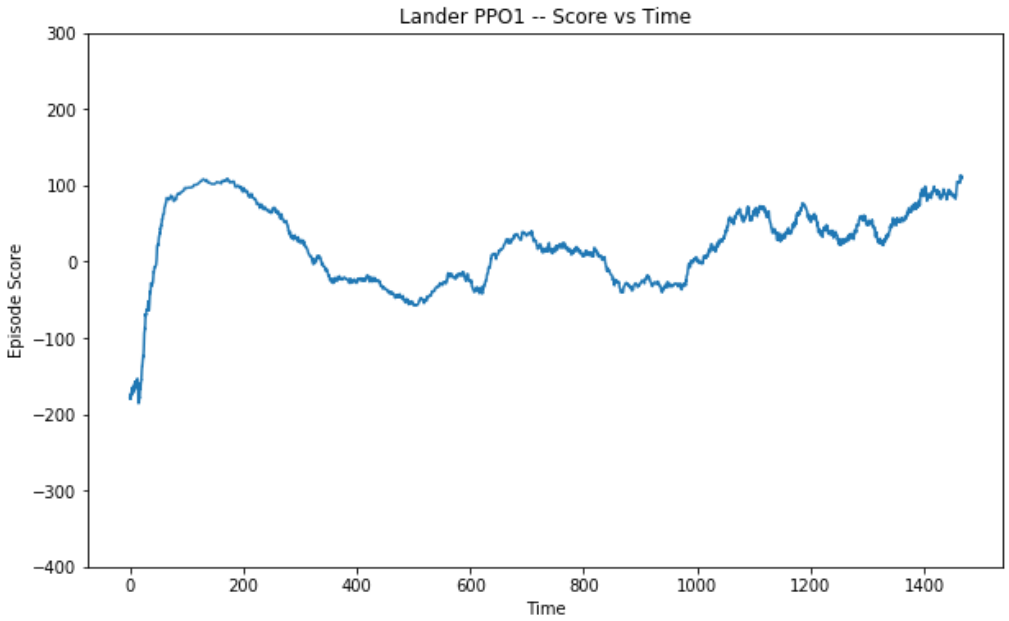
In [61]:
```
import pandas as pd
import matplotlib.pyplot as plt
import numpy as np
```

In [62]:
```
k = 100
```

In [63]:
```
# lander PP02 Time
# Read in File as pandas dataframe
file_data = pd.read_csv("lander/lander_ppo2_million.csv")
lander_pp02_million_df = pd.DataFrame(columns= file_data.iloc[0,:], data=file_d
ata.iloc[1:,].as_matrix())

#PLOTTING
fig, ax = plt.subplots(1,1, figsize=(10,6))
x_ppo2_time = pd.to_numeric(lander_pp02_million_df.t.values)
pp02_my = pd.to_numeric(file_data.iloc[1:].index.values)
ax.set_title("Lander PPO1 -- Score vs Time")
ax.set_xlabel("Time")
ax.set_ylabel("Episode Score")
#ax.plot(x_ppo2_time , pp02_my);

ppo2_hy2 = []
for i in range(len(pp02_my) - k):
    num = 0
    for j in range(k):
        num += pp02_my[i+j]
    ppo2_hy2.append(num/k)

ax.set_ylim(-400, 300)
ax.plot(x_ppo2_time[:-k], ppo2_hy2);
max(ppo2_hy2)
plt.savefig('CleanedPlots/lander_ppo1_time.png')
```

```
/home/mkolor/jupyter_nb_directory/jupyter_nb_env/lib/python3.6/site-packages/ip
ykernel_launcher.py:4: FutureWarning: Method .as_matrix will be removed in a fu
ture version. Use .values instead.
  after removing the cwd from sys.path.
```



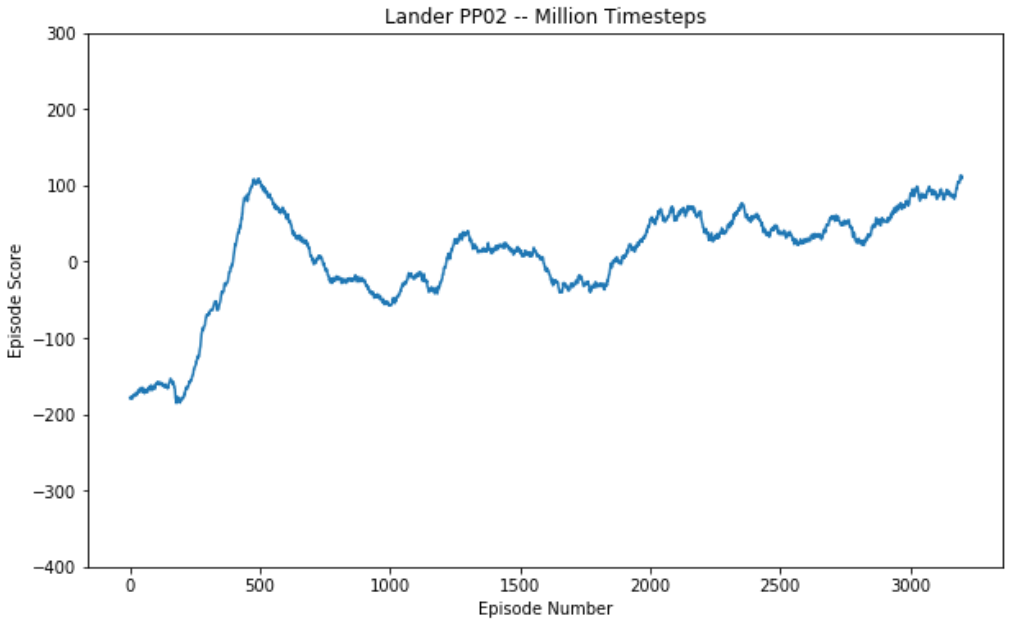
In [64]:
```
file_data
lander_pp02_million_df
```

Out[64]:

	r	l	t
0	66	0.759621
1	92	1.052448
2	84	1.133883
3	88	1.244922
4	63	1.32216
5	93	1.387393
6	67	1.458337
7	125	1.561875
8	122	1.665198
9	74	1.712245
10	131	1.820043
11	128	1.9319
12	121	2.028663
13	65	2.090502
14	102	2.172058
15	108	2.239115
16	149	2.375895
17	93	2.432054
18	159	2.57555
19	80	2.624756
20	73	2.68832
21	112	2.778434
22	79	2.827761
23	82	2.89656
24	95	2.976816
25	109	3.048229
26	102	3.130776
27	81	3.20103
28	79	3.268912
29	122	3.342766
...	...	...
3269	362	1493.876991
3270	153	1494.025899
3271	227	1494.328768
3272	243	1494.632573
3273	259	1494.956744
3274	245	1495.269418
3275	210	1495.516291
3276	511	1496.208708

