelm Röntgen discovers x-rays

11-08-1923-Hitler's "Beer Hall Putsch" failed, In jail, writes "Mein Kampf"

11-08-1939-Life with Father, opens on Broadway, closes in 1947, a record.

11-08-1984-14th Space Shuttle Mission - Discovery 2 is launched

11-09-1799-Napoleon becomes dictator (1st consul) of France

11-09-1865-Lee surrenders to Grant at Appomattox ending the US Civil War.

11-09-1953-Cambodia (now Kampuchea) gains independence within French Union

11-09-1965-at 5:16pm, a massive power failure blacks out New Engl. & Ontario

11-09-1967-first unmanned Saturn V flight to test Apollo 4 reentry module

11-10-1775-US Marine Corps established by Congress

11-10-1801-Kentucky outlaws dueling

11-10-1864-Austrian Archduke Maximilian became emperor of Mexico

11-10-1871-Stanley presumes to meet Livingston in Ujiji, Central Africa.

11-10-1891-1st Woman's Christian Temperance Union meeting held (in Boston)

11-10-1945-Nazi concentration camp at Buchenwald is liberated by US troops.

11-10-1951-1st Long Distance telephone call without operator assistance.

11-10-1968-USSR launches Zond 6 to moon

11-10-1969-Sesame Street premiers

11-10-1970-Luna 17, with unmanned self-propelled Lunokhod 1, is launched

11-10-1975-Ore ship Edmund Fitzgerald lost in a storm on Lake Superior

11-10-1980-Voyager I flies past Saturn, sees many rings, moons.

11-11-1620-41 Pilgrims sign a compact aboard the Mayflower

11-11-1889-Washington admitted as the 42nd state.

11-11-1918-Armistice Day -- WW I ends (at 11AM on the Western Front)

11-11-1921-President Harding dedicates the Tomb of The Unknown Soldier.

11-11-1924- Palace of Legion of Honor in San Francisco is dedicated.

11-11-1939- Kate Smith first sings Irving Berlin's "God Bless America"

11-11-1965- Rhodesia proclaims independence from Britain

11-11-1966- Gemini 12 is launched on a four day flight.

11-11-1975- Portugal grants independence to Angola (National Day).

11-11-1980- Crew of Soyuz 35 returns to Earth aboard Soyuz 37

11-11-1982- Space Shuttle 'Columbia' makes the first commercial flight.

11-11-1987- Van Gogh's "Irises" sells for record \$53.6 million at auction

11-12-1918- Austria becomes a republic

11-12-1927- Trotsky expelled from Soviet CP; Stalin is now total dictator.

11-12-1933- first known photo of Loch Ness monster (or whatever) is taken

11-12-1936- Oakland Bay Bridge opened.

11-12-1946- First "autobank" (banking by car) was established, in Chicago

11-12-1954- Ellis Island, immigration station in NY Harbor, closed

11-12-1965- Venera 2 launched by Soviet Union toward Venus

11-12-1965- Venera 2 launched by Soviet Union toward Venus

11-12-1980- US space probe Voyager I comes within 77,000 miles of Saturn

11-12-1981- First time a spacecraft is launched twice -- the Space Shuttle "Columbia" lifts off again.

11-12-1981- first balloon crossing of Pacific completed (Double Eagle V)

11-12-1984- Space shuttle astronauts snare a satellite: first space salvage.

11-13-1849- Peter Burnett is elected 1st governor of California.

11-13-1921- The Sheik, starring Rudolph Valentino, was released.

11-13-1937- NBC forms first full symphony orchestra exclusively for radio.

11-13-1940- Walt Disney's "Fantasia" is released

11-13-1956- Supreme Court strikes down segregation on public buses.

11-13-1971- Mariner 9, is the first space ship to orbit another planet, Mars.

11-13-1982- Vietnam War Memorial dedicated in Washington DC

11-14-1666- Samuel Pepys reports the first blood transfusion (between dogs)

11-14-1792- George Vancouver is first Englishman to enter San Francisco Bay

11-14-1832- first streetcar appears, in New York

11-14-1851- "Moby Dick", by Herman Melville, is published.

11-14-1889- Nellie Bly beats Phineas Fogg's time for a trip around the world by 8 days (72 days).

11-14-1910- 1st airplane flight from the deck of a ship.

11-14-1922- BBC begins domestic radio service

11-14-1935- FDR proclaims the Phillippines are a free commonwealth.

11-14-1959- Kilauea's most spectacular eruption (in Hawaii).

11-14-1969- Apollo 12 is launched

11-15-1777- Continental Congress approves the Articles of Confederation

11-15-1869- Free Postal Delivery formally inaugurated.

11-15-1881-American Federation of Labor (AFL) is founded in Pittsburgh

11-15-1920-League of Nations holds 1st meeting, in Geneva

11-15-1926-National Broadcasting Company goes on-the-air, with 24 stations

11-15-1939-Social Security Administration approves 1st unemployment check.

11-15-1949-KRON (Channel 4, San Francisco) signs on, from 7 to 10 PM.

11-16-1532-Pizarro seizes Incan emperor Atahualpa

11-16-1864-Sherman begins his march to sea thru Georgia

11-16-1907-Oklahoma becomes the 46th state

11-16-1933-Roosevelt establishes diplomatic relations with the Soviet Union

11-16-1965-Venera 3 launched, 1st land on another planet (Crashes on Venus)

11-16-1973-Skylab 4 launched into earth orbit. Look out Australia!

11-17-1558-Elizabeth I ascends English throne upon death of Queen Mary

11-17-1800-Congress convened for its 1st Washington, DC session.

11-17-1869-Suez Canal opens.

11-17-1913-Panama Canal opens for use.

11-17-1970-Russia lands unmanned remote-controlled vehicle on Moon

11-17-1977-Egyptian President Sadat accepts an invitation to visit Israel.

11-18-1497-Bartolomeu Dias discovers Cape of Good Hope

11-18-1820-Antarctica discovered by US Navy Captain Nathaniel B. Palmer.

11-18-1903-Hay-Bunau-Varilla Treaty, gave US canal rights thru Panama

11-18-1913-Lincoln Deachey performs the first airplane loop-the-loop

11-18-1918-Latvia declares independence from Russia

11-18-1928-Mickey Mouse debuts in New York in "Steamboat Willy"

11-18-1936-Main span of the Golden Gate Bridge is joined.

11-19-1493-Christopher Columbus discovers Puerto Rico.

11-19-1620-Mayflower pilgrims reach Cape Cod

11-19-1863-Lincoln delivers his famous address in Gettysburg. Expecting a long speech, the photographer wasn't ready before Lincoln left.

11-19-1895-The pencil is invented.

11-19-1919-Treaty of Versailles & League of Nations rejected by US Senate

11-19-1959-Ford cancels Edsel

11-19-1970-Golden Gate Park Conservatory becomes a State Historical Landmark

11-19-1977-Egyptian President Anwar Sadat arrives in Israel.

11-20-1789-New Jersey becomes the first state to ratify the Bill of Rights.

11-20-1888-William Bundy invents the first timecard clock.

11-20-1910-Revolution breaks out in Mexico, led by Francisco Madero.

11-20-1914-The State Department starts requiring photographs for passports

11-20-1931-Commercial teletype service began

11-20-1947-Britain's Princess Elizabeth, marries Duke Philip Mountbatten

11-20-1953-first airplane to exceed 1300 mph - Scott Crossfield.

11-20-1977-Egyptian Pres Sadat is 1st Arab leader to address Israel Knesset

11-20-1980-Space Shuttle Challenger makes 1st solar-powered flight

11-20-1986-UN's WHO announces 1st global effort to combat AIDS.

11-21-1789-NC becomes 12th state

11-21-1933-first US ambassador is sent to the USSR - WC Bullitt

11-21-1959-Jack Benny(Violin) & Richard Nixon(Piano) play their famed duet

11-21-1964-the world's longest suspension bridge, Verrazano Narrows, opens.

