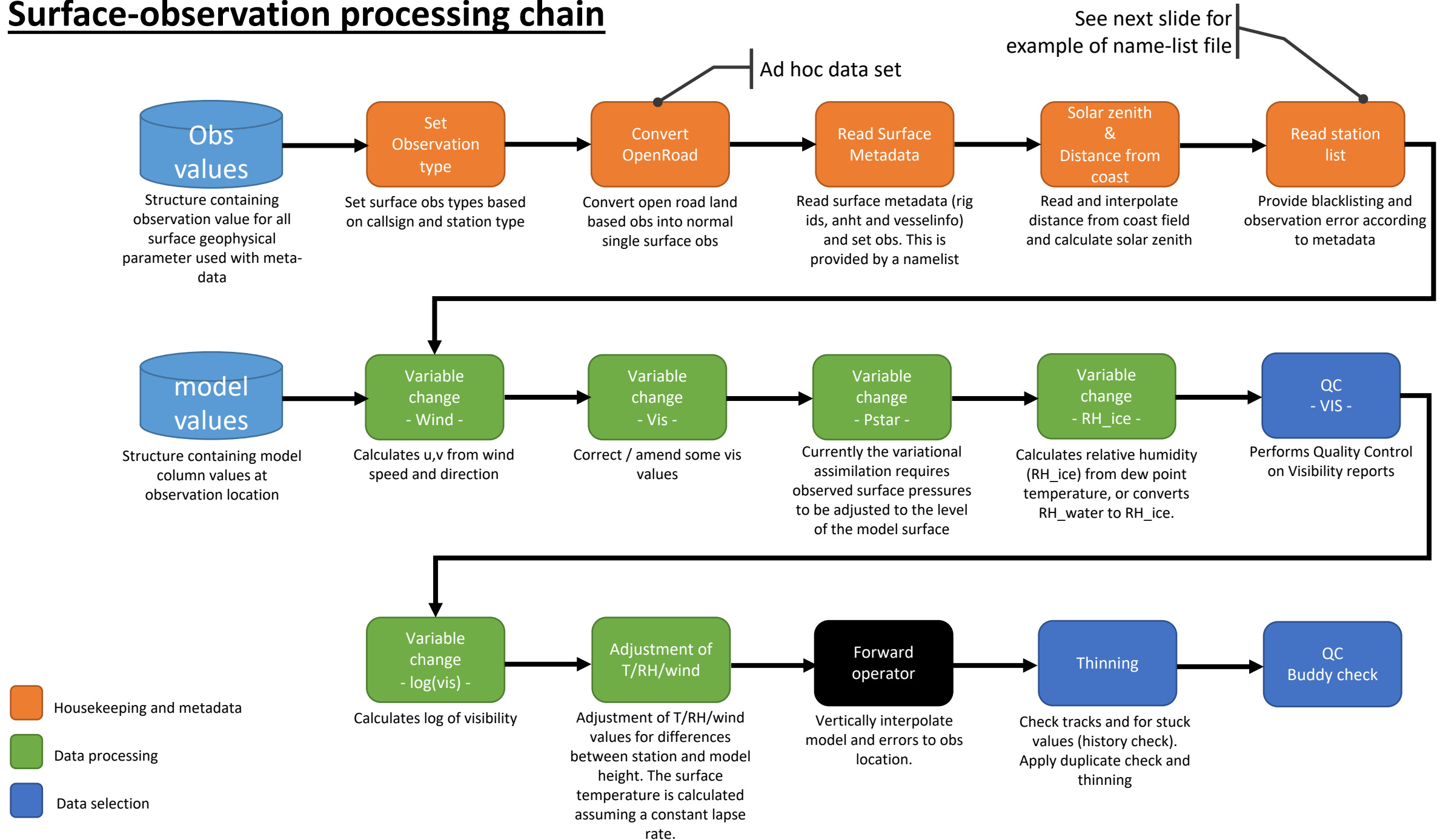


Surface-observation processing chain



- Name-list example -

! Global Model Surface StationList &Station PCor=0.0,PmslCor=0.0,PstnCor=0.0,TCor=0.0, RejRep='T',RejP='T',RejUV='T',RejT='T',RejRH='T',RejVis='T' /