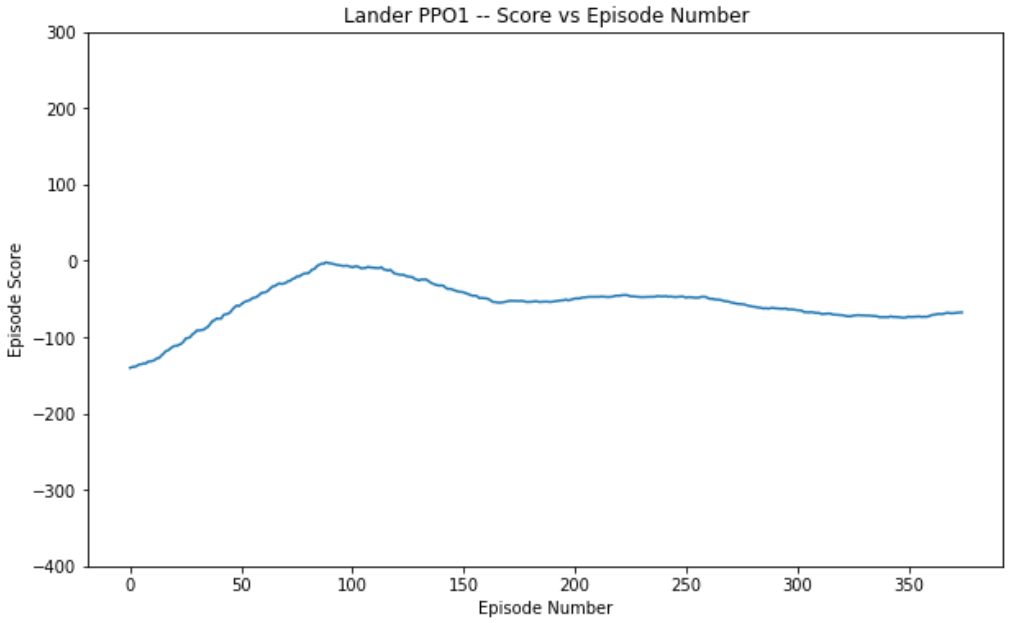
In [65]:
```
# lander PP02 MILLION
# Read in File as pandas dataframe
file_data = pd.read_csv("lander/lander_ppo2_million.csv", index_col =False)
lander_pp02_million_df = pd.DataFrame(columns= file_data.iloc[0,:], data=file_d
ata.iloc[1:,].as_matrix())

#PLOTTING
fig, ax = plt.subplots(1,1, figsize=(10,6))
x_m = pd.to_numeric(lander_pp02_million_df.index.values)
pp02_my = pd.to_numeric(lander_pp02_million_df.r.values)
ax.set_title("Lander PP02 -- Million Timesteps")
ax.set_xlabel("Episode Number")
ax.set_ylabel("Episode Score")
#ax.plot(x_m , pp02_my);

ppo2_my2 = []
for i in range(len(pp02_my) - k):
    num = 0
    for j in range(k):
        num += pp02_my[i+j]
    ppo2_my2.append(num/k)

ax.set_ylim(-400, 300)

ax.plot(x_m[:-k], ppo2_my2);
plt.savefig('CleanedPlots/lander_ppo2_episode.png')
```

```
/home/mkolor/jupyter_nb_directory/jupyter_nb_env/lib/python3.6/site-packages/ip
ykernel_launcher.py:4: FutureWarning: Method .as_matrix will be removed in a fu
ture version. Use .values instead.
  after removing the cwd from sys.path.
```



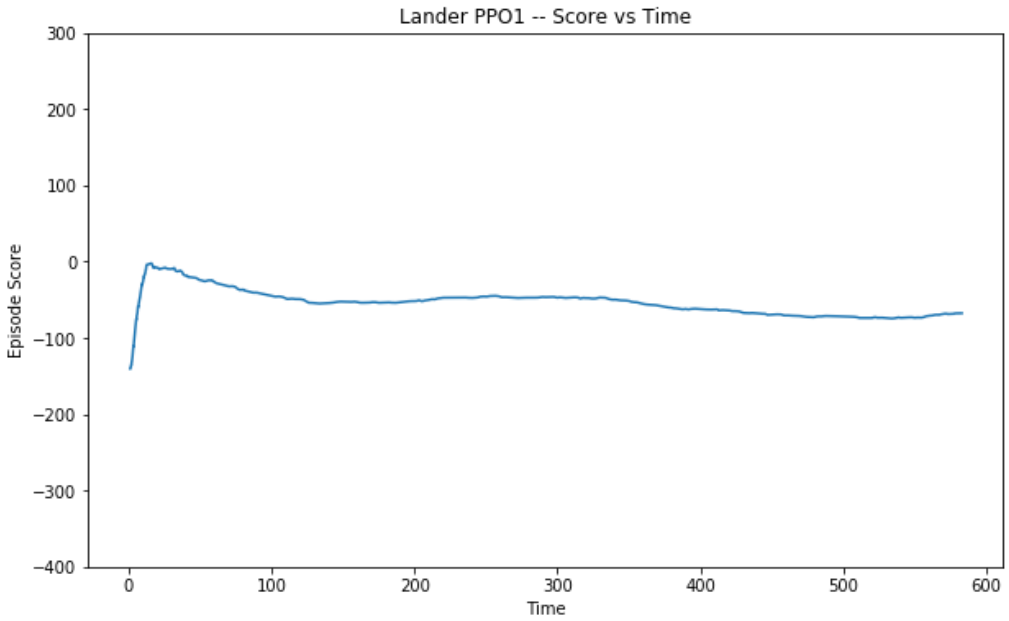
In [66]:
```
# lander PP01 MILLION
# Read in File as pandas dataframe
file_data = pd.read_csv("lander/lander_ppo1_million.csv", index_col=False)
lander_pp01_million_df = pd.DataFrame(columns= file_data.iloc[0,:], data=file_d
ata.iloc[1:,].as_matrix())

#PLOTTING
fig, ax = plt.subplots(1,1, figsize=(10,6))
x = pd.to_numeric(lander_pp01_million_df.index.values)
pp01_my = pd.to_numeric(lander_pp01_million_df.r.values)
ax.set_title("Lander PPO1 -- Score vs Episode Number")
ax.set_xlabel("Episode Number")
ax.set_ylabel("Episode Score")
#ax.plot(x , pp01_my);

ppo1_my2 = []
for i in range(len(pp01_my) - k):
    num = 0
    for j in range(k):
        num += pp01_my[i+j]
    ppo1_my2.append(num/k)

ax.set_ylim(-400, 300)
ax.plot(x[:-k], ppo1_my2);
plt.savefig('CleanedPlots/lander_ppo1_episode.png')
```

```
/home/mkolor/jupyter_nb_directory/jupyter_nb_env/lib/python3.6/site-packages/ip
ykernel_launcher.py:4: FutureWarning: Method .as_matrix will be removed in a fu
ture version. Use .values instead.
  after removing the cwd from sys.path.
```



