NCEP and CMC cyclone tracks

Jaiyi Peng

With assistance from Richard Wobus,
Bo Cui, and Yuejian Zhu

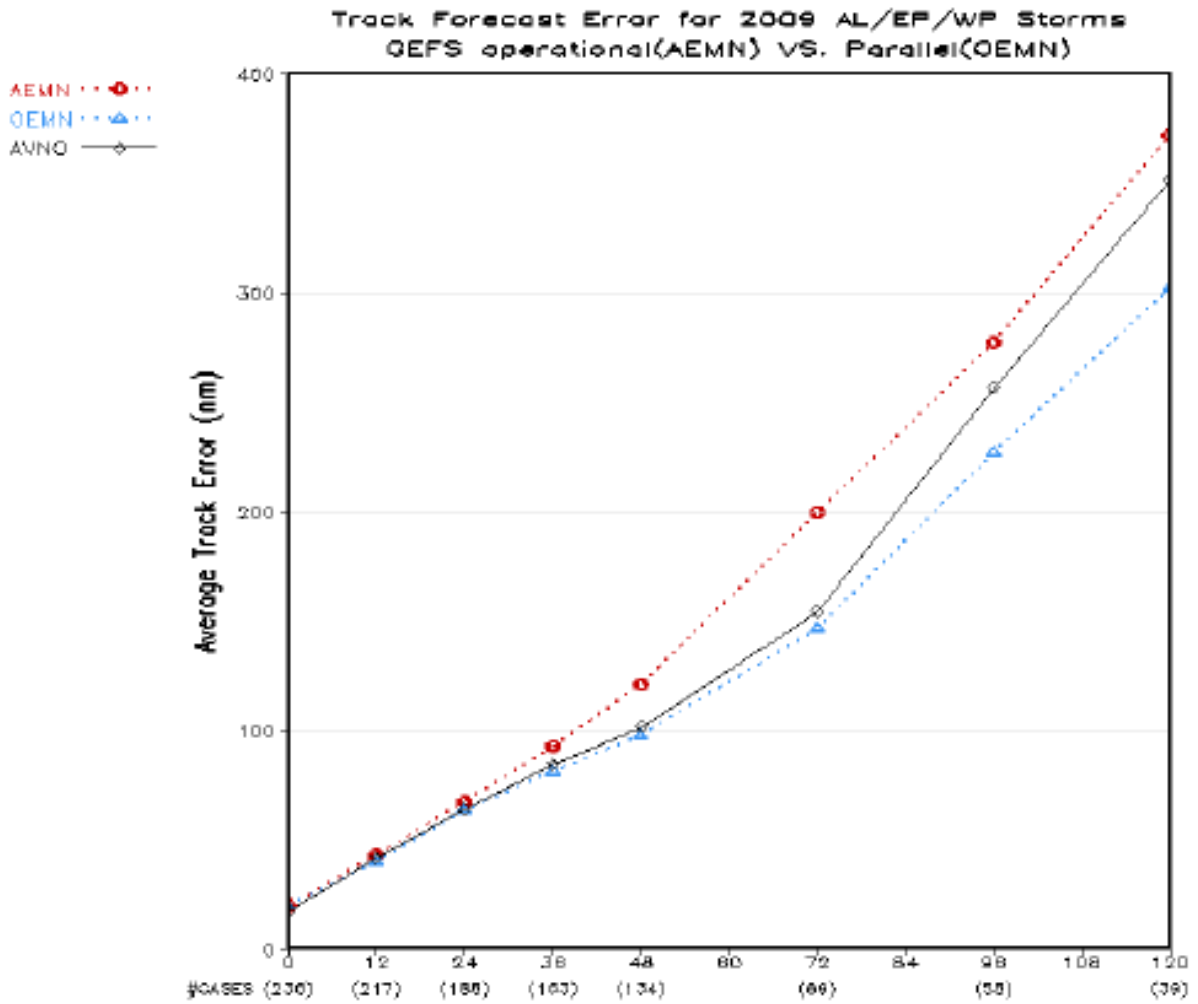


Fig.1. Track forecast error for 2009 tropical storms in Atlantic, East Pacific and West Pacific. AEMN is the GEFS (T126) operational ensemble mean. OEMN is the GEFS (T190) parallel ensemble mean. AVNO is GFS (T382) operational run.

