13.Annexure

A.Command File Templates

a) Single Sub-array TGC Command file

```
#!/usr/bin/python
# import required libraries for TGC
# Do not remove following line
# For single subar observation default subar is 0

from tgcall import *

# user code starts here
# Any valid python syntax can be used
import time

# addlist
add_user_catalog('/home/cmcuser/prjcode_src_list.csv','type1')
use_catalog('prjcode_src_list','type1')
```

```
# Define correlator to use for observation
backend_correlator = 'BOTH' # For GSB+GWB.


# psource_added
psource_added = list()


# Loop
while True:
    # source : 3C286
    target = '3C286'
    load_source(target)
    print(target)
    track_array(0,1)# First argument is subar_id and second argument is for outer and inner track, for outer it is 1 and for inner it is 0
    track_array(0,1)
    if target in psource_added:
        pass
    else:
        addpsource(target,backend_correlator)
        psource_added.append(target)
    set_source(backend_correlator,0,target)
    gotosrc(0,maxtime=300) # maxtime is in seconds
    start_proj (backend_correlator,0) # Strtndas
    time.sleep(300) # recording time
    stop_proj (backend_correlator,0) # Stpndas


    # source : 1459+716
    target = '1459+716'
    load_source(target)
    print(target)
    track_array(0)
    track_array(0)
```

```
        if target in psource_added:
                pass
        else:
                addpsource(target,backend_correlator)
                psource_added.append(target)
        addpsource(target,backend_correlator)
        set_source(backend_correlator,0,target)
        gotosrc(0,maxtime=300) # maxtime is in seconds
        start_proj (backend_correlator,0) # Strtndas
        time.sleep(1800) # recording time
        stop_proj (backend_correlator,0)  # Stpndas
```

b) Muli Sub-array TGC Command file

```
#!/usr/bin/python
# import required libraries for TGC
# Do not remove following line
from tgcall import *
import time

# user code starts here
# Any valid python code can be used
# addlist
add_user_catalog('/data1/gtac/cmd/prjcode/prjcode_src_list.csv','type1')
use_catalog('prjcode_src_list','type1')

# 0 suba array will always have all antenna
subar0 = 0
subar1 = 1
subar2 = 2
subar4 = 4

# define backend_correlator correlator
```

```
backend_correlator = 'BOTH' #  BOTH/GWB/GSB


# psource_added
psource_added = list()
# Outer track / inner track
#  track_bit = 1       // 1 for  outer track
# track_bit = 0        // 0 for inner track
 track_bit = 1
# Target source 1
target = '3C147' # source name
load_source(target)
print(target)
track_array(subar0,track_bit)
# for tracking one can use common subar i.e. suba array 0
gotosrc(0,maxtime=300) # maxtime is maximum time for time out in seconds
if target in psource_added:
    pass
else:
    addpsource(target,backend_correlator)
    psource_added.append(target)
set_source(backend_correlator,subar2,target)#backend_correlator=BOTH/GSB/GWB
set_source(backend_correlator,subar4,target)#backend_correlator=BOTH/GSB/GWB


# start interferometer scan for subar 2
start_proj (backend_correlator,subar2) #  subar2 is id
# start interferometer scan for subar 4
start_proj (backend_correlator,subar4) # subar4 id
time.sleep(60) # record time in seconds
# stop interferometer scan for subar 2
stop_proj (backend_correlator,subar2)
# stop interferometer scan for subar 4
```

```
stop_proj (backend_correlator,subar4)


# Target source 2
target = '3C48' # source name
load_source(target)
print(target)
track_array(subar0,track_bit) # for tracking one can use common subar i.e. suba array 0
track_array(subar0,track_bit)
gotosrc(0,maxtime=300) # maxtime is maximum time for time out in seconds
if target in psource_added:
    pass
else:
    addpsource(target,backend_correlator)
    psource_added.append(target)
set_source(backend_correlator,subar2,target)#backend_correlator= BOTH/GSB/GWB
set_source(backend_correlator,subar4,target)#backend_correlator= BOTH/GSB/GWB
# start interferometer scan for subar 2
start_proj (backend_correlator,subar2) #  subar2 is id
# start interferometer scan for subar 4
start_proj (backend_correlator,subar4) # subar4 id
# pulsar command can be added here
time.sleep(60) # record time in seconds
# pulsar command can be added here
# stop interferometer scan for subar 2
stop_proj (backend_correlator,subar2)
# stop interferometer scan for subar 4
stop_proj (backend_correlator,subar4)
```

B. Antenna IP and Antenna IP Phone

Antenna Name	Host Name	LMC IP Address	Antenna Name	IP Phone Number
C00	c00	192.168.31.2	7	
C01	c01	192.168.32.2	6	
C02	c02	192.168.33.2	5	
C03	c03	192.168.34.2	1	
C04	c04	192.168.35.2	3	
C05	c05	192.168.36.2	19	
C06	c06	192.168.37.2	20	
C08	c08	192.168.38.2	24	
C09	c09	192.168.39.2	4	
C10	c10	192.168.40.2	12	
C11	c11	192.168.41.2	9	
C12	c12	192.168.42.2	2	
C13	c13	192.168.43.2	11	
C14	c14	192.168.44.2	10	
E02	e02	192.168.45.2	17	
E03	e03	192.168.46.2	18	
E04	e04	192.168.47.2	21	
E05	e05	192.168.48.2	22	
E06	e06	192.168.49.2	23	
S01	s01	192.168.50.2	26	
S02	s02	192.168.51.2	27	
S03	s03	192.168.52.2	28	
S04	s04	192.168.53.2	29	
S06	s06	192.168.54.2	30	
W01	w01	192.168.55.2	8	