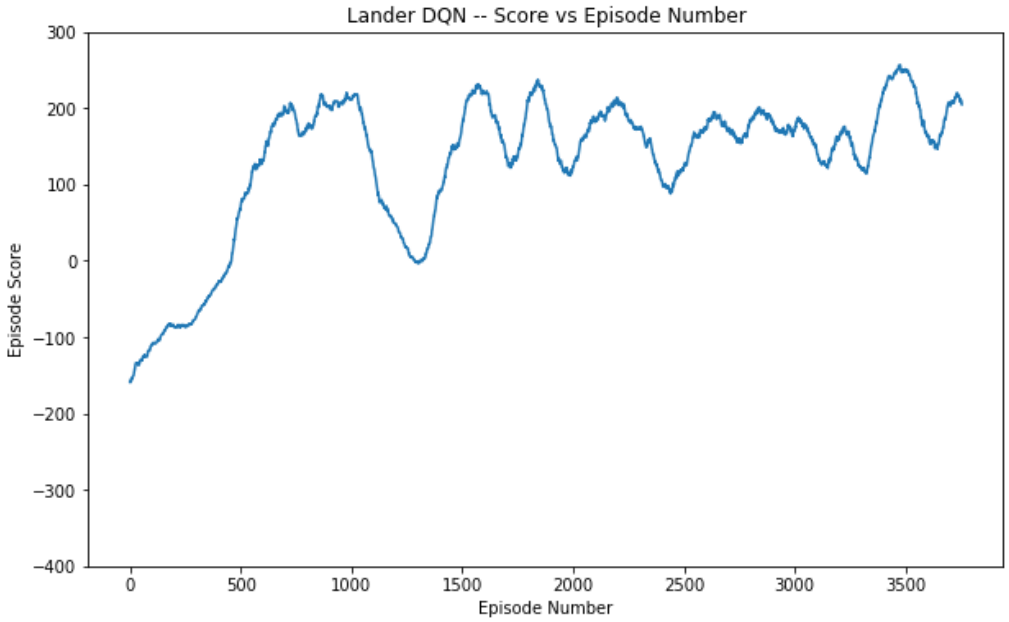
In [67]:
```
# lander ppo1 Time
# Read in File as pandas dataframe
file_data = pd.read_csv("lander/lander_ppo1_million.csv")
lander_ppo1_million_df = pd.DataFrame(columns= file_data.iloc[0,:], data=file_d
ata.iloc[1:,].as_matrix())

#PLOTTING
fig, ax = plt.subplots(1,1, figsize=(10,6))
x_ppo1_time = pd.to_numeric(lander_ppo1_million_df.t.values)
ppo1_my = pd.to_numeric(file_data.iloc[1:].index.values)
ax.set_title("Lander PPO1 -- Score vs Time")
ax.set_xlabel("Time")
ax.set_ylabel("Episode Score")
#ax.plot(x_ppo1_time , ppo1_my);

ppo1_hy2 = []
for i in range(len(ppo1_my) - k):
    num = 0
    for j in range(k):
        num += ppo1_my[i+j]
    ppo1_hy2.append(num/k)

ax.plot(x_ppo1_time[:-k], ppo1_hy2);
ax.set_ylim(-400, 300)
max(ppo1_hy2)
plt.savefig('CleanedPlots/lander_ppo1_time.png')
```

```
/home/mkolor/jupyter_nb_directory/jupyter_nb_env/lib/python3.6/site-packages/ip
ykernel_launcher.py:4: FutureWarning: Method .as_matrix will be removed in a fu
ture version. Use .values instead.
  after removing the cwd from sys.path.
```



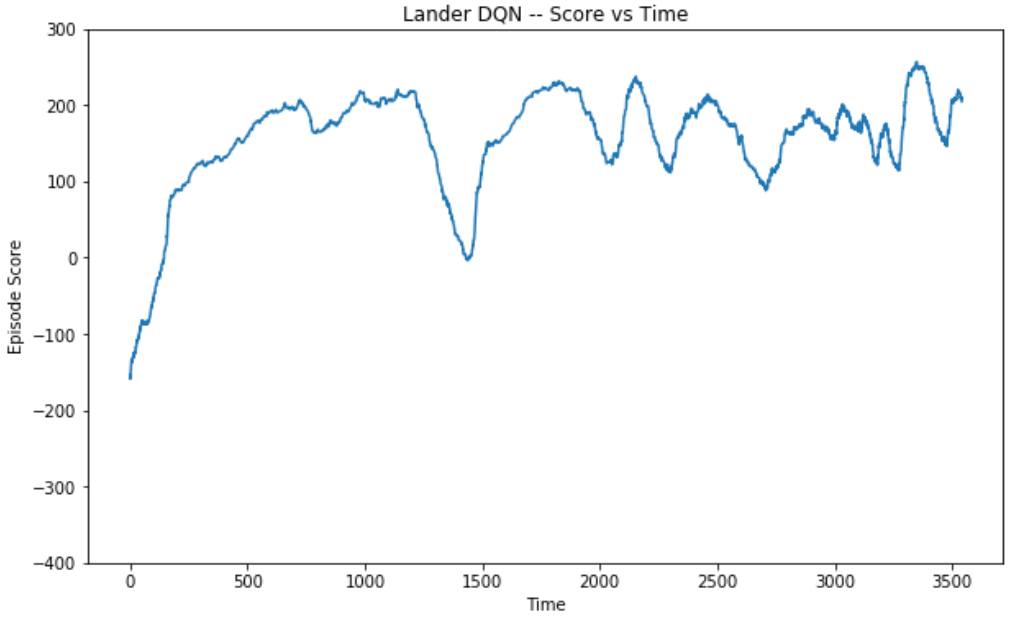
In [68]:
```
# lander DQN Million
# Read in File as pandas dataframe
file_data = pd.read_csv("lander/lander_dqn_million.csv", index_col=False)
lander_dqn_million_df = pd.DataFrame(columns= file_data.iloc[0,:], data=file_da
ta.iloc[1:,].as_matrix())

#PLOTTING
fig, ax = plt.subplots(1,1, figsize=(10,6))
x = pd.to_numeric(lander_dqn_million_df.index.values)
dqn_my = pd.to_numeric(lander_dqn_million_df.r.values)
ax.set_title("Lander DQN -- Score vs Episode Number")
ax.set_xlabel("Episode Number")
ax.set_ylabel("Episode Score")
#ax.plot(x , dqn_my);

dqn_my2 = []
for i in range(len(dqn_my) - k):
    num = 0
    for j in range(k):
        num += dqn_my[i+j]
    dqn_my2.append(num/k)

ax.set_ylim(-400, 300)
ax.plot(x[:-k], dqn_my2);
plt.savefig('CleanedPlots/lander_fwn_episode.png')
```

```
/home/mkolor/jupyter_nb_directory/jupyter_nb_env/lib/python3.6/site-packages/ip
ykernel_launcher.py:4: FutureWarning: Method .as_matrix will be removed in a fu
ture version. Use .values instead.
  after removing the cwd from sys.path.
```



