

KIC 008054146

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
008054146-01	OBS	No	0.670876	131.965133	8.8	5.418	8.2	7.5	3.12	8357	1.04	118852.78

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008054146-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—CENT_SATURATED

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

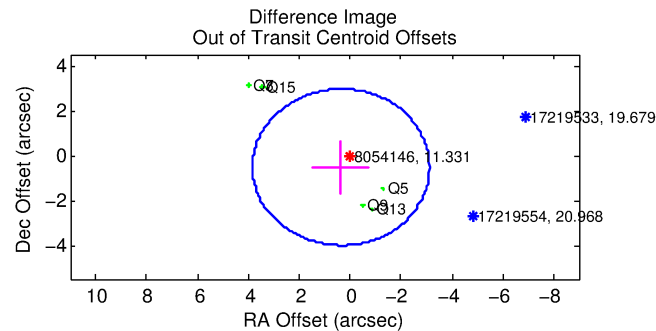
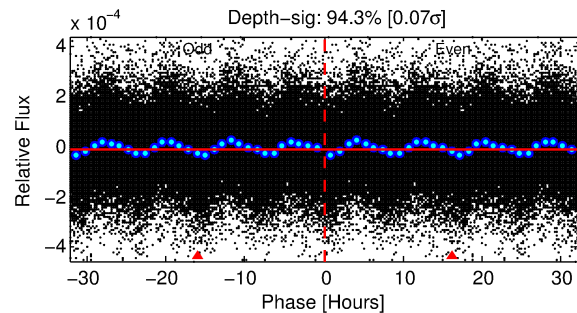
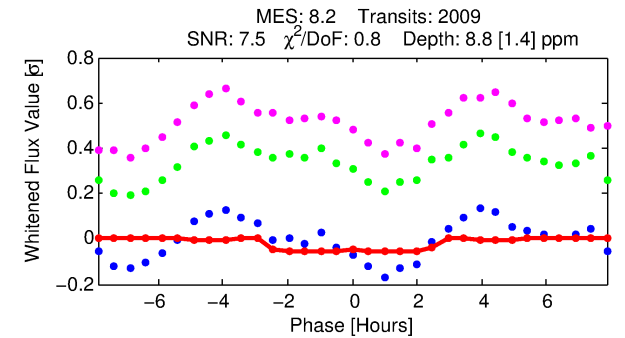
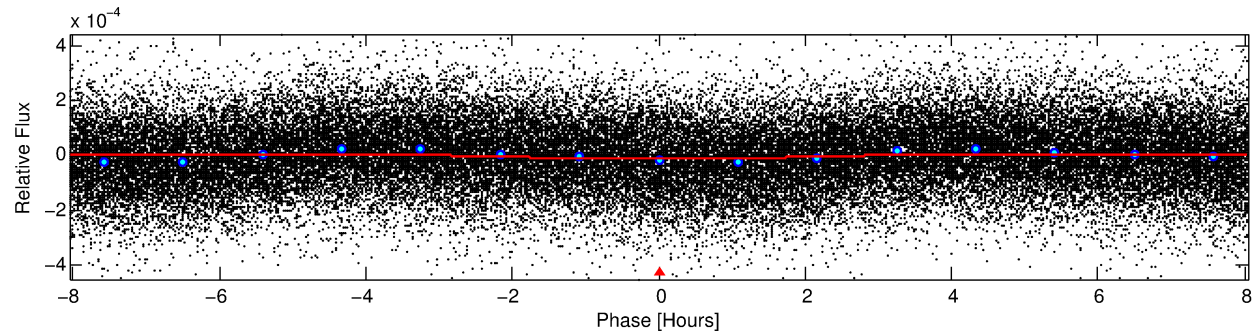
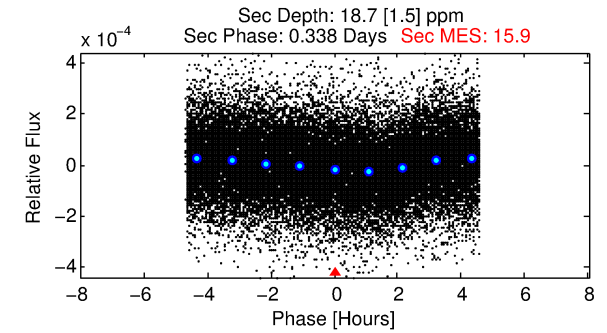
