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L

A

M

P

I

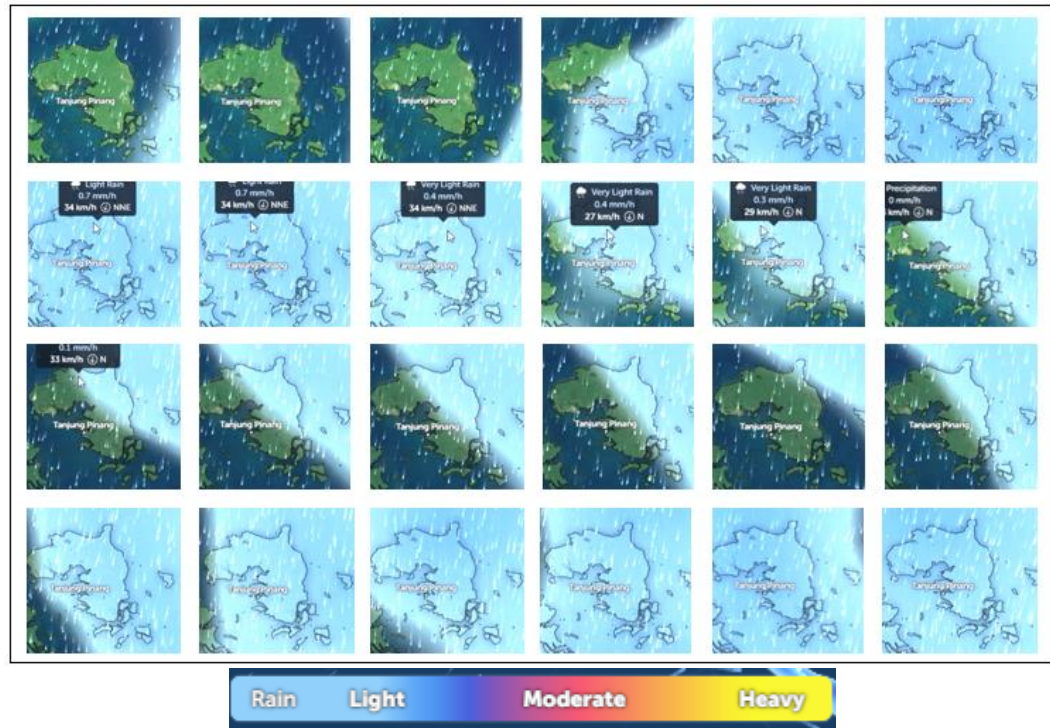
R

A

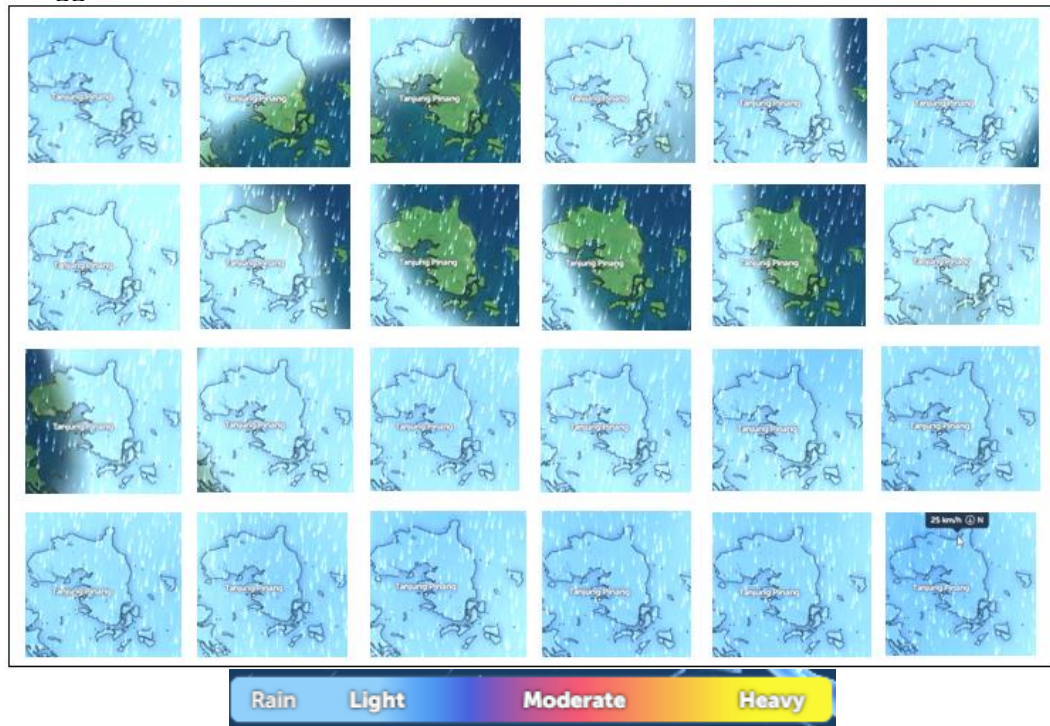
N

Lampiran 1: Zoom Earth

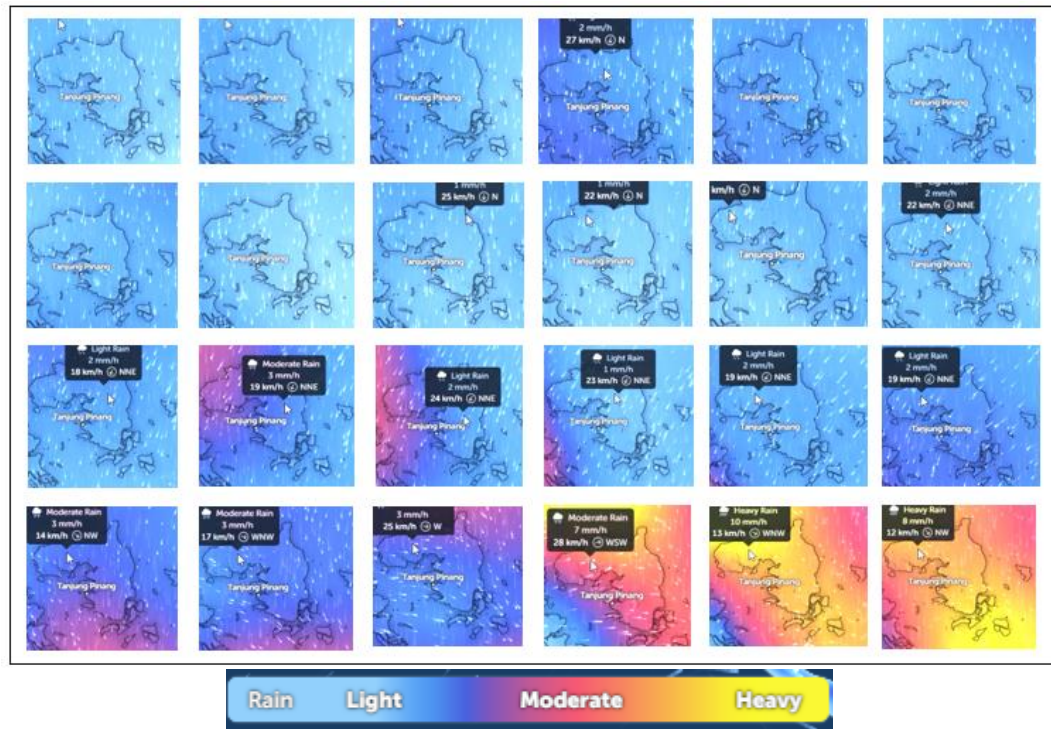
Tanggal 26 Februari 2023



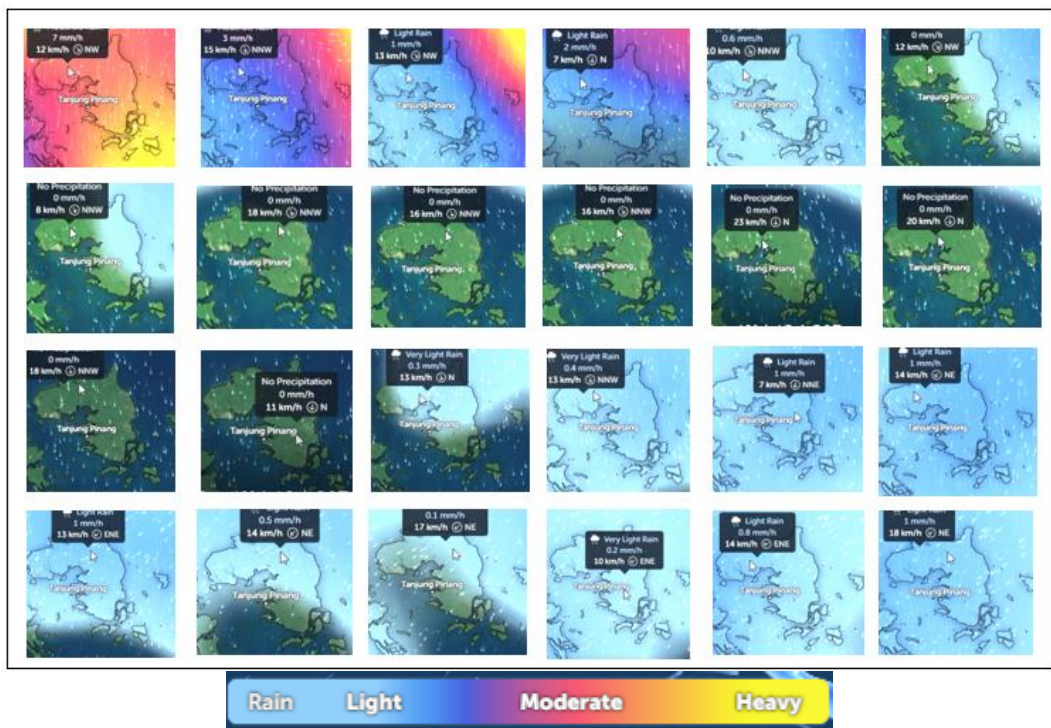
Tanggal 27 Februari 2023



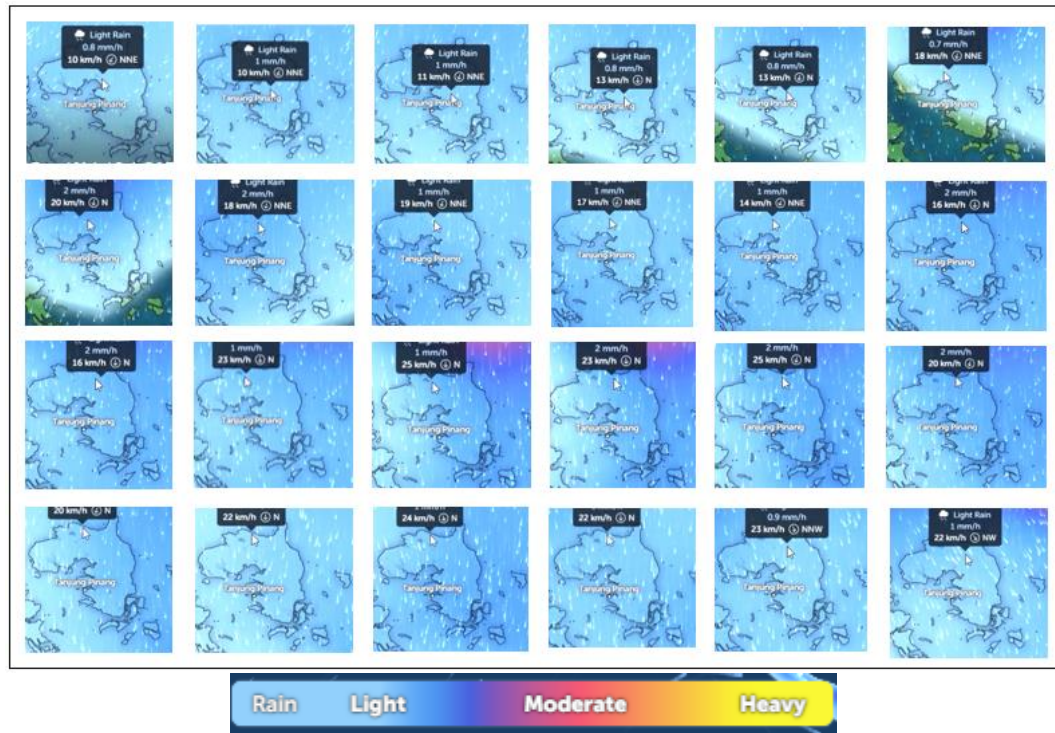
Tanggal 28 Februari 2023



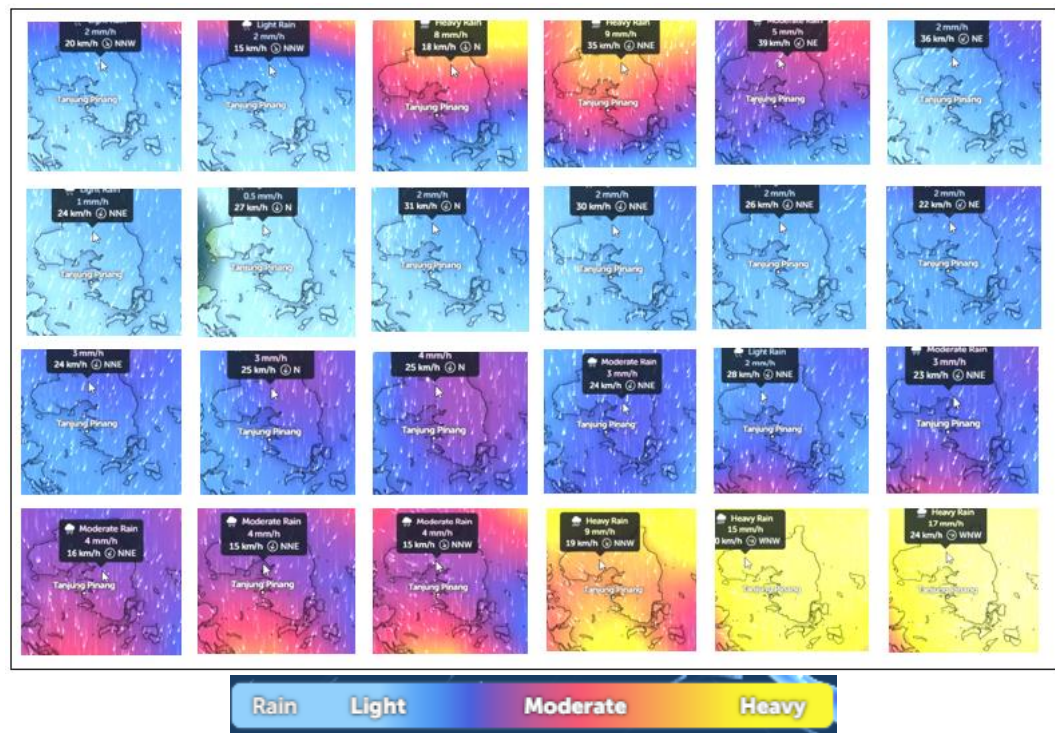
Tanggal 01 Maret 2023



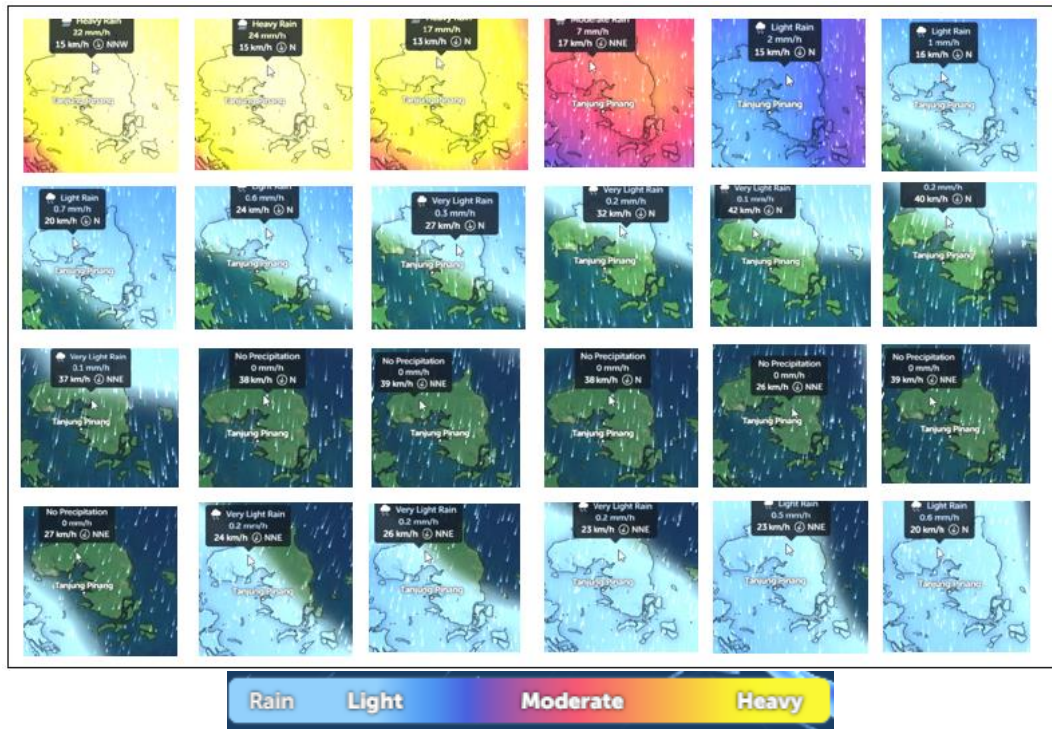