! Synops &Station ObsTypes(1:2)='10101','10102', ErrP=70.0, ErrUV=1.4, ErrT=1.4, ErrRH=7.0, ErrVIS=0.32, PGEP=0.015,PGEUV=0.02, PGET=0.02, PGERH=0.04,PGEVIS=0.1, PGEREP=0.002, RejP='F', RejUV='F', RejT='F', RejRH='F', RejVis='T', RejRep='F', PStnPref='T',UseUV='F' /! Use SYNOP winds over land &Station ObsTypes(1:2)='10101','10102', SurfaceType='Land',UseUV='T' /

! MOBILE SYNOP &Station ObsType='10800', ErrP=100.0,ErrUV=2.0, ErrT=2.0, ErrRH=10.0,ErrVIS=0.32, PGEP=0.015,PGEUV=0.02, PGET=0.02, PGERH=0.04,PGEVIS=0.1, PGEREP=0.002, RejP='F', RejUV='T', RejT='F', RejRH='F', RejVis='T', RejRep='F', PStnPref='T' /

! METAR &Station ObsTypes(1:2)='11101','11102', ErrP=70.0, ErrUV=1.4, ErrT=1.4, ErrRH=7.0, ErrVIS=0.32, PGEP=0.015,PGEUV=0.02, PGET=0.02, PGERH=0.04,PGEVIS=0.1, PGEREP=0.002, RejP='F', RejUV='F', RejT='F', RejRH='F', RejVis='T', RejRep='F', PStnPref='T',RejPmsl='T',UseUV='F' /

! Use METAR winds over land &Station ObsTypes(1:2)='11101','11102', SurfaceType='Land',UseUV='T' /

! Ships (manual reports) &Station ObsType='10201', ErrP=130.0,ErrUV=2.0, ErrT=1.8, ErrRH=10.0,ErrVIS=0.32, PGEP=0.06, PGEUV=0.06, PGET=0.07, PGERH=0.05,PGEVIS=0.1, PGEREP=0.04, RejP='F', RejUV='F', RejT='F', RejRH='F', RejVis='T', RejRep='F', PStnPref='F' /

! Ships (automated reports) &Station ObsType='10202', ErrP=100.0,ErrUV=1.7, ErrT=1.8, ErrRH=10.0,ErrVIS=0.32, PGEP=0.06, PGEUV=0.06, PGET=0.07, PGERH=0.05,PGEVIS=0.1, PGEREP=0.04, RejP='F', RejUV='F', RejT='F', RejRH='F', RejVis='T', RejRep='F', PStnPref='F' /

! Platform/rig &Station ObsType='10204', ErrP= 80.0,ErrUV=1.7, ErrT=1.8, ErrRH=10.0,ErrVIS=0.32, PGEP=0.06, PGEUV=0.06, PGET=0.07, PGERH=0.05,PGEVIS=0.1, PGEREP=0.04, RejP='F', RejUV='F', RejT='F', RejRH='T', RejVis='T', RejRep='F', PStnPref='F' /

! Moored buoys &Station ObsTypes(1:3)='10210','10310','11701', ErrP= 80.0,ErrUV=1.7, ErrT=1.8, ErrRH=10.0,ErrVIS=0.32, PGEP=0.03, PGEUV=0.04, PGET=0.03, PGERH=0.04,PGEVIS=0.1, PGEREP=0.01, RejP='F', RejUV='F', RejT='F', RejRH='F', RejVis='T', RejRep='F', PStnPref='F' /

! Increase Obs Errors and PGEs for Synops and Metars with increasing |StnHt-ModHt|
! Increase Obs Errors & PGEs for Synop stations with 250m < |StnHt-ModHt| < 500m: &Station ObsTypes(1:2)='10101','10102', ErrP=90.0, ErrUV=1.8, ErrT=1.8, ErrRH=9.0, PGEP=0.03, PGEUV=0.04, PGET=0.04, PGERH=0.08, PGEREP=0.005, Ids= '01023','01024','01042','01045','01046','01049','01059','01064','01122','01132','01023','01024','01042','01045','01046','01049','01059','01064','01122','01132','01133','01146','01147','01148','01151','01158','01192','01193','01220','01229','01239','01245','01254','01265','01273','01281','01293','01314','01318','01320','01321','01322','01329','01340','01357','01358','01359','01361','01362','01364','01367','01378','01383','01389','01397','01425','01431','01434','01442','01471',

[...]

[...]