11-22-1906-The International Radio Telegraphic Convention adopts "SOS" as the new call for help.

11-22-1943-Lebanon gains its independence (would that it could keep it)

11-22-1963-President John F. Kennedy is assassinated in Dallas.

11-23-1852-Just past midnight an earthquake makes Lake Merced drop 30 feet

11-23-1863-Patent granted for a process of making color photographs.

11-23-1948-Lens to provide zoom effects patented - FG Back

11-23-1948-a patent is granted for the first zoom lens to F.G. Back

11-24-1759-Destructive eruption of Vesuvius

11-24-1874-Patent granted to Joseph Glidden for barbed wire.

11-24-1963-first live murder on TV - Jack Ruby shoots Lee Harvey Oswald.

11-24-1971-"D B Cooper" parachutes from a Northwest 727 with \$200,000.

11-25-1783-Britain evacuate New York, their last military position in US

11-25-1866-Alfred Nobel invents dynamite.

11-25-1884-John B Meyenberg of St Louis patents evaporated milk

11-25-1960-first atomic reactor for research & development, Richland WA.

11-25-1975-Netherlands grants Surinam independence (National Day)

11-25-1983-Soyuz T-9 returns to Earth, 149 days after take-off

11-26-1716-first lion to be exhibited in America (Boston)

11-26-1778-Captain Cook discovers Maui (in the Sandwich Islands).

11-26-1789-first national celebration of Thanksgiving

11-26-1865-Alice in Wonderland is published

11-26-1949-India adopts a constitution as a British Commonwealth Republic

11-26-1965-France launches first satellite, a 92-pound A1 capsule

11-26-1966-first major tidal power plant opened at Rance estuary, France

11-26-1985-23rd Space Shuttle Mission - Atlantis 2 is launched

11-27-1095-Pope Urban II preaches for the First Crusade

11-27-1582-the first Advent Sunday

11-27-1895-Alfred Nobel establishes the Nobel Prize

11-27-1910-New York's Penn Station opens - world's largest railway terminal

11-27-1951-first rocket to intercept an airplane, White Sands, NM

11-27-1971-Soviet Mars 2, is the first to crash land on Mars.

11-27-1985-Space shuttle Atlantis carries the first Mexican astronaut.

11-28-1520-Magellan begins crossing the Pacific Ocean.

11-28-1895-America's auto race starts: 6 cars, 55 miles, winner avgd 7mph

11-28-1912-Albania declares independence from Turkey

11-28-1929-Admiral RE Byrd makes first flight over the South Pole

11-28-1960-Mauritania gains independence from France (National Day)

11-28-1964-Mariner 4 launched; first probe to fly by Mars

11-28-1983-9th Space Shuttle Mission - Columbia 6 is launched

11-28-1986-Reagan administration exceeds SALT II arms agreement for 1st time

11-29-1887-US receives rights to Pearl Harbor, on Oahu, Hawaii.

11-29-1890-1st Army-Navy football game. Score: Navy 25, Army 0.

11-29-1945-Yugoslav Republic Day is first proclaimed.

11-29-1951-first underground atomic explosion, Frenchman Flat, Nevada

11-29-1961-Mercury 5 launches a chimp (Ham/Enos)

11-29-1975-Kilauea Volcano erupts in Hawaii

11-30-1939-USSR invades Finland over a border dispute

11-30-1954-first meteorite known to have struck a woman - Sylacauga Alabama

11-30-1958-first guided missile destroyer launched, the "Dewey", Bath, ME

11-30-1964-USSR launches Zond 2 towards Mars

11-30-1966-Barbados gains independence from Britain

11-30-1967-South Yemen (then Aden) gains independence from Britain

12-01-1640-Portugal becomes independent of Spain

12-01-1821-Santo Domingo (Dominican Rep) proclaims independence from Spain

12-01-1913-1st drive-up gasoline station opens, in Pittsburgh.

12-01-1917-Father Edward Flanagan founds Boys Town

12-01-1918-Iceland becomes independent state under the Danish crown

12-01-1922-first skywriting over the US: "Hello USA" by Capt Turner, RAF.

12-01-1929-Bingo invented by Edwin S Lowe

12-01-1951-Golden Gate Bridge closed because of high winds.

12-01-1958-Central African Republic established (National Day)

12-01-1959-first color photograph of Earth is received from outer space.

12-01-1967-Queen Elizabeth inaugurates 98-inch Isaac Newton Telescope

12-02-1804-Napoleon becomes the first French emperor, crowning himself.

12-02-1805-Napoleon defeats Russians & Austrians at Austerlitz

12-02-1816-1st savings bank in US opens as the Philadelphia Savings Fund

12-02-1823-President James Monroe declares his doctrine.

12-02-1942-1st controlled nuclear reaction at University of Chicago.

12-02-1957-first commercial atomic electric power plant goes to work in PA.

12-02-1971-Soviet Mars 3 is first to soft land on Mars

12021975Lao People's Democratic Republic founded (National Day)

120219821st permanent artificial heart successfully implanted.

12031621Galileo invents the telescope.

12031954Joseph McCarthy goes too far in his attacks and is condemned by the U.S. Senate. Not well remembered.

120319671st human heart transplant performed, in Capetown, South Africa

12031973Pioneer 10 passes Jupiter (first fly-by of an outer planet).

1203198523rd Shuttle Mission - Atlantis 2 returns to Earth

12041783Gen. Washington bids his officers farewell at Fraunce's Tavern,

12041912Roald Amundsen reaches South pole

12041915Panama Pacific International Exposition opens.

12041965Gemini 7 launched with 2 astronauts

12051492Columbus discovers Hispaniola

12051776Phi Beta Kappa, 1st American scholastic fraternity, founded.

12051978Pioneer Venus 1 begins orbiting Venus

12061492Haiti discovered by Columbus

12061534Quito, Ecuador is founded by the Spanish

12061631first predicted transit of Venus is observed, by Kepler.

12061882Atmosphere of Venus detected during transit

12061917Finland gains its independence, from Russia.

120619571st US attempt to launch a satellite - Vanguard rocket blows up.

12071787Delaware ratifies the Constitution, becomes the first state.

12071842the New York Philharmonic plays its first concert.

12071941first Japanese submarine sunk by American ship (USS Ward)

12071941Pearl Harbor is attacked ("A day that will live in infamy.")

12071960France grants the Ivory Coast independence (National Day)

12071972Apollo 17, last of the Apollo moon series, launched.

12081931Coaxial cable is patented

12091792the first cremation in the US

12091793Noah Webster establishes New York's 1st daily newspaper.

120919071st Christmas Seals sold, in the Wilmington Post Office.

12091961Tanganyika gains independence from Britain

12091978Pioneer Venus 2 drops 5 probes into atmosphere of Venus

12101520Martin Luther publicly burns the papal edict demanding he recant.

12101817Mississippi becomes 20th state

12101869Women granted right to vote in Wyoming Territory

12101898Spanish-American War ends - US acquires Guam from Spain

12101901first Nobel Peace Prizes (to Jean Henri Dunant, Fr,d,ric Passy).

12101906Theodore Roosevelt (first American) awarded Nobel Peace Prize.

12-10-1920- President Woodrow Wilson receives Nobel Peace Prize.

12-10-1948- UN Genl Assembly adopts Universal Declaration on Human Rights

12-10-1950- Ralph J. Bunche (1st black American) presented Nobel Peace Prize

12-10-1963- Zanzibar gains independence from Britain

12-10-1975- A. Sakharov's wife Yelena Bonner, accepts his Nobel Peace Prize.

12-10-1982- Soyuz T-5 returns to Earth, 211 days after take-off

12-10-1986- Holocaust survivor Elie Wiesel accepts 1986 Nobel Peace Prize

12-11-1816- Indiana becomes 19th state

12-11-1917- German-occupied Lithuania proclaims independence from Russia

12-11-1932- Snow falls in San Francisco.

