Traffic Flow Management Convective Forecast Verification

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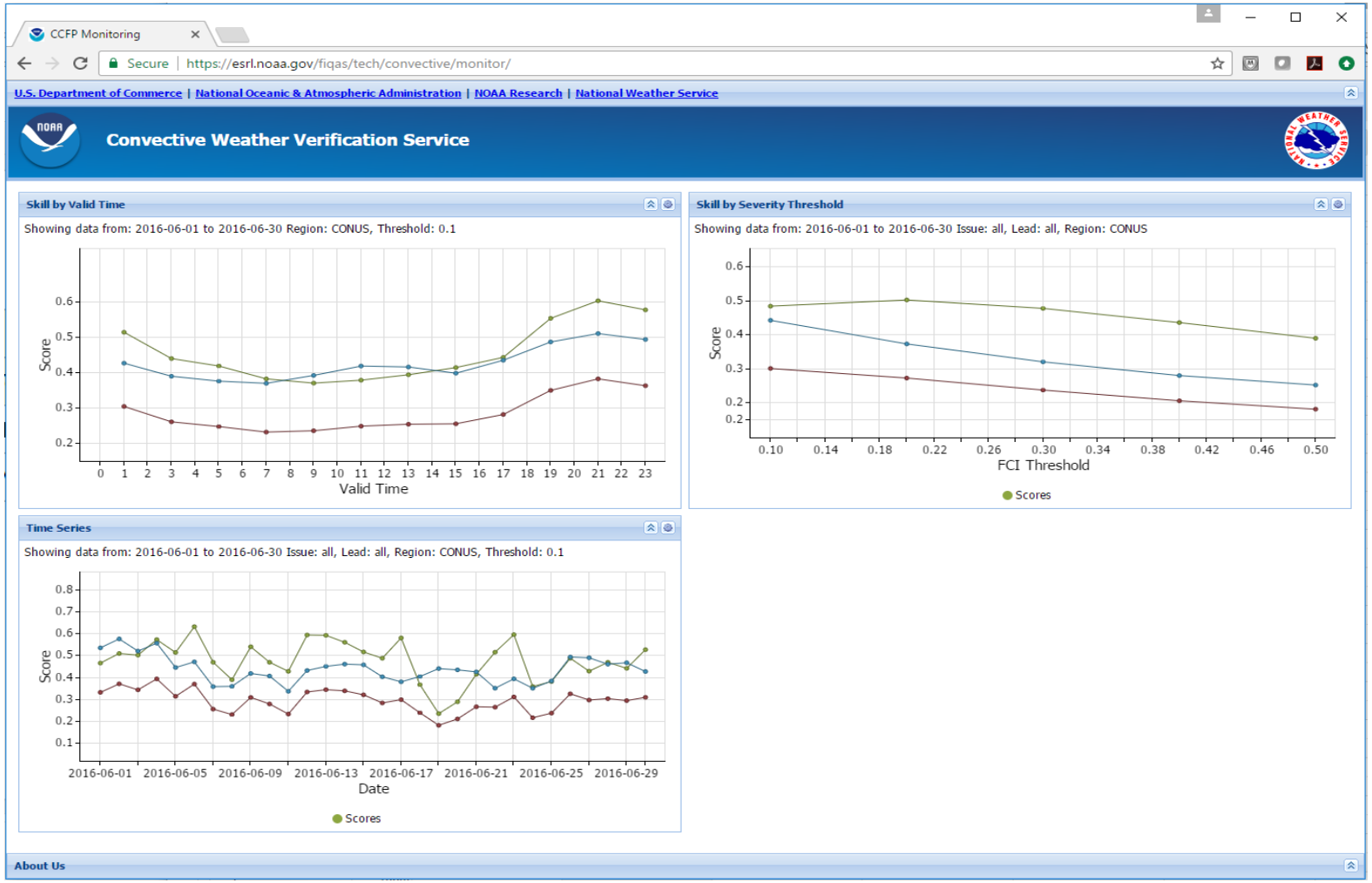
National Weather Service

