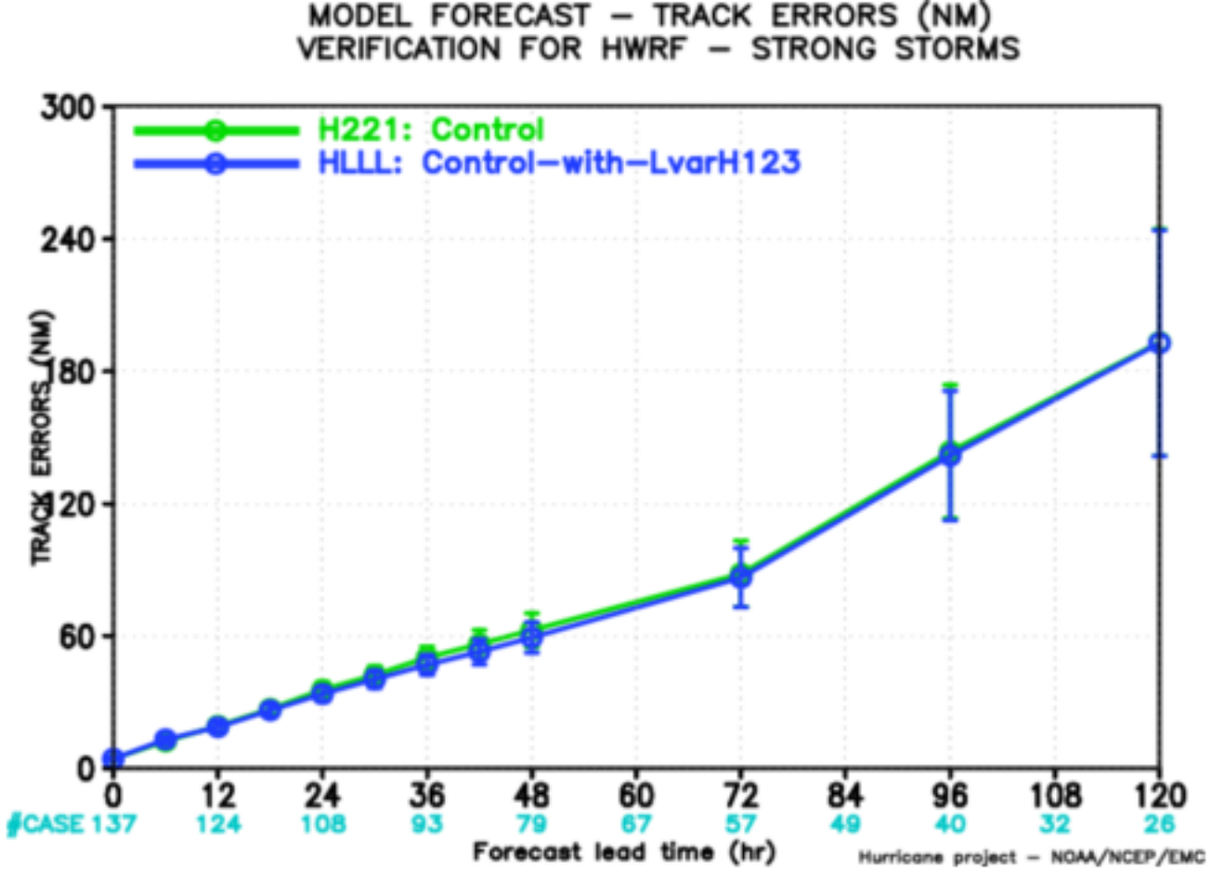
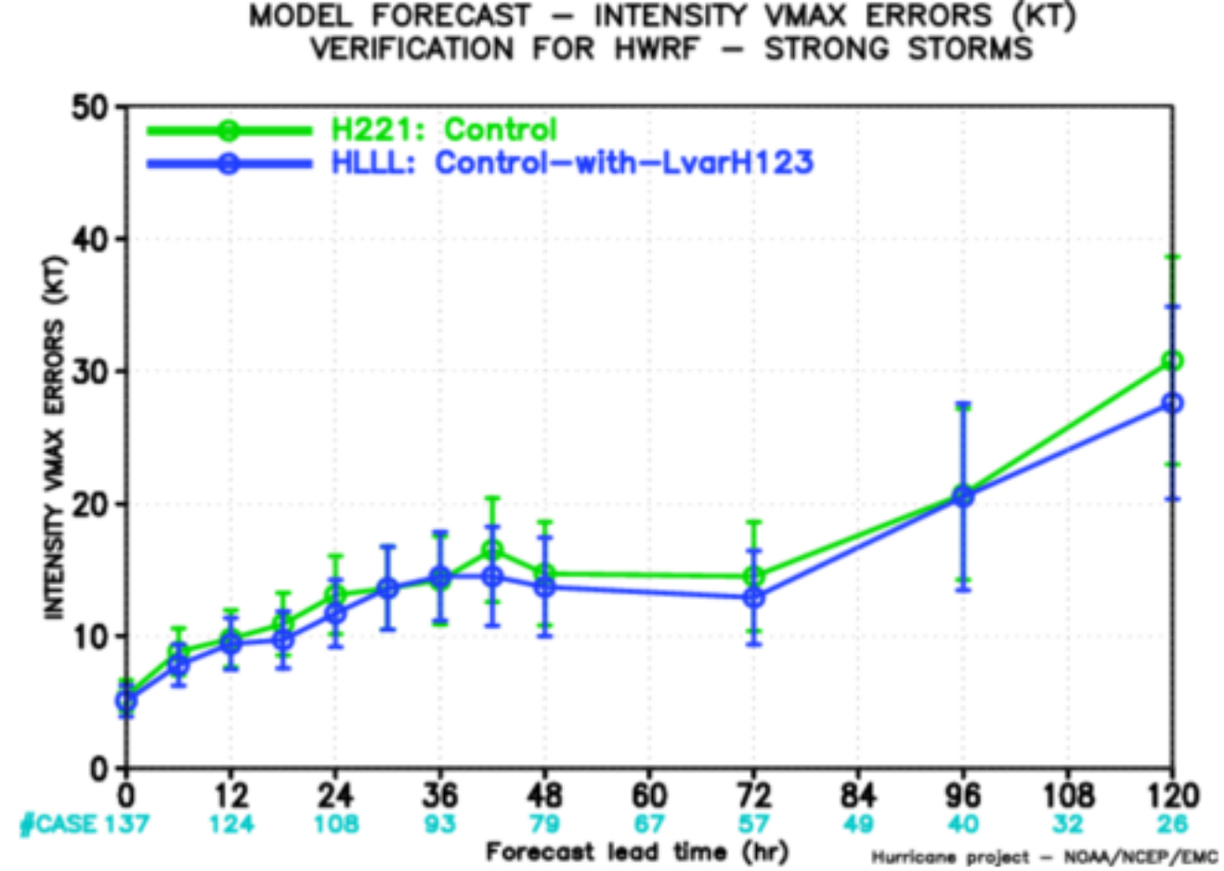
