What needs to be done to configure a LOFAR station for GLOW mode:

Set up ssh

copy the observer public key to `~/.ssh/authorized_keys` on the LCU

Switch to wanted LOFAR Release

check the current version of the control software with:

```
swlevel -v
```

check the available versions of the control software with:

```
MAC_revert -s
```

switch to the wanted version of the control software with:

```
MAC_revert -v <version-string> -l -i
```

Install the flood detection script

copy the script to the interface machine (as user software on glow-control):

```
software@glow-control:~$ scp -r kill-station glow604:
```

copy the local kill-script to the LCU (from the interface machine):

```
software@glow604:~/kill-station$ scp kill-station-local.sh de604c:sbin/
kill-station-local.sh
```

Generate a ssh public-key pair as `~/.ssh/killscript-key` and add the public key to `~/.ssh/authorized_keys` on the LCU. Afterwards the following should work:

```
software@glow604:~$ ssh -i ~/.ssh/killscript-key de604c sbin/kill-station-
local.sh
Station in local mode
Killing all formed beams
...
```

install the crontab on the interface machine:

```
software@glow604:~/kill-station$ crontab crontab-glow604
```

Create and Install the GLOW-Mode configuration files

Copy the original config to glow-control:

```
cd /opt/lofar/etc
tar -cf ~/DE604-orig-config.tar RSPDriver.conf CalServer.conf
TBBDriver.conf StaticMetaData/Storage+MAC.dat
```

copy the tar-ball with scp to glow-control

Modify the files:

Storage+MAC.dat

Add glow-mode recording machines to `Storage+MAC.dat`

CalServer.conf.normal

`CalServer.conf.normal` is the same as the original `CalServer.conf`

CalServer.conf.calibration

Change the following lines in `CalServer.conf`:

```
CalServer.DisableACMProxy=0
CalServer.WriteACCToFile=1
CalServer.DataDirectory=/data/home/user9/station-cal-data/tmp
```

TBBDriver.conf.new

copy the original `TBBDriver.conf` and change the "`TBBDriver.SRC_IP_ADDR...`" lines to the IP-addresses for the stations TBB boards according to the GLOW-Mode IP-address scheme. E.G. for **DE604**:

```
TBBDriver.SRC_IP_ADDR_0=172.20.4.101
TBBDriver.SRC_IP_ADDR_2=172.20.4.103
TBBDriver.SRC_IP_ADDR_3=172.20.4.104
TBBDriver.SRC_IP_ADDR_4=172.20.4.105
TBBDriver.SRC_IP_ADDR_5=172.20.4.106
TBBDriver.SRC_IP_ADDR_6=172.20.4.107
TBBDriver.SRC_IP_ADDR_7=172.20.4.108
TBBDriver.SRC_IP_ADDR_8=172.20.4.109
TBBDriver.SRC_IP_ADDR_9=172.20.4.110
TBBDriver.SRC_IP_ADDR_10=172.20.4.111
TBBDriver.SRC_IP_ADDR_11=172.20.4.112
```

RSPDriver.conf.hosts

Copy the original RSPDriver.conf to the file for the first set of recording hosts and change:

1. `RSPDriver.LANE_..._SRCIP` lines to the IP-addresses for the RSP-board-lanes according to the GLOW-Mode IP-address scheme
2. `RSPDriver.LANE_..._DSTPORT` lines to the destination port-numbers assigned to this station
3. `RSPDriver.LANE_..._DSTMAC` and `RSPDriver.LANE_..._DSTIP` to the MAC and IP addresses of the chosen recording hosts
4. set `RSPDriver.LANE_..._BLET_OUT` to 99 for those lanes that are to be switched off (Make sure it is set to numbers lower than 24 for the other lanes.)

If you use a copy of an already modified file as start for the others then you can skip step 1 and 2.

