Variables	Frequency	Aggregation	EUP_MP21	EUP_MP22	EUP_MP23	EUP_MP24	Units, area	Available at SYSTRAM historical database	Available at CFS_AF reforecast	Available at SPECS	Comments
Air temperature	At 3am, 3pm and 9pm (local time)	point		RET				Yes. (Rouge 23)	Yes. (Rouge) maybe)	Yes. (Rouge) (ee)	
Air temperature	Daily	mean			CGS, vc, tqz, HGD, LEIC	AQUATOLL, E-HYPE, COSIS, LFJ-wc, GUIS, GUISS, MORDOR , JCS	VORTEX, EHBA	Yes. (mean32d)	Yes. (maybe)	Yes. (ee)	
Air temperature	Daily	minimum			T< 17°C, C	COSIS, GUISS, GUIS, AQUATOLL, (E-HYP), MORDOR	GUIDEIS	Yes. (min32d)	Yes. (tmin)	Yes. (tamin)	
Air temperature	Daily	maximum			rk, FAO	COSIS, GUISS, GUIS, AQUATOLL, (E-HYP), (E-HYP), MORDOR	GUIDEIS, EHBA	Yes. (max32d)	Yes. (tmax)	Yes. (tamax)	
Air temperature	Monthly	mean				JCS		Yes. (mean30d)	Yes. (maybe)	Yes. (ee)	
Precipitation	Daily	mean			DDP_Hyl	AQUATOLL, COSIS, COSIS, LFJ-wc, GUIS, GUISS, GUIS, (E-HYP), MORDOR , JCS	GUIDEIS, ICS	Yes. (tp)	Yes. (prmean)	Yes. (pr)	Is accumulated or flux, which is preferred?
Precipitation	Monthly					JCS		Yes. (tp)	Yes. (prmean)	Yes. (pr)	
Surface downwelling shortwave flux in air	Daily	mean				COSIS, LFJ-wc, GUIS, GUISS, ZLAM, (MORDOR)	GUIDEIS, EHBA, ICS	Yes. (rsnd)	Yes. (dswrfs)	Yes. (rsds)	
Surface downwelling longwave flux in air	Daily	mean				COSIS, LFJ-wc, GUISS		Yes. (rsnl)	Yes. (dlwrfs)	Yes. (rlds)	
Wind speed (at 10m)	Daily	mean			FW	COSIS, GUIS, (AQUATOLL), (E-HYP)	VORTEX, EHBA	Yes. (Derived u10u, v10v)	No. (derived u10m, v10m)	Yes. (Derived uas, vas)	VORTEX and EHBA really want uas components
Wind speed (at 10m)	Daily	maximum				(CGIESS)		Yes. (Derived u10u, v10v)	No. (derived u10m, v10m)	Yes. (Derived uas, vas)	
Wind speed (at 10m)	Monthly	mean			CFU			Yes. (Derived u10u, v10v)	No. (derived u10m, v10m)	Yes. (Derived uas, vas)	
Geopotential 500mb	Daily	mean					VORTEX, EHBA	Yes. (z500d)	Yes. (zgmean500)	No. (gmean monthly, zg500)	
U component 850mb Wind speed	Daily	mean					VORTEX	Yes. (u850d)	Yes. (uwind850)	No. (Pressy monthly, ua850)	
V component 850mb Wind speed	Daily	mean					VORTEX	Yes. (v850d)	Yes. (vwind850)	No. (Pressy monthly, va850)	
U component 500mb wind speed	Daily	mean					VORTEX	Yes. (u500d)	Yes. (uwind500)	No. (Pressy monthly, ua500)	
V component 500mb wind speed	Daily	mean					VORTEX	Yes. (v500d)	Yes. (vwind500)	No.	
Geopotential height at 500mb	Daily	At 12 UTC	5			MORDOR		Yes. (Derived z500)	Yes. (gpm500)	No.	
Geopotential height at 1000mb	Daily	At 12 UTC	5			MORDOR		Yes. (Derived z1000)	Yes. (gpm1000)	No.	