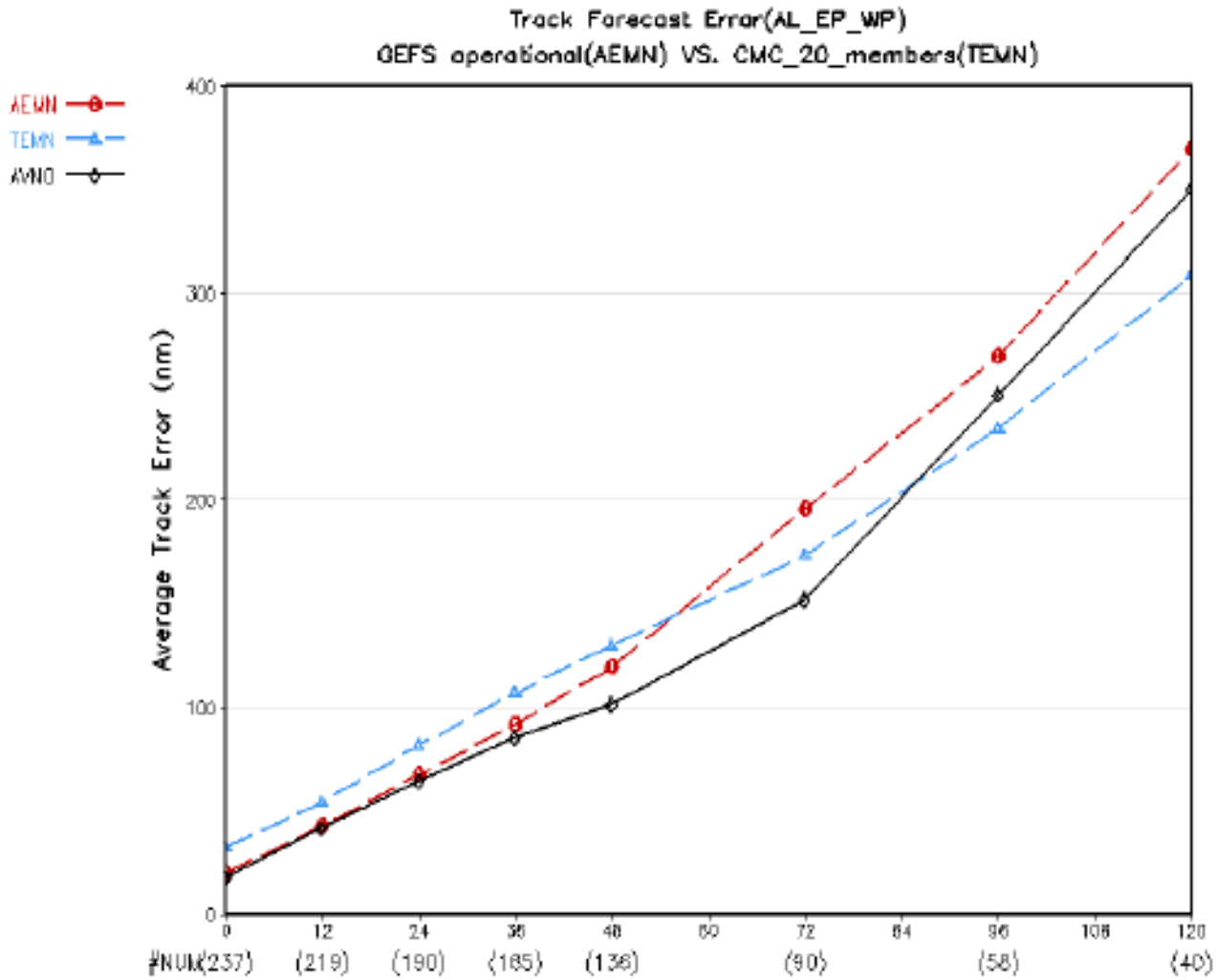


Fig.2. Track forecast error for 2009 tropical storms in Atlantic, East Pacific and West Pacific. AEMN is the GEFS (T126) operational ensemble mean. TEMN is the CMC operational ensemble mean. AVNO is GFS (T382) operational run.