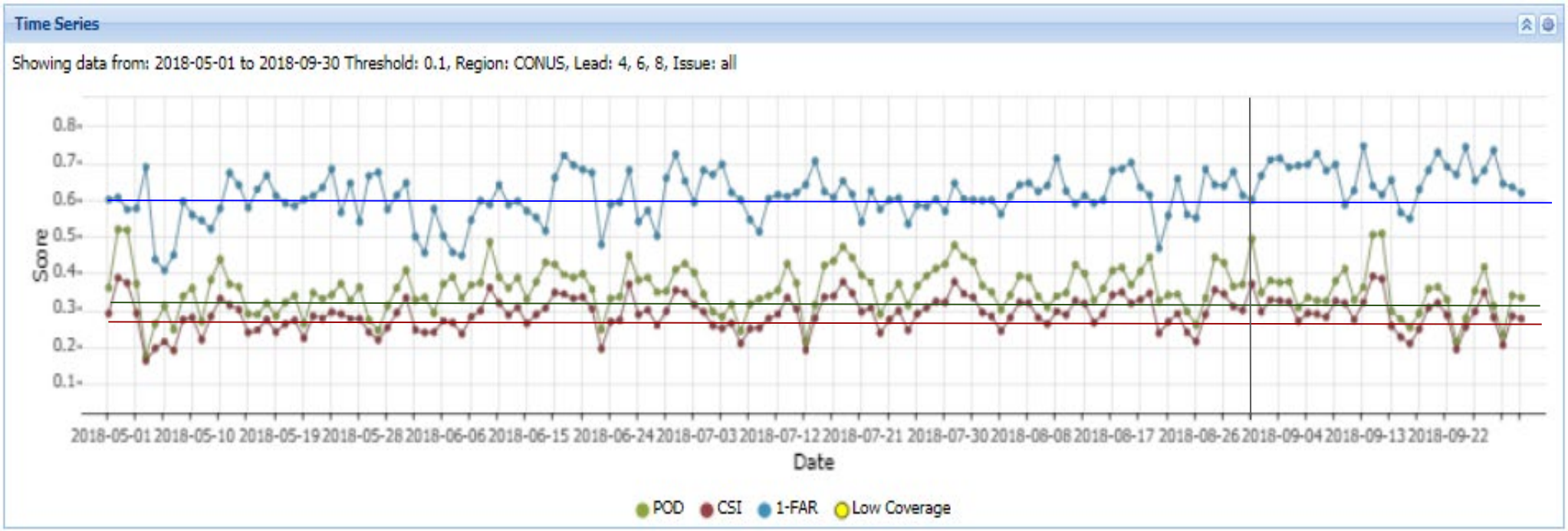
FPAW – October 2018

TCF Metrics – Convective Weather Verification Service



Developed by
Global Systems Division
at
NOAA's Earth System Research Laboratory

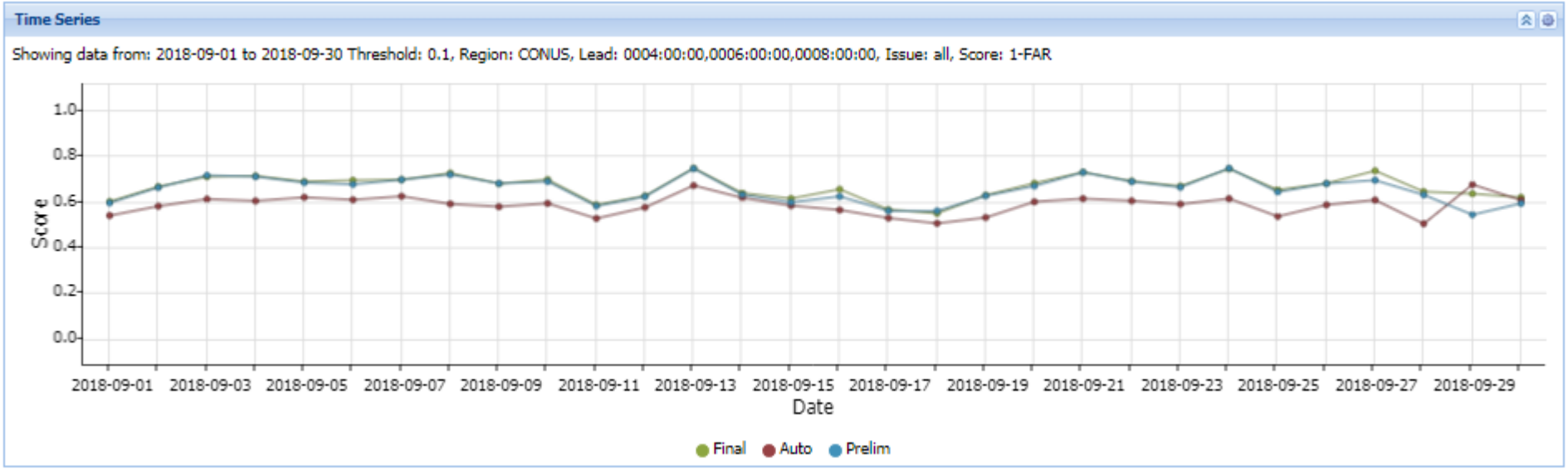
TCF Metrics Sample – TCF CONUS All Hours Skill (May-Sep)



Baseline (Jun-Oct 2017 Ave) POD: 0.32 1-FAR: 0.60 CSI: 0.27

- Success Rate (1-FAR) below baseline on 3 days in Sep (11, 17, 18)
- Probability of Detection (POD) below baseline on 7 days in Sep (6, 16, 17, 23, 24, 27, 28)
- Critical Success Index (CSI) below baseline on 7 days in Sep (16, 17, 18, 19, 23, 24, 28)
- TCF All Hours Skill above all baselines for majority of Sep - POD ≥ 0.5 on 1, 14, 15

TCF Metrics Sample – Inter-product Comparison 1-FAR (Sep)



Baseline (Jun-oct 2017 Average) 1-FAR: 0.60

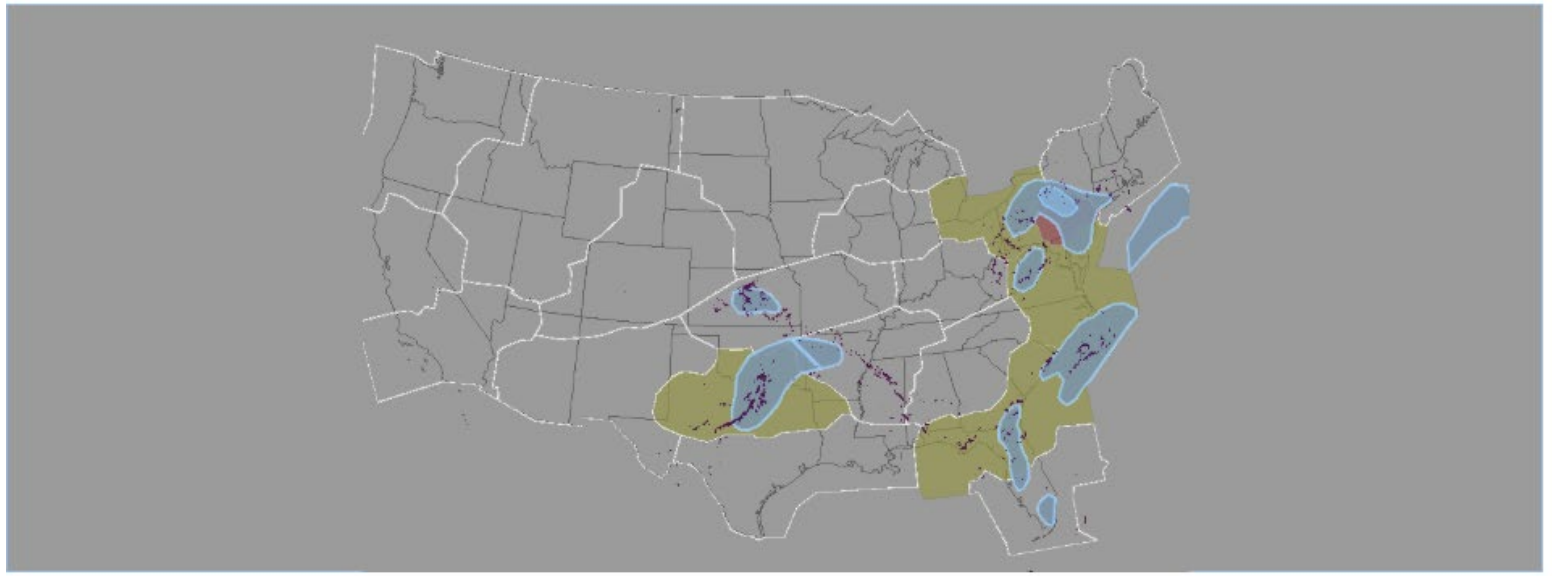
- Auto mostly at or below baseline for nearly entire month
- Prelim and Final above baseline for most of month except for 3 days (17, 18, 29)
- Prelim and Final performed about the same and both performed better than Auto except for 1 day (29)

TCF Metrics Sample – Case Study Analysis

08/13/2018 15:00

Overview	
Impact from current forecast	High
Impact from current observations	High
Skill of current forecast	Above

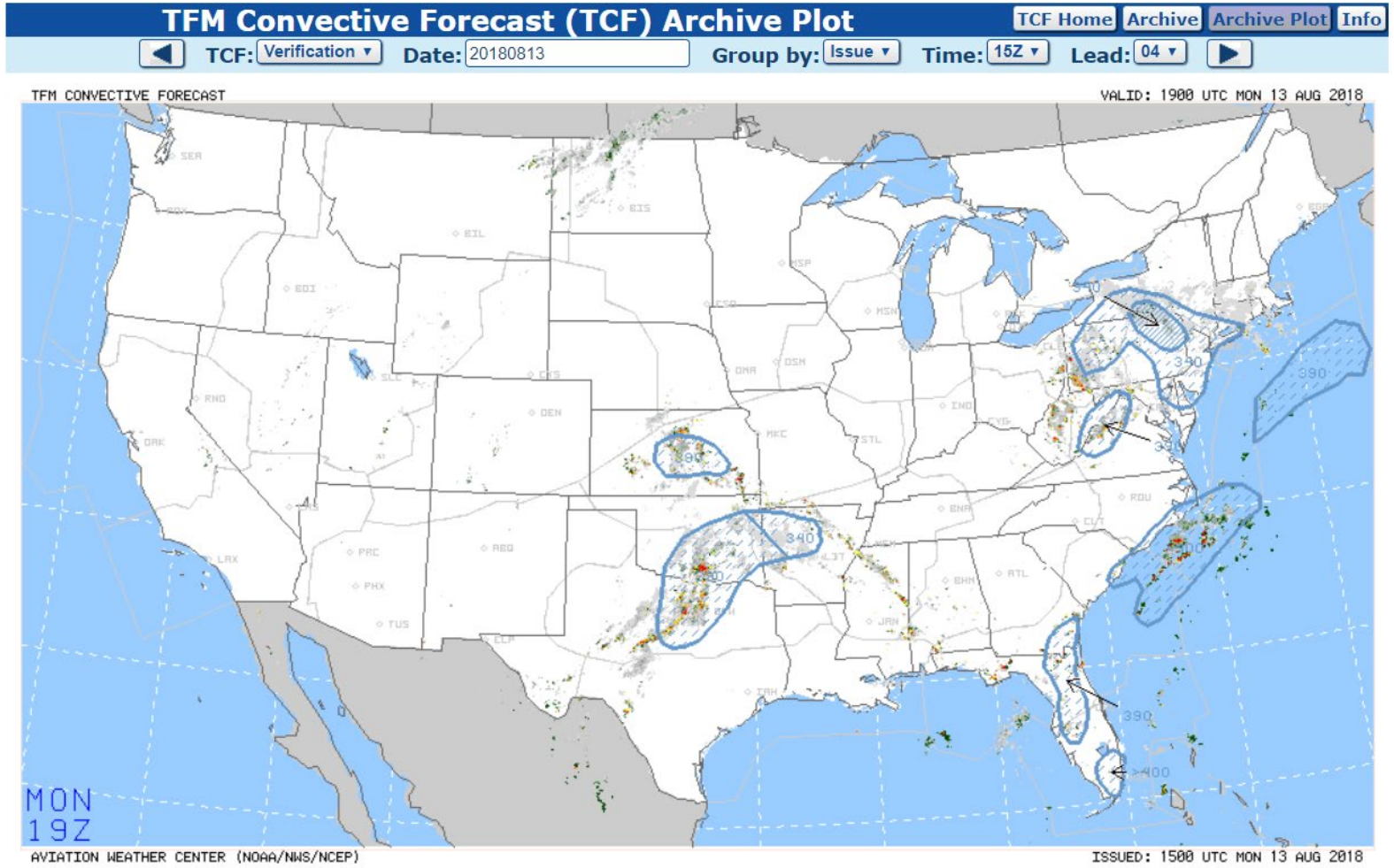
Toggle Binary Obs | Toggle ARTCC



Vx: Constraint-based Region: ZFW

Statistic	Value	Rating
POD	0.6643447	Typical
Success Ratio (1-FAR)	0.6663738	Typical
CSI	0.49852887	Typical
Bias	-1	Below

TCF Metrics Sample – Aviation Weather Center TCF Archive



Questions