Tanggal 02 Maret 2023



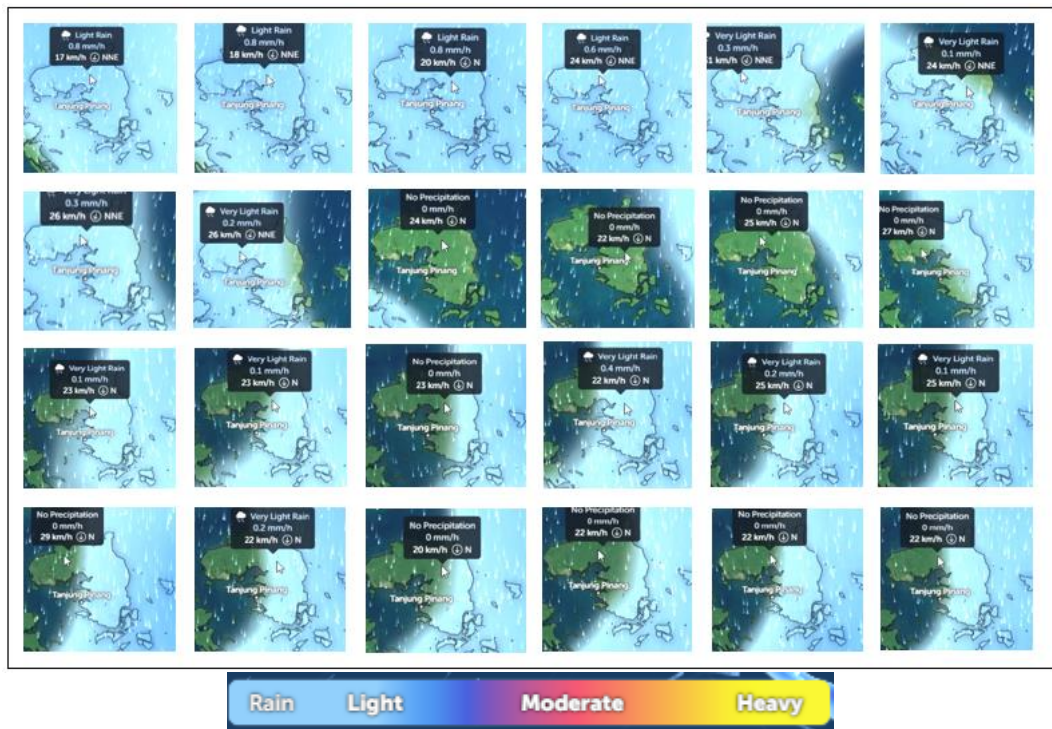
Tanggal 03 Maret 2023



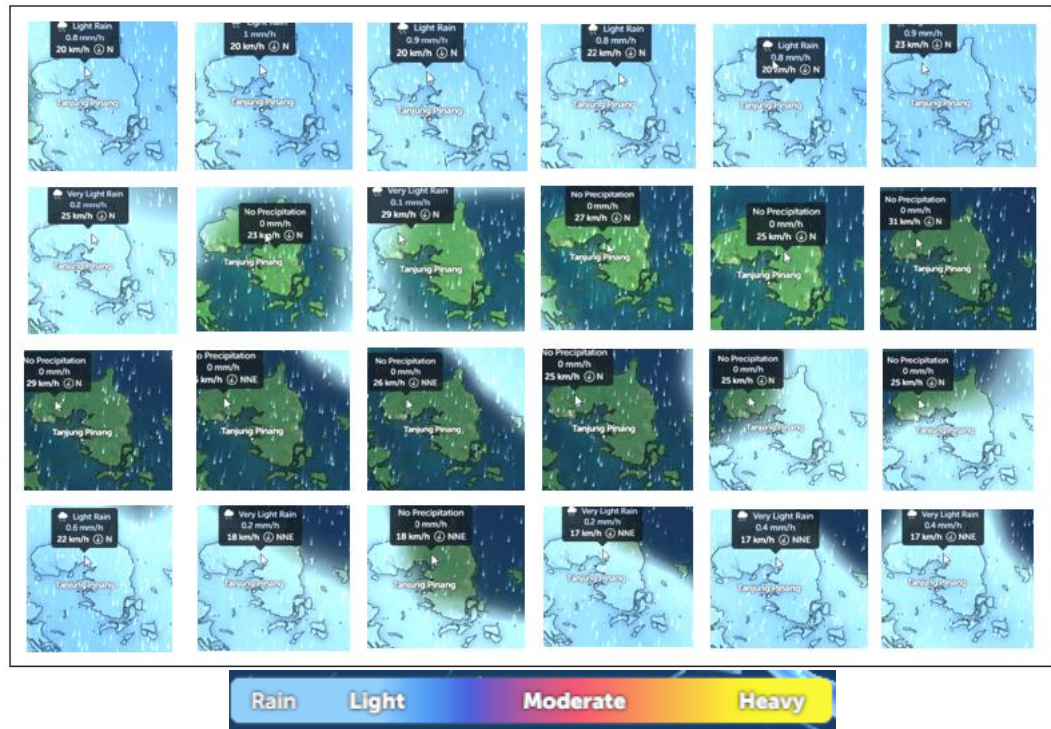
Tanggal 04 Maret 2023



Tanggal 05 Maret 2023



Tanggal 06 Maret 2023



Lampiran 2: Peringatan Dini BMKG



Lampiran 3: OGIMET

Date		Prec (mm)	WW	W1	W2
3/7/2023	0:00	3.0/24h			
		0.7/3h			
3/6/2023	21:00	Tr/3h			
3/6/2023	18:00	0.0/6h			
3/6/2023	15:00	0.0/3h			
3/6/2023	12:00	1.0/6h			
3/6/2023	9:00	0.1/3h			
3/6/2023	6:00	0.6/6h			
3/6/2023	3:00	0.5/3h			
3/6/2023	0:00	8.0/24h			
		0.7/3h			
3/5/2023	21:00	0.0/3h			
3/5/2023	18:00	2.0/6h			
3/5/2023	15:00	Tr/3h			
3/5/2023	12:00	2.0/6h			
3/5/2023	9:00	2.0/3h			
3/5/2023	6:00	2.0/6h			
		Tr/3h			
3/5/2023	3:00	Tr/3h			
3/5/2023	0:00	172.0/24h			
		h			
3/4/2023	21:00	0.6/3h			
		0.2/3h			
3/4/2023	18:00	0.0/6h			
3/4/2023	15:00	0.0/3h			
3/4/2023	12:00	60.0/6h			
3/4/2023	9:00	57.0/3h			
3/4/2023	6:00	111.0/6h			
		Tr/3h			
3/4/2023	3:00	35.0/3h			
3/4/2023	0:00	77.0/24h			
		Tr/3h			