12-11-1946- UN Children's Fund (UNICEF) established (Nobel 1965)

12-11-1958- Upper Volta (now Bourkina Fasso) gains autonomy from France

12-11-1975- First Class Mail now costs 13 cents (had been 10 cents).

12-12-1787- Pennsylvania becomes the 2nd state

12-12-1871- Jules Janssen discovers dark lines in solar corona spectrum

12-12-1901- Marconi receives 1st trans-Atlantic radio signal: England to US.

12-12-1937- the first mobile TV unit, in New York.

12-12-1963- Kenya gains its independence from Britain (National Day).

12-12-1964- Russia launches Voshkod I, 1st multi-crew in space (3 men)

12-13-1903- Wright brothers first airplane flight at Kittyhawk.

12-13-1918- Wilson becomes 1st to make a foreign visit while President.

12-13-1920- Interferometer used to measure 1st stellar diameter (Betelgeuse)

12-13-1974- Maltese Republic Day is declared.

12-13-1978- Susan B. Anthony dollar, 1st US coin to honor a woman, issued.

12-13-1981- Solidarity Day, in Poland.

12-14-1819- Alabama becomes 22nd state

12-14-1911- South Pole 1st reached by Amundsen.

12-14-1962- Mariner 2 makes 1st US visit to another planet (Venus)

12-15-1791- Bill of Rights ratified when Virginia gave its approval.

12-15-1859- G.R. Kirchoff describes chemical composition of sun

12-15-1877- Thomas Edison patents the phonograph.

12-15-1939- the first commercial manufacture of nylon yarn.

12-15-1964- American Radio Relay League, is founded. Dit-Dah.

12-15-1965- first rendezvous in space: Gemini 6 and Gemini 7 link up.

12-15-1971- USSR's Venera 7 becomes the first craft to land on Venus.

12-15-1984- USSR launches Vega 1 for rendezvous with Halley's Comet

12-16-1689- English Parlimnt adopts Bill of Rights after Glorious Revolution

12-16-1773- Big Tea Party in Boston Harbor. Indians most welcome.

12-16-1893- Antonin Dvor k's New World Symphony premieres

12161905"Variety", covering all phases of show business, 1st published.

12161907Great White Fleet sails from Hampton Downs on its World Cruise

12161965Gemini VI returns to Earth

12171538Pope Paul III excommunicates England's King Henry VIII

12171777France recognizes independance of the 13 colonies in America.

12171790an Aztec calendar stone is discovered in Mexico City.

12171791New York City traffic regulation creates the 1st one-way street

12171843Charles Dickens's classic, "A Christmas Carol" is published.

121719031st sustained motorized air flight at 10:35AM, for 12 seconds, by the Wright Brothers (of course).

121719331st professional football game: Chicago Bears vs. NY Giants.

12171969Tiny Tim and Miss Vicki are married on network television in front of 50 million underwhelmed viewers

12171979Budweiser rocket car hits 1190 kph (record for wheeled vehicle)

12181787New Jersey becomes the 3rd state

12181849William Bond takes first photograph of moon through a telescope

1218186513th Amendment ratified, slavery abolished

12181958first voice from space: Christmas message by Eisenhower

12181958Niger gains autonomy within French Community (National Day)

12181961India annexes Portuguese colonies of Goa, Damao & Diu

12181965Borman & Lovell splash down, ending 2 week Gemini VII orbit.

12181969Britain abolishes the death penalty

12181985UN Security Council unanimously condemns acts of hostage-taking

12191686Robinson Crusoe leaves his island after 28 years (as per Defoe)

12191732Benjamin Frankin begins publication of "Poor Richard's Almanack"

12191777Washington settles his troops at Valley Forge for the winter.

12191842US recognizes the independence of Hawaii

12191889Bishop Museum founded in Hawaii.

12191932the BBC begins transmitting overseas.

12191946War breaks out in Indochina as Ho Chi Minh attacks the French.

12191971NASA launches Intelsat 4 F-3 for COMSAT Corp

12191986USSR frees dissident Andrei Sakharov from internal exile

12201606Virginia Company settlers leave London to establish Jamestown

12201699Peter the Great orders Russian New Year changed: Sept 1 to Jan 1

12201790first successful US cotton mill, in Pawtucket, Rhode Island

12201803Louisiana Purchase officially transferred from France to the US.

12201820Missouri imposes a \$1 bachelor tax on unmarried men from 21-50

12201860South Carolina becomes the first state to secede from the union.

12201892the pneumatic automobile tire is patented

12201892Phileas Fogg completes around world trip, according to Verne

12201919Canadian National Railways established (longest on continent with more than 50,000 kilometers of

track in US & Canada)

12-20-1922-14 states form the Union of Soviet Socialist Republics.

12-20-1939-Radio Australia starts shortwave service

12-21-1620-The pilgrims land at Plymouth Rock.

12-21-1913-1st crossword puzzle (with 32 clues), printed in New York World

12-21-1937-the first feature-length cartoon with color and sound premieres, "Snow White and the Seven Dwarfs". Still one of the best.

12-21-1968-Apollo 8 (Borman, Lovell, Anders), first manned moon voyage

12-21-1973-Israel, Egypt, Syria, Jordan, US & USSR meet in Geneva: peace?

12-22-1964-Lockheed SR-71 spy aircraft reaches 3,530 kph (record for a jet)

12-23-1672-Giovanni Cassini discovers Rhea, a satellite of Saturn

12-23-1690-John Flamsteed sees Uranus but doesn't realize it's undiscovered

12-23-1920-Ireland is divided into two parts, each with its own parliament

12-23-1947-Transistor invented by Bardeen, Brattain & Shockley at Bell Labs

12-23-1968-Borman, Lovell & Anders are the first men to orbit the moon.

12-23-1973-six Persian Gulf nations double their oil prices

12-23-1975-Congress passes Metric Conversion Act

12-23-1986-Rutan & Yeager make 1st around-the-world flight without refueling

12-24-1582-Vasco daGama Day

12-24-1814-Treaty of Ghent signed, ending War of 1812 (this news did not arrive until after the Battle of New Orleans).

12-24-1818-"Silent Night" is composed by Franz Gruber and sung next day

12-24-1851-Library of Congress burns, 35,000 volumes are destroyed.

12-24-1865-Confederate veterans form the Ku Klux Klan in Pulaski, TN

12-24-1871-Giuseppe Verdi's "Aida" premieres in Cairo, at Suez canal opening

12-24-1906-the first radio program is broadcast, in Brant Rock, Mass

12-24-1920-Enrico Caruso gave his last public performance

12-24-1936-first radioactive isotope medicine administered, Berkeley, CA

12-24-1951-Libya gains independence from Italy

12-24-1966-Soviet Luna 13 lands on moon

12-24-1968-Apollo 8 astronauts broadcast seasons greetings from the moon.

12-25-0336-first recorded celebration of Christmas on Dec. 25: in Rome

12-25-1066-William the Conqueror was crowned king of England

12-25-1776-Washington crosses the Delaware and surprises the Hessians.

12-25-1868-Despite bitter opposition, Johnson grants unconditional pardons to everyone involved in the Southern rebellion (the Civil War).

12-25-1926-Hirohito becomes Emperor of Japan

12-25-1939-Montgomery Ward introduces Rudolph the 9th reindeer

12-26-1492-first Spanish settlement in the new world founded, by Columbus.

12-26-1865 James Mason invents the 1st American coffee percolator.

12-26-1933 US foresees armed intervention in Western Hemisphere. Ha!

12-27-1825 first public steam railroad completed in England.

12-27-1831 Darwin begins his voyage onboard the HMS Beagle.

12-27-1903 "Sweet Adaline", a barbershop quartet favorite, is 1st sung.

12-27-1932 Radio City Music Hall in New York City opens.

12-27-1934 the first youth hostel is opened, in Northfield, Mass

12-27-1945 International Monetary Fund established-World Bank founded

12-27-1979 Soviet troops invade Afghanistan

12-28-1669 A patent for chewing gum is granted to William Semple.