! Increase Obs Errors & PGEs for Metar stations with 500m < |StnHt-ModHt| < 1000m: &Station ObsTypes(1:2)='11101','11102', ErrP=120.0, ErrUV=2.4, ErrT=2.4, ErrRH=12.0, PGEP=0.06, PGEUV=0.08, PGET=0.08, PGERH=0.15, PGEREP=0.02, Ids= 'CWAE','CWFD','CWKW','CWSW','CWTU','CWVD','CWYK','CWYM','CYBD','CYCG','CYCP','CYDC','CYGE','CYHE','CYKA','CYLW','CYRV','CYYF','HBBA','HEMM','HKMB','HUKS','KAEJ','KASE','KBIH','KCPW','KEGE','KHSP','KLLJ','KMWS','KMYP','KPSP','KQCC','KRIL','KSBD','KSMN','KSXT','LIBE','LIBQ','LIMH','OISY','OIAQ','OYHJ','PAGY','PAHN','PATO','PAVD','PAWD','RJAF','SCAP','SCAR','SECU','SELT','SEMC','SERB','SKAR','SLCB','SLTJ','SPHO','SPJR','SPQU','UAAA','VIBR','VOHS' /

! Increase Obs Errors & PGEs for Metar stations with |StnHt-ModHt| > 1000m: &Station ObsTypes(1:2)='11101','11102', ErrP=150.0, ErrUV=3.0, ErrT=3.0, ErrRH=15.0, PGEP=0.1, PGEUV=0.2, PGET=0.2, PGERH=0.3, PGEREP=0.10, Ids= 'CWLY','CZST','GMMW','KMWN','LIMW','LIVC','LSGS','LSMM','LSMS','MHNO','SEAM','SVMD','UGKO' /

! Do not use marine T/RH/UV when ModelOrog > 50 &Station ObsTypes(1:9)='10201','10202','10204','10210','10212','10310','10312', '11701','11702', MinSurfHeight=50.0, UseUV='F',UseT='F',UseRH='F' /

! Do not use daytime marine RH near land (ModelOrog/=0) &Station ObsTypes(1:9)='10201','10202','10204','10210','10212','10310','10312', '11701','11702', MaxSolarZenith=90.0,SurfaceType='Land',UseRH='F' /

! Reject daytime rig temperatures &Station ObsType='10204', MaxSolarZenith=90.0, RejT='T' /! Reject night-time synop/metar winds over Eastern USA &Station ObsTypes(1:4)='10101','10102','11101','11102', MinSolarZenith=90.0, NorthLimit=50.0, SouthLimit=30.0, WestLimit=-100.0, EastLimit=-65.0, UseUV='F' /

! Reject night-time synop/metar winds over Russia &Station ObsTypes(1:4)='10101','10102','11101','11102', MinSolarZenith=90.0, NorthLimit=65.0, SouthLimit=45.0, WestLimit=30.0, EastLimit=100.0, UseUV='F' /! Reject synop winds over Antarctica &Station ObsTypes(1:2)='10101','10102', NorthLimit=-65.0, UseUV='F' /

! Bogus observations (non-TC bogus) &Station ObsTypes(1:2)='40300','40500', ErrP=100.0,ErrUV=1.7,ErrT=2.5,ErrRH=13.0, PGEP=0.004,PGEUV=0.005,PGET=0.005,PGERH=0.01,PGEREP=0.0001, RejRep='F',RejP='F',RejUV='F',RejT='T',RejRH='T',RejVis='T', PStnPref='F' /

! TC Bogus observations &Station ObsType='40100', ErrP=500.0,ErrUV=1.7,ErrT=2.5,ErrRH=13.0, PGEP=0.0,PGEUV=0.005,PGET=0.005,PGERH=0.01,PGEREP=0.0001, RejRep='F',RejP='F',RejUV='T',RejT='T',RejRH='T',RejVis='T', PStnPref='F' /

! Reject bogus wind observations over land &Station ObsTypes(1:3)='40100','40300','40500', SurfaceType='Land',RejUV='T' /

! Accept Climate Data Logger (CDL) T/RH/UV reports: &Station ObsType='101*',Id='99*', RejRep='F',RejP='T',RejUV='F',RejT='F',RejRH='F',RejVis='T' /

! Accept Arctic drifter temperatures &Station ObsTypes(1:3)='10212','10312','11702', SouthLimit=65.0,ErrT=2.2, RejT='F' /

[....]