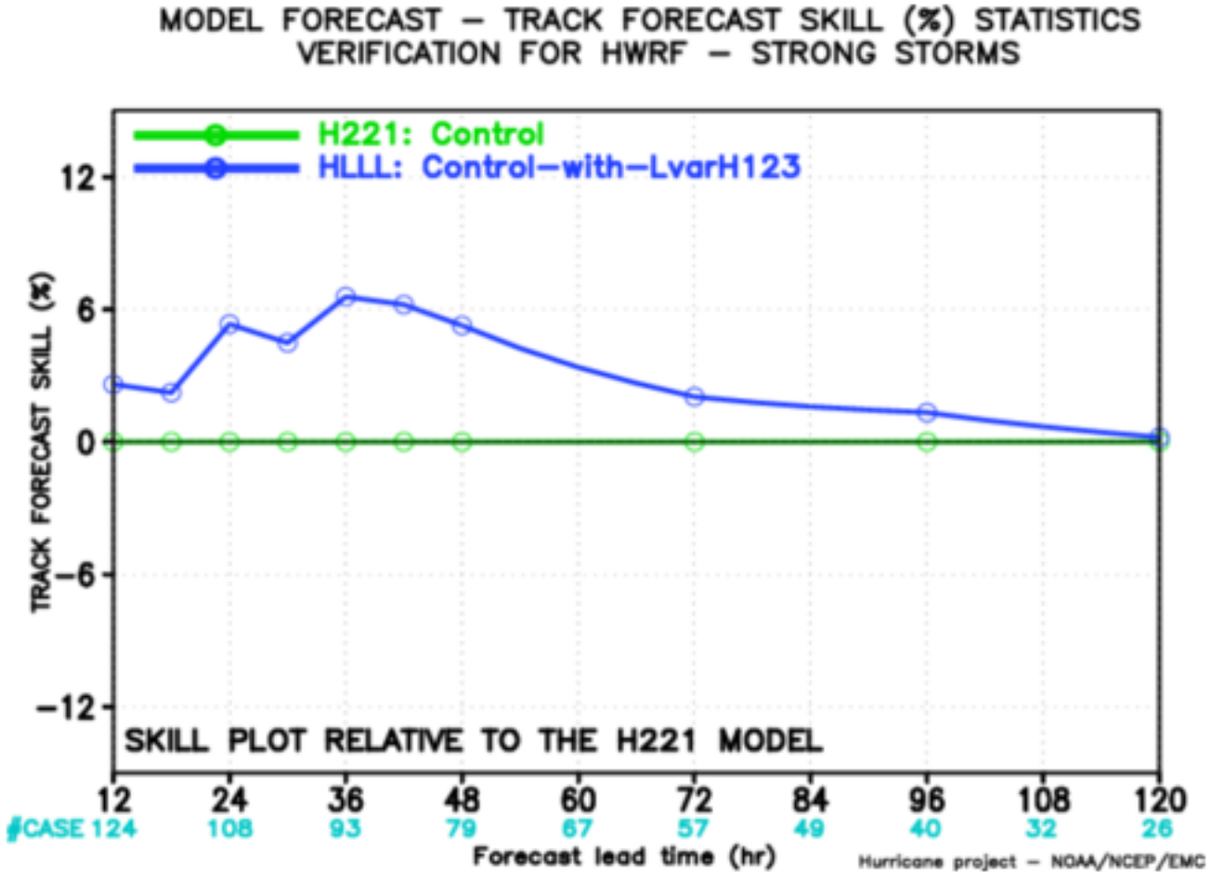