12-28-1846 Iowa becomes the 29th state

12-28-1890 Battle of Wounded Knee, SD - Last major conflict with Indians

12-28-1902 Trans-Pacific cable links Hawaii to US.

12-28-1912 San Francisco Municipal Railway starts operation at Geary St. (MUNI was the 1st municipally-owned transit system)

12-29-1845 Texas becomes the 28th state

12-29-1848 Gas lights installed at White House for 1st time

12-29-1911 San Francisco Symphony formed.

12-29-1931 Identification of heavy water publicly announced, HC Urey

12-29-1937 Pan Am starts San Francisco to Auckland, New Zealand service.

12-29-1949 first UHF TV station operating regular basis, Bridgeport CT

12-29-1952 first transistorized hearing aid offered for sale, Elmsford NY

12-30-1809 Wearing masks at balls is forbidden in Boston

12-30-1817 first coffee planted in Hawaii

12-30-1853 Gadsden Purchase 45,000 sq miles by Gila River from Mexico for \$10 million. Area is now southern Arizona & New Mexico

12-30-1924 Edwin Hubble announces existence of other Milky Way systems

12-30-1938 Electronic television system patented, VK Zworykin

12-30-1975 Democratic Republic of Madagascar founded

12-31-1600 British East India Company chartered

12-31-1744 James Bradley announces earth's motion of nutation (wobbling).

12-31-1857 Queen Victoria chooses Ottawa as new capital of Canada

12-31-1862 Union ironclad ship "Monitor" sinks off Cape Hatteras, NC

12-31-1879 Cornerstone laid for Iolani Palace (only royal palace in US).

12-31-1879 Edison gives public demonstration of his incandescent lamp.

12-31-1890 Ellis Island opens as a US immigration depot

12-31-1946 President Truman officially proclaims the end of World War II

12-31-1961 Marshall Plan expires after distributing more than \$12 billion

12-31-1974 US citizens allowed to buy & own gold for 1st time in 40 years

AjaxTrivia.html

```
<!doctype html>
```

```
<html>
```

```
<head>
```

```
<title>AjaxTrivia.html</title>
```

```
<meta charset='utf-8'>
```

```
<!-- File: AjaxTrivia.html
```

This web page uses AJAX concepts to load a standard HTML document, then use Javascript to get the client's month and day, submitting them to a servlet, which will respond with the appropriate trivia events. A Javascript "callback" function receives the response, and displays the response in a table on the current page.

```
-->
```

```
<link rel=stylesheet type='text/css' href='/BIS3523.css'>
```

```
<script type='text/javascript'>
```

```
function start()
```

```
{
```

```
    // get the client's month and day
```

```
    var date=new Date();
```

```
    var month=date.getMonth()+1;
```

```
    var day=date.getDate();
```

```
    // construct an AJAX request for the AjaxTrivia servlet
```

```
    // appending two name=value pairs of data to submit to the servlet
```

```
    url='/servlet/rap10.AjaxTrivia?month='+month+'&day='+day;
```

```
    var element=document.getElementById('triviaTable');
```

```
    element.innerHTML='<tr><td>submitting request '+url+'</td></tr>';
```

```

request=new XMLHttpRequest();
request.open('get',url);
request.send(null);

// set up the "callback" function
request.onreadystatechange=responseHandler;
}

function responseHandler()
{
    // when our request's readyState property is 4, we have the server's response
    // use it as our table's new innerHTML
    if(request.readyState==4)
    {
        var element=document.getElementById('triviaTable');
        element.innerHTML=request.response;
    }
}

</script>

</head>
<body onLoad='start()'>

<table id=triviaTable>
</table>

</body>
</html>

```

AjaxTrivia.java

/* File: AjaxTrivia.java

This servlet reads the contents of the file Trivia.dat and echoes today's trivia events to the browser as an HTML table (to be rendered by the browser). "Today" is based on the server's date and time, not the client.

Since Trivia.dat contains variable-length, delimited records, this program uses the String class's split method to split the records into their subordinate fields.

```
*/

import java.io.*;                // import statements
import javax.servlet.*;
import javax.servlet.http.*;
import java.util.*;

public class AjaxTrivia extends HttpServlet
{
    public void doGet(HttpServletRequest request, HttpServletResponse response)
        throws ServletException, IOException
    {
        response.setContentType("text/html");        // set the response header (content-type)

        // retrieve two pieces of submitted data (submitted in name=value format)
        int todayMonth=Integer.parseInt(request.getParameter("month"));
        int todayDay=Integer.parseInt(request.getParameter("day"));

        int listCount=0;                // initialize a counter
        // generate a heading

        PrintWriter out=response.getWriter();        // get a PrintWriter object to print to browser

        out.println("<tr><td colspan=2>On "+todayMonth+"/"+todayDay+", the following events
happened:</td></tr>");

        try                            // put I/O stuff in a try/catch block
        {
            String filename="/home/rpearson/tomcat/webapps/ROOT/WEB-INF/classes/Trivia.dat";
            BufferedReader in=new BufferedReader(new FileReader(filename)); // data file is now open

            String record=in.readLine();        // attempt to read next record
            while(record!=null)                // execute loop if record was read
            {
                String[] fields=record.split("\t");
                int thisMonth=Integer.parseInt(fields[0]);
```

```

int thisDay=Integer.parseInt(fields[1]);

if(todayMonth==thisMonth && todayDay==thisDay)
{
    out.println("<tr><td>" +fields[2]+"</td><td>" +fields[3]+"</td></tr>");
    listCount++;
}

record=in.readLine();                // attempt to read next record
}
in.close();                          // close the file

}
catch(Exception e)                   // catch any exceptions
{
    out.println("<tr><td>error attempting to open Trivia.dat</td></tr>");
    out.println(e.toString());
}

out.println("<tr><td colspan=2>" +listCount+" trivia events listed</td></tr>");

}
}

```

AjaxLogin.html

```
<!doctype html>
```

```
<html>
```

```
<head>
```

```
<title>AjaxLogin.html</title>
```

```
<meta charset='utf-8'>
```

```
<!-- File: AjaxLogin.html
```

This page uses AJAX concepts to provide login/password data validation.

-->

<link rel=stylesheet type='text/css' href='/BIS3523.css'>

<style type='text/css'>

table,td

{

border: none;

}

</style>

<script type='text/javascript'>

function submitRequest()

{

// retrieve the login and the password from the form fields

var loginData=document.getElementById('loginField').value;

var passwordData=document.getElementById('passwordField').value;

// construct an HTTP request, complete with two name=value pairs of form data

url='/servlet/rap10.AjaxLogin?login='+loginData+'&password='+passwordData;

// prepare and submit the AJAX request

request=new XMLHttpRequest();

request.open('get',url);

request.send(null);

// set up a callback function to be called any time the readyState property changes

request.onreadystatechange=responseHandler;

}

// the callback function

function responseHandler()

{

// we're really interested only in a readyState value of 4

if(request.readyState==4)

{

// get references to the two td's we use to display messages

```
var loginElement=document.getElementById('loginMsg');
var passwordElement=document.getElementById('passwordMsg');
loginElement.innerHTML="";
passwordElement.innerHTML="";
```

```
// process the AJAX response by updating the msg td's
if(request.response=='login')
{
    loginElement.innerHTML='invalid login';
    loginElement.style.color='red';
}
if(request.response=='password')
{
    passwordElement.innerHTML='invalid password';
    passwordElement.style.color='red';
}
if(request.response=='valid')
{
    document.location='http://mislab.business.msstate.edu';
}
}
}
```

```
</script>
```

```
</head>
```

```
<body>
```

```
<form>
```

```
<table id=triviaTable>
```

```
<tr>
```

```
<td>Login id:</td>
```

```
<td><input type=text id=loginField></td>
```

```
<td id=loginMsg></td>
```

```
</tr>
```

```
<tr>
```

```
<td>Password:</td>
```

```
<td><input type=password id=passwordField></td>
```

```

        <td id=passwordMsg></td>
    </tr>
    <tr>
        <td></td>
        <td><input type=button onClick='submitRequest()' value=' Login '></td>
        <td></td>
    </tr>
</table>

</form>

</body>
</html>

```

AjaxLogin.java

```
/* File: AjaxLogin.java
```

This servlet accepts a submitted login id and password, then checks for the existence of the login id in the server-based file ValidLogins.dat, and verifies that the submitted password matches the associated password in the file.