3/3/2023	21:00	4.0/3h			
3/3/2023	18:00	4.0/3h			
3/3/2023	15:00	0.3/3h			
3/3/2023	12:00	14.0/6h			
3/3/2023	9:00	12.0/3h			
3/3/2023	6:00	59.0/6h			
3/3/2023	3:00	25.0/3h			
3/3/2023	0:00	149.0/24h			
3/3/2023	0:00	30.0/3h			
3/2/2023	21:00	63.0/3h			
3/2/2023	18:00	36.0/6h			
3/2/2023	15:00	12.0/3h			
3/2/2023	12:00	17.0/6h			
3/2/2023	9:00	3.0/3h			
3/2/2023	6:00	3.0/6h			
3/2/2023	3:00	0.3/3h			
3/2/2023	0:00	11.0/24h			
		Tr/3h			
3/1/2023	21:00	2.0/3h			
3/1/2023	18:00	3.0/6h			
3/1/2023	15:00	0.4/3h			
3/1/2023	12:00	0.7/6h			
3/1/2023	9:00	0.7/3h			
3/1/2023	6:00	7.0/6h			
3/1/2023	3:00	6.0/3h			
3/1/2023	0:00	108.0/24h			
3/1/2023	0:00	15.0/3h			
2/28/2023	21:00	10.0/3h			
2/28/2023	18:00	57.0/6h			
2/28/2023	15:00	44.0/3h			
2/28/2023	12:00	21.0/6h			
2/28/2023	9:00	16.0/3h			
2/28/2023	6:00	4.0/6h			
2/28/2023	3:00	3.0/3h			
2/28/2023	0:00	7.0/24h			
2/28/2023	0:00	1.0/3h			

2/27/2023	21:00	Tr/3h			
2/27/2023	18:00	0.4/6h			
2/27/2023	15:00	0.2/3h			
2/27/2023	12:00	Tr/6h			
2/27/2023	9:00	Tr/3h			
2/27/2023	6:00	5.0/6h			
2/27/2023	3:00	Tr/3h			
2/27/2023	0:00	4.0/24h			
		3.0/3h			
2/26/2023	21:00	Tr/3h			
2/26/2023	18:00	0.1/6h			
2/26/2023	15:00	Tr/3h			
2/26/2023	12:00	0.7/6h			
2/26/2023	9:00	0.7/3h			
2/26/2023	6:00	0.0/6h			
2/26/2023	3:00	0.0/3h			
2/26/2023	0:00	Tr/24h			

Lampiran 4: NASA

-BEGIN HEADER-

NASA/POWER CERES/MERRA2 Native Resolution Hourly Data

Dates (month/day/year): 02/26/2023 through 03/06/2023

Location: Latitude 1.1367 Longitude 104.4258

Elevation from MERRA-2: Average for 0.5 x 0.625 degree lat/lon region = 4.63 meters

The value for missing source data that cannot be computed or is outside of the sources availability range: -999

Parameter(s):

PRECTOTCORR MERRA-2 Precipitation Corrected (mm/hour)

-END HEADER-

YEAR	MO	DY	HR	PRECTOTCORR	
2023	2	26	0	0.02	
2023	2	26	1	0.02	
2023	2	26	2	0.02	
2023	2	26	3	0.03	
2023	2	26	4	0.04	
2023	2	26	5	0.04	
2023	2	26	6	0.04	
2023	2	26	7	0.04	
2023	2	26	8	0.06	
2023	2	26	9	0.08	
2023	2	26	10	0.16	
2023	2	26	11	0.18	
2023	2	26	12	0.2	
2023	2	26	13	0.19	
2023	2	26	14	0.18	
2023	2	26	15	0.11	
2023	2	26	16	0.11	
2023	2	26	17	0.14	
2023	2	26	18	0.19	
2023	2	26	19	0.24	
2023	2	26	20	0.28	
2023	2	26	21	0.33	
2023	2	26	22	0.37	
2023	2	26	23	0.35	
2023	2	27	0	0.34	
2023	2	27	1	0.35	
2023	2	27	2	0.4	
2023	2	27	3	0.39	
2023	2	27	4	0.37	

2023	2	27	5	0.35
2023	2	27	6	0.34
2023	2	27	7	0.42
2023	2	27	8	0.45
2023	2	27	9	0.47
2023	2	27	10	0.46
2023	2	27	11	0.39
2023	2	27	12	0.29
2023	2	27	13	0.22
2023	2	27	14	0.1
2023	2	27	15	0.08
2023	2	27	16	0.09
2023	2	27	17	0.15
2023	2	27	18	0.19
2023	2	27	19	0.25
2023	2	27	20	0.27
2023	2	27	21	0.26
2023	2	27	22	0.27
2023	2	27	23	0.27
2023	2	28	0	0.28
2023	2	28	1	0.32
2023	2	28	2	0.32
2023	2	28	3	0.48
2023	2	28	4	0.91
2023	2	28	5	1.23
2023	2	28	6	1.59
2023	2	28	7	1.99
2023	2	28	8	2.33
2023	2	28	9	2.01
2023	2	28	10	1.58
2023	2	28	11	1.45
2023	2	28	12	1.59
2023	2	28	13	1.84
2023	2	28	14	1.75
2023	2	28	15	1.52
2023	2	28	16	1.52
2023	2	28	17	2.29
2023	2	28	18	4.9
2023	2	28	19	7.97
2023	2	28	20	9.28
2023	2	28	21	7.95

2023	2	28	22	4.83
2023	2	28	23	2.7
2023	3	1	0	1.95
2023	3	1	1	1.67
2023	3	1	2	1.54
2023	3	1	3	1.64
2023	3	1	4	2.09
2023	3	1	5	2.51
2023	3	1	6	2.57
2023	3	1	7	2.39
2023	3	1	8	2.22
2023	3	1	9	1.81
2023	3	1	10	1.48
2023	3	1	11	1.55
2023	3	1	12	1.76
2023	3	1	13	1.57
2023	3	1	14	1.27
2023	3	1	15	1.21
2023	3	1	16	1.21
2023	3	1	17	1.25
2023	3	1	18	1.26
2023	3	1	19	1.26
2023	3	1	20	1.34
2023	3	1	21	1.33
2023	3	1	22	1.17
2023	3	1	23	1.04
2023	3	2	0	0.92
2023	3	2	1	0.85
2023	3	2	2	0.71
2023	3	2	3	0.59
2023	3	2	4	0.51
2023	3	2	5	0.51
2023	3	2	6	0.49
2023	3	2	7	0.59
2023	3	2	8	0.59
2023	3	2	9	0.52
2023	3	2	10	0.56
2023	3	2	11	0.56
2023	3	2	12	0.66
2023	3	2	13	0.84
2023	3	2	14	1.07

2023	3	2	15	1.18
2023	3	2	16	1.31
2023	3	2	17	1.46
2023	3	2	18	1.71
2023	3	2	19	1.59
2023	3	2	20	1.4
2023	3	2	21	1.06
2023	3	2	22	0.96
2023	3	2	23	1.06
2023	3	3	0	2.8
2023	3	3	1	2.74
2023	3	3	2	1.66
2023	3	3	3	1.75
2023	3	3	4	2.42
2023	3	3	5	3.36
2023	3	3	6	4.28
2023	3	3	7	4.17
2023	3	3	8	4.14
2023	3	3	9	1.83
2023	3	3	10	0.94
2023	3	3	11	0.48
2023	3	3	12	0.37
2023	3	3	13	0.54
2023	3	3	14	0.5
2023	3	3	15	0.42
2023	3	3	16	0.46
2023	3	3	17	0.4
2023	3	3	18	0.42
2023	3	3	19	0.48
2023	3	3	20	0.59
2023	3	3	21	0.74
2023	3	3	22	1.28
2023	3	3	23	1.9
2023	3	4	0	2.42
2023	3	4	1	2.6
2023	3	4	2	2.71
2023	3	4	3	2.55
2023	3	4	4	2.27
2023	3	4	5	2
2023	3	4	6	1.8
2023	3	4	7	1.6