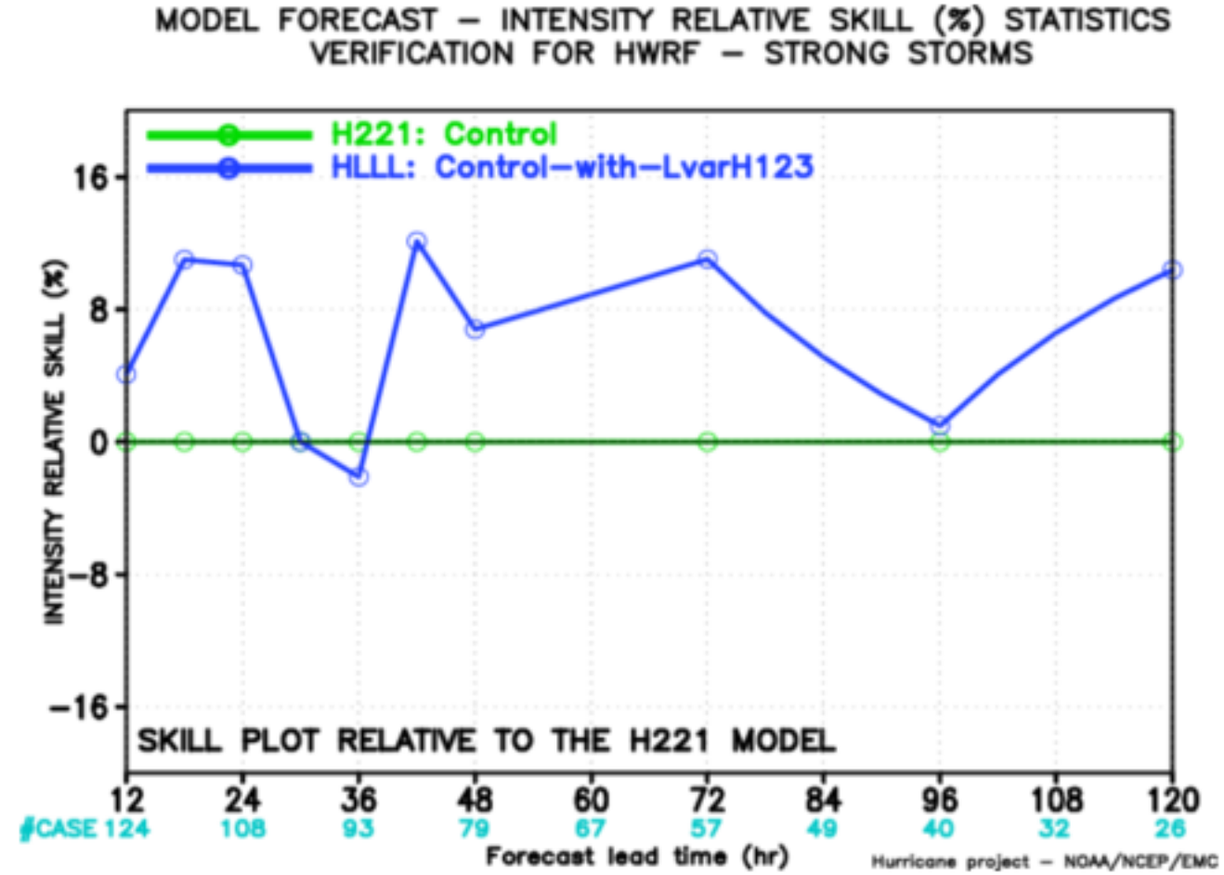
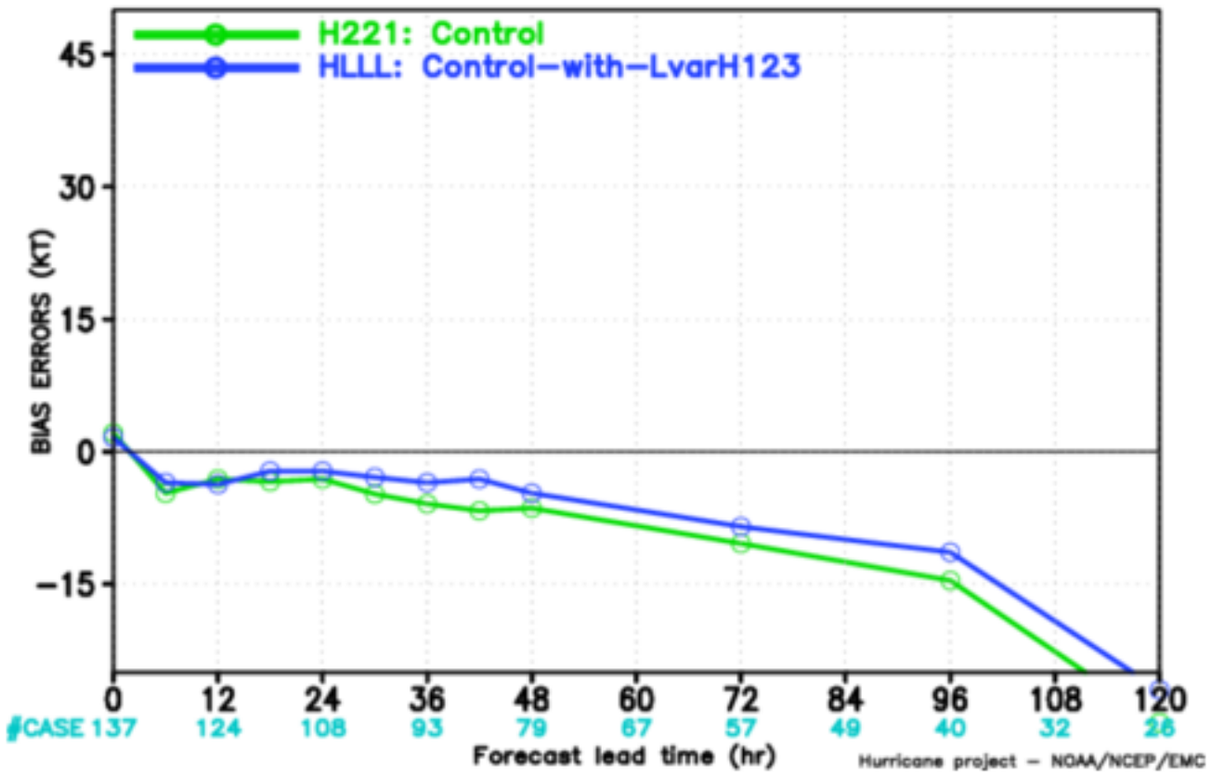

