```python
#!/usr/bin/python

import numpy as np
import math as mth
import csv
from sys import argv

script = argv[0]
readFile = argv[1]
wrtFile = argv[2]

recRecord = list(0 for x in xrange(10000)) #maximum 10000 strokes!

with open(wrtFile, 'w') as fp:
    a = csv.writer(fp, delimiter=',')
    psData = np.genfromtxt(readFile,
                    skip_header=1,
                    delimiter = ',')
    f = open(readFile,"r")
    i = 0
    j = 0
    for line in f:
        i = i + 1
        if line.find("STROKESTATE_RECOVERY_STATE") >= 0:
            recRecord[j]=i
            j=j+1

    tmpData = [0.,0.,0.,0.,0.,0.,0.,0.,0.,0.,
            0.,0.,0.,0.,0.,0.,0.,0.,0.,0.,
            0.,0.,0.,0.,0.,0.,0.,0.,0.,0.]
    wrtData = [0.,0.,0.,0.,0.]
    recordPtr = 0
    baseTime = psData[0,0]
    for i in range(0,psData.shape[0]):   # for each record in the csv file
        for j in range(0,psData.shape[1]): # for every field in each line
            if not mth.isnan(psData[i,j]): # check for a valid number
                tmpData[j]=psData[i,j]     # if it does, update the tmpdata
        if i == recRecord[recordPtr]:     # check for a "recovery" record

# for compatibility with speedcoach data, write it out as
# Interval,Type,Distance,Time,Stroke Rate,Speed(m/s),Split,Time,Split,HR

            wrtData = [i,0,tmpData[2],(tmpData[0]-baseTime)/(60.*60.*24),
                        tmpData[10],tmpData[4],tmpData[8],
                        tmpData[3]/(60.*60.*24.),tmpData[0]-baseTime,
                        tmpData[3],tmpData[5]]
            a.writerow(wrtData)
            recordPtr = recordPtr+1

    # painsled data fields
#
# 0 TimeStamp (sec),
# 1 ElapsedTime (sec),
# 2 Horizontal (meters),
# 3 Stroke500mPace (sec/500m),
# 4 Cadence (stokes/min),
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# 5 HRCur (bpm),
# 6 Power (watts),
# 7 Calories (kCal),
# 8 Speed (m/sec),
# 9 StrokeState,
# 10 StrokeCount,
# 11 StrokeDistance (meters),
# 12 DriveLength (meters),
# 13 DriveTime (ms),
# 14 StrokeRecoveryTime (ms),
# 15 WorkPerStroke (joules),
# 16 AverageDriveForce (lbs),
# 17 PeakDriveForce (lbs),
# 18 SplitIntNumber,
# 19 IntervalType,
# 20 SplitIntType,
# 21 SplitIntTime (sec),
# 22 IntervalRestDistance (meters),
# 23 IntervalRestTime (sec),
# 24 WorkDistance (meters),
# 25 RestDistance (meters),
# 26 RestTime (sec),
# 27 DragFactor,
# 28 RowingState,
# 29 WorkoutState,
# 30 WorkoutType
```