2023	3	4	8	1.1
2023	3	4	9	0.79
2023	3	4	10	0.61
2023	3	4	11	0.79
2023	3	4	12	0.87
2023	3	4	13	0.71
2023	3	4	14	0.4
2023	3	4	15	0.22
2023	3	4	16	0.16
2023	3	4	17	0.13
2023	3	4	18	0.1
2023	3	4	19	0.07
2023	3	4	20	0.06
2023	3	4	21	0.04
2023	3	4	22	0.03
2023	3	4	23	0.01
2023	3	5	0	0
2023	3	5	1	0.01
2023	3	5	2	0.01
2023	3	5	3	0.01
2023	3	5	4	0.01
2023	3	5	5	0.02
2023	3	5	6	0.04
2023	3	5	7	0.05
2023	3	5	8	0.08
2023	3	5	9	0.12
2023	3	5	10	0.17
2023	3	5	11	0.32
2023	3	5	12	0.45
2023	3	5	13	0.5
2023	3	5	14	0.42
2023	3	5	15	0.38
2023	3	5	16	0.32
2023	3	5	17	0.23
2023	3	5	18	0.11
2023	3	5	19	0.04
2023	3	5	20	0.03
2023	3	5	21	0.04
2023	3	5	22	0.03
2023	3	5	23	0.04
2023	3	6	0	0.03

2023	3	6	1	0.06
2023	3	6	2	0.06
2023	3	6	3	0.05
2023	3	6	4	0.06
2023	3	6	5	0.07
2023	3	6	6	0.12
2023	3	6	7	0.21
2023	3	6	8	0.29
2023	3	6	9	0.35
2023	3	6	10	0.42
2023	3	6	11	0.45
2023	3	6	12	0.48
2023	3	6	13	0.44
2023	3	6	14	0.35
2023	3	6	15	0.36
2023	3	6	16	0.27
2023	3	6	17	0.29
2023	3	6	18	0.23
2023	3	6	19	0.15
2023	3	6	20	0.13
2023	3	6	21	0.09
2023	3	6	22	0.03
2023	3	6	23	0.01

Lampiran 5: Data ERA5

TANGGAL	JAM	ERA5
26/02/23	0:00	0.68319
	3:00	0.711855
	6:00	0.26037683
	9:00	0.4693948
	12:00	0.447896
	15:00	2.517771
	18:00	2.653933
	21:00	0.5219481
27/02/23	0:00	0.3469699
	3:00	0.954914
	6:00	0.7261881
	9:00	0.6013748
	12:00	2.538075
	15:00	2.586444

	18:00	4.95194
	21:00	0.7984485
28/02/23	0:00	2.969251
	3:00	3.57123
	6:00	9.57362
	9:00	4.35533
	12:00	6.06689
	15:00	6.31473
	18:00	8.72561
	21:00	15.7928
1/3/2023	0:00	31.44983
	3:00	40.56526
	6:00	4.473011
	9:00	1.254145
	12:00	0.780836
	15:00	0.3401905
	18:00	1.341658
	21:00	0.3075272
2/3/2023	0:00	0.2452825
	3:00	1.67507
	6:00	2.468235
	9:00	14.89752
	12:00	12.14949
	15:00	13.06221
	18:00	16.87333
	21:00	12.32575
3/3/2023	0:00	1.777989
	3:00	9.69852
	6:00	8.42465
	9:00	2.176723
	12:00	4.342971
	15:00	3.067879
	18:00	3.98059
	21:00	5.42826
4/3/2023	0:00	9.97584
	3:00	7.17173
	6:00	4.83416
	9:00	2.699334
	12:00	0.15715367
	15:00	0.5072043
	18:00	0.503507
	21:00	0.965722

5/3/2023	0:00	2.056547
	3:00	3.017344
	6:00	2.74926
	9:00	0.5509606
	12:00	0.82151
	15:00	0.46653
	18:00	0.3408069
	21:00	0.0887453
6/3/2023	0:00	0.0597799
	3:00	0.2027585
	6:00	0.3685394
	9:00	0.1978282
	12:00	0.06101246
	15:00	0.4221568
	18:00	0.2680849
	21:00	0.2243286

Lampiran 6: Script Matlab

Script *Zoom Earth* dan OGIMET:

```
% Lampiran 5. Program verifikasi nilai Peirce Skill Score
% Nur Annisa Muliana
% Pembimbing : Prof.Dr.Halmar Halide,M.Sc. dan Andika,S.Si,M.Sc.
% Dept Geofisika FMIPA Unhas

clear
clf

% RAIN 26 Februari - 6 Maret 2023 peirce parameters
% arn=0;brn=0;crn=0;drn=8;% 0 0.5000 0 0.5000 %26feb
% arn=0;brn=0;crn=0;drn=8;% 0 0.5000 0 0.5000 %27feb
% arn=1;brn=0;crn=3;drn=4;% 0.2500 0.3423 0 0.3536 %28feb
% arn=1;brn=0;crn=0;drn=7;% 1 0.4008 0 0.5345 %1mar
% arn=0;brn=0;crn=4;drn=4;% 0 0.3535 0 0.3535 %2mar
% arn=1;brn=1;crn=2;drn=4;% 0.1333 0.3651 0 0.3651 %3mar
% arn=1;brn=1;crn=2;drn=4;% 0.1333 0.3651 0 0.3651 %4mar
% arn=0;brn=0;crn=0;drn=8;% 0 0.5000 0 0.5000 %5mar
% arn=0;brn=0;crn=0;drn=8;% 0 0.5000 0 0.5000 %6mar
% hr=peirceWR(arn,brn,crn,drn);%
% pri=hr(1,1);epri=hr(1,2);prir=hr(1,3);eprir=hr(1,4);
% exitt

load rainskilltimetjplze.txt
rainskill=rainskilltimetjplze;

pacer=rainskill(1,1);spacer=rainskill(1,2);racer=rainskill(1,3);sr
acer=rainskill(1,4);
```

```

priar=rainskill(2,1);spriar=rainskill(2,2);rriar=rainskill(2,3);sr
riar=rainskill(2,4);
psbrr=rainskill(3,1);spsbrr=rainskill(3,2);rsbrr=rainskill(3,3);sr
sbrr=rainskill(3,4);
pjamr=rainskill(4,1);spjamr=rainskill(4,2);rjamr=rainskill(4,3);sr
jamr=rainskill(4,4);
plamr=rainskill(5,1);splamr=rainskill(5,2);rlamr=rainskill(5,3);sr
lamr=rainskill(5,4);
pdkir=rainskill(6,1);spdkir=rainskill(6,2);rdkir=rainskill(6,3);sr
dkir=rainskill(6,4);
pjabr=rainskill(7,1);spjabr=rainskill(7,2);rjabr=rainskill(7,3);sr
jabr=rainskill(7,4);
pjatr=rainskill(8,1);spjatr=rainskill(8,2);rjatr=rainskill(8,3);sr
jatr=rainskill(8,4);
pjogr=rainskill(9,1);spjogr=rainskill(9,2);rjogr=rainskill(9,3);sr
jogr=rainskill(9,4);

```

```

pri=[pacer priar psbrr pjamr plamr pdkir pjabr pjatr pjogr ];
epri=[spacer spriar spsbrr spjamr splamr spdkir spjabr spjatr
spjogr ];
prir=[racer rriar rsbrr rjamr rlamr rdkir rjabr rjatr rjogr ];
eprir=[sracer srriar srsbrr srjamr srlamr srdkir srjabr srjatr
srjogr ];

```

```

lead1=1:9;leads1=1*lead1;
% lead1=1:2;leads1=1*lead1;
% lead2=1:2;leads2=1*lead2;
% plot(leads1,pri,'-b',leads1,prir,'-r','linewidth',1.5),hold on
errorbar(leads1,pri,epri,'ob','linewidth',2),hold on
errorbar(leads1,prir,eprir,'*r','linewidth',1),hold off
set(gca,'xtick',1:9,...
'xticklabel',{'26','27','28','1','2','3','4','5','6'})
%legend BOXOFF
axis([0 10 -1.5 1.5])
grid on
grid minor
title('{\it Peirce Skill Score} Curah Hujan Zoom Earth & Ogimet 26
Feb-6 Mar 2023')
ylabel('Nilai Peirce untuk Hujan')
xlabel('Hari ke- pada bulan Februari & Maret 2023')
legend('PSS+PSS','PSSr+PSSr','Location','SouthEast')
%exitt

```

Script *Zoom Earth* dan NASA :

```

% Lampiran 5. Program verifikasi nilai Peirce Skill Score
% Nur Annisa Muliana
% Pembimbing : Prof.Dr.Halmar Halide,M.Sc. dan Andika,S.Si,M.Sc.
% Dept Geofisika FMIPA Unhas

clear
clf

% RAIN 26 Februari - 6 Maret 2023 peirce parameters

