In [1]:
```
import glob
import pandas as pd
import os

## To keep the plots even after closing the notebook
import plotly.io as pio
pio.renderers.default='notebook'

# Set the path to the folder containing the CSV files
folder_path = 'output/histo_precip'
# output_dir = 'output/histo/'
# folder_path = 'output/exp2'

# Get a list of all CSV files in the folder
csv_files = glob.glob(folder_path + "/*.csv")
csv_files.sort()

csv_files
```

Out[1]:
```
['output/histo_precip/04839_Precip_Events.csv',
 'output/histo_precip/04846_Precip_Events.csv',
 'output/histo_precip/04877_Precip_Events.csv',
 'output/histo_precip/04892_Precip_Events.csv',
 'output/histo_precip/14815_Precip_Events.csv',
 'output/histo_precip/14819_Precip_Events.csv',
 'output/histo_precip/14829_Precip_Events.csv',
 'output/histo_precip/14836_Precip_Events.csv',
 'output/histo_precip/14840_Precip_Events.csv',
 'output/histo_precip/14841_Precip_Events.csv',
 'output/histo_precip/14845_Precip_Events.csv',
 'output/histo_precip/14848_Precip_Events.csv',
 'output/histo_precip/14850_Precip_Events.csv',
 'output/histo_precip/94814_Precip_Events.csv',
 'output/histo_precip/94815_Precip_Events.csv',
 'output/histo_precip/94833_Precip_Events.csv',
 'output/histo_precip/94860_Precip_Events.csv',
 'output/histo_precip/94871_Precip_Events.csv']
```

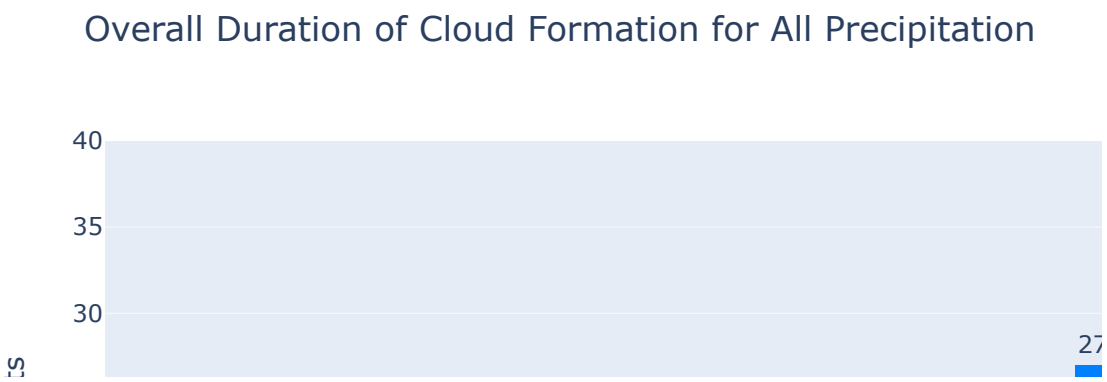
In [2]:
```
# Read each CSV file and concatenate them into a single dataframe
df_combined_timing = pd.concat((pd.read_csv(f) for f in csv_files), ignore_i
```

In [3]:
```
df_combined_timing.head(5)
```

Out[3]:

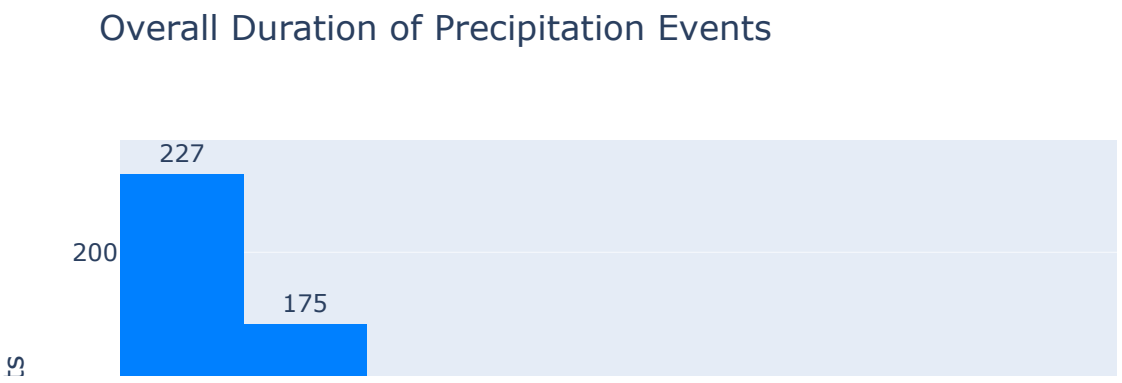
	Cloud_Start_Date_UTC	Cloud_Start_Time_UTC	Cloud_Start_Date_CST	Cloud_Start_Time_
0	2006-10-01	20:00	2006-10-01	
1	2006-10-01	20:00	2006-10-01	
2	2006-10-01	20:00	2006-10-01	
3	2006-10-15	18:00	2006-10-15	
4	2006-10-25	18:00	2006-10-25	

In [4]:
```
import plotly.express as px

fig = px.histogram(df_combined_timing, x="Duration_of_cloud_formation", nbir
fig.update_layout(xaxis_title="# of cloud formation", yaxis_title="# of prec
fig.update_traces(marker_color="rgb(0, 128, 255)", texttemplate='%{y}', text
fig.update_layout(
   xaxis = dict(
      tickmode = 'linear',
      tick0 = 1,
      dtick = 1
   )
)
fig.show()
fig.write_image('output/histo_plot_precip/hist_overall'+'_duration_of_cloud_
```



In [5]:
```
import plotly.express as px

fig = px.histogram(df_combined_timing, x="Duration_of_Snow", title="Overall
fig.update_layout(xaxis_title="# of hours of precip", yaxis_title="# of prec
fig.update_traces(marker_color="rgb(0, 128, 255)", texttemplate='%{y}', text
fig.update_layout(
   xaxis = dict(
      tickmode = 'linear',
```

```
      tick0 = 1,
      dtick = 1
   )
)
fig.show()
fig.write_image('hist_overall'+'.png')
```



In [6]:
```
df_sudden_cases = df_combined_timing[df_combined_timing['Duration_of_cloud_f
df_sudden_cases.head(20)
```

Out[6]:

Cloud_Start_Date_UTC	Cloud_Start_Time_UTC	Cloud_Start_Date_CST	Cloud_Start_Time_C

In [ ]:
```

```