Since ValidLogins.txt contains variable-length, delimited fields (delimited by tab characters), the String class's split method is used to split the record into its sub-fields. The split method returns an array of String objects.

This servlet responds to an AJAX request, and responds with the word:

login - if the login id was not found in ValidLogins.dat

password - if the login id was found but the submitted password did not match

valid - if login id and password were valid

On a successful login, the servlet adds a record to a login-tracking file.

```
*/
```

```

import java.io.*;                                // import statements
import javax.servlet.*;
import javax.servlet.http.*;

```

```

import java.util.*;

public class AjaxLogin extends HttpServlet
{
    public void doGet(HttpServletRequest request,HttpServletResponse response)
        throws ServletException,IOException
    {
        response.setContentType("text/plain");           // set the response header (content-type)

        // retrieve the two pieces of submitted data
        // also, set a flag to false
        String login=request.getParameter("login");
        String password=request.getParameter("password");
        boolean found=false;

        PrintWriter out=response.getWriter();           // get a PrintWriter object to print to browser
        BufferedReader in=null;

        try                                           // put I/O stuff in a try/catch block
        {                                           // try to open the ValidLogins.dat data file
            in=new BufferedReader(new FileReader(
"/home/rpearson/tomcat/webapps/ROOT/WEB-INF/classes/ValidLogins.dat"));

            String record=in.readLine();           // attempt to read next record
            while(record!=null)                   // execute loop if record was read
            {
                String[] fields=record.split("\t");           // split record into its sub-fields

                if(login.equals(fields[0]))           // does submitted login match field #0?
                {
                    found=true;                   // if so, set flag to true
                    if(password.equals(fields[1]))           // and check to see if submitted password matches
                    {                                           // field #1
                        in.close();
                        out.print("valid");           // echo response back to client
                        this.logfile(login);           // call our logfile method
                        return;                   // exit the doGet function
                    }
                }
                else
                {

```



```

        in.close();
        out.print("password");           // echo response back to client
        return;                         // and exit the doGet function
    }
}

    record=in.readLine();               // attempt to read next record
}

}

catch(Exception e)                   // catch any exceptions
{
}

in.close();                          // close the file

if(!found)                           // if flag was never changed to true
{
    out.print("login");                // echo appropriate message back to client
}                                     // (submitted login was not found in file)

}

private void logfile(String login)     // our logfile method
{
    // writes a record into a log file
    try
    {
        Date date=new Date();

        FileWriter file=new FileWriter("LoginLog.txt");
        file.write(login+"\t"+date.toString()+"\n");
        file.close();
    }
    catch(Exception e)
    {
    }
}
}

```

ValidLogins.dat

ValidLogins.dat (variable-length, tab-delimited records)
each record consists of: login id, tab, corresponding password

```
rap10	password
gb497	1119
cac834	1111
tc318	1105
ng254	1105
wh373	1108
zbm6	2698
jds835	1116
```

A Brief Overview of Java Server Page (JSP) programming

JSP has four predefined variables:

- request
 - the HttpServletRequest object
- response
 - the HttpServletResponse object
- out
 - PrintWriter object used to send output to client
- session
 - HttpSession object associated with request

JSP includes four scripting elements:

- JSP page directive

```
<%@ page import="java.util.*" %>
```

 - The main use of a JSP page directive is to include imports for the compiler.
- JSP declaration

```
<%! private int accessCount=0; %>
```

 - A JSP declaration is used to define, and possibly initialize, a variable. The declaration is executed only the first time the .jsp page is executed (after translation).
- JSP expression

```
<%= new Date() %>
```

 - A JSP "expression" is used to insert a value directly into the output. The expression is evaluated, converted to a String, and inserted into the page.
- JSP scriptlet

```
<%
String wordList=(String) session.getAttribute("wordList");
if(wordList==null)
{
```

```
    out.println("wordList is empty");
}
else
{
    out.println(wordList);
}
%>
```

- A JSP "scriptlet" is a block of Java code that will be executed.

Counter.jsp

```
<!doctype html>

<!-- File: Counter.jsp
    This program demonstrates using JSP code for its dynamic content.
-->

<html>
<head><title>Counter.jsp</title></head>
<body>

<%@ page import="java.util.*" %>
<%! private int accessCount=0; %>

Today is:

<%= new Date() %>

<br><br><hr><br><br>

<%= ++accessCount %>

<br><br><hr><br><br>

<%

String ip=request.getRemoteHost();
out.println("Thank you for connection from "+ip+"\n<br><br>\n");
```

```
if(accessCount==6)
{
    out.println("Please stop reloading this page.");
}
if(accessCount>6)
{
    response.sendRedirect("http://misweb.business.msstate.edu");
}

%>

</body>
</html>
```

Trivia.jsp

```
<!doctype html>

<!-- File: Trivia.jsp

    This program uses JSP to read the records from Trivia.fil and display
    trivia events in an HTML table.

-->

<html>
<head>
<title>Trivia.jsp</title>
<link rel=stylesheet type='text/css' href='BIS3523.css'>
</head>

<body>

<%@ page import="java.io.*" %>
<%@ page import="java.util.*" %>
```

<table>

<%

```
Date date=new Date();           // instantiate a Date object (deprecated)
int todayMonth=date.getMonth()+1; // getMonth returns 0-11 (increment by 1)
int todayDay=date.getDate();      // day of the month (1-31)
int listCount=0;                  // initialize a counter
```

// create an array of month names

```
String monthNames="Jan,Feb,Mar,Apr,May,Jun,Jul,Aug,Sep,Oct,Nov,Dec";
```

```
String[] names=monthNames.split(",");
```

// display first table row

```
out.println("<tr><td colspan=2>On this day in history, "+names[todayMonth-1]+"
"+todayDay+":</td></tr>");
```

```
try                               // put I/O stuff in a try/catch block
```

```
{
```

// open the trivia file (it's stored in the classes folder)

```
BufferedReader in=new BufferedReader(new FileReader("/home/rpearson/tomcat/webapps/ROOT/WEB-INF/classes/Trivia.fil"));
```

```
String record=in.readLine();      // attempt to read next record
```

```
while(record!=null)              // execute loop if record was read
```

```
{
```

// extract fixed-length fields from the record

```
int thisMonth=Integer.parseInt(record.substring(0,2));
```

```
int thisDay=Integer.parseInt(record.substring(3,5));
```

```
if(thisMonth==todayMonth && thisDay==todayDay)
```

```
{
```

```
String year=record.substring(6,10);
```

```
String event=record.substring(12);
```

```
out.println("<tr><td>"+year+"</td><td>"+event+"</td></tr>");
```

```
}
```

```
record=in.readLine();            // attempt to read next record
```

```
}
```

```
in.close();                      // close the file
```

```

}
catch(Exception e)                // catch any exceptions
{
    out.print("<tr><td>error attempting to open Trivia.fil");
    out.print(e.toString());
    out.println("</td></tr>");
}

%>

</table>

</body>
</html>

```

Customer.jsp

```

<!doctype html>

<!-- File: Customer.jsp

    This program uses JSP code to read the records from Customer.dat and display
    the customer data in a table on the document.

-->

<html>
<head><title>Customer.jsp</title>

<link rel=stylesheet type='text/css' href='/BIS3523.css'>

</head>

<body>
<%@ page import="java.io.*" %>