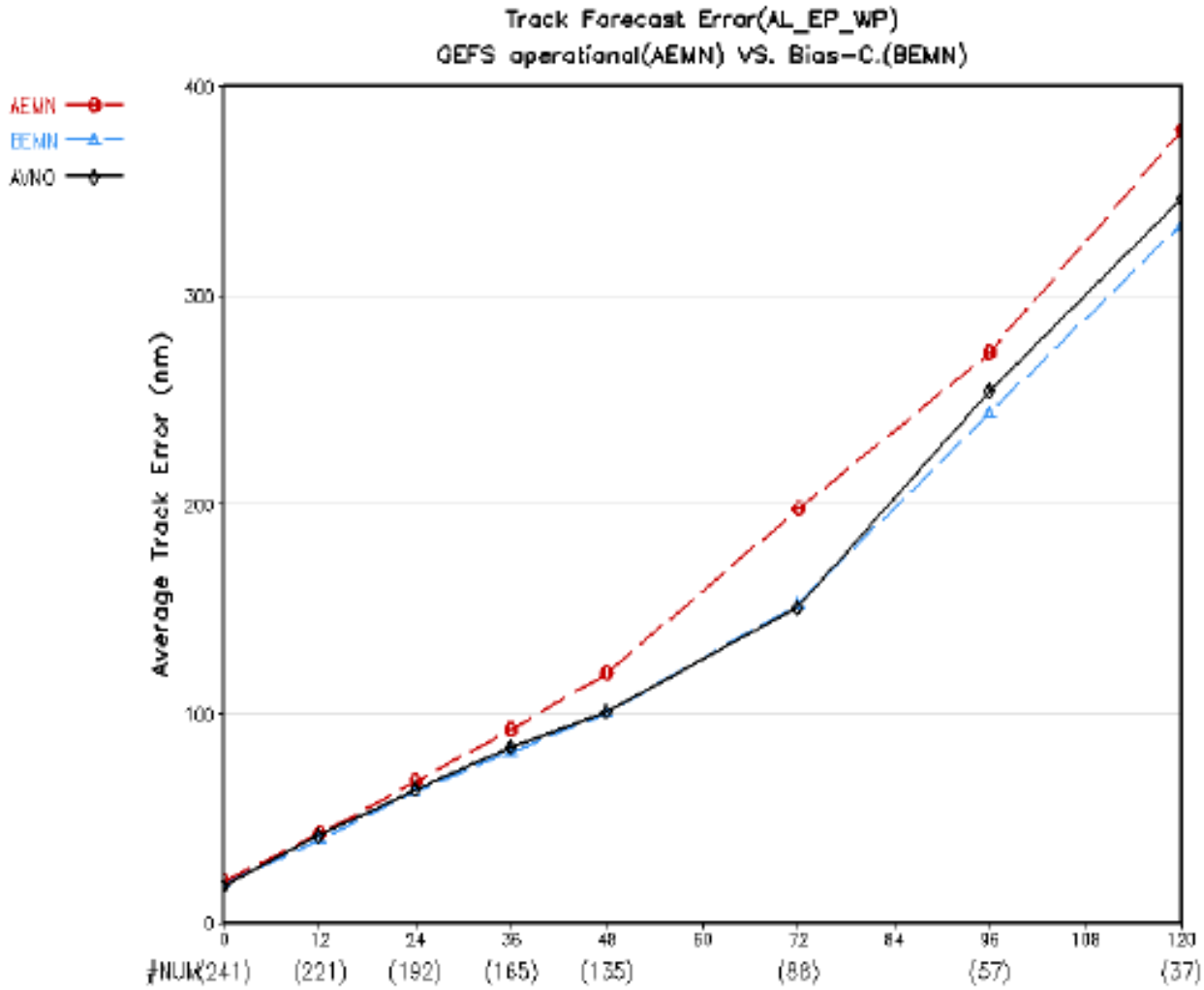


Fig.3. Track forecast error for 2009 tropical storms in Atlantic, East Pacific and West Pacific. AEMN is the GEFS (T126) operational ensemble mean. BEMN is the GEFS bias correction ensemble mean. AVNO is GFS (T382) operational run.

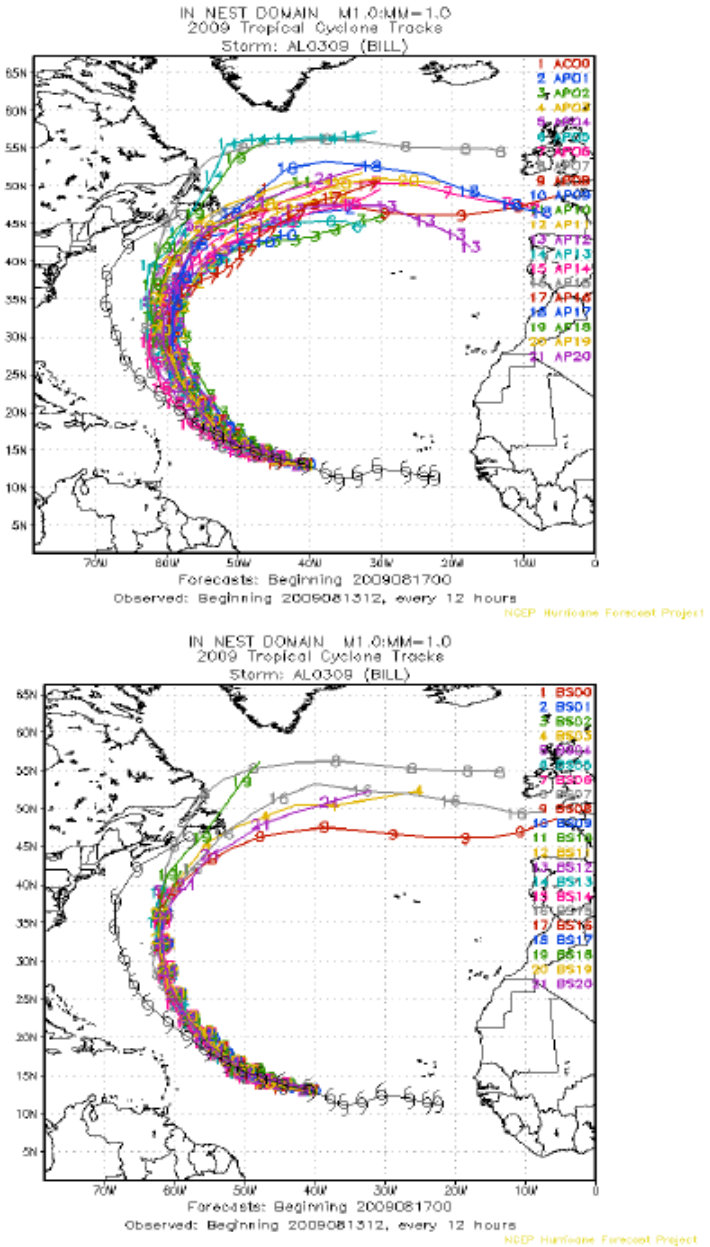
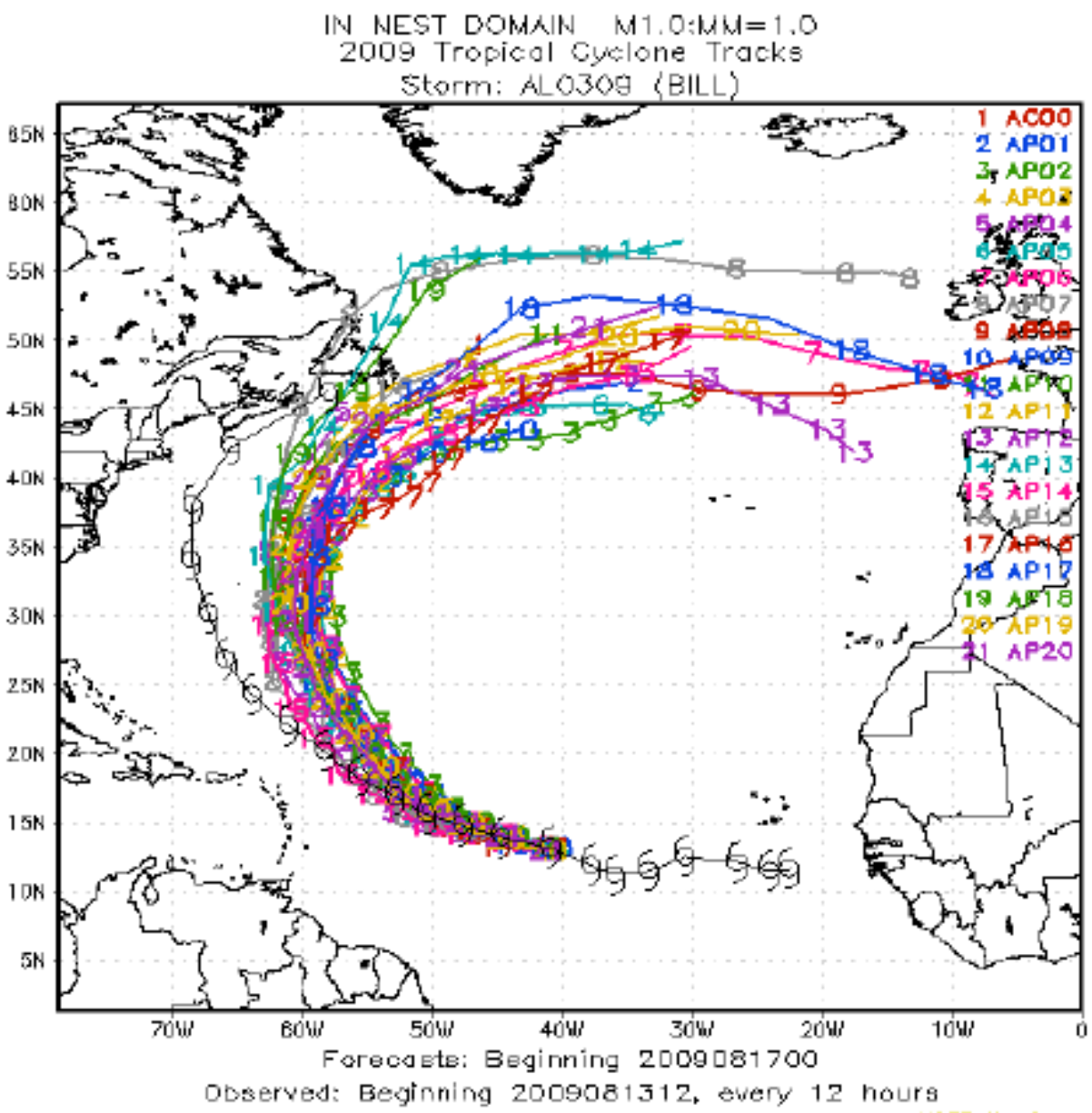


Fig.4. 2009 Atlantic hurricane "Bill" GEFS operational track (top) and GEFS bias-correction track (bottom).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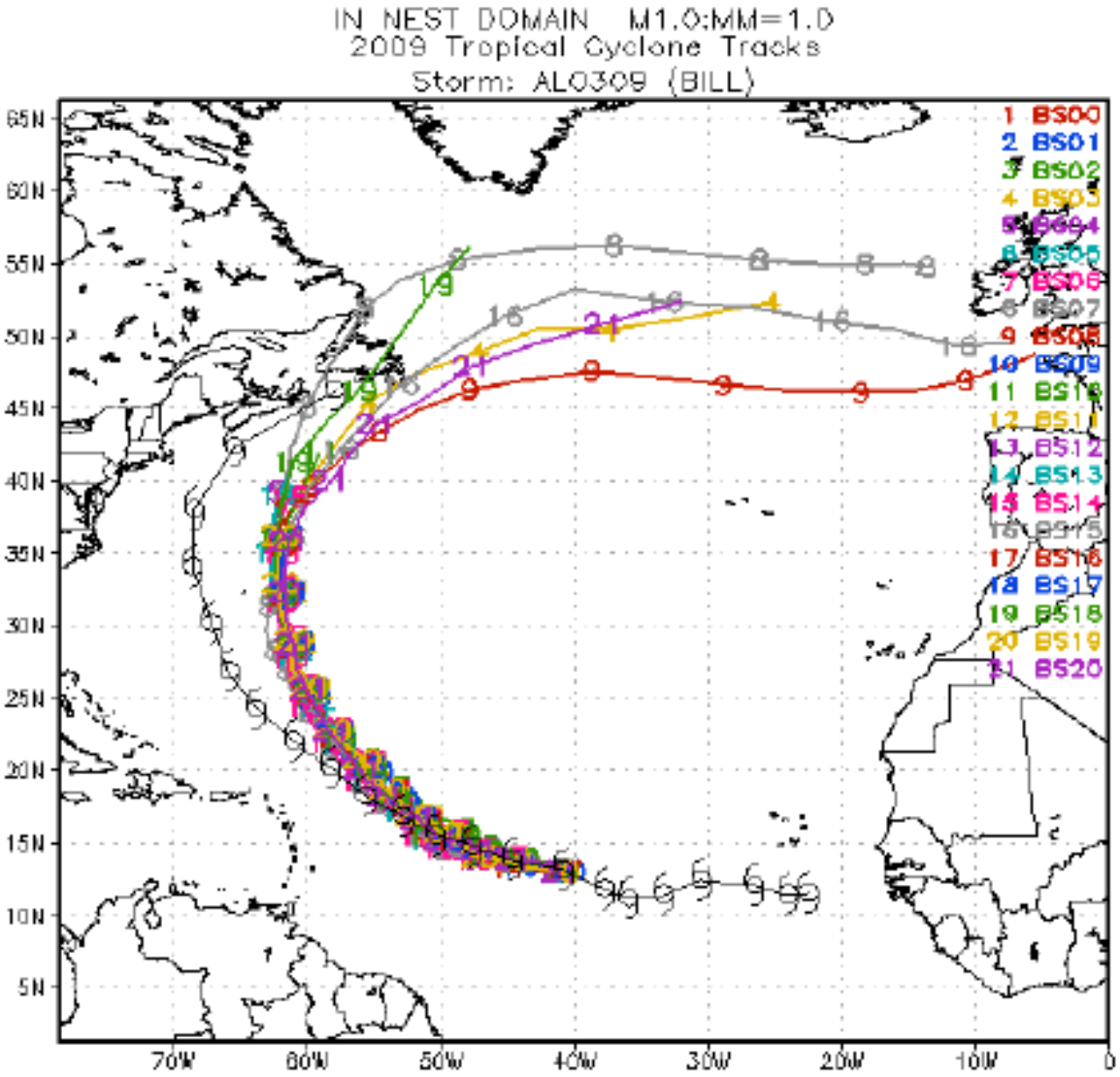
2009 Tropical Cyclone Tracks
Storm: AL0309 (BILL)
1 AC00
2 AP01
3 AP02
4 AP03
5 AP04
6 AP05
7 AP06
8 AP07
9 AP08
10 AP09
11 AP10
12 AP11
13 AP12
14 AP13
15 AP14
16 AP15
17 AP16
18 AP17
19 AP18
20 AP19
21 AP20
85N
80N
75N
70N
65N
60N
55N
50N
45N
40N
35N
30N
25N
20N
15N
10N
5N
70W
60W
50W
40W
30W
20W
10W
0
Forecasts: Beginning 2009081700
Observed: Beginning 2009081312, every 12 hours
NCEP Hurricane Forecast Project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2009 Tropical Cyclone Tracks
Storm: AL0309 (BILL)
1 BS00
2 BS01
3 BS02
4 BS03
5 BS04
6 BS05
7 BS06
8 BS07
9 BS08
10 BS09
11 BS10
12 BS11
13 BS12
14 BS13
15 BS14
16 BS15
17 BS16
18 BS17
19 BS18
20 BS19
21 BS20
65N
60N
55N
50N
45N
40N
35N
30N
25N
20N
15N
10N
5N
70W
60W
50W
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Forecasts: Beginning 2009081700
Observed: Beginning 2009081312, every 12 hours
NCEP Hurricane Forecast Project

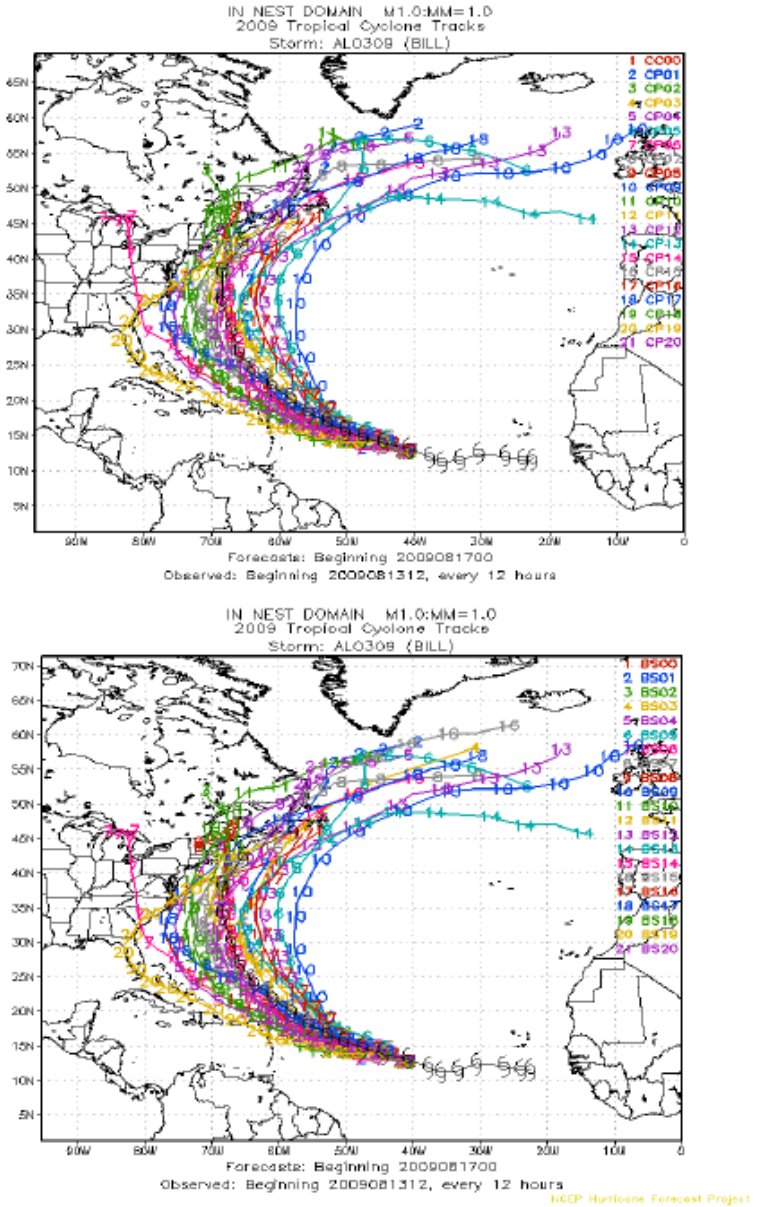
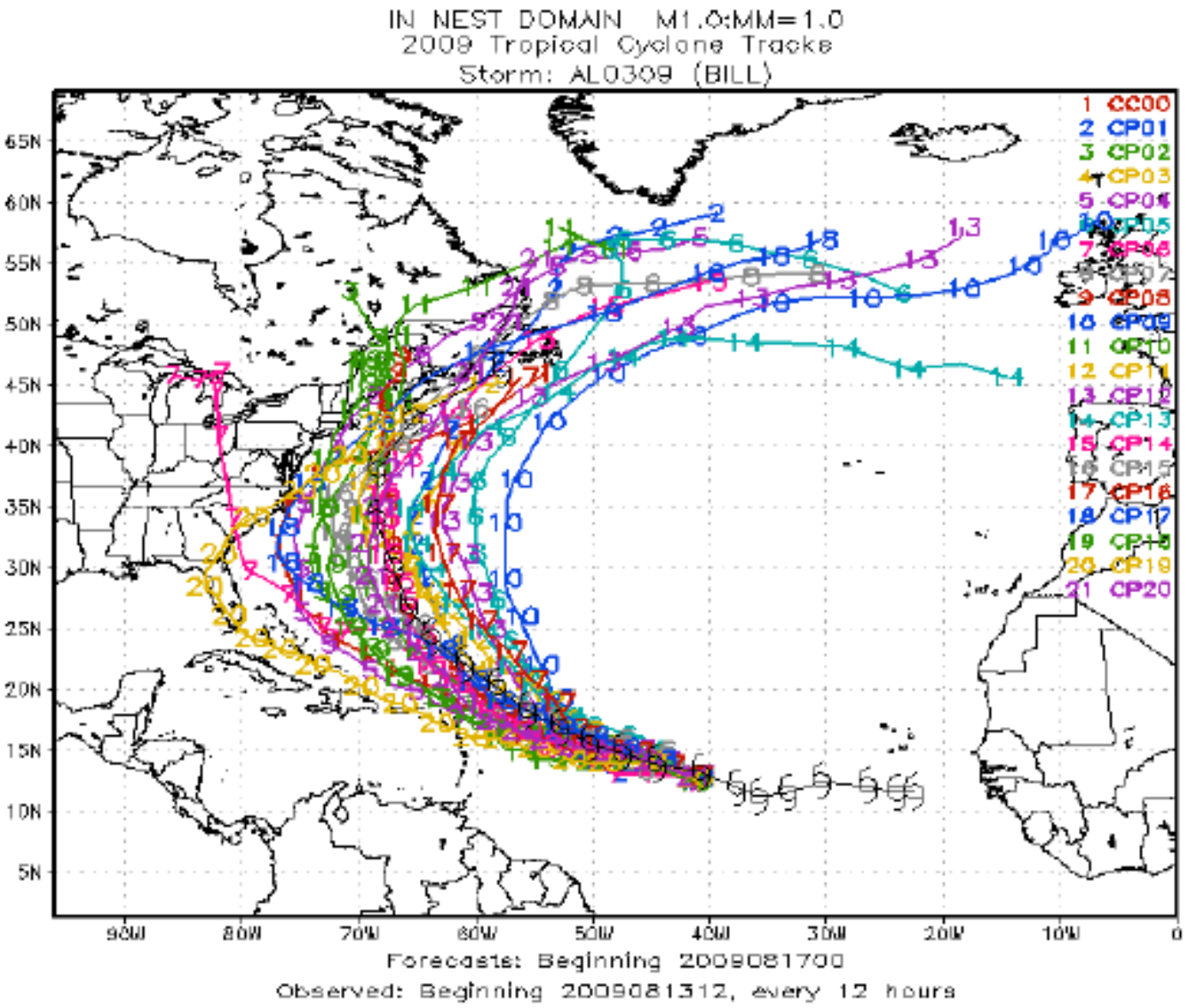