E.g. the relevant part from `RSPDriver.conf.3lane-glow02`:

```
RSPDriver.LANE_00_BLET_OUT= 0
RSPDriver.LANE_00_XLET_OUT= 5
RSPDriver.LANE_00_SRCMAC = 00:22:86:06:04:00
RSPDriver.LANE_00_SRCIP = 172.20.4.1
RSPDriver.LANE_00_DSTMAC = 00:02:C9:4E:DA:5A # glow02
RSPDriver.LANE_00_DSTIP = 172.20.105.102
RSPDriver.LANE_00_DSTPORT = 16041

RSPDriver.LANE_01_BLET_OUT= 1
```

```
RSPDriver.LANE_01_XLET_OUT= 5
RSPDriver.LANE_01_SRCMAC = 00:22:86:06:04:01
RSPDriver.LANE_01_SRCIP = 172.20.4.2
RSPDriver.LANE_01_DSTMAC = 00:02:C9:4E:DA:5A # glow02
RSPDriver.LANE_01_DSTIP = 172.20.105.102
RSPDriver.LANE_01_DSTPORT = 16042

RSPDriver.LANE_02_BLET_OUT= 2
RSPDriver.LANE_02_XLET_OUT= 5
RSPDriver.LANE_02_SRCMAC = 00:22:86:06:04:02
RSPDriver.LANE_02_SRCIP = 172.20.4.3
RSPDriver.LANE_02_DSTMAC = 00:02:C9:4E:DA:5A # glow02
RSPDriver.LANE_02_DSTIP = 172.20.105.102
RSPDriver.LANE_02_DSTPORT = 16043

RSPDriver.LANE_03_BLET_OUT= 99 # switched off
RSPDriver.LANE_03_XLET_OUT= 5
RSPDriver.LANE_03_SRCMAC = 00:22:86:06:04:03
RSPDriver.LANE_03_SRCIP = 172.20.4.4
RSPDriver.LANE_03_DSTMAC = 00:02:C9:4E:DA:5A # glow02
RSPDriver.LANE_03_DSTIP = 172.20.105.102
RSPDriver.LANE_03_DSTPORT = 16044
```

Copy the modified files to the LCU and install them

```
tar -czf DE604-configs-2016-04-22.tgz DE604-Configs/
```

copy the tarball to the LCU with scp

```
mkdir StationConfigs
cd StationConfigs
tar -xzf DE604-configs-2016-04-22.tgz
cd DE604-Configs/
diff CalServer.conf.normal /opt/lofar/etc/CalServer.conf
cp CalServer.conf.normal /opt/lofar/etc/CalServer.conf
diff Storage+MAC.dat /opt/lofar/etc/StaticMetaData/Storage+MAC.dat
cp Storage+MAC.dat /opt/lofar/etc/StaticMetaData/Storage+MAC.dat
diff TBBDriver.conf.new /opt/lofar/etc/TBBDriver.conf
cp TBBDriver.conf.new /opt/lofar/etc/TBBDriver.conf
diff RSPDriver.conf.3lane-glow02 /opt/lofar/etc/RSPDriver.conf
cp RSPDriver.conf.3lane-glow02 /opt/lofar/etc/RSPDriver.conf
```

Copy and install the Pulsar Observing Scripts

```
tar -czf LCU-scripts-2016-04-22.tgz LCU-scripts
```

copy the tarball to the LCU with scp

```
tar -xzf LCU-scripts-2016-04-22.tgz
diff LCU-scripts/bashrc.LCU.example ~/.bashrc
cp LCU-scripts/bashrc.LCU.example ~/.bashrc
```

```
diff LCU-scripts/GOOD_RCUS.txt.example LCU-scripts/GOOD_RCUS.txt
cp LCU-scripts/GOOD_RCUS.txt.example LCU-scripts/GOOD_RCUS.txt
cp LCU-scripts/test-beamctl-commands.txt ~
```

Copy and install psrcat

copy the tarball with psrcat and the psrcat.db to the LCU with scp

```
tar -xzf psrcat-de602.tgz
```

(And get someone to clean up the mess with the `psrcat.db`s...)