```

```

<table>

<%

try                                // put I/O stuff in a try/catch block
{
    BufferedReader in=
new BufferedReader(new FileReader("/home/rpearson/tomcat/webapps/ROOT/WEB-INF/classes/Customer.dat"));

    String record=in.readLine();           // attempt to read next record
    while(record!=null)                    // execute loop if record was read
    {
        String[] fields=record.split("\t");
        out.println("<tr><td>"+fields[0]+"</td><td>"+fields[1]+"</td></tr>");

        record=in.readLine();              // attempt to read next record
    }
    in.close();                           // close the file

}
catch(Exception e)                      // catch any exceptions
{
    out.print("<tr><td>error attempting to open Customer.dat");
    out.print(e.toString());
    out.println("</td></tr>");
}

%>

</table>

</body>
</html>

```

AjaxCustomer.jsp

```
<!doctype html>
```

```
<!-- File: AjaxCustomer.jsp
```

This program uses JSP code to read Customer.dat and display customer data in an HTML table, then uses AJAX concepts to display detailed information for a customer when the user clicks on a customer row in the table.

```
-->
```

```
<html>
```

```
<head><title>AjaxCustomer.jsp</title>
```

```
<link rel=stylesheet type='text/css' href='BIS3523.css'>
```

```
<style type='text/css'>
```

```
.width8 {width: 8in}
```

```
</style>
```

```
<script type='text/javascript'>
```

```
// define two global variables
```

```
customerNumber=0;
```

```
element="";
```

```
function submitRequest(custNum)
```

```
{
```

```
    // if priorElement is not null, it is a td that is displaying a customer's info
```

```
    // erase its contents
```

```
    if(element!="")
```

```
    {
```

```
        element.innerHTML="";
```

```
    }
```

```
    // save parameter into global variable
```

```
    customerNumber=custNum;
```

```
    // construct an AJAX request, complete with name=value data to submit
```

```
    url='/servlet/rap10.AjaxCustomer?custNum='+custNum;
```



```

// submit the AJAX request
request=new XMLHttpRequest();
request.open('get',url);
request.send(null);


element=document.getElementById('cell'+customerNumber);
// set up callback function
request.onreadystatechange=responseHandler;
}

function responseHandler()
{
    // if readyState is 4, we have our response; display in td
    if(request.readyState==4)
    {
        element.innerHTML=request.response;
    }
}

</script>

</head>
<body>
<%@ page import="java.io.*" %>

<table>

<%

try                                // put I/O stuff in a try/catch block
{
    BufferedReader in=
new BufferedReader(new FileReader("/home/rpearson/tomcat/webapps/ROOT/WEB-INF/classes/Customer.dat"));

    String record=in.readLine();           // attempt to read next record
    while(record!=null)                   // execute loop if record was read
    {
        String[] fields=record.split("\t");

```

```
        out.println("<tr onClick='submitRequest(\"+fields[0]+\"')><td>"+fields[0]+"</td><td>"+fields[1]+  
", "+fields[2]+"</td><td class=width8 id=cell"+fields[0]+"></td></tr>");
```

```
        record=in.readLine();                // attempt to read next record  
    }  
    in.close();                            // close the file
```

```
    }  
    catch(Exception e)                    // catch any exceptions  
    {  
        out.print("<tr><td>error attempting to open Customer.dat");  
        out.print(e.toString());  
        out.println("</td></tr>");  
    }
```

```
%>
```

```
</table>
```

```
</body>
```

```
</html>
```

AjaxCustomer.java

```
/* File: AjaxCustomer.java
```

This servlet responds to an AJAX request for a specific customer's information,
and responds with some HTML to be displayed.

```
*/
```

```
import java.io.*;                        // import statements  
import javax.servlet.*;  
import javax.servlet.http.*;
```

```
public class AjaxCustomer extends HttpServlet  
{
```

```

public void doGet(HttpServletRequest request, HttpServletResponse response)
    throws ServletException, IOException
{
    response.setContentType("text/plain");           // set the response header (content-type)

    // retrieve submitted form data
    int custNum=Integer.parseInt(request.getParameter("custNum"));

    // generate a heading
    PrintWriter out=response.getWriter();           // get a PrintWriter object to print to browser

    out.println("<table>");

    try                                           // put I/O stuff in a try/catch block
    {
        String filename="/home/rpearson/tomcat/webapps/ROOT/WEB-INF/classes/Customer.dat";
        BufferedReader in=new BufferedReader(new FileReader(filename)); // data file is now open

        String record=in.readLine();             // attempt to read next record
        while(record!=null)                       // execute loop if record was read
        {
            String[] fields=record.split("\t");

            if(custNum==Integer.parseInt(fields[0]))
            {
                out.println("<tr><td>Date:</td><td>"+fields[4]+"/"+fields[5]+"/"+fields[3]+ "</td></tr>");
                out.println("<tr><td>Balance:</td><td>"+fields[6]+ "</td></tr>");
                break;                             // break out of loop, no reason to read more records
            }

            record=in.readLine();                 // attempt to read next record
        }
        in.close();                             // close the file
    }

    catch(Exception e)                           // catch any exceptions
    {
        out.print("<tr><td>error attempting to open Customer.dat");
        out.print(e.toString());
        out.println("</td></tr>");
    }
}

```

```
out.println("</table>");
```

```
}
```

```
}
```

CustomerDatabaseList.java

```
/* File: CustomerDatabaseList.java
```

This text-based application is used to list all of the customers in the bis3523
mysql Customer table.

```
*/
```

```
import java.sql.*;           // import classes and interfaces from sql package
```

```
public class CustomerDatabaseList  
{
```

```
    public static void main(String[] args)  
    {
```

```
        try                               // put the whole shebang in a try/catch block  
        {  
            // connect to the mysql database server  
            //  database name: bis3523  
            //    user name: abc123  
            //    password: password
```

```
            Class.forName("com.mysql.jdbc.Driver").newInstance(); // load database driver  
            Connection connection=DriverManager.getConnection("jdbc:mysql://localhost/bis3523",  
                "abc123","password");  
            Statement statement=connection.createStatement();
```

```
            String query="select * from Customer";           // set up select command
```

```
            ResultSet resultSet=statement.executeQuery(query); // and execute the select command
```

```

while(resultSet.next())                // step through resultSet, processing each row
{
    int number=resultSet.getInt(1);      // get the first field, which is an int
    String name=resultSet.getString(2);  // second field is a String
    int balance=resultSet.getInt(7);     // and third is an int

    System.out.println(number+"\t"+name+"\t"+balance);
}
}
catch(Exception e)                    // catch any database exceptions
{
    System.out.println("database error");
    System.out.println(e.toString());
}
}
}

```

CustomerDatabaseListServlet.java

```

/* File: CustomerDatabaseListServlet.java

```

This servlet is used to list all of the customers in the bis3523
mysql Customer table.

```

*/

```

```

import java.sql.*;                // import classes and interfaces from sql package
import java.io.*;                 // import statements
import javax.servlet.*;
import javax.servlet.http.*;
import java.util.*;

```

```

public class CustomerDatabaseListServlet extends HttpServlet
{

```

```

public void doGet(HttpServletRequest request, HttpServletResponse response)
    throws ServletException, IOException
{
    response.setContentType("text/html");           // set the response header (content-type)
    PrintWriter out=response.getWriter();           // get a PrintWriter object to print to browser

    out.println("<!doctype html>");
    out.println("<html>");
    out.println("<head>");
    out.println("<title>CustomerDatabaseListServlet.java</title>");
    out.println("<link rel=stylesheet type='text/css' href='/BIS3523.css'>");
    out.println("</head>");
    out.println("<body>");

    try                                           // put the whole shebang in a try/catch block
    {
        out.println("<table>");

                                // connect to the mysql database server
                                //  database name: bis3523
                                //    user name: abc123
                                //    password: password

        Class.forName("com.mysql.jdbc.Driver").newInstance();    // load database driver
        Connection connection=DriverManager.getConnection("jdbc:mysql://localhost/bis3523",
            "abc123","password");
        Statement statement=connection.createStatement();

        String query="select * from Customer order by balance desc"; // set up select command

        ResultSet resultSet=statement.executeQuery(query);    // and execute the select command

        while(resultSet.next())                    // step through resultSet, processing each row
        {
            int number=resultSet.getInt(1);           // get the first field, which is an int
            String name=resultSet.getString(2);       // second field is a String
            int balance=resultSet.getInt(7);          // and third is an int

            String strBalance=Utility.padString(balance,10,2);
            out.println("<tr><td>"+number+"</td><td>"+name+"</td><td>"+strBalance+"</td>");
        }
    }
}