```

```

% arn=0;brn=0;crn=0;drn=8;% 0 0.5000 0 0.5000 %26feb
% arn=0;brn=0;crn=0;drn=8;% 0 0.5000 0 0.5000 %27feb
% arn=1;brn=0;crn=1;drn=6;% 0.5000 0.3680 0 0.4082 %28feb
% arn=0;brn=1;crn=0;drn=7;% 0 0.5000 0 0.5000 %1mar
% arn=0;brn=0;crn=0;drn=8;% 0 0.5000 0 0.5000 %2mar
% arn=0;brn=2;crn=2;drn=4;% -0.3333 0.3909 0 0.4082 %3mar
% arn=1;brn=1;crn=0;drn=6;% 0.8571 0.4403 0 0.5345 %4mar
% arn=0;brn=0;crn=0;drn=8;% 0 0.5000 0 0.5000 %5mar
% arn=0;brn=0;crn=0;drn=8;% 0 0.5000 0 0.5000 %6mar
% hr=peirceWR(arn,brn,crn,drn);%
% pri=hr(1,1);epri=hr(1,2);prir=hr(1,3);eprir=hr(1,4);
% exittt

load zoomearthnasa.txt
rainskill=zoomearthnasa;

pacer=rainskill(1,1);spacer=rainskill(1,2);racer=rainskill(1,3);s
acer=rainskill(1,4);
priar=rainskill(2,1);spriar=rainskill(2,2);rriar=rainskill(2,3);s
riar=rainskill(2,4);
psbrr=rainskill(3,1);spsbrr=rainskill(3,2);rsbrr=rainskill(3,3);s
rbrr=rainskill(3,4);
pjamr=rainskill(4,1);spjamr=rainskill(4,2);rjamr=rainskill(4,3);s
jamr=rainskill(4,4);
plamr=rainskill(5,1);splamr=rainskill(5,2);rlamr=rainskill(5,3);s
lamr=rainskill(5,4);
pdkir=rainskill(6,1);spdkir=rainskill(6,2);rdkir=rainskill(6,3);s
dkir=rainskill(6,4);
pjabr=rainskill(7,1);spjabr=rainskill(7,2);rjabr=rainskill(7,3);s
jabr=rainskill(7,4);
pjatr=rainskill(8,1);spjatr=rainskill(8,2);rjatr=rainskill(8,3);s
jatr=rainskill(8,4);
pjogr=rainskill(9,1);spjogr=rainskill(9,2);rjogr=rainskill(9,3);s
rjogr=rainskill(9,4);

pri=[pacer priar psbrr pjamr plamr pdkir pjabr pjatr pjogr ];
epri=[spacer spriar spsbrr spjamr splamr spdkir spjabr spjatr
spjogr ];
prir=[racer rriar rsbrr rjamr rlamr rdkir rjabr rjatr rjogr ];
eprir=[sracer srriar srsbrr srjamr srlamr srdkir srjabr srjatr
srjogr ];

lead1=1:9;leads1=1*lead1;
% lead1=1:2;leads1=1*lead1;
% lead2=1:2;leads2=1*lead2;
% plot(leads1,pri,'-b',leads1,prir,'-r','linewidth',1.5),hold on
errorbar(leads1,pri,epri,'ob','linewidth',2),hold on
errorbar(leads1,prir,eprir,'*r','linewidth',1),hold on
set(gca,'xtick',1:9,...
'xticklabel',{'26','27','28','1','2','3','4','5','6'})
%legend BOXOFF
axis([0 10 -1.5 1.5])
grid on
grid minor

```

```

title('\it Peirce Skill Score} Curah Hujan Zoom Earth & NASA 26
Feb-6 Mar 2023')
ylabel('Nilai Peirce untuk Hujan')
xlabel('Hari ke- pada bulan Februari & Maret 2023')
legend('PSS+PSS', 'PSSr+PSSr', 'Location', 'SouthEast')
%exitt

```

Script *Zoom Earth* dan ERA5:

```

clear
clf

% RAIN 26 Februari - 6 Maret 2023 peirce parameters
% arn=0;brn=0;crn=0;drn=8;% 0 0.5000 0 0.5000           %26feb
% arn=0;brn=0;crn=0;drn=8;% 0 0.5000 0 0.5000           %27feb
% arn=1;brn=0;crn=4;drn=3;% 0.2000 0.3582 0 0.3651       %28feb
% arn=1;brn=0;crn=1;drn=6;% 0.5000 0.3679 0 0.4082       %1mar
% arn=0;brn=0;crn=5;drn=3;% 0 0.3651 0 0.3651           %2mar
% arn=2;brn=0;crn=1;drn=5;% 0.6666 0.2788 0 0.3651       %3mar
% arn=2;brn=0;crn=0;drn=6;% 1 0.2041 0 0.4082           %4mar
% arn=0;brn=0;crn=0;drn=8;% 0 0.5000 0 0.5000           %5mar
% arn=0;brn=0;crn=0;drn=8;% 0 0.5000 0 0.5000           %6mar
% hr=peirceWR(arn,brn,crn,drn);%
% pri=hr(1,1);epri=hr(1,2);prir=hr(1,3);eprir=hr(1,4);
% exitt

load zoomearthera5.txt
rainskill=zoomearthera5;

pacer=rainskill(1,1);spacer=rainskill(1,2);racer=rainskill(1,3);sr
acer=rainskill(1,4);
priar=rainskill(2,1);spriar=rainskill(2,2);rriar=rainskill(2,3);sr
riar=rainskill(2,4);
psbrr=rainskill(3,1);spsbrr=rainskill(3,2);rsbrr=rainskill(3,3);sr
sbrr=rainskill(3,4);
pjamr=rainskill(4,1);spjamr=rainskill(4,2);rjamr=rainskill(4,3);sr
jamr=rainskill(4,4);
plamr=rainskill(5,1);splamr=rainskill(5,2);rlamr=rainskill(5,3);sr
lamr=rainskill(5,4);
pdkir=rainskill(6,1);spdkir=rainskill(6,2);rdkir=rainskill(6,3);sr
dkir=rainskill(6,4);
pjabr=rainskill(7,1);spjabr=rainskill(7,2);rjabr=rainskill(7,3);sr
jabr=rainskill(7,4);
pjatr=rainskill(8,1);spjatr=rainskill(8,2);rjatr=rainskill(8,3);sr
jatr=rainskill(8,4);
pjogr=rainskill(9,1);spjogr=rainskill(9,2);rjogr=rainskill(9,3);sr
jogr=rainskill(9,4);

pri=[pacer priar psbrr pjamr plamr pdkir pjabr pjatr pjogr ];
epri=[spacer spriar spsbrr spjamr splamr spdkir spjabr spjatr
spjogr ];
prir=[racer rriar rsbrr rjamr rlamr rdkir rjabr rjatr rjogr ];
eprir=[sracer srriar srsbrr srjamr srlamr srdkir srjabr srjatr
srjogr ];

```

```

lead1=1:9;leads1=1*lead1;
% lead1=1:2;leads1=1*lead1;
% lead2=1:2;leads2=1*lead2;
% plot(leads1,pri,'-b',leads1,pri,'-r','linewidth',1.5),hold on
errorbar(leads1,pri,epri,'ob','linewidth',2),hold on
errorbar(leads1,pri,eprir,'*r','linewidth',1),hold on
set(gca,'xtick',1:9,...
'xticklabel',{'26','27','28','1','2','3','4','5','6'})
%legend BOXOFF
axis([0 10 -1.5 1.5])
grid on
grid minor
title('{\it Peirce Skill Score} Curah Hujan Zoom Earth & ERA5 26
Feb-6 Mar 2023')
ylabel('Nilai Peirce untuk Hujan')
xlabel('Hari ke- pada bulan Februari & Maret 2023')
legend('PSS+PSS','PSSr+PSSr','Location','SouthEast')
%exitt