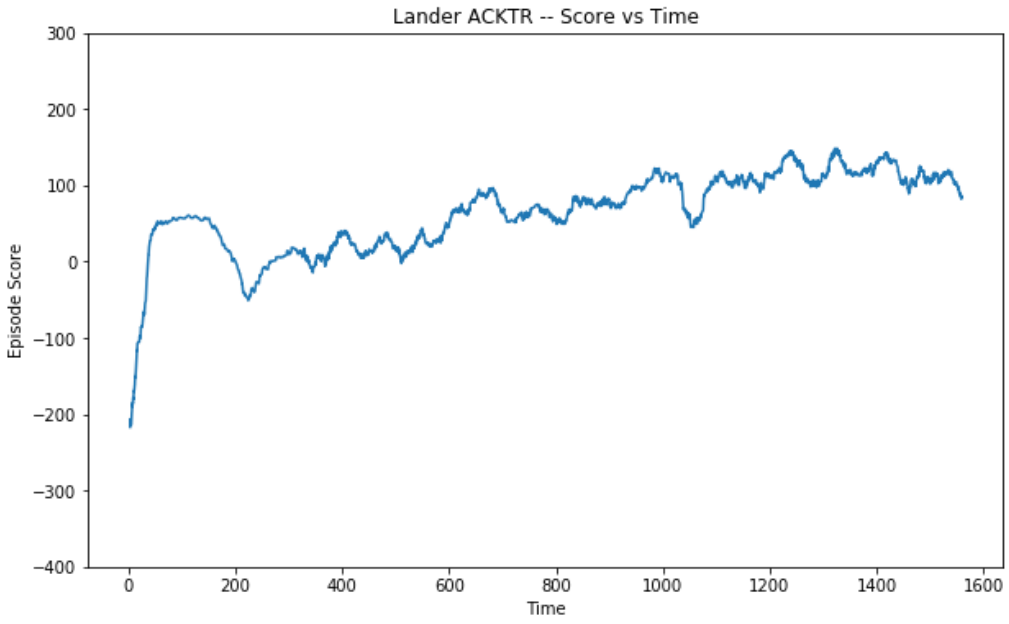
In [69]:
```
# lander dqn Time
# Read in File as pandas dataframe
file_data = pd.read_csv("lander/lander_dqn_million.csv")
lander_dqn_million_df = pd.DataFrame(columns= file_data.iloc[0,:], data=file_da
ta.iloc[1:,].as_matrix())

#PLOTTING
fig, ax = plt.subplots(1,1, figsize=(10,6))
x_dqn_time = pd.to_numeric(lander_dqn_million_df.t.values)
dqn_my = pd.to_numeric(file_data.iloc[1:].index.values)
ax.set_title("Lander DQN -- Score vs Time")
ax.set_xlabel("Time")
ax.set_ylabel("Episode Score")
#ax.plot(x_dqn_time , dqn_my);

dqn_hy2 = []
for i in range(len(dqn_my) - k):
    num = 0
    for j in range(k):
        num += dqn_my[i+j]
    dqn_hy2.append(num/k)

ax.plot(x_dqn_time[:-k], dqn_hy2);
ax.set_ylim(-400, 300)
max(dqn_hy2)
plt.savefig('CleanedPlots/lander_dqn_time.png')
```

```
/home/mkolor/jupyter_nb_directory/jupyter_nb_env/lib/python3.6/site-packages/ip
ykernel_launcher.py:4: FutureWarning: Method .as_matrix will be removed in a fu
ture version. Use .values instead.
  after removing the cwd from sys.path.
```



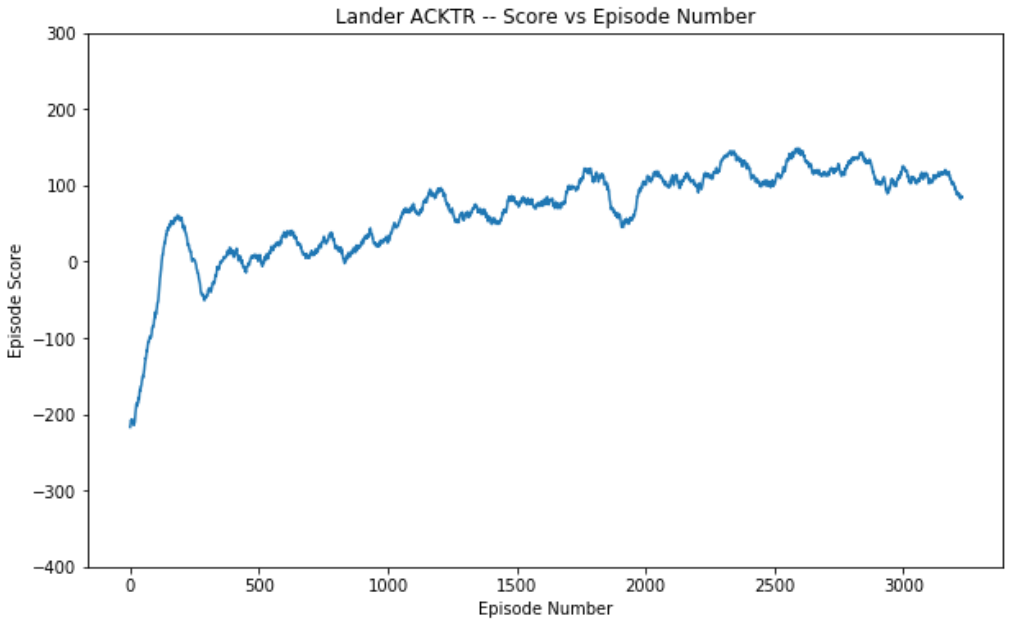
In [70]:
```
# lander acktr Time
# Read in File as pandas dataframe
file_data = pd.read_csv("lander/lander_acktr_million.csv")
lander_acktr_million_df = pd.DataFrame(columns= file_data.iloc[0,:], data=file_
data.iloc[1:,].as_matrix())

#PLOTTING
fig, ax = plt.subplots(1,1, figsize=(10,6))
x_acktr_time = pd.to_numeric(lander_acktr_million_df.t.values)
acktr_my = pd.to_numeric(file_data.iloc[1:].index.values)
ax.set_title("Lander ACKTR -- Score vs Time")
ax.set_xlabel("Time")
ax.set_ylabel("Episode Score")
#ax.plot(x_acktr_time , acktr_my);

acktr_hy2 = []
for i in range(len(acktr_my) - k):
    num = 0
    for j in range(k):
        num += acktr_my[i+j]
    acktr_hy2.append(num/k)

ax.set_ylim(-400, 300)
ax.plot(x_acktr_time[:-k], acktr_hy2);
max(acktr_hy2)
plt.savefig('CleanedPlots/lander_acktr_time.png')
```

```
/home/mkolor/jupyter_nb_directory/jupyter_nb_env/lib/python3.6/site-packages/ip
ykernel_launcher.py:4: FutureWarning: Method .as_matrix will be removed in a fu
ture version. Use .values instead.
  after removing the cwd from sys.path.
```