```

```

class=right>" + strBalance + "</td></tr>");
    }
}
catch(Exception e)                // catch any database exceptions
{
    out.print("<tr><td>database error");
    out.print(e.toString());
    out.println("</td></tr>");
}

out.println("</table>");

out.println("</body>");
out.println("</html>");
}
}

```

CustomerDatabaseQuery.html

```

<!doctype html>

<!-- File: CustomerDatabaseQuery.html

    Use this form to get a report of all customer accounts which have a balance
    greater than or equal to a specified minimum.

-->

<html>
<head><title>CustomerDatabaseQuery.html</title>
</head>
<body>

<b>Customer Database Query System</b>

<br><br>
Enter a minimum balance.

```

```
<br><br>
```

```
<form action='/servlet/rap10.CustomerDatabaseQuery' method=post>
```

Minimum balance:

```
<input type='text' id='minBalance' name='minBalance'>
```

```
<input type='Submit'>
```

```
</form>
```

```
</body>
```

```
</html>
```

CustomerDatabaseQuery.java

```
/* File: CustomerDatabaseQuery.java
```

```
    This servlet responds to requests for a Customer Outstanding Balance report.
```

```
*/
```

```
import java.io.*;                // import statements
```

```
import javax.servlet.*;
```

```
import javax.servlet.http.*;
```

```
import java.sql.*;
```

```
public class CustomerDatabaseQuery extends HttpServlet    // subclass HttpServlet
```

```
{
```

```
    // prevent direct access via the Location field
```

```
    // by over-riding doGet
```

```
    public void doGet(HttpServletRequest request, HttpServletResponse response)
```

```
        throws ServletException, IOException
```

```
    {
```

```
        response.setContentType("text/html");        // set HTTP response header type
```

```
        PrintWriter out=response.getWriter();        // get a PrintWriter object for output purposes
```



```

out.println("break-in attempt detected<br><br>");
out.println("<a href='/CustomerDatabaseQuery.html'>Click here</a> to conitnue.");
}

// doPost will handle a request from the HTML form
public void doPost(HttpServletRequest request, HttpServletResponse response)
    throws ServletException, IOException // over-ride HttpServlet doPost method
{
    response.setContentType("text/html");           // set HTTP response header type

    PrintWriter out=response.getWriter();           // get a PrintWriter object for output purposes
    out.println("<!doctype html>");
    out.println("<html>");
    out.println("<head>");
    out.println("<title>CustomerDatabaseQuery.java</title>");
    out.println("<link rel=stylesheet type='text/css' href='/BIS3523.css'>");
    out.println("</head>");
    out.println("<body>");
    out.println("<table>");

    String minBalance=request.getParameter("minBalance"); // get parameter from form
    try
    {
        Class.forName("com.mysql.jdbc.Driver").newInstance();
        Connection connection=DriverManager.getConnection("jdbc:mysql://localhost/bis3523",
            "abc123","password");
        Statement statement=connection.createStatement();

        // find out how many rows in table match the query
        String query="select count(*) from Customer where balance>="+minBalance+" order by balance desc";
        ResultSet resultSet=statement.executeQuery(query); // execute the query statement
        resultSet.next();                                // this resultSet will have only one row
        int count=resultSet.getInt(1);

        // construct the actual select statement to retrieve the rows
        query="select * from Customer where balance>="+minBalance+" order by balance desc";

        out.println("<tr><td colspan=4>"+query+"</td></tr>"); // for debugging purposes, echo the query
    }
    catch (Exception e)
    {
        out.println("Error: " + e.getMessage());
    }
}

```

```

out.print("<tr><td colspan=4>" + count + " row");    // echo # of rows that match query
if(count==1)                                     // properly handle singular and plural
{
    out.print(" matches");
}
else
{
    out.print("s match");
}
out.println(" query</td></tr>");

resultSet=statement.executeQuery(query);          // execute the query statement
int i=0;                                           // number the rows in the table
while(resultSet.next())                          // process results of select statement
{
    i++;
    int number=resultSet.getInt(1);
    String name=resultSet.getString(2);
    int balance=resultSet.getInt(7);
    out.println("<tr><td class=right>" + i + ".</td><td class=right>" + number + "</td><td>" + name
        + "</td><td class=right>" + Utility.padString(balance,15,2) + "</td></tr>");
}

}

catch(Exception e)                               // catch any database exceptions
{
    out.print("<tr><td>database error");
    out.print(e.toString());
    out.println("</td></tr>");
}

out.println("</table>");
out.println("</body>");
out.println("</html>");
}
}

```

CustomerDatabaseUpdate.jsp

```
<!doctype html>
```

```
<!-- File: CustomerDatabaseUpdate.jsp
```

This program uses JSP code list all customers in an HTML table, displaying each customer's balance in a textfield. To the right of the textfield is a button, which the user can use to update the customer's balance (change the balance in the textfield, and click the button). Clicking the button will submit the form on the page, which requests a servlet (notice that this does not use AJAX, but a regular HTTP request).

```
-->
```

```
<html>
```

```
<head><title>CustomerDatabaseUpdate.jsp</title>
```

```
<link rel=stylesheet type='text/css' href='/BIS3523.css'>
```

```
<script type='text/javascript'>
```

```
// this function is called when an Update button is clicked
```

```
// it receives one parameter: customer number
```

```
// it then gets the current value that is in the associated textfield
```

```
// it uses these two values to set the values for two hidden form fields (the values
```

```
// of these two fields will be retrieved by the servlet)
```

```
function submitUpdate(custNumber)
```

```
{
```

```
    document.forms[0].custNum.value=custNumber;
```

```
    document.forms[0].balance.value=document.getElementById('cell'+custNumber).value;
```

```
    document.forms[0].submit();
```

```
}
```

```
</script>
```

```
</head>
```

```
<body>
```

```
<%@ page import="java.sql.*" %>
```

```
<form action='/servlet/rap10.CustomerDatabaseUpdate' method=post>
```

<table>

<%

```
// see if there is an attribute named "updatedNumber" associated with this request
// (this is used to communicate from the servlet back to the jsp, to highlight the updated row)
int updatedNumber=-1;
String string=(String) request.getAttribute("updatedNumber");
if(string!=null)
{
    updatedNumber=Integer.parseInt(string);
}

                                // connect to the mysql database server
                                //  database name: BIS3523
                                //    user name: abc123
                                //    password: password

try
{
    Class.forName("com.mysql.jdbc.Driver").newInstance();    // load database driver
    Connection connection=DriverManager.getConnection("jdbc:mysql://localhost/bis3523",
        "abc123","password");
    Statement statement=connection.createStatement();

    String query="select * from Customer";                    // set up select command

    ResultSet resultSet=statement.executeQuery(query);        // and execute the select command

    while(resultSet.next())                                // step through the resultSet, processing each row
    {
        int number=resultSet.getInt(1);                    // get the first field, which is an int
        String name=resultSet.getString(2);                // second field is a String
        int balance=resultSet.getInt(7);                    // and third is an int

        String strBalance=Utility.padString(balance,10,2);
        out.print("<tr class=highlight");
        if(number==updatedNumber)                        // if servlet passed back an updatedNumber
        {                                                  // set this row to white text on green background
            out.print(" style='color: white; background-color: green'");
        }
    }
}
```

```

    }
    out.print("><td>" + number + "</td><td>" + name + "</td>");
    out.print("<td><input type=text id=cell"+number+" value="+strBalance+"></td>");
    out.print("<td><input type=button value=' Update ' onClick='submitUpdate("+number+")'></td>");
    out.println("</tr>");
}
}
catch(Exception e)                // catch any database exceptions
{
    out.print("<tr><td>database error");
    out.print(e.toString());
    out.println("</td></tr>");
}

%>

</table>

<input type=hidden name=custNum>
<input type=hidden name=balance>
</form>

</body>
</html>