```

Script Peringatan dini BMKG dan OGIMET:

```

% Lampiran 5. Program verifikasi nilai Peirce Skill Score
% Nur Annisa Muliana
% Pembimbing : Prof.Dr.Halmar Halide,M.Sc. dan Andika,S.Si,M.Sc.
% Dept Geofisika FMIPA Unhas

clear
clf

% RAIN 26 Februari - 6 Maret 2023 peirce parameters
% arn=0;brn=0;crn=0;drn=8;% 0 0.5000 0 0.5000 %26feb
% arn=0;brn=0;crn=0;drn=8;% 0 0.5000 0 0.5000 %27feb
% arn=1;brn=1;crn=3;drn=3;% 0 0.3535 0 0.3535 %28feb
% arn=0;brn=0;crn=1;drn=7;% 0 0.5345 0 0.5345 %1mar
% arn=2;brn=0;crn=2;drn=4;% 0.5000 0.3061 0 0.3535 %2mar
% arn=1;brn=1;crn=2;drn=4;% 0.1333 0.3620 0 0.3651 %3mar
% arn=1;brn=0;crn=2;drn=5;% 0.3333 0.3456 0 0.3651 %4mar
% arn=0;brn=1;crn=0;drn=7;% 0 0.5000 0 0.5000 %5mar
% arn=0;brn=1;crn=0;drn=7;% 0 0.5000 0 0.5000 %6mar
% hr=peirceWR(arn,brn,crn,drn);%
% pri=hr(1,1);epri=hr(1,2);prir=hr(1,3);eprir=hr(1,4);
% exitt

load bmkgogimet.txt
rainskill=bmkgogimet;

pacer=rainskill(1,1);spacer=rainskill(1,2);racer=rainskill(1,3);sr
acer=rainskill(1,4);
priar=rainskill(2,1);spriar=rainskill(2,2);rriar=rainskill(2,3);sr
riar=rainskill(2,4);

```

```

psbrr=rainskill(3,1);spsbrr=rainskill(3,2);rsbrr=rainskill(3,3);sr
sbrr=rainskill(3,4);
pjamr=rainskill(4,1);spjamr=rainskill(4,2);rjamr=rainskill(4,3);sr
jamr=rainskill(4,4);
plamr=rainskill(5,1);splamr=rainskill(5,2);rlamr=rainskill(5,3);sr
lamr=rainskill(5,4);
pdkir=rainskill(6,1);spdkir=rainskill(6,2);rdkir=rainskill(6,3);sr
dkir=rainskill(6,4);
pjabr=rainskill(7,1);spjabr=rainskill(7,2);rjabr=rainskill(7,3);sr
jabr=rainskill(7,4);
pjatr=rainskill(8,1);spjatr=rainskill(8,2);rjatr=rainskill(8,3);sr
jatr=rainskill(8,4);
pjogr=rainskill(9,1);spjogr=rainskill(9,2);rjogr=rainskill(9,3);sr
jogr=rainskill(9,4);

```

```

pri=[pacer priar psbrr pjamr plamr pdkir pjabr pjatr pjogr ];
epri=[spacer spriar spsbrr spjamr splamr spdkir spjabr spjatr
spjogr ];
prir=[racer rriar rsbrr rjamr rlamr rdkir rjabr rjatr rjogr ];
eprir=[sracer srriar srsbrr srjamr srlamr srdkir srjabr srjatr
srjogr ];

```

```

lead1=1:9;leads1=1*lead1;
% lead1=1:2;leads1=1*lead1;
% lead2=1:2;leads2=1*lead2;
% plot(leads1,pri,'-b',leads1,prir,'-r','linewidth',1.5),hold on
errorbar(leads1,pri,epri,'ob','linewidth',2),hold on
errorbar(leads1,prir,eprir,'*r','linewidth',1),hold on
set(gca,'xtick',1:9,...
'xticklabel',{'26','27','28','1','2','3','4','5','6'})
%legend BOXOFF
axis([0 10 -1 1])
grid on
grid minor
title('\it Peirce Skill Score} Curah Hujan Peringatan Dini BMKG &
OGIMET 26 Feb-6 Mar 2023')
ylabel('Nilai Peirce untuk Hujan')
xlabel('Hari ke- pada bulan Februari & Maret 2023')
legend('PSS+ePSS','PSSr+ePSSr','Location','SouthEast')
%exitt

```

Script Peringatan dini BMKG dan NASA :

```

% Lampiran 5. Program verifikasi nilai Peirce Skill Score
% Nur Annisa Muliana
% Pembimbing : Prof.Dr.Halmar Halide,M.Sc. dan Andika,S.Si,M.Sc.
% Dept Geofisika FMIPA Unhas

clear
clf

% RAIN 26 Februari - 6 Maret 2023 peirce parameters

```

```

% arn=0;brn=0;crn=0;drn=8;% 0 0.5000 0 0.5000 %26feb
% arn=0;brn=0;crn=0;drn=8;% 0 0.5000 0 0.5000 %27feb
% arn=2;brn=2;crn=0;drn=4;% 0.6666 0.3333 0 0.4082 %28feb
% arn=0;brn=0;crn=1;drn=7;% 0 0.5345 0 0.5345 %1mar
% arn=0;brn=1;crn=0;drn=7;% 0 0.5000 0 0.5000 %2mar
% arn=2;brn=1;crn=0;drn=5;% 0.8333 0.2826 0 0.4082 %3mar
% arn=0;brn=0;crn=1;drn=7;% 0 0.5345 0 0.5345 %4mar
% arn=0;brn=1;crn=0;drn=7;% 0 0.5000 0 0.5000 %5mar
% arn=0;brn=1;crn=0;drn=7;% 0 0.5000 0 0.5000 %6mar
% hr=peirceWR(arn,brn,crn,drn);%
% pri=hr(1,1);epri=hr(1,2);prir=hr(1,3);eprir=hr(1,4);
% exittt

load rainskilltimetjp2pd.txt
rainskill=rainskilltimetjp2pd;

pacer=rainskill(1,1);spacer=rainskill(1,2);racer=rainskill(1,3);sr
acer=rainskill(1,4);
priar=rainskill(2,1);spriar=rainskill(2,2);rriar=rainskill(2,3);sr
riar=rainskill(2,4);
psbrr=rainskill(3,1);spsbrr=rainskill(3,2);rsbrr=rainskill(3,3);sr
sbrr=rainskill(3,4);
pjamr=rainskill(4,1);spjamr=rainskill(4,2);rjamr=rainskill(4,3);sr
jamr=rainskill(4,4);
plamr=rainskill(5,1);splamr=rainskill(5,2);rlamr=rainskill(5,3);sr
lamr=rainskill(5,4);
pdkir=rainskill(6,1);spdkir=rainskill(6,2);rdkir=rainskill(6,3);sr
dkir=rainskill(6,4);
pjabr=rainskill(7,1);spjabr=rainskill(7,2);rjabr=rainskill(7,3);sr
jabr=rainskill(7,4);
pjatr=rainskill(8,1);spjatr=rainskill(8,2);rjatr=rainskill(8,3);sr
jatr=rainskill(8,4);
pjogr=rainskill(9,1);spjogr=rainskill(9,2);rjogr=rainskill(9,3);sr
jogr=rainskill(9,4);

pri=[pacer priar psbrr pjamr plamr pdkir pjabr pjatr pjogr ];
epri=[spacer spriar spsbrr spjamr splamr spdkir spjabr spjatr
spjogr ];
prir=[racer rriar rsbrr rjamr rlamr rdkir rjabr rjatr rjogr ];
eprir=[sracer srriar srsbrr srjamr srlamr srdkir srjabr srjatr
srjogr ];

lead1=1:9;leads1=1*lead1;
% lead1=1:2;leads1=1*lead1;
% lead2=1:2;leads2=1*lead2;
% plot(leads1,pri,'-b',leads1,prir,'-r','linewidth',1.5),hold on
errorbar(leads1,pri,epri,'ob','linewidth',2),hold on
errorbar(leads1,prir,eprir,'*r','linewidth',1),hold on
set(gca,'xtick',1:9,...
'xticklabel',{'26','27','28','1','2','3','4','5','6'})
%legend BOXOFF
axis([0 10 -1.3 1.3])
grid on
grid minor

```

```

title('{\it Peirce Skill Score} Curah Hujan Peringatan Dini BMKG &
NASA 26 Feb-6 Mar 2023')
ylabel('Nilai Peirce untuk Hujan')
xlabel('Hari ke- pada bulan Februari & Maret 2023')
legend('PSS+ePSS', 'PSSr+ePSSr', 'Location', 'SouthEast')
%exittt