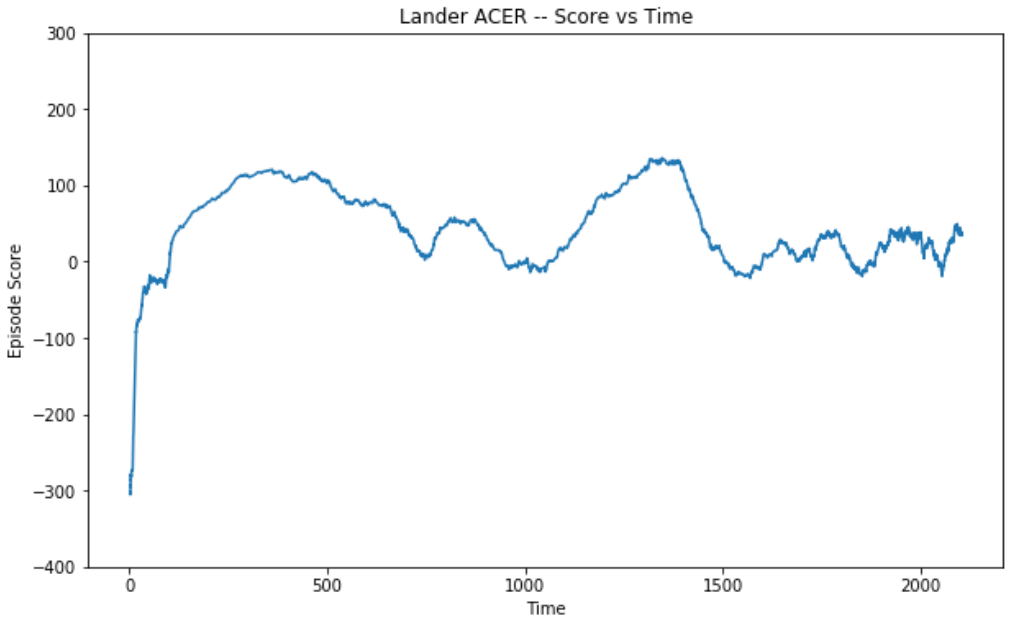
In [71]:
```
# lander ACKTR MILLION
# Read in File as pandas dataframe
file_data = pd.read_csv("lander/lander_acktr_million.csv",index_col=False)
lander_acktr_million_df = pd.DataFrame(columns= file_data.iloc[0,:], data=file_
data.iloc[1:,].as_matrix())

#PLOTTING
fig, ax = plt.subplots(1,1, figsize=(10,6))
x = pd.to_numeric(lander_acktr_million_df.index.values)
y = pd.to_numeric(lander_acktr_million_df.r.values)
ax.set_title("Lander ACKTR -- Score vs Episode Number")
ax.set_xlabel("Episode Number")
ax.set_ylabel("Episode Score")
#ax.plot(x, y);

acktr_my2 = []
for i in range(len(y) - k):
    num = 0
    for j in range(k):
        num += y[i+j]
    acktr_my2.append(num/k)

ax.set_ylim(-400, 300)
ax.plot(x[:-k], acktr_my2);
#file_data.iloc[0,:].values
plt.savefig('CleanedPlots/lander_acktr_episode.png')
```

```
/home/mkolor/jupyter_nb_directory/jupyter_nb_env/lib/python3.6/site-packages/ip
ykernel_launcher.py:4: FutureWarning: Method .as_matrix will be removed in a fu
ture version. Use .values instead.
  after removing the cwd from sys.path.
```



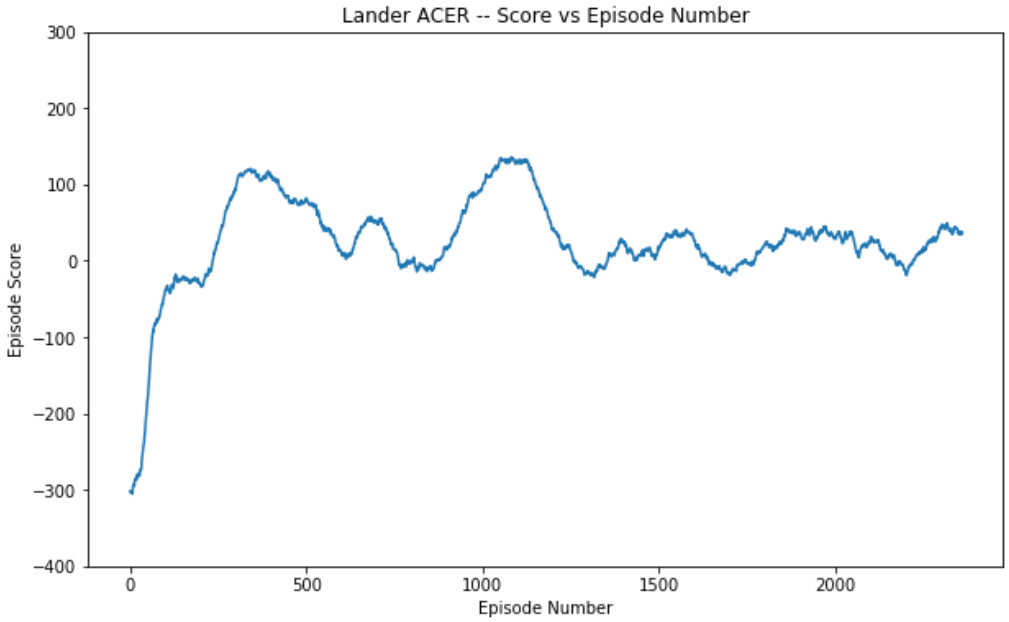
In [72]:
```
# lander acer Time
# Read in File as pandas dataframe
file_data = pd.read_csv("lander/lander_acer_million.csv")
lander_acer_million_df = pd.DataFrame(columns= file_data.iloc[0,:], data=file_d
ata.iloc[1:,].as_matrix())

#PLOTTING
fig, ax = plt.subplots(1,1, figsize=(10,6))
x_acer_time = pd.to_numeric(lander_acer_million_df.t.values)
acer_my = pd.to_numeric(file_data.iloc[1:].index.values)
ax.set_title("Lander ACER -- Score vs Time")
ax.set_xlabel("Time")
ax.set_ylabel("Episode Score")
#ax.plot(x_acer_time , acer_my);

acer_hy2 = []
for i in range(len(acer_my) - k):
    num = 0
    for j in range(k):
        num += acer_my[i+j]
    acer_hy2.append(num/k)

ax.set_ylim(-400, 300)
ax.plot(x_acer_time[:-k], acer_hy2);
max(acer_hy2)
plt.savefig('CleanedPlots/lander_acer_time.png')
```

```
/home/mkolor/jupyter_nb_directory/jupyter_nb_env/lib/python3.6/site-packages/ip
ykernel_launcher.py:4: FutureWarning: Method .as_matrix will be removed in a fu
ture version. Use .values instead.
  after removing the cwd from sys.path.
```