```

CustomerDatabaseUpdate.java

```

/* File: CustomerDatabaseUpdate.java

```

This servlet updates a customer balance, and then redirects the user back to the initial JSP page.

```

*/

```

```

import java.sql.*;                // import classes and interfaces from sql package
import java.io.*;                 // import statements
import javax.servlet.*;

```

```

import javax.servlet.http.*;

public class CustomerDatabaseUpdate extends HttpServlet
{

    public void doPost(HttpServletRequest request,HttpServletResponse response)
        throws ServletException,IOException
    {

        PrintWriter out=response.getWriter();

        try
            // put the whole shebang in a try/catch block
        {
            // retrieve two submitted form fields
            int customerNumber=Integer.parseInt(request.getParameter("custNum"));
            String string=request.getParameter("balance");
            string=string.replace(",","");          // remove any commas from new balance
            double newBalance=Double.parseDouble(string);

            // connect to the mysql database server
            //  database name: bis3523
            //   user name: abc123
            //    password: password

            Class.forName("com.mysql.jdbc.Driver").newInstance();    // load database driver
            Connection connection=DriverManager.getConnection("jdbc:mysql://localhost/bis3523",
                "abc123","password");
            Statement statement=connection.createStatement();

            // construct an SQL Update statement
            String sql="update Customer set balance="+newBalance+" where number="+customerNumber;
            statement.execute(sql);          // and execute the SQL statement

            // set a value for an attribute to be retrieved
            // by the jsp when we return to it
            request.setAttribute("updatedNumber",""+customerNumber);
            RequestDispatcher rd=getServletContext().getRequestDispatcher("/CustomerDatabaseUpdate.jsp");
            rd.forward(request,response);    // submit request for the original .jsp
        }
        catch(Exception e)
            // catch any exceptions

```

```
{
    response.setContentType("text/plain");
    out.println("database error (or some type of exception)");
}

}

}
```

SessionTracker.jsp

```
<!doctype html>
```

```
<!-- File: SessionTracker.jsp
```

This page demonstrates "session tracking" for persistence.

Session tracking could be used to implement something like a shopping cart, with page-to-page persistence of the contents of the cart.

```
-->
```

```
<%@ page session="true" %>
```

```
<%@ page import="java.util.*" %>
```

```
<html>
```

```
<head>
```

```
<title>SessionTracker.jsp</title>
```

```
<link rel=stylesheet type='text/css' href='/BIS3523.css'>
```

```
</head>
```

```
<body>
```

```
<table class=noBorder style='width: 96%; margin: auto'>
```

```
<tr><td valign=top class=noBorder>
```

```
<form action='/servlet/rap10.SessionTracker' method=post>
```

```
next item? <input type=text name=item size=30>
```

```

<br><br>
<input type=submit value='Add item'>

</form>

</td><td valign=top class=noBorder>

<table style='margin-right: 0px'>
<tr><td class=center>

<%

// retrieve the value for the session attribute named "cart"
Vector cart=(Vector)session.getAttribute("cart");
if(cart==null)
{
    cart=new Vector();
}

if(cart.size()==0)
{
    out.print("Your shopping cart is empty.");
}
else
{
    out.print("Shopping Cart:<br>");
    out.print("<a href='/servlet/rap10.SessionLister'>" + cart.size() + " item");
    if(cart.size()>1)
    {
        out.print("s");
    }
    out.print("</a>");
}
out.println("");

%>

</td></tr></table>
</td></tr>

```


</table>

</body>

</html>

SessionTracker.java

```
/* File: SessionTracker.java
```

This servlet adds an item to the session-based shopping cart.

```
*/
```

```
import java.io.*;
```

```
import javax.servlet.*;
```

```
import javax.servlet.http.*;
```

```
import java .util.*;
```

```
public class SessionTracker extends HttpServlet          // subclass HttpServlet
```

```
{
```

```
    public void doPost(HttpServletRequest request,HttpServletResponse response)
```

```
        throws ServletException, IOException          // over-ride HttpServlet doPost method
```

```
        // to respond to Post requests
```

```
{
```

```
    try
```

```
{
```

```
        HttpSession session=request.getSession(true);          // get an HttpSession object
```

```
        String item=request.getParameter("item");              // get the new "item" from the submitted data
```

```
        Vector cart=(Vector) session.getAttribute("cart");      // get the value of the "cart" session attribute
```

```
        if(cart==null)                                          // if it's null, create new Vector object
```

```
{
```

```
    cart=new Vector();
```

```
}
```

```
    cart.addElement(item);                                     // add the new "item" to the vector (cart)
```

```

session.setAttribute("cart",cart);                // set "cart" as a session attribute

response.sendRedirect("/SessionTracker.jsp");      // redirect browser to jsp page
                                                    // (notice no HTML generated)
}
catch(Exception e)                                // catch any exceptions
{
    // generate HTML response only on exception
    response.setContentType("text/html");          // set HTTP response header type
    PrintWriter out=response.getWriter();          // get a PrintWriter object for output purposes
    out.println("<!doctype html>");                // generate valid HTML for a web page
    out.println("<html>");
    out.println("<head>");
    out.println("<title>SessionTracker.java</title>");
    out.println("<link rel=stylesheet type='text/css' href='/BIS3523.css'>");
    out.println("</head>");
    out.println("<body>");
    out.println("Strange error adding item to shopping cart. Please call customer service.<br><br>");
    out.println(e.toString());
    out.println("<br><br>");
    out.println("<a href='/SessionTracker.jsp'>Click here to continue.</a>");
    out.println("</body>");
    out.println("</html>");
}
}
}

```

SessionLister.java

```

/* File: SessionLister.java

```

This servlet lists the contents of the session-based shopping cart.

```

*/

```

```

import java.io.*;
import javax.servlet.*;
import javax.servlet.http.*;
import java .util.*;

```

```

public class SessionLister extends HttpServlet          // subclass HttpServlet
{
    public void doGet(HttpServletRequest request,HttpServletResponse response)
        throws ServletException, IOException          // over-ride HttpServlet doGet method
        // to respond to Get requests
    {
        response.setContentType("text/html");          // set HTTP response header type
        PrintWriter out=response.getWriter();          // get a PrintWriter object for output purposes

        out.println("<!doctype html>");                // generate valid HTML for a web page
        out.println("<html>");
        out.println("<head>");
        out.println("<title>SessionLister.java</title>");
        out.println("<link rel=stylesheet type='text/css' href='/BIS3523.css'>");
        out.println("</head>");
        out.println("<body>");

        try
        {
            HttpSession session=request.getSession(true);    // get an HttpSession object

            Vector cart=(Vector) session.getAttribute("cart");    // get the value of its "cart" attribute
            if(cart==null)                // if attribute is null,
            {
                out.println("Your shopping cart is empty.");    // cart is empty
            }
            else
            {
                out.println("Your shopping cart contains:<br>");    // display contents of cart
                out.println("<ol>");
                for(int i=0;i<cart.size();i++)
                {
                    out.println("<li>"+cart.elementAt(i)+"</li>");
                }
                out.println("</ol>");
            }
        }
        catch(Exception e)                // catch any exceptions
        {
            out.println("error");
            out.println(e.toString());
        }
    }
}

```

```
}

out.println("<br><br><a href='/SessionTracker.jsp'>Click here to continue.</a>");

out.println("</body>");
out.println("</html>");

}

}
```

Revision #10

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