Surface Runoff	Daily	mean				(AQUATOLL)		Yes. (sro)	Yes. (mrro)	No.	
Sea level pressure	Daily	mean					VORTEX	Yes. (msl)	No. (Pressy monthly)	Yes. (psl)	
Dew point temperature	Daily	mean			LEIC	(E-HYP)		Yes. (Td)	Yes. (Pressy&2m, maybe, pseudo)	Yes. (tdps)	
Total Runoff	Monthly					(AQUATOLL)		Yes. (ro)	No.	Yes. (mrro)	Monthly?
Downward flux	Daily	mean				GUISS, (E-HYP)		Yes. (d)	No.	Yes. (prsn)	
Water Evaporation from Soil	Daily					(CGIESS)		Yes. (e)	No.	Yes. (Evbs)	Fixed out if they include transpiration
Water Evaporation from Soil	Monthly					GUISS, (AQUATOLL)		Yes. (e)	No.	Yes. (Evbs)	Fixed out if they include transpiration
Water Content of Soil Layer	Daily	mean				(CGIESS)		Yes. (Derived wsm1, wsm2, wsm3, wsm4).	No. (Pressy wsl0c1, wsl0c2, wsl0c3, wsl0c4)	No.	Total?
Water Content of Soil Layer	Monthly					GUISS, (AQUATOLL)		Yes. (Derived wsm1, wsm2, wsm3, wsm4).	No. (Pressy wsl0c1, wsl0c2, wsl0c3, wsl0c4)	No.	Monthly?
Sea surface temperature	Daily	mean					VORTEX	Yes. (sst)	No.	No. (Pressy monthly, sst)	
Sub-surface (ocean) sect	Daily	mean				(AQUATOLL)		Yes. (tsnd)	No.	No.	According to Dynamic Homogenization, they are only available from 1980 onwards and 1980 is present
Geopotential 925mb	Daily	mean					VORTEX, EHBA	Yes. (z925)	No.	No.	
Wind GUST	Daily	maximum				(CGIESS)		Yes. (10fg)	No.	No.	
Precipitation	At noon	Accumulation is the best bet		FW				No.	Yes. (prmean)	Yes. (pr)	
Total Soil Moisture Content	Daily	mean				(AQUATOLL)		No. (Pressy wsm1, wsm2, wsm3, wsm4)	Yes. (derived wsm1, wsm2, wsm3, wsm4)	Yes. (mrsos)	
Surface air pressure	Daily	mean				(GUIS, (E-HYP))		No. (Pressy msl)	Yes. (pmsl0)	No. (Pressy.ps0)	
Surface air pressure	Monthly					(JCS)		No. (Pressy msl)	Yes. (pmsl0)	No. (Pressy.ps0)	
Specific Humidity	Daily	mean				GUISS, (AQUATOLL), (E-HYP), (GUIS)		No.	Yes. (q2m)	No.	
Moisture in Upper Portion of Soil Column	Monthly					(AQUATOLL)		No. (Pressy wsl1)	Yes. (wsl0c1)	No.	What does Upper Portion mean?, Monthly?
Surface downwelling shortwave flux in air	At 7am, 3pm and 9pm (local time)	point		RET				No. (Pressy dsfs rsnd)	No. (Pressy rsds)	No.	
Surface downwelling longwave flux in air	At 7am, 3pm and 9pm (local time)	point		RET				No. (Pressy dsfs rsnl)	No. (Pressy rlds)	No.	