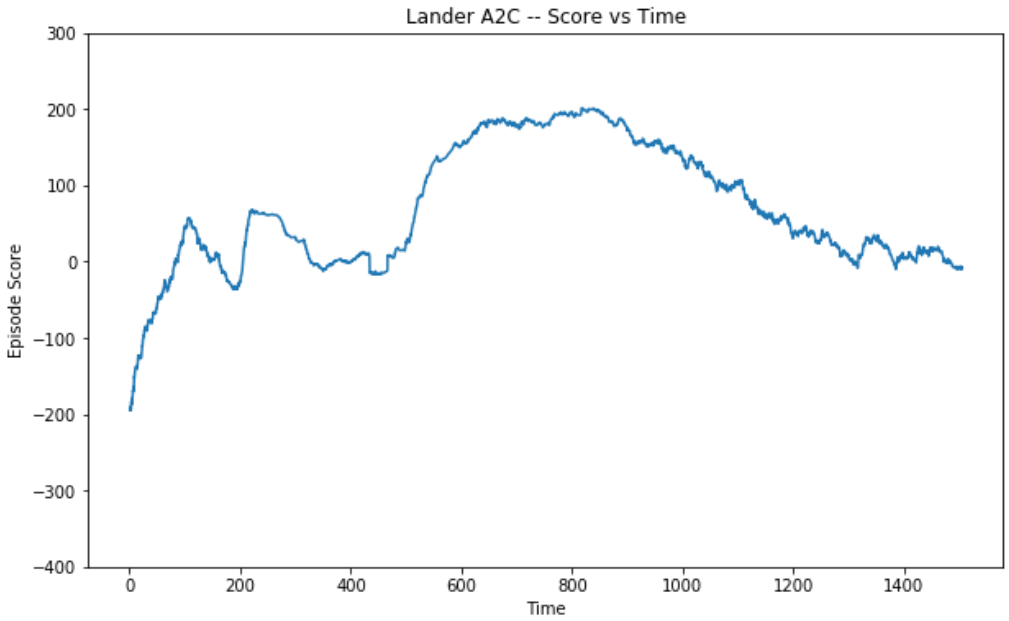
In [73]:
```
# lander ACER MILLION
# Read in File as pandas dataframe
file_data = pd.read_csv("lander/lander_acer_million.csv", index_col=False)
lander_acer_million_df = pd.DataFrame(columns= file_data.iloc[0,:], data=file_d
ata.iloc[1:,].as_matrix())

#PLOTTING
fig, ax = plt.subplots(1,1, figsize=(10,6))
x = pd.to_numeric(lander_acer_million_df.index.values)
y = pd.to_numeric(lander_acer_million_df.r.values)
ax.set_title("Lander ACER -- Score vs Episode Number")
ax.set_xlabel("Episode Number")
ax.set_ylabel("Episode Score")
#ax.plot(x, y);

acer_my2 = []
for i in range(len(y) - k):
    num = 0
    for j in range(k):
        num += y[i+j]
    acer_my2.append(num/k)

ax.set_ylim(-400, 300)
ax.plot(x[:-k], acer_my2);
plt.savefig('CleanedPlots/lander_acer_episode.png')
```

```
/home/mkolor/jupyter_nb_directory/jupyter_nb_env/lib/python3.6/site-packages/ip
ykernel_launcher.py:6: FutureWarning: Method .as_matrix will be removed in a fu
ture version. Use .values instead.
```



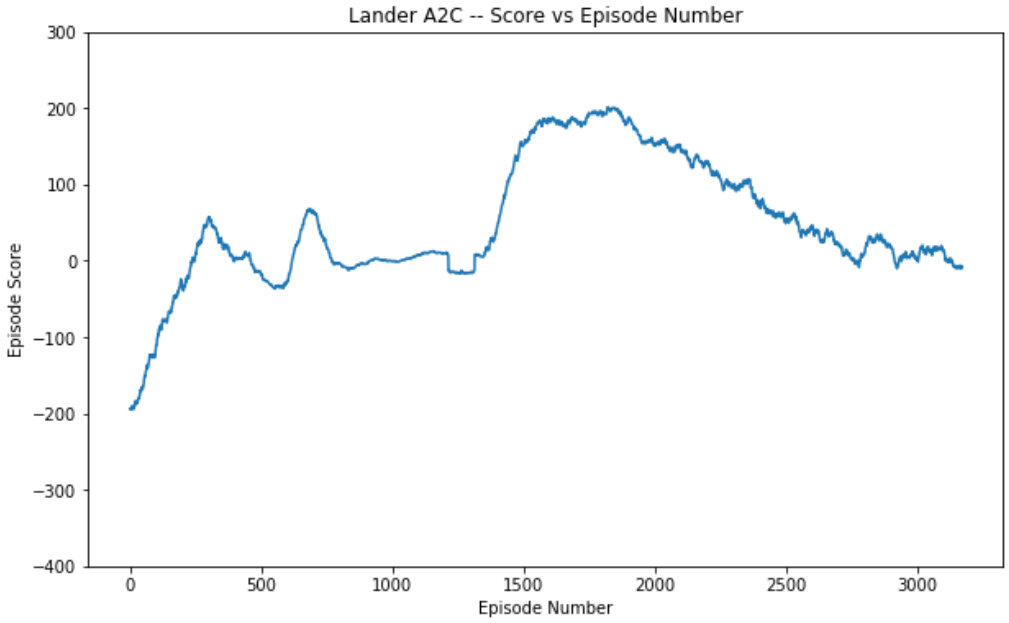
In [74]:
```
# lander a2c Time
# Read in File as pandas dataframe
file_data = pd.read_csv("lander/lander_a2c_million.csv")
lander_a2c_million_df = pd.DataFrame(columns= file_data.iloc[0,:], data=file_da
ta.iloc[1:,].as_matrix())

#PLOTTING
fig, ax = plt.subplots(1,1, figsize=(10,6))
x_a2c_time = pd.to_numeric(lander_a2c_million_df.t.values)
a2c_my = pd.to_numeric(file_data.iloc[1:].index.values)
ax.set_title("Lander A2C -- Score vs Time")
ax.set_xlabel("Time")
ax.set_ylabel("Episode Score")
#ax.plot(x_a2c_time , a2c_my);

a2c_hy2 = []
for i in range(len(a2c_my) - k):
    num = 0
    for j in range(k):
        num += a2c_my[i+j]
    a2c_hy2.append(num/k)

ax.set_ylim(-400, 300)
ax.plot(x_a2c_time[:-k], a2c_hy2);
max(a2c_hy2)
plt.savefig('CleanedPlots/lander_a2c_time.png')
```

```
/home/mkolor/jupyter_nb_directory/jupyter_nb_env/lib/python3.6/site-packages/ip
ykernel_launcher.py:4: FutureWarning: Method .as_matrix will be removed in a fu
ture version. Use .values instead.
  after removing the cwd from sys.path.
```



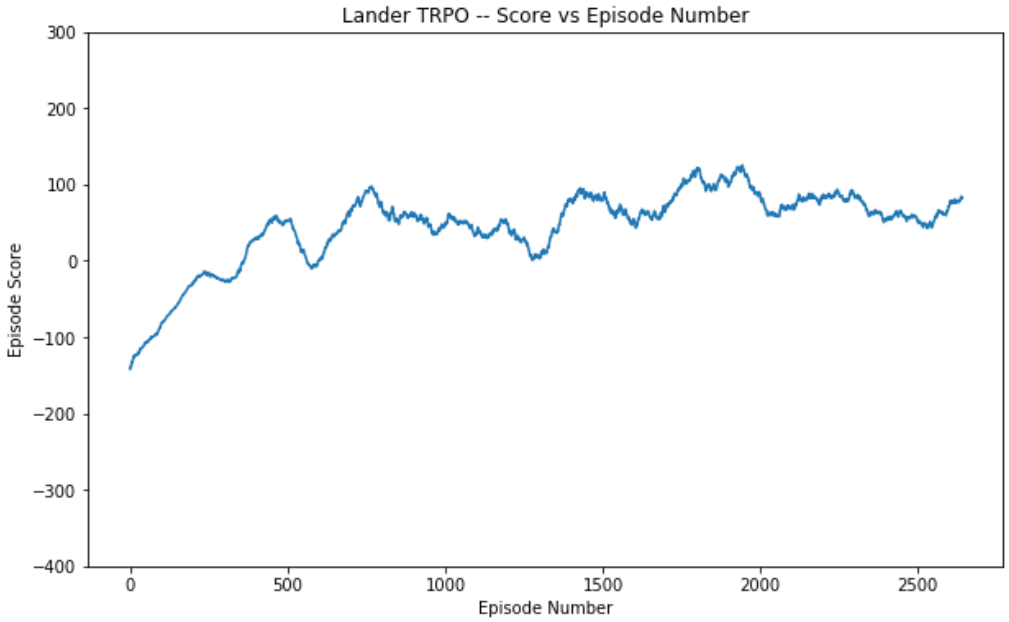
In [75]:
```
# lander A2C MILLION
# Read in File as pandas dataframe
file_data = pd.read_csv("lander/lander_a2c_million.csv", index_col=False)
lander_a2c_million_df = pd.DataFrame(columns= file_data.iloc[0,:], data=file_da
ta.iloc[1:,].as_matrix())

#PLOTTING
fig, ax = plt.subplots(1,1, figsize=(10,6))
x = pd.to_numeric(lander_a2c_million_df.index.values)
y = pd.to_numeric(lander_a2c_million_df.r.values)
ax.set_title("Lander A2C -- Score vs Episode Number")
ax.set_xlabel("Episode Number")
ax.set_ylabel("Episode Score")
#ax.plot(x, y);

a2c_my2 = []
for i in range(len(y) - k):
    num = 0
    for j in range(k):
        num += y[i+j]
    a2c_my2.append(num/k)

ax.set_ylim(-400, 300)
ax.plot(x[:-k], a2c_my2);
plt.savefig('CleanedPlots/lander_a2c_episode.png')
```

```
/home/mkolor/jupyter_nb_directory/jupyter_nb_env/lib/python3.6/site-packages/ip
ykernel_launcher.py:4: FutureWarning: Method .as_matrix will be removed in a fu
ture version. Use .values instead.
  after removing the cwd from sys.path.
```



