

Evaluation of GFDL model run by URI

Developmental Testbed Center

May 7, 2009

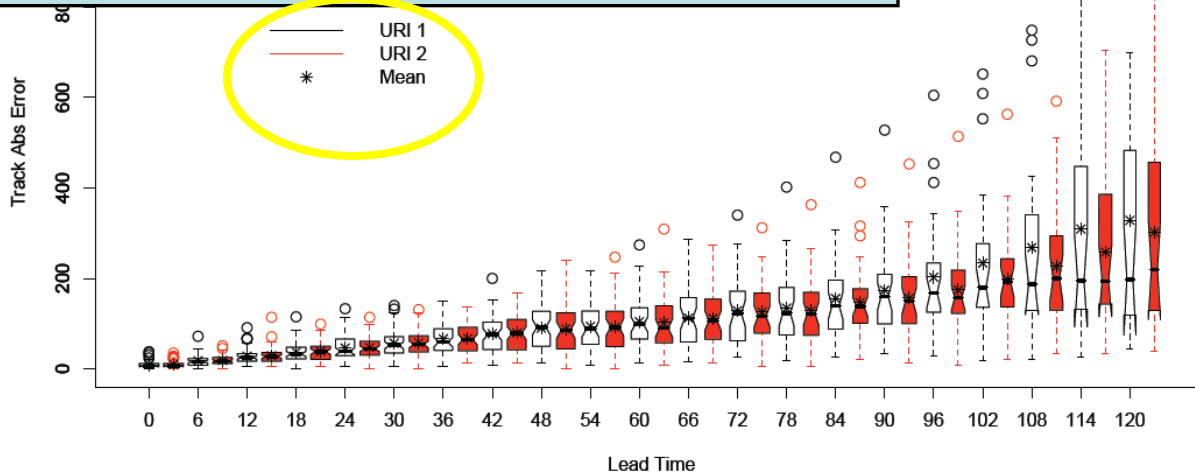
Overview of GFDL Cases

- Res: URI1 = 1/12 deg and URI2 = 1/18 deg
- Total of 58 cases from 8 storms
- Track length 20% shorter than Best Track for 10% of these cases

GFDL: Track error

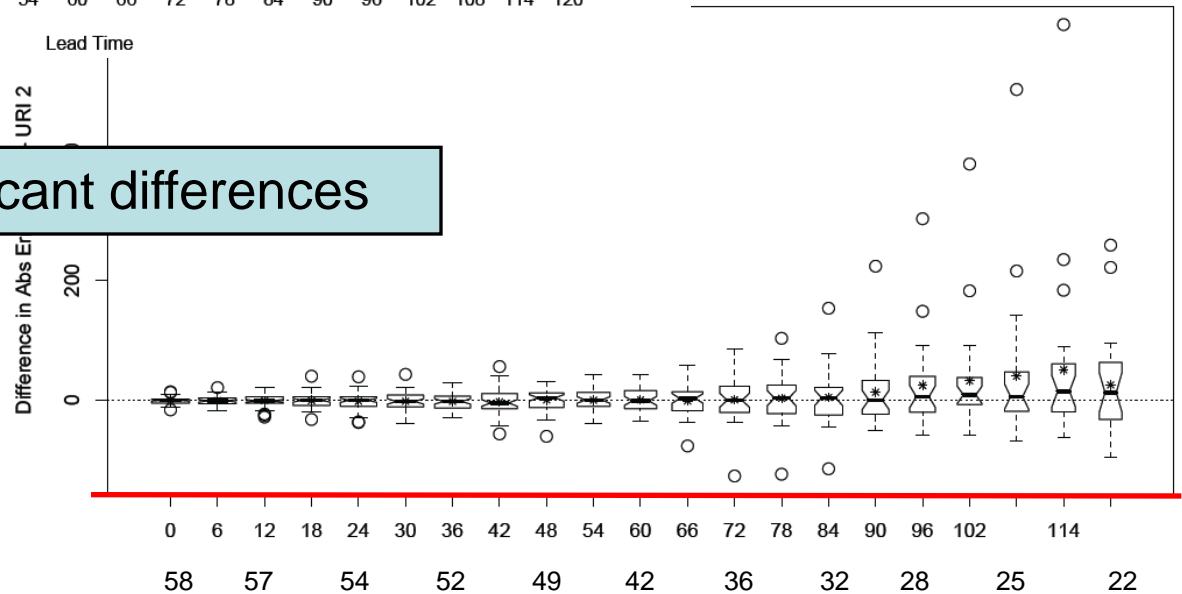
Errors and spread increase in time

Some outliers with large error



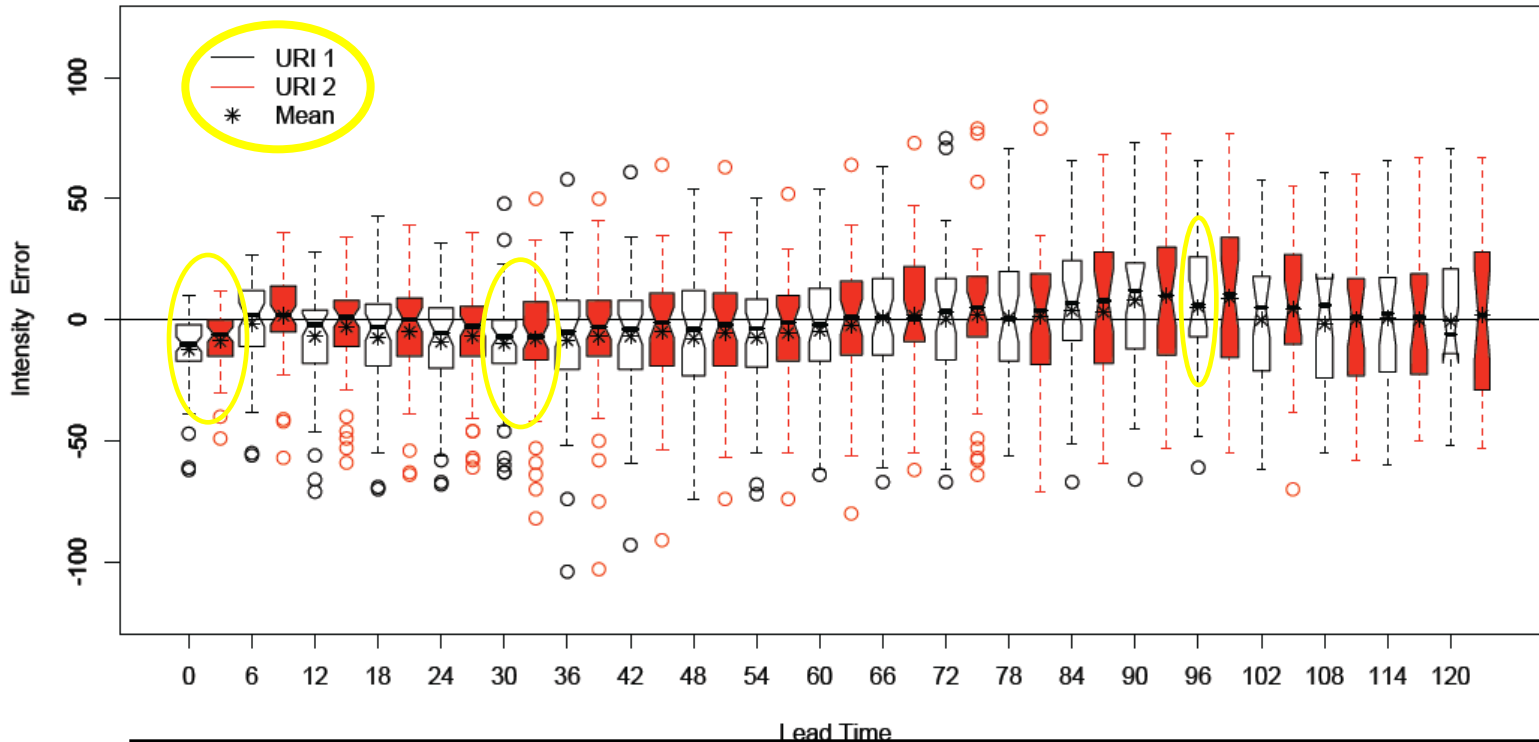
Global Error

No statistically significant differences



URI1
URI2

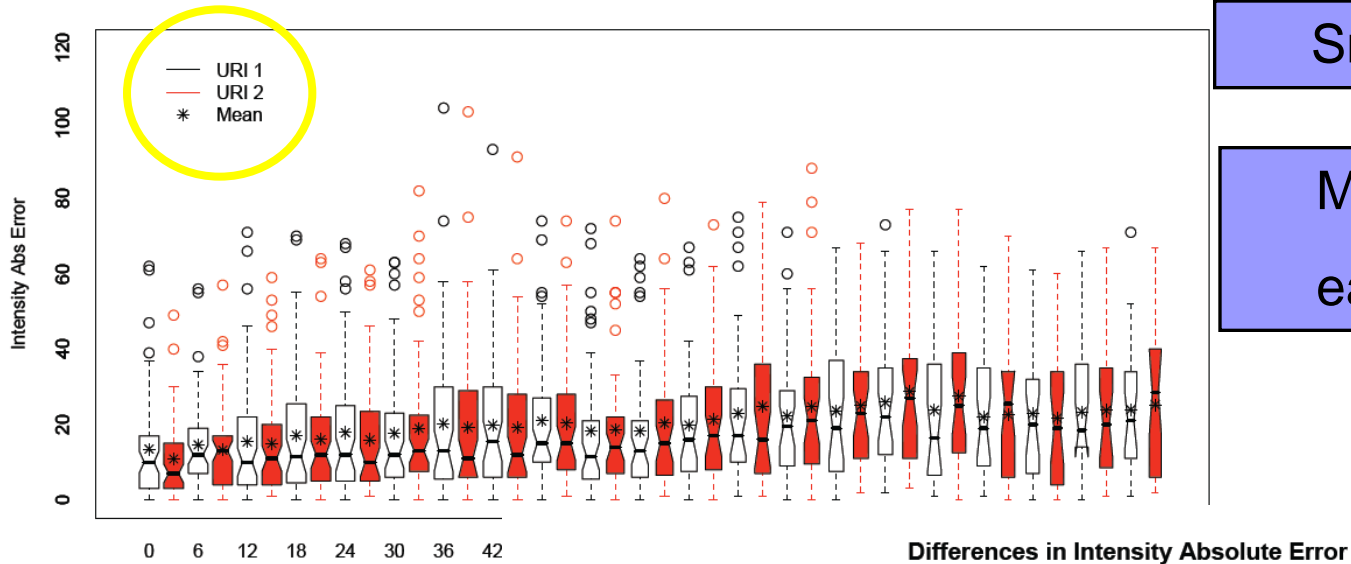
GFDL: Intensity error



Only Statistical significant results are:

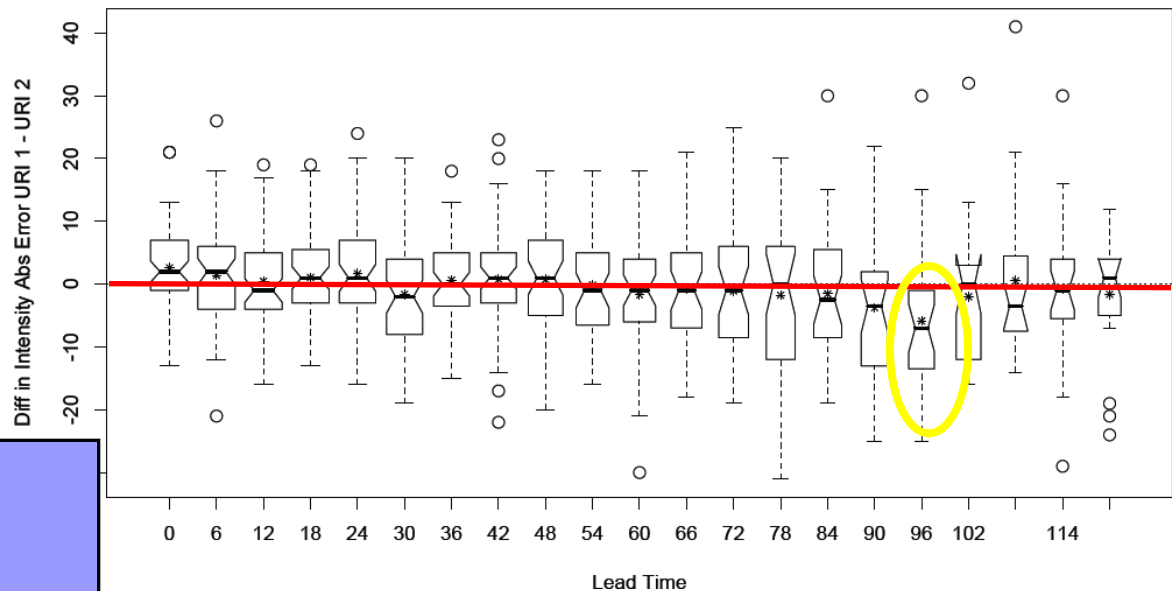
Intensity too low at lead times 0, 30; Too high at lead time 96 h

GFDL: Intensity absolute error



Small growth in time.

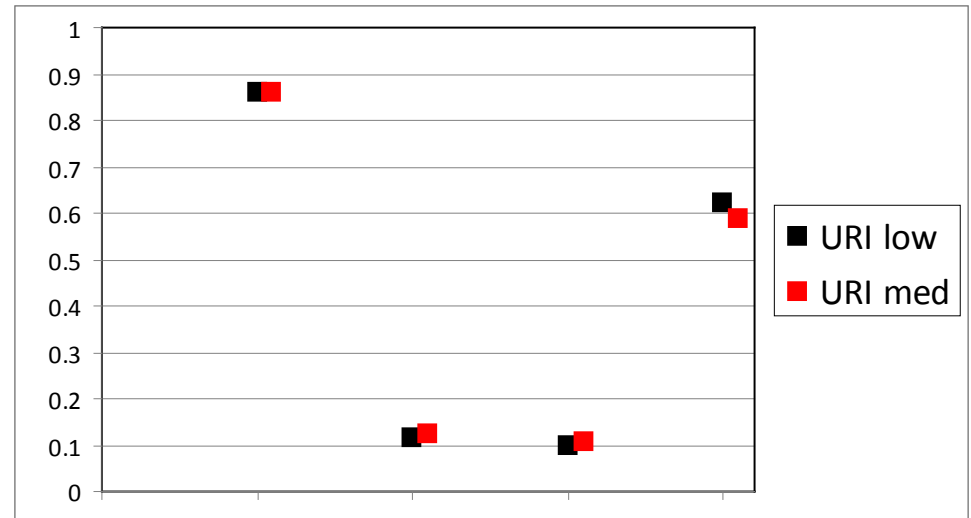
More outliers at earlier lead times.



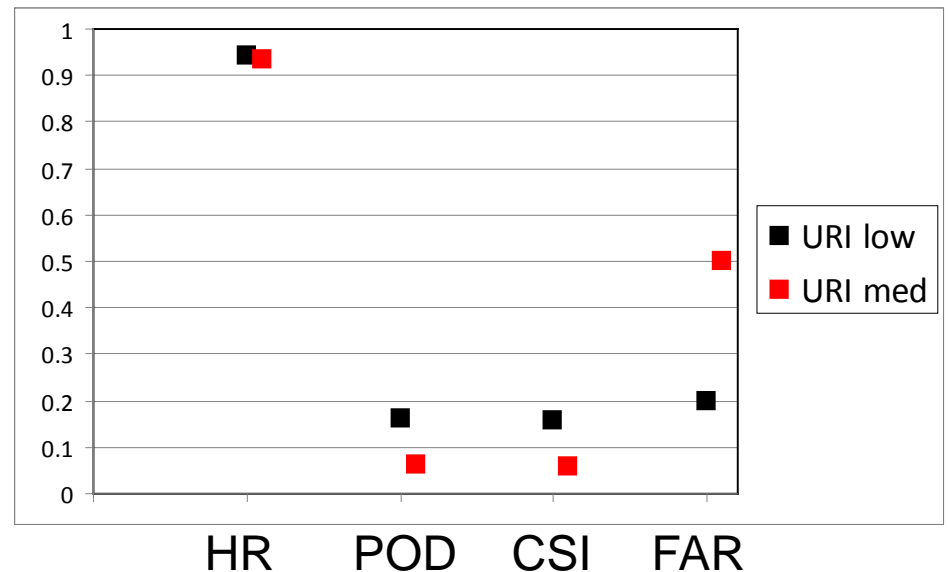
Only 1 SS difference:
96 h lower res better

RI Verification for GFDL Model

		Observed	
		Yes	No
Low res	Yes	11	18
	No	85	613
Med res	Yes	12	17
	No	84	614



		Observed	
		Yes	No
Low res	Yes	8	2
	No	41	676
Med res	Yes	3	3
	No	46	675



Conclusions

- Track does not improve with increased resolution
- Intensity bias close too zero (except low at 0 and 30 h and high at 90 h)
- Increase in resolution does not improve intensity
- RI forecast is similar for low and medium resolution
- RW forecast is degraded with increased resolution