Sound wave Velocity	Daily	mean					EHBA	No. (Pressy tss)	No.	Yes. (cl)	
Relative humidity	At 7am, 3pm and 9pm (local time)	point		RET				No. (Pressy 2d)	No. (Pressy&2m, maybe, pseudo)	No. (Pressy.hlsh)	
Relative humidity	At noon local standard time or daily mean	point		FW				No. (Pressy 2d)	No. (Pressy&2m, maybe, pseudo)	No. (Pressy.hlsh)	
Relative humidity	Daily	mean				COSIS, (E-HYP)		No. (Pressy 2d)	No. (Pressy&2m, maybe, pseudo)	No. (Pressy.hlsh)	
Wind speed (at 10m)	At 7am, 3pm and 9pm (local time)	point		RET				No. (Pressy 10u, 10v)	No. (Pressy.uas0m, vas0m)	No. (Pressy.uas, vas)	
Wind speed (at 10m)	At noon local standard time	point		FW				No. (Pressy 10u, 10v)	No. (Pressy.uas0m, vas0m)	No. (Pressy.uas, vas)	
Cloudiness (8-octas)	At 7am, 3pm and 9pm (local time)	point		RET				No. (Pressy tcc)	No.	No. (Pressy.cl)	
Relative humidity at 850mb	Daily	mean					VORTEX	No. (Pressy tcl)	No.	No.	
Ozone	Daily	mean				(JULES)		No. (Pressy O3. Ozone was missing also. Total. Total column ozone)	No.	No.	It needs clarification
Skin temperature	Daily	mean				Minimeteorits		No.	No. (Pressy tsrfs)	No.	
Air temperature	At noon local standard time	point		FW				No.	No.	No.	
Low cloud cover (cloud cover in 3 layers)	Daily	mean				(CGIESS)		No.	No.	No.	
Low cloud cover (cloud cover in 3 layers)	Daily	maximum				(CGIESS)		No.	No.	No.	
Low cloud cover (cloud cover in 3 layers)	Daily	minimum				(CGIESS)		No.	No.	No.	
Precipitation (hourly rate)	Hourly rate	maximum				(GUISS)		No.	No.	No.	
Surface sensible heat flux (downward is positive)	Daily	mean				ICS, (MORDOR)		No.	No.	No.	
Surface latent heat flux (downward is positive)	Monthly					ICS		No.	No.	No.	
Surface latent heat flux (downward is positive)	Daily	mean				ICS, (MORDOR)		No.	No.	No.	
Surface latent heat flux (downward is positive)	Monthly					ICS		No.	No.	No.	
U component 10m wind speed	Daily	mean					VORTEX, EHBA, ICS	No.	No.	No.	
V component 10m wind speed	Daily	mean					VORTEX, EHBA, ICS	No.	No.	No.	
Surface snow amount	Daily	mean				(GUISS)		No.	No.	No.	
Surface Wetness	Daily	mean			LEIC			No.	No.	No.	What does it refer to? Humidity? Water in soil?
CLOUD SKY (CLOUDS) SHORTWAVE DIFFUSE	Daily	mean				ICS, (CGIESS)		No.	No.	No.	What does (2) refer to?
CLOUD SKY (CLOUDS) SHORTWAVE DIRECT	Monthly					ICS		No.	No.	No.	
Water sublimation flux	Daily	mean				(E-HYP)		No.	No.	No.	
LOW SPECIFIC HUMIDITY OVER TILES	Daily	mean				(CGIESS)		No.	No.	No.	
GROUND OUTFLOW	Daily	mean				(Minoffice)		No.	No.	No.	This variable needs clarification
net radiation (radiation)	Daily	mean				(Minoffice)		No.	No.	No.	What does it mean?
net radiation (radiation)	Daily	mean				(Minoffice)		No.	No.	No.	What does it mean?
SET DOWN SURFACE LW RAD FLUX (used for dew)	Daily	mean				(JULES)		No.	No.	No.	
GRFLUSE FLUX	Daily	mean				(JULES)		No.	No.	No.	
Interception loss (evap)	Daily	mean				(AQUATOLL)		No.	No.	No.	
Evaporation from Canopy	Daily	mean				(AQUATOLL)		No.	No.	No.	
Transpiration (evap)	Daily	mean				(AQUATOLL)		No.	No.	No.	
Transpiration (evap)	Monthly					(AQUATOLL)		No.	No.	No.	Monthly?
Soil Frozen Water Content	Monthly					(AQUATOLL)		No.	No.	No.	Monthly?
Total Radiation (Global Horizontal Radiation)	Daily	mean					GUIDEIS, EHBA, ICS	No.	No.	No.	It needs clarification: Horizontal?