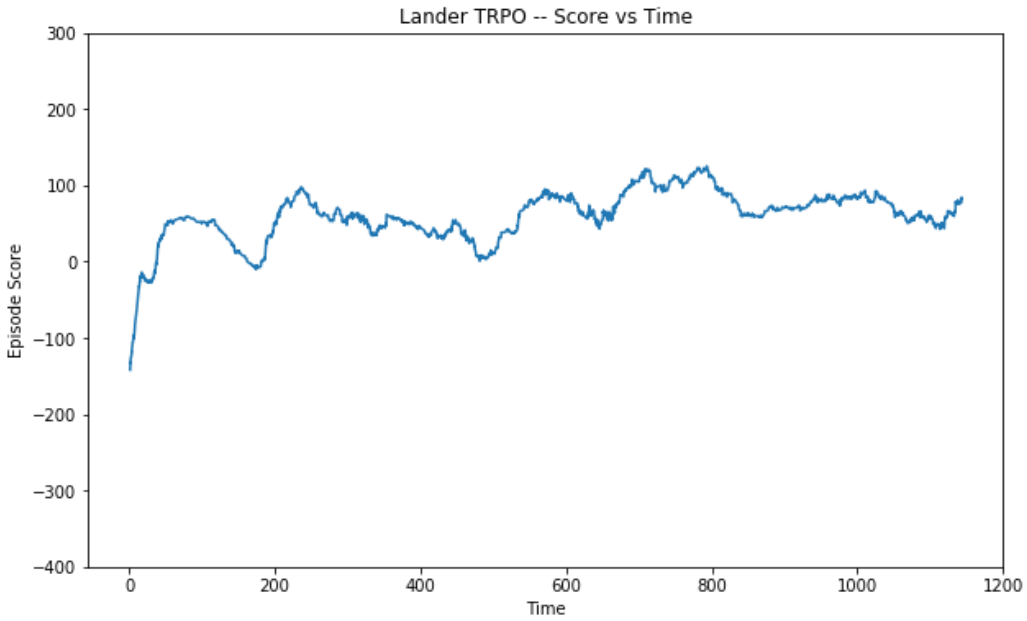
In [76]:
```
# lander trpo MILLION
# Read in File as pandas dataframe
file_data = pd.read_csv("lander/lander_trpo_million.csv", index_col=False)
lander_trpo_million_df = pd.DataFrame(columns= file_data.iloc[0,:], data=file_d
ata.iloc[1:,].as_matrix())

#PLOTTING
fig, ax = plt.subplots(1,1, figsize=(10,6))
x = pd.to_numeric(lander_trpo_million_df.index.values)
y = pd.to_numeric(lander_trpo_million_df.r.values)
ax.set_title("Lander TRPO -- Score vs Episode Number")
ax.set_xlabel("Episode Number")
ax.set_ylabel("Episode Score")
#ax.plot(x, y);

trpo_my2 = []
for i in range(len(y) - k):
    num = 0
    for j in range(k):
        num += y[i+j]
    trpo_my2.append(num/k)

ax.set_ylim(-400, 300)
ax.plot(x[:-k], trpo_my2);
plt.savefig('CleanedPlots/lander_trpo_episode.png')
```

```
/home/mkolor/jupyter_nb_directory/jupyter_nb_env/lib/python3.6/site-packages/ip
ykernel_launcher.py:4: FutureWarning: Method .as_matrix will be removed in a fu
ture version. Use .values instead.
  after removing the cwd from sys.path.
```



In [77]:
```
# lander trpo Time
# Read in File as pandas dataframe
file_data = pd.read_csv("lander/lander_trpo_million.csv")
lander_trpo_million_df = pd.DataFrame(columns= file_data.iloc[0,:], data=file_d
ata.iloc[1:,].as_matrix())

#PLOTTING
fig, ax = plt.subplots(1,1, figsize=(10,6))
x_trpo_time = pd.to_numeric(lander_trpo_million_df.t.values)
trpo_my = pd.to_numeric(file_data.iloc[1:].index.values)
ax.set_title("Lander TRPO -- Score vs Time")
ax.set_xlabel("Time")
ax.set_ylabel("Episode Score")
#ax.plot(x_trpo_time , trpo_my);

trpo_hy2 = []
for i in range(len(trpo_my) - k):
    num = 0
    for j in range(k):
        num += trpo_my[i+j]
    trpo_hy2.append(num/k)

ax.set_ylim(-400, 300)
ax.plot(x_trpo_time[:-k], trpo_hy2);
max(trpo_hy2)
plt.savefig('CleanedPlots/lander_trpo_time.png')
```

```
/home/mkolor/jupyter_nb_directory/jupyter_nb_env/lib/python3.6/site-packages/ip
ykernel_launcher.py:4: FutureWarning: Method .as_matrix will be removed in a fu
ture version. Use .values instead.
  after removing the cwd from sys.path.
```



In [78]:
```
file_data
```

Out[78]:

#{"t_start": 1544913525.1111975	"env_id": "LunarLander-v2"}	
r	l	t
-345.919924	88	1.378366
-83.062989	87	1.43728
-334.165633	101	1.534916
-125.934519	82	1.623836
-516.057746	123	1.719272
-188.823438	88	1.775862
-40.630753	60	1.810143
-269.490342	76	1.861909
-192.456949	84	1.916748
-314.726354	76	1.9753
-383.029522	127	2.08118
-65.38048	71	2.561471
-79.933222	61	2.597451
-315.680468	122	2.667012
-79.250598	77	2.710587
-128.486335	103	2.767554
-80.537811	73	2.811426
-111.725123	77	2.855112
-134.32482	93	2.909612
-10.14226	124	2.984175
-137.430927	66	3.023521
-126.70447	71	3.065548
-118.37138	61	3.102295
-299.923441	90	3.234227
-111.498649	109	3.29415
-132.99746	72	3.335989
-48.546732	101	3.394657
-54.971552	62	3.429781
-408.161685	102	3.490258
...	...	...
15.879172	111	1159.926006
31.642527	141	1160.031422
35.202756	79	1160.080989
43.316936	115	1160.161212
146.511923	1000	1161.432066
235.904463	284	1161.680677
237.079112	475	1162.243664
-47.057321	75	1162.288153