MODEL FORECAST – TRACK ERRORS (NM)
VERIFICATION FOR HWRF – STRONG STORMS
H221: Control
HLLL: Control–with–LvarH123
TRACK ERRORS (NM)
300
240
180
120
60
0
0 12 24 36 48 60 72 84 96 108 120
#CASE 137 124 108 93 79 67 57 49 40 32 26
Forecast lead time (hr)
Hurricane project – NOAA/NCEP/EMC


MODEL FORECAST – INTENSITY VMAX ERRORS (KT)
VERIFICATION FOR HWRF – STRONG STORMS
H221: Control
HLLL: Control–with–LvarH123
INTENSITY VMAX ERRORS (KT)
50
40
30
20
10
0
0 12 24 36 48 60 72 84 96 108 120
#CASE 137 124 108 93 79 67 57 49 40 32 26
Forecast lead time (hr)
Hurricane project – NOAA/NCEP/EMC

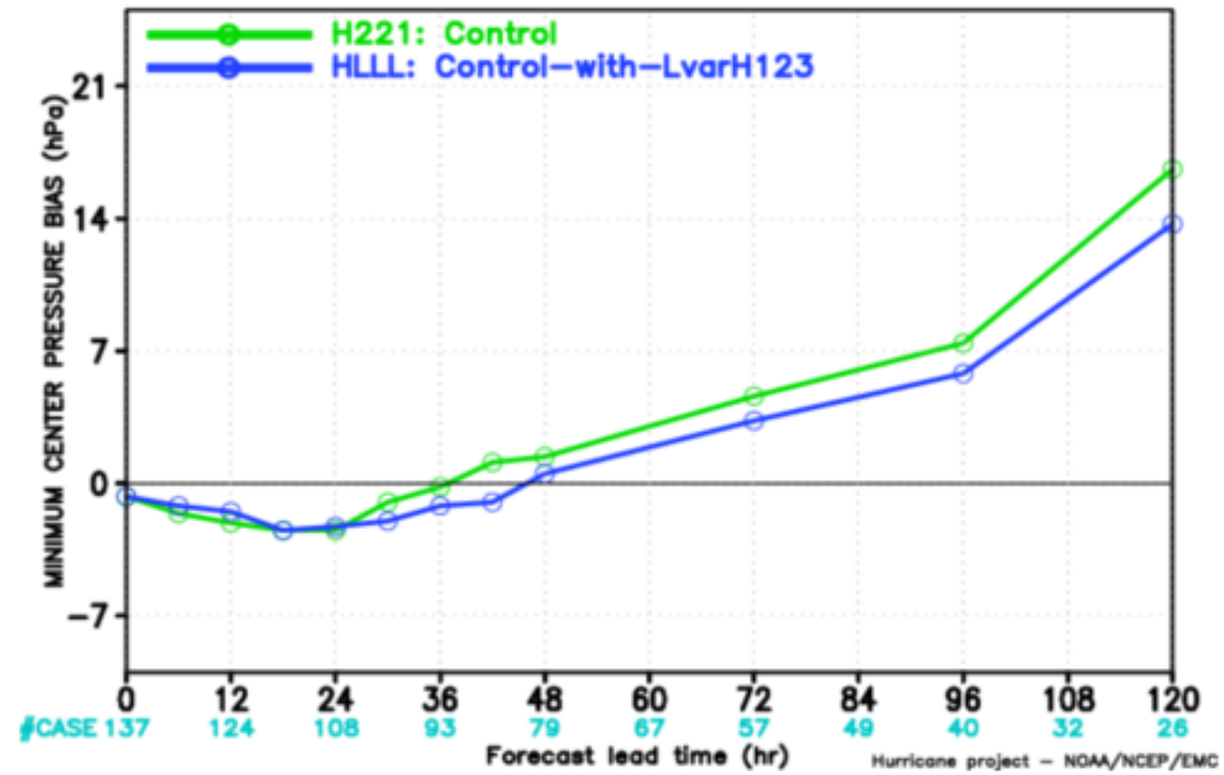

MODEL FORECAST – TRACK FORECAST SKILL (%) STATISTICS
VERIFICATION FOR HWRF – STRONG STORMS
H221: Control
HLLL: Control–with–LvarH123
TRACK FORECAST SKILL (%)
12
6
0
−6
−12
SKILL PLOT RELATIVE TO THE H221 MODEL
12 24 36 48 60 72 84 96 108 120
#CASE 124 108 93 79 67 57 49 40 32 26
Forecast lead time (hr)
Hurricane project – NOAA/NCEP/EMC


MODEL FORECAST – INTENSITY RELATIVE SKILL (%) STATISTICS
VERIFICATION FOR HWRF – STRONG STORMS
H221: Control
HLLL: Control–with–LvarH123
INTENSITY RELATIVE SKILL (%)
16
8
0
−8
−16
SKILL PLOT RELATIVE TO THE H221 MODEL
12 24 36 48 60 72 84 96 108 120
#CASE 124 108 93 79 67 57 49 40 32 26
Forecast lead time (hr)
Hurricane project – NOAA/NCEP/EMC

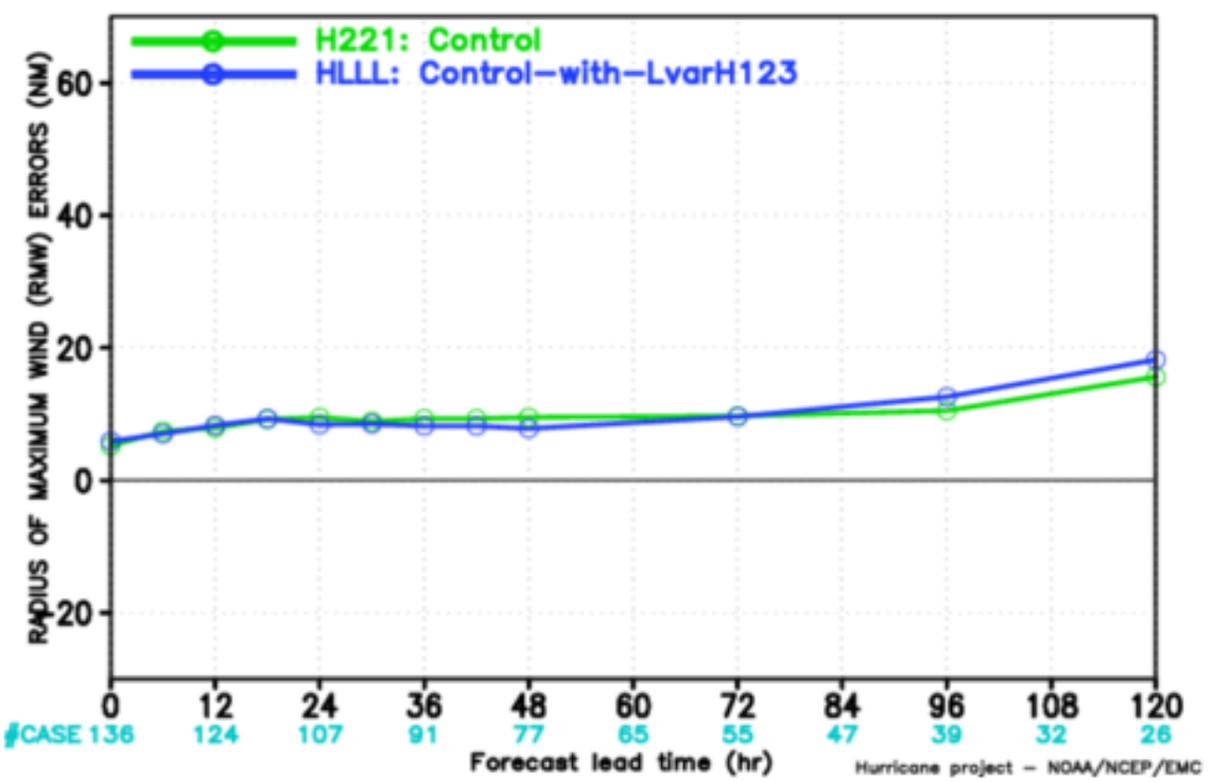
MODEL FORECAST – BIAS ERRORS (KT)
VERIFICATION FOR HWRF – STRONG STORMS



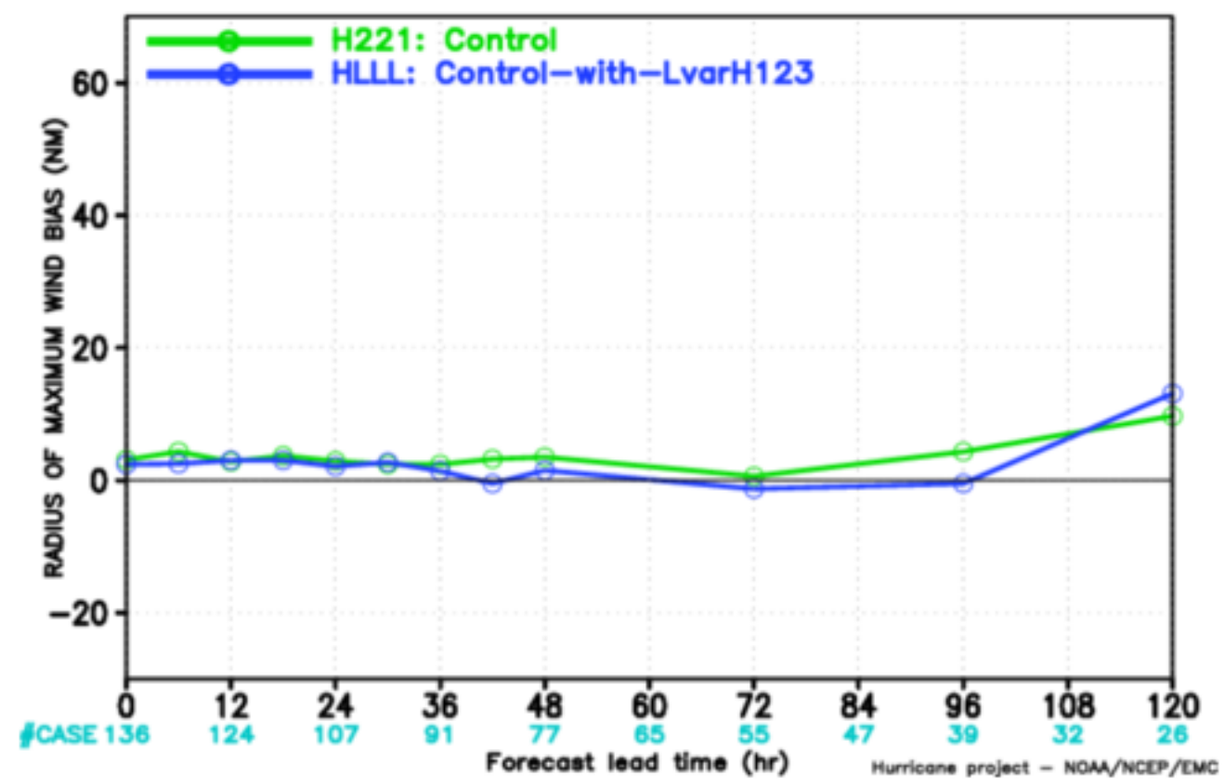
MODEL FORECAST – MINIMUM CENTER PRESSURE BIAS (hPa)
VERIFICATION FOR HWRF – STRONG STORMS

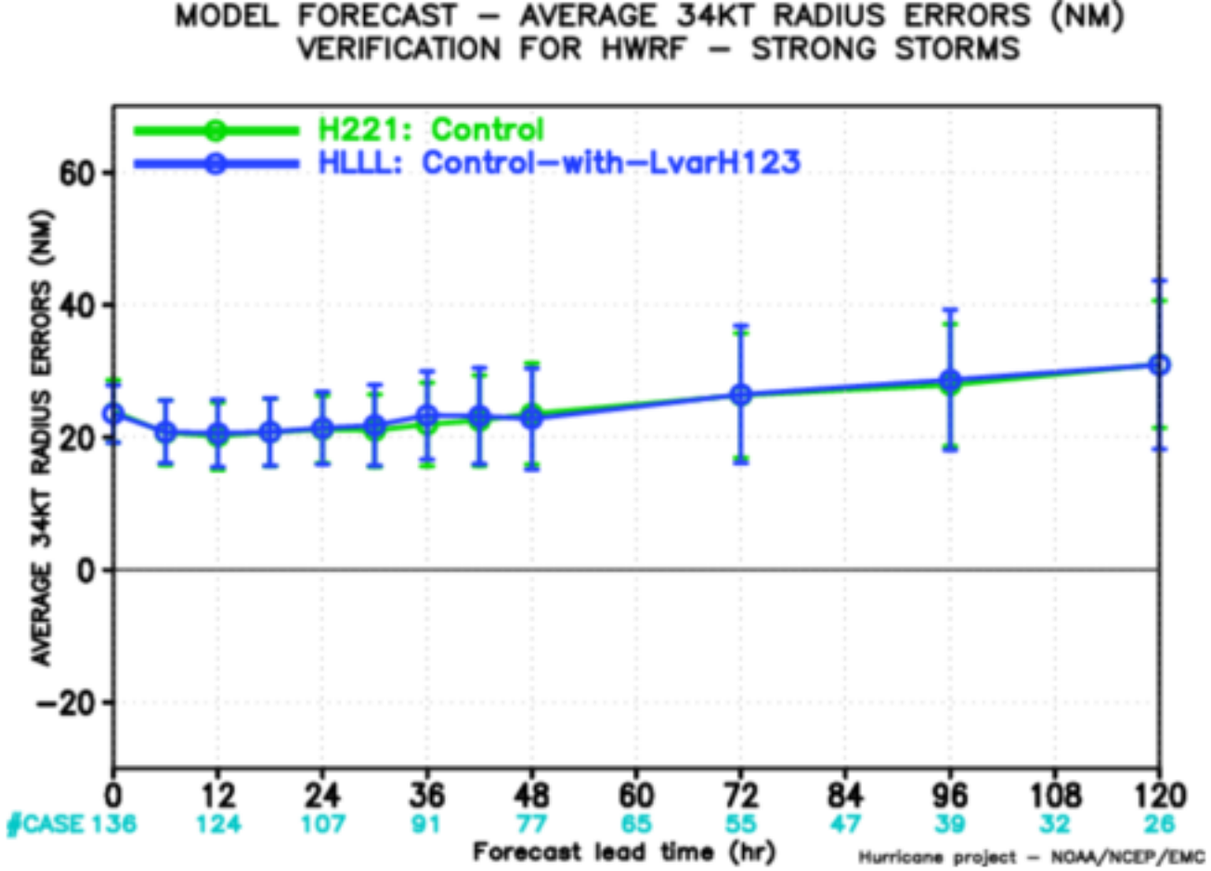


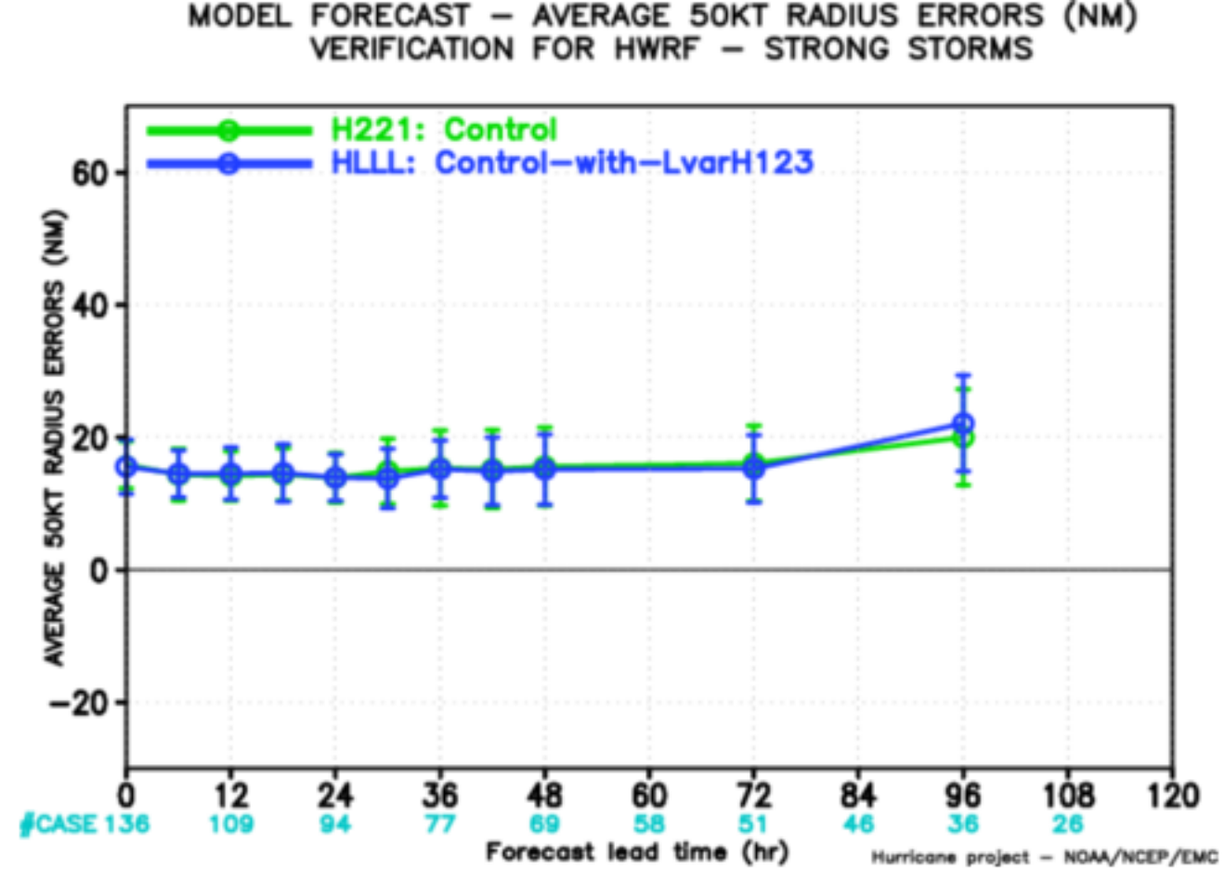
MODEL FORECAST – RADIUS OF MAXIMUM WIND (RMW) ERRORS (NM)
VERIFICATION FOR HWRF – STRONG STORMS



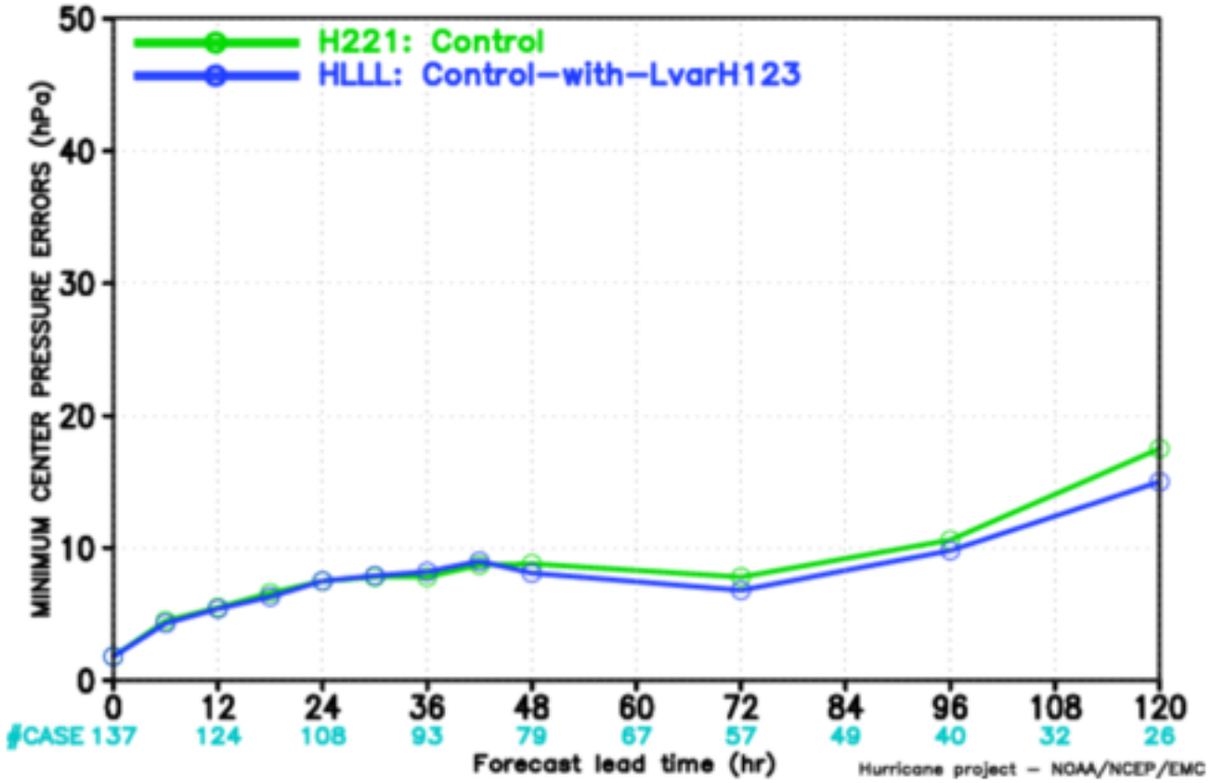
MODEL FORECAST – RADIUS OF MAXIMUM WIND BIAS (NM)
VERIFICATION FOR HWRF – STRONG STORMS



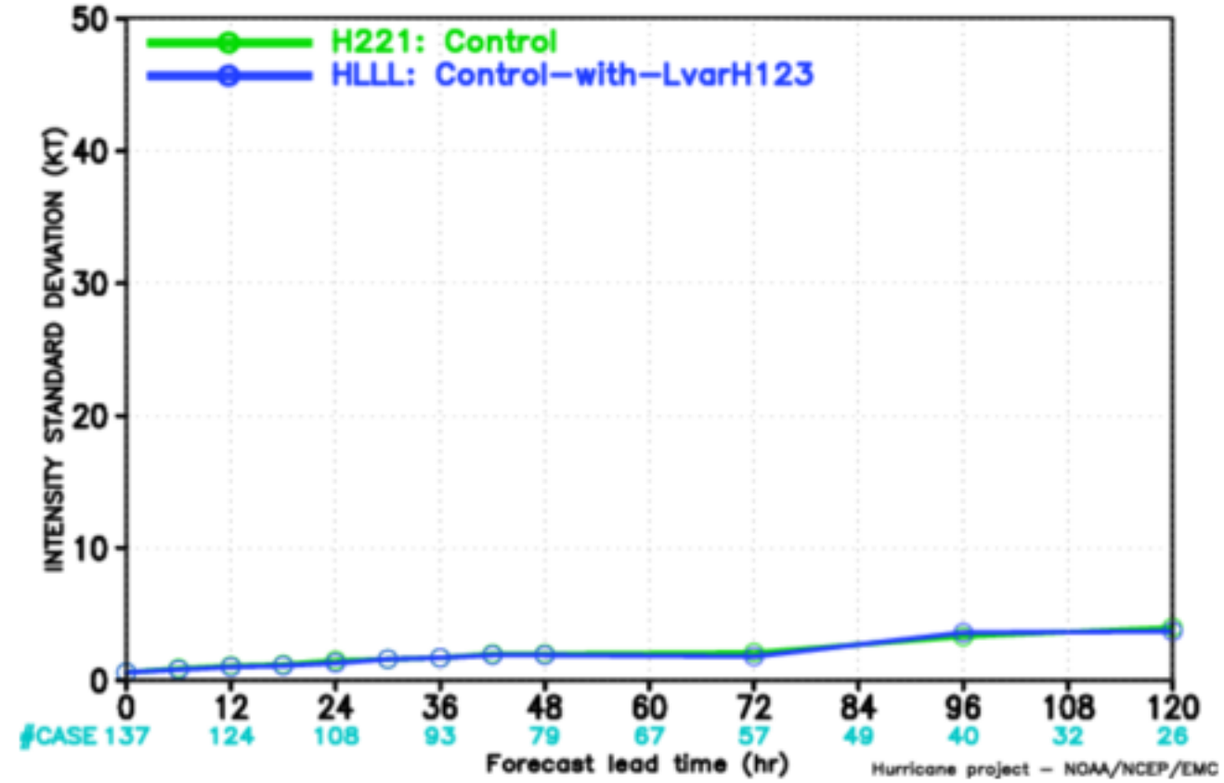

MODEL FORECAST – AVERAGE 34KT RADIUS ERRORS (NM)
VERIFICATION FOR HWRF – STRONG STORMS
H221: Control
HLLL: Control–with–LvarH123
AVERAGE 34KT RADIUS ERRORS (NM)
60
40
20
0
–20
0 12 24 36 48 60 72 84 96 108 120
#CASE 136 124 107 91 77 65 55 47 39 32 26
Forecast lead time (hr)
Hurricane project – NOAA/NCEP/EMC


MODEL FORECAST – AVERAGE 50KT RADIUS ERRORS (NM)
VERIFICATION FOR HWRF – STRONG STORMS
H221: Control
HLLL: Control–with–LvarH123
AVERAGE 50KT RADIUS ERRORS (NM)
60
40
20
0
–20
0 12 24 36 48 60 72 84 96 108 120
#CASE 136 109 94 77 69 58 51 46 36 26
Forecast lead time (hr)
Hurricane project – NOAA/NCEP/EMC

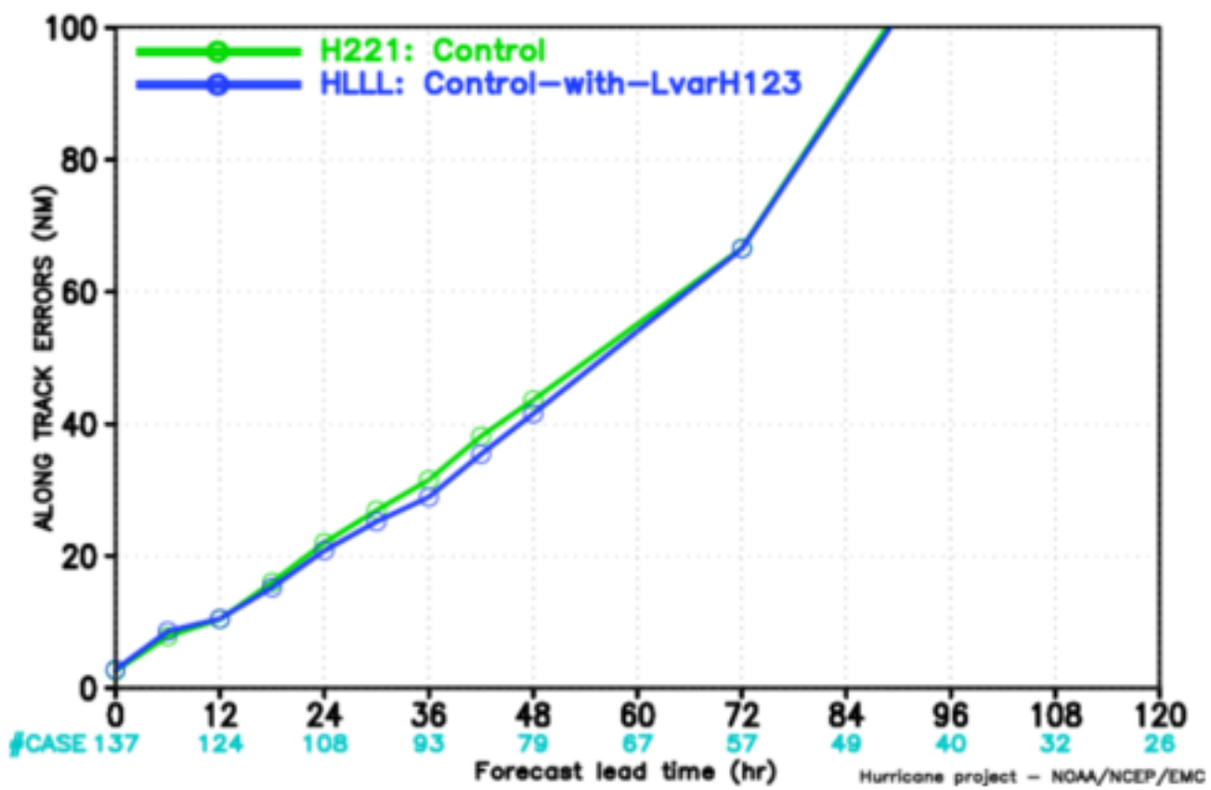
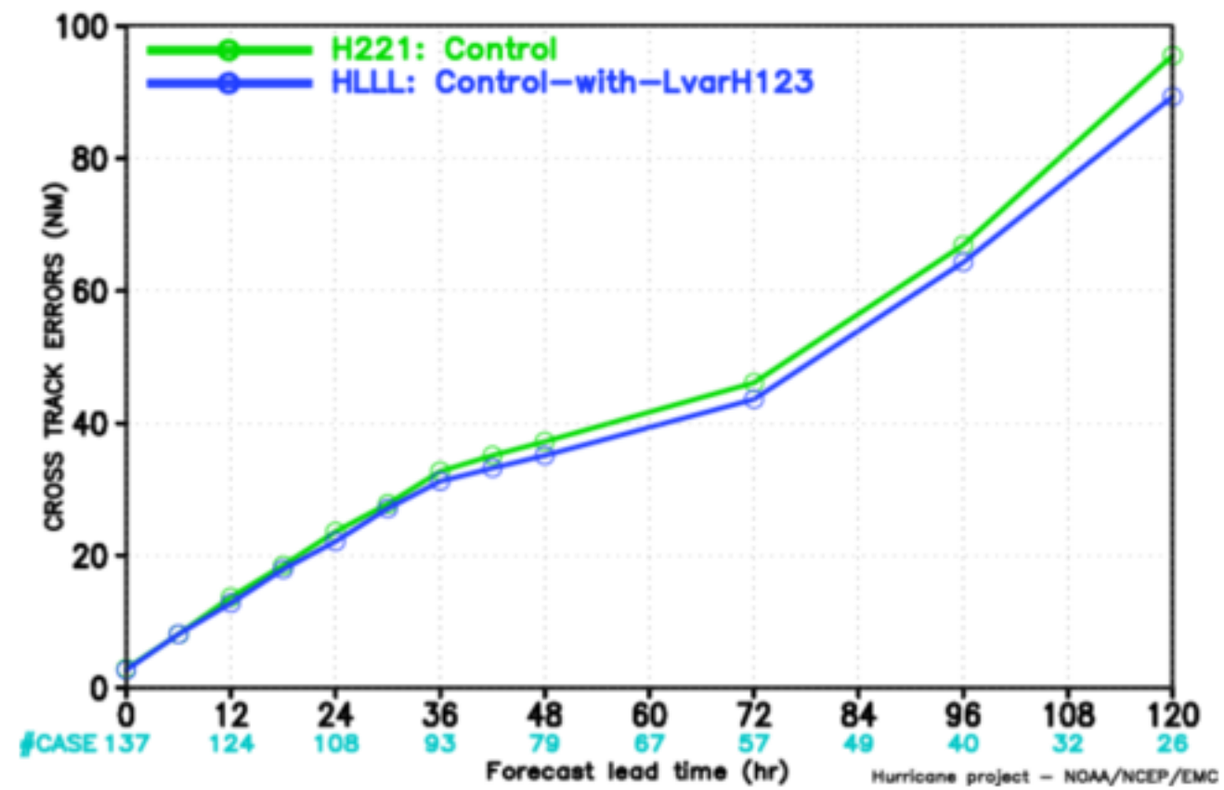
MODEL FORECAST – MINIMUM CENTER PRESSURE ERRORS (hPa)
VERIFICATION FOR HWRF – STRONG STORMS



MODEL FORECAST – INTENSITY STANDARD DEVIATION (KT)
VERIFICATION FOR HWRF – STRONG STORMS



MODEL FORECAST – ALONG TRACK ERRORS (NM)
VERIFICATION FOR HWRF – STRONG STORMS



MODEL FORECAST – CROSS TRACK ERRORS (NM)
VERIFICATION FOR HWRF – STRONG STORMS