Fig.5. 2009 Atlantic hurricane "Bill" CMC ensemble track (top) and the coresponding bias-correction track (bottom).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2009 Tropical Cyclone Tracks
Storm: AL0309 (BILL)
1 CC00
2 CP01
3 CP02
4 CP03
5 CP04
7 CP06
9 CP08
11 CP10
12 CP11
13 CP12
14 CP13
15 CP14
17 CP16
18 CP17
21 CP20
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60N
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30N
25N
20N
15N
10N
5N
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80W
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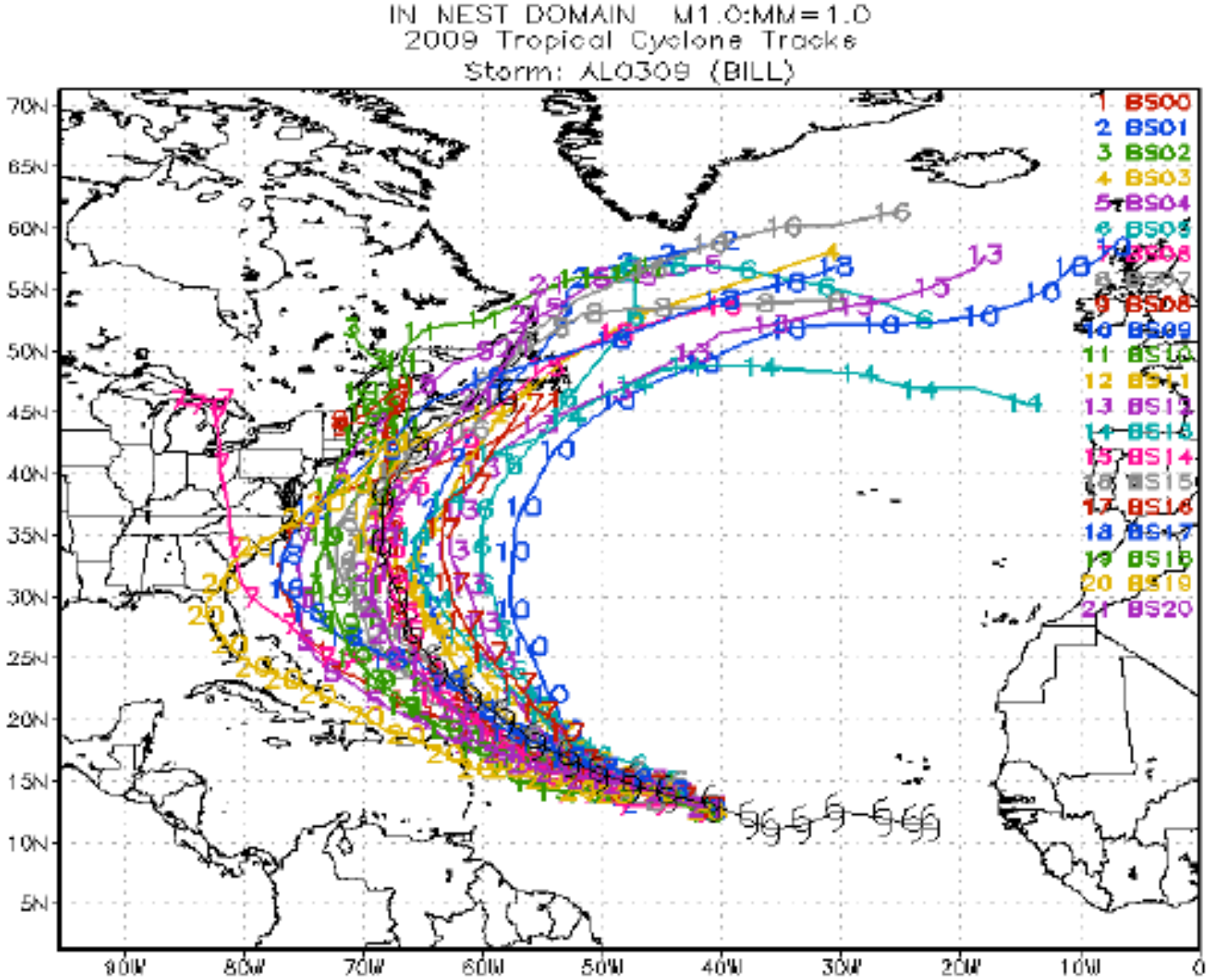
10W
0
Forecasts: Beginning 2009081700
Observed: Beginning 2009081312, every 12 hours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2009 Tropical Cyclone Tracks
Storm: AL0309 (BILL)
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30N
25N
20N
15N
10N
5N
90W
80W
70W
60W
50W
40W
30W
20W
10W
0
1 BS00
2 BS01
3 BS02
4 BS03
5 BS04
6 BS05
9 BS08
10 BS09
11 BS10
12 BS11
13 BS12
14 BS13
15 BS14
17 BS16
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19 BS18
20 BS19
21 BS20
Forecasts: Beginning 2009081700
Observed: Beginning 2009081312, every 12 hours
NOAA Hurricane Forecast Project