In [79]:
```
file_data
```

Out[79]:

#{"t_start": 1544913525.1111975	"env_id": "LunarLander-v2"}	
r	l	t
-345.919924	88	1.378366
-83.062989	87	1.43728
-334.165633	101	1.534916
-125.934519	82	1.623836
-516.057746	123	1.719272
-188.823438	88	1.775862
-40.630753	60	1.810143
-269.490342	76	1.861909
-192.456949	84	1.916748
-314.726354	76	1.9753
-383.029522	127	2.08118
-65.38048	71	2.561471
-79.933222	61	2.597451
-315.680468	122	2.667012
-79.250598	77	2.710587
-128.486335	103	2.767554
-80.537811	73	2.811426
-111.725123	77	2.855112
-134.32482	93	2.909612
-10.14226	124	2.984175
-137.430927	66	3.023521
-126.70447	71	3.065548
-118.37138	61	3.102295
-299.923441	90	3.234227
-111.498649	109	3.29415
-132.99746	72	3.335989
-48.546732	101	3.394657
-54.971552	62	3.429781
-408.161685	102	3.490258
...	...	...
15.879172	111	1159.926006
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35.202756	79	1160.080989
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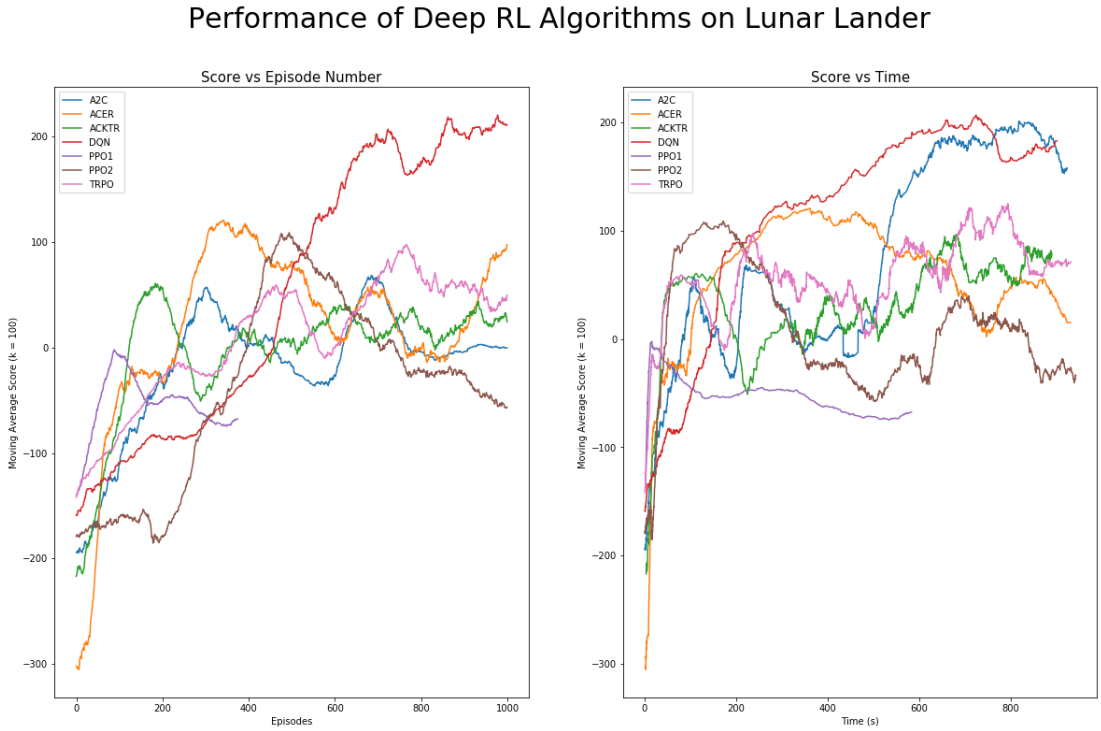
146.511923	1000	1161.432066
235.904463	284	1161.680677
237.079112	475	1162.243664
-47.057321	75	1162.288153

In [80]:
```
fig_t, ax_t = plt.subplots(1,2,figsize=(20,12))

# MAYBE CHANGE K FOR 100,000

# A2C
ax_t[0].plot(x_m[:1000], a2c_my2[:1000], label="A2C");
ax_t[1].plot(x_a2c_time[:int(len(a2c_hy2)/1.6)], a2c_hy2[:int(len(a2c_hy2)/1.6)
],  label="A2C");
print(len(a2c_hy2))

# ACER
ax_t[0].plot(x_m[:1000], acer_my2[:1000], label="ACER");
ax_t[1].plot(x_acer_time[:750], acer_hy2[:750], label="ACER");
print(len(acer_hy2))

# ACKTR
ax_t[0].plot(x_m[:1000], acktr_my2[:1000], label="ACKTR");
ax_t[1].plot(x_acktr_time[:int(len(acktr_hy2)/2)], acktr_hy2[:int(len(acktr_hy2
)/2)],  label="ACKTR");
print(len(acktr_hy2))

# DQN
ax_t[0].plot(x_m[:1000], dqn_my2[:1000],  label="DQN");
ax_t[1].plot(x_dqn_time[:int(len(dqn_hy2)/4.5)-1], dqn_hy2[:int(len(dqn_hy2)/4.
5)-1], label="DQN");
print(len(dqn_hy2))

# PPO1
ax_t[0].plot(x_m[:375], ppo1_my2[:], label="PPO1");
ax_t[1].plot(x_ppo1_time[:int(len(ppo1_hy2)/1)], ppo1_hy2[:int(len(ppo1_hy2)/1)
], label="PPO1");
print(len(ppo1_hy2))

# PPO2
ax_t[0].plot(x_m[:1000], ppo2_my2[:1000], label="PPO2");
ax_t[1].plot(x_ppo2_time[:int(len(ppo2_hy2)/1.8)], ppo2_hy2[:int(len(ppo2_hy2)/
1.8)], label="PPO2");
print(len(ppo2_hy2))

# TRPO
ax_t[0].plot(x_m[:1000], trpo_my2[:1000], label="TRPO");
ax_t[1].plot(x_trpo_time[:int(len(trpo_hy2)/1.25)], trpo_hy2[:int(len(trpo_hy2)
/1.25)], label="TRPO");
print(len(trpo_hy2))

ax_t[0].set_xlabel("Episodes")
ax_t[1].set_xlabel("Time (s)")
ax_t[0].set_ylabel("Moving Average Score (k = {0})".format(k))
ax_t[1].set_ylabel("Moving Average Score (k = {0})".format(k))


ax_t[0].legend();
ax_t[1].legend();

fig_t.suptitle("Performance of Deep RL Algorithms on Lunar Lander", fontsize=30
);
ax_t[0].set_title("Score vs Episode Number",fontsize=15)
ax_t[1].set_title("Score vs Time", fontsize=15);
```

```
3172
2360
3228
3756
375
3199
2640
```



In [ ]: