Screening (Alaro) practicals

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Preparation

Login to cca/ccb

```
ssh –Y cca
```

Copy the training sample for screening

```
cd $PERM    # or $SCRATCH
cp –rp /perm/ms/spsehlam/hlam/daTraining/Day_2/sample_screening .

cd sample_screening/scr_3dvar/
vi README
```

Exercise 1
Change of thinning distance for aircraft data

Steps:
1. Perform the screening with default namelist settings.
   - `./run.sh`
   - save the output NODE/log files (automatic).
2. Check out the namelist for screening.
3. Find the screening group called NAMSCC
4. Change the RFIND_AIREP to 70000;
5. Compare the NODEs/Logs and find out that the number of active aircraft data should be different.

In the screening sample the log is in submit directory and NODE.001_01 is cat to log and also:
`$SCRATCH/tmp/cy$CYCLE/test${EXP}.${DOM}.${DATE}.${LABEL}/ NODE.001_01`

Check ODB:
```
mkdir tmp ;  cd tmp
tar xvf ../../data/output/V00_CCMA_screen_2019010700.tar
cd CCMA
odbsql -q "SELECT obstype, codetype, statid, varno,
vertco_reference_1@body FROM hdr, body WHERE obstype == 5 ;" -o test.dat
Open test.dat
```

Exercise 2
Activate use of TEMP radiosondes
(TEMP codetype=35) & (obstype=5)

Steps:

1. Perform the screening with default namelist settings. (cp screen.namel_orig screen.namel)
2. Fetch/check out the LISTE_LOC file
3. delete the line with "N 5 35", if it's present
4. Perform new screening
5. compare the NODEs/Logs or check the ODB CCMA

Check ODB:

```
mkdir tmp2 ;   cd tmp2
tar xvf ../../data/output/V00_CCMA_screen_2019010700.tar
cd CCMA
odbsql -q "SELECT obstype, codetype, statid, varno,
vertco_reference_1@body FROM hdr, body WHERE obstype == 5 ;" -
o test.dat
```

Open test.dat

Exercise 3
Use temperature from BUFR radiosondes at "10238" only between 700 and 400 hPa
(BUFR codetype=35) &(obstype=5) & (varno=2)

Steps:
1. Perform the screening with default namelist settings, (cp screen.namel_orig screen.namel)
2. Fetch/check out the LISTE_LOC file, (cp liste_loc_orig LISTE_LOC)
3. add the following line: "N 5 35   10238   2 PROF2   700   400 1 0 1"
   -- Pay attention to the length of each input by looking to the "xxx" on top of the file.
4. Perform new screening
   -- compare the NODEs/Logs or check the ODB CCMA

Check ODB:
```
mkdir tmp3 ;   cd tmp3
tar xvf ../../data/output/V00_CCMA_screen_2019010700.tar
cd CCMA
odbsql -q "SELECT obstype, codetype, statid, varno,
vertco_reference_1@body FROM hdr, body WHERE obstype == 5 ;" -o
test.dat
```
Open test.dat

Exercise 4
Blacklist wind from BUFR radiosondes at "11520"
(BUFR codetype=35) & (obstype=5) & (varno=3)

Steps:

1. Perform the screening with default namelist settings, (cp screen.namel_orig screen.namel)
2. Fetch/check out the LISTE_LOC file, (cp liste_loc_orig LISTE_LOC)
3. add the following line: "N 5 35   11520   3".
    -- Pay attention to the length of each input by looking to the "xxx" on top of the file.
4. Perform new screening
    -- compare the NODEs/Logs or check the ODB CCMA

Check ODB:

```
mkdir tmp4 ;   cd tmp4
tar xvf ../../data/output/V00_CCMA_screen_2019010700.tar
cd CCMA
odbsql -q "SELECT obstype, codetype, statid, varno,
vertco_reference_1@body FROM hdr, body WHERE obstype == 5 ;" -o
test.dat
```

Open test.dat

Exercise 5

Your choice

What you would like to do? See if you succeed… Otherwise, let the Roger know.