```

Script Peringatan Dini BMKG dan ERA5:

```

clear
clf

% RAIN 26 Februari - 6 Maret 2023 peirce parameters
% arn=0;brn=0;crn=0;drn=8;% 0 0.5000 0 0.5000 %26feb
% arn=0;brn=0;crn=0;drn=8;% 0 0.5000 0 0.5000 %27feb
% arn=1;brn=1;crn=4;drn=2;% -0.1333 0.3620 0 0.3651 %28feb
% arn=0;brn=0;crn=2;drn=6;% 0 0.4082 0 0.4082 %1mar
% arn=2;brn=0;crn=3;drn=3;% 0.4000 0.3366 0 0.3651 %2mar
% arn=2;brn=1;crn=1;drn=4;% 0.4666 0.3257 0 0.3651 %3mar
% arn=1;brn=0;crn=1;drn=6;% 0.5000 0.3679 0 0.4082 %4mar
% arn=0;brn=0;crn=0;drn=8;% 0 0.5000 0 0.5000 %5mar
% arn=0;brn=0;crn=0;drn=8;% 0 0.5000 0 0.5000 %6mar
% hr=peirceWR(arn,brn,crn,drn);%
% pri=hr(1,1);epri=hr(1,2);prir=hr(1,3);eprir=hr(1,4);
% exittt

load bmkgera5.txt
rainskill=bmkgera5;

pacer=rainskill(1,1);spacer=rainskill(1,2);racer=rainskill(1,3);sr
acer=rainskill(1,4);
priar=rainskill(2,1);spriar=rainskill(2,2);rriar=rainskill(2,3);sr
riar=rainskill(2,4);
psbrr=rainskill(3,1);spsbrr=rainskill(3,2);rsbrr=rainskill(3,3);sr
sbrr=rainskill(3,4);
pjamr=rainskill(4,1);spjamr=rainskill(4,2);rjamr=rainskill(4,3);sr
jamr=rainskill(4,4);
plamr=rainskill(5,1);splamr=rainskill(5,2);rlamr=rainskill(5,3);sr
lamr=rainskill(5,4);
pdkir=rainskill(6,1);spdkir=rainskill(6,2);rdkir=rainskill(6,3);sr
dkir=rainskill(6,4);
pjabr=rainskill(7,1);spjabr=rainskill(7,2);rjabr=rainskill(7,3);sr
jabr=rainskill(7,4);
pjatr=rainskill(8,1);spjatr=rainskill(8,2);rjatr=rainskill(8,3);sr
jatr=rainskill(8,4);
pjogr=rainskill(9,1);spjogr=rainskill(9,2);rjogr=rainskill(9,3);sr
jogr=rainskill(9,4);

pri=[pacer priar psbrr pjamr plamr pdkir pjabr pjatr pjogr ];
epri=[spacer spriar spsbrr spjamr splamr spdkir spjabr spjatr
spjogr ];
prir=[racer rriar rsbrr rjamr rlamr rdkir rjabr rjatr rjogr ];

```

```

eprir=[sracer srriar srsbrr srjamr srlamr srdkir srjabr srjatr
srjogr ];

lead1=1:9;leads1=1*lead1;
% lead1=1:2;leads1=1*lead1;
% lead2=1:2;leads2=1*lead2;
% plot(leads1,pri,'-b',leads1,prir,'-r','linewidth',1.5),hold on
errorbar(leads1,pri,epri,'ob','linewidth',2),hold on
errorbar(leads1,prir,eprir,'*r','linewidth',1),hold on
set(gca,'xtick',1:9,...
'xticklabel',{'26','27','28','1','2','3','4','5','6'})
%legend BOXOFF
axis([0 10 -1 1])
grid on
grid minor
title('{\it Peirce Skill Score} Curah Hujan Peringatan Dini BMKG &
ERA5 26 Feb-6 Mar 2023')
ylabel('Nilai Peirce untuk Hujan')
xlabel('Hari ke- pada bulan Februari & Maret 2023')
legend('PSS+ePSS','PSSr+ePSSr','Location','SouthEast')
%exitt

```

Script Persamaan Peirce Skill Score :

```

function hasil=peirceWR(sa,sb,sc,sd);
sa=sa;
sb=sb;
sc=sc;
sd=sd;
tot=sa+sb+sc+sd
at=(sa*sd)-(sb*sc);
bw=(sa+sc)*(sb+sd);
% at=sc
% bw=sb+sd

sar=(sa+sc)*(sa+sb)/tot;
sbr=(sb+sd)*(sa+sb)/tot;
scr=(sa+sc)*(sc+sd)/tot;
sdr=(sb+sd)*(sc+sd)/tot;

atr=(sar*sdr)-(sbr*scr);
bwr=(sar+scr)*(sbr+sdr);
% atr=scr;
% bwr=(sbr+sdr);

sensit=sa/(sa+sc);
specif=sd/(sd+sb);

pss=at/bw; %
spss=sqrt((tot^2-4*bw*pss^2)/(4*tot*bw)); %
pssr=atr/bwr; %
spssr=sqrt((tot^2-4*bwr*pssr^2)/(4*tot*bwr)); %

```

```
hasil=[pss spss pssr spssr];
```

Script ERA5 :

```
clc
clf

filename = 'era.1.nc'
ncdisp(filename)
latitude = ncread(filename, 'lat');
longitude = ncread(filename, 'lon');
[LN,LT]=meshgrid(longitude,latitude);
% waktu = ncread(filename, 'time');
precip = ncread(filename, 'prep');
%precipave = mean(precip,3);
precip1=precip (:,:,1)*1000;
precip2=permute(precip1,[2 1 3]);
xlim([103 105])
ylim([0 1.5])
m_proj('miller','lon',[104.2 104.8],'lat',[0.6 1.3]);
mymap = m_pcolor(LN, LT, precip2);
mymap.EdgeAlpha=0;
shading interp
caxis([0 100])
colorbar
ylabel(colorbar,'daily total (mm)','FontSize',12)

%m_gshhs_i('color','k')
m_gshhs_f('color','k')
m_grid
%m_grid('box','fancy','tickdir','in');
cmocean ('rain', 10)

% print -dpng plotera1_2023.png
```

Lampiran 7 : Berita Media Tanjungpinang



BPBD – KEPRI

BERANDA PROFIL BERITA INFOGRAFIS DOKUMEN

KRONOLOGIS

Sekitar jam 19.00 mulai terjadi hujan lebat di daerah desa pangkalan kecamatan serasan, hingga pada pukul 23.30 terjadi tanah longsor di daerah belakang rumah bapak MUHAMMAD INDRAWANDI, dan mengakibatkan dinding rumah MUHAMMAD INDRAWANDI bagian belakang jebol, sehingga perlu perbaikan, pada pukul 06.00 pagi Tanggal 1 Maret 2023 kepala desa, babinsa, babinkamtibmas dan masyarakat langsung ke lokasi tempat kejadian melaksanakan gotong royong pembersihan sisa-sisa tanah longsor

KORBAN TERDAMPAK:

- 5 orang atas nama :

Muhammad Indrawandi (L)

Rina Sustriana (P)

Seral Indri Runiyusra (L)

Pronal Indri Runiyusra (L)

Akibat Hujan Lebat, Sejumlah Titik Di Tanjungpinang Ini Banjir Dan Longsor

Oleh PresMedia — Pada Jumat, 3 Maret 2023 (12:53)



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Anggota BPBD Tanjungpinang melakukan evakuasi di sejumlah titik banjir tanah longsor. (Foto: Roland)

PRESMEDIA.ID, Tanjungpinang – Sejumlah kawasan perumahan dan jalan di Kota Tanjungpinang, Kepulauan Riau (Kepri) terendam banjir akibat diguyur hujan deras sejak Kamis (2/3/2023).

Selain banjir, sejumlah lokasi juga mengalami tanah longsor dan pohon tumbang di Tanjungpinang pada Jumat (3/3/2023).

Badan Penanggulangan Bencana Daerah (BPBD) Kota Tanjungpinang mengatakan dari pendataan yang dilakukan, beberapa kawasan yang mengalami bencana banjir terjadi di Perumahan Karya Indah Jalan Garuda RT.4 RW 3 Kelurahan Batu IX, Kecamatan Bukit Bestari.

Sejumlah Kendaraan Mogok karena Nekat Terobos Banjir di Jalan WR Supratman Tanjungpinang

GOTVNEWS — 04/03/2023 7:34 PM