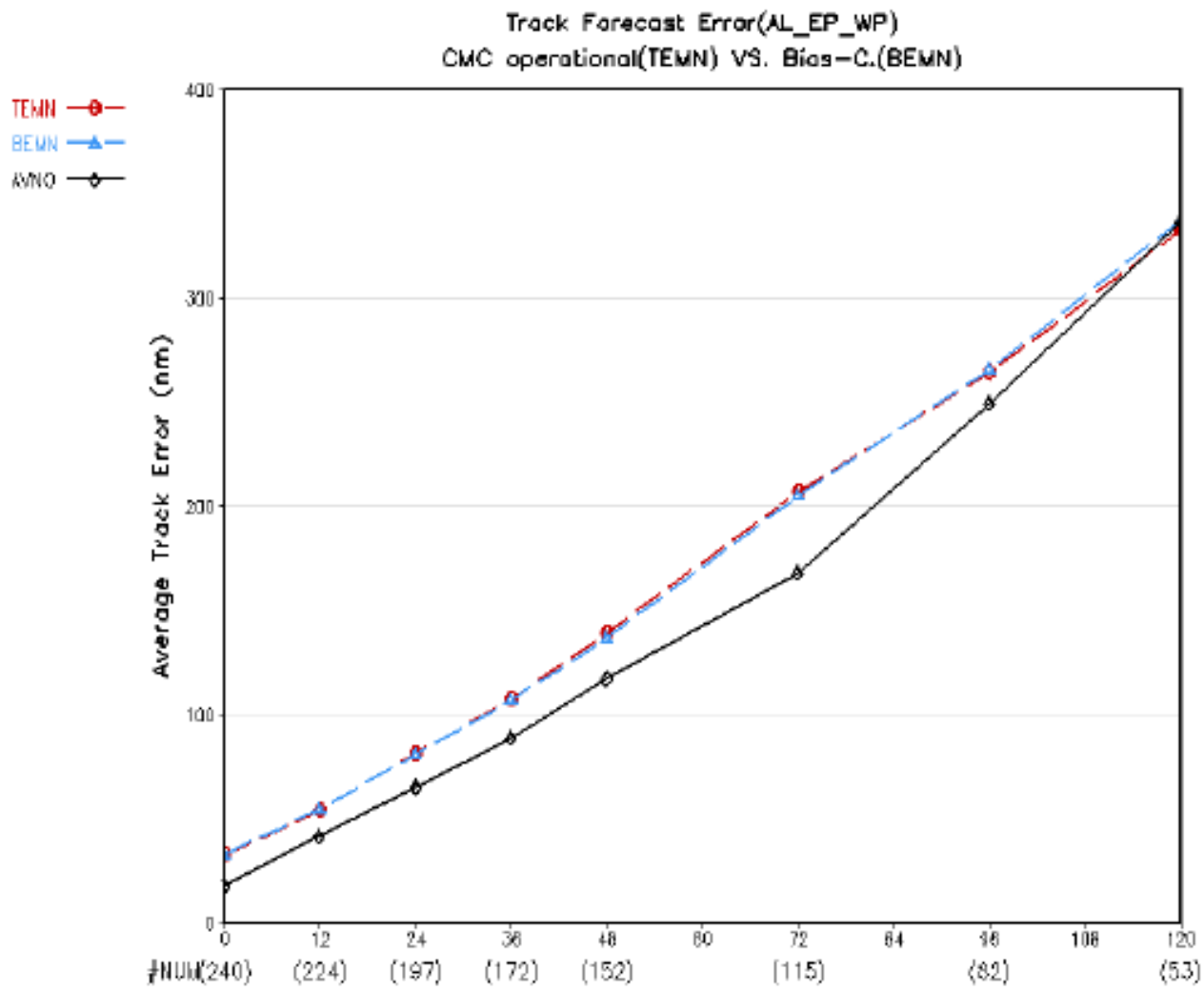
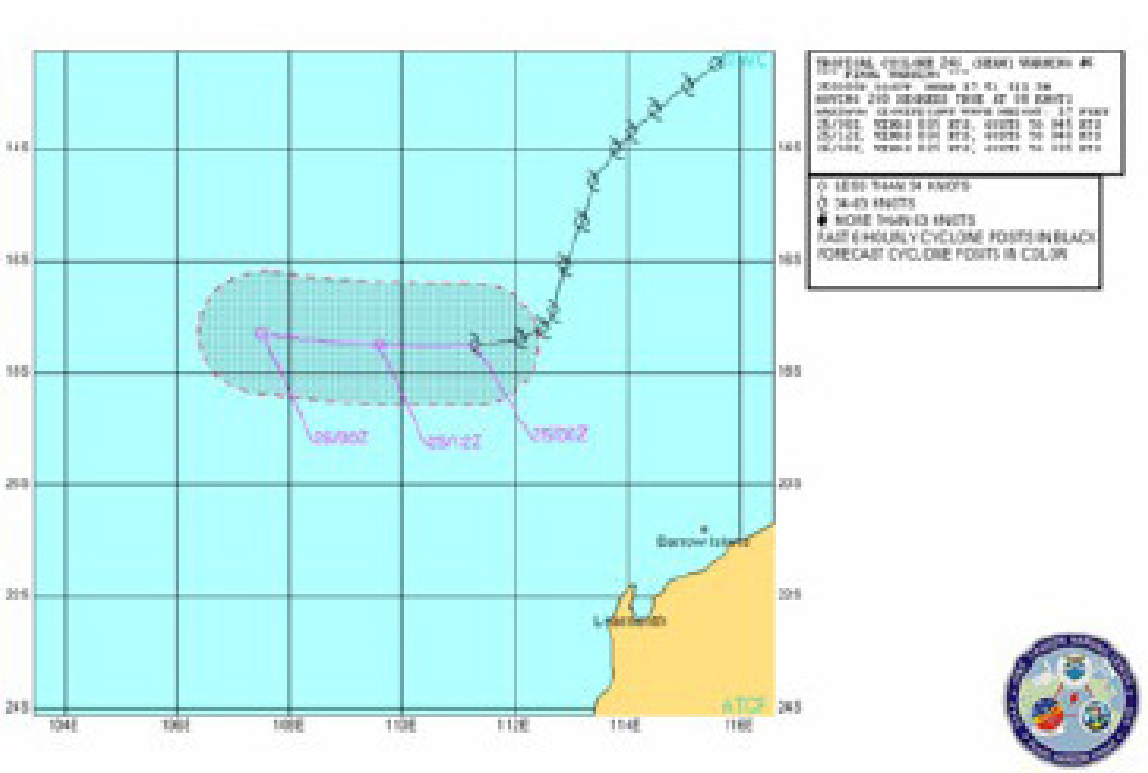


Fig.6. Track forecast error for 2009 tropical storms in Atlantic, East Pacific and West Pacific. TEMN is the CMC operational ensemble mean. BEMN is the coresponding bias correction ensemble mean. AVNO is GFS (T382) operational run.

Tropical cyclone: 24S (SEAN)
Date: 04/25/2010 12Z



CXML generation for TIGGE

ECMWF CXML format

(1)It has “analysis” track data. All the ensemble members have the same “analysis” disturbance ID.

(2)It does not include extra-tropical cyclone.

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NCEP CXML format

(1) Different ensemble member has different "disturbance ID". How to define this ID?

(2) Tropical cyclone and extra-tropical cyclone mix together. How to split?


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