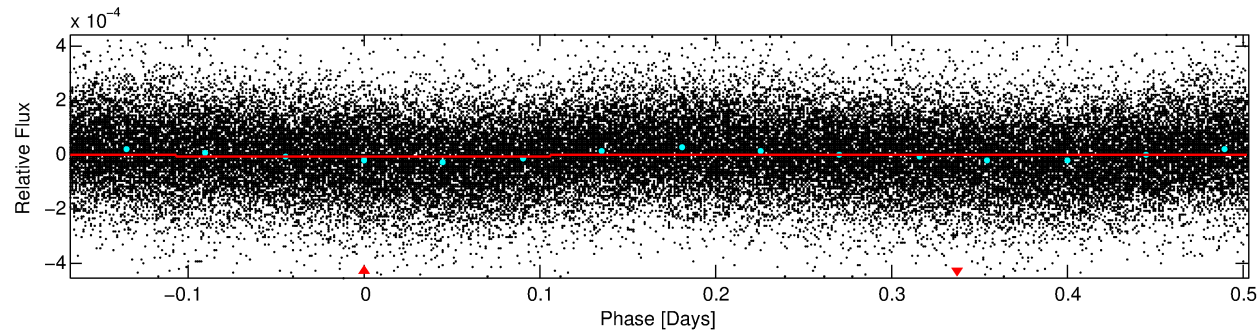
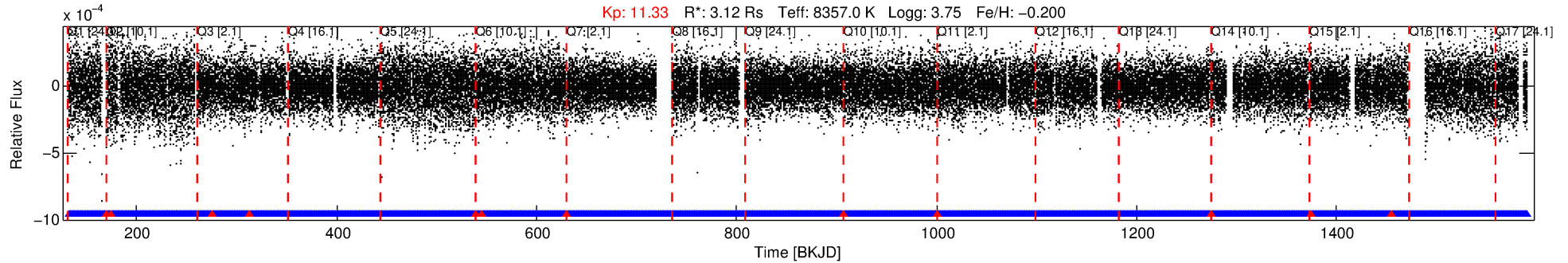
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008054146-01

No Significant Match Found

DV One-Page Summary

KIC: 8054146 Candidate: 1 of 1 Period: 0.671 d



DV Fit Results:

Period = 0.67088 [0.00002] d
Epoch = 131.9651 [0.0048] BKJD
Rp/R* = 0.0031 [0.0003]
a/R* = 1.05 [0.01]
b = 0.84 [0.05]
Seff = 118852.78 [84878.68]
Teq = 4735 [845] K
Rp = 1.04 [0.49] Re
a = 0.0189 [0.0083] AU
Ag = 3.39 [2.44] [0.98σ]
Teffp = 9935 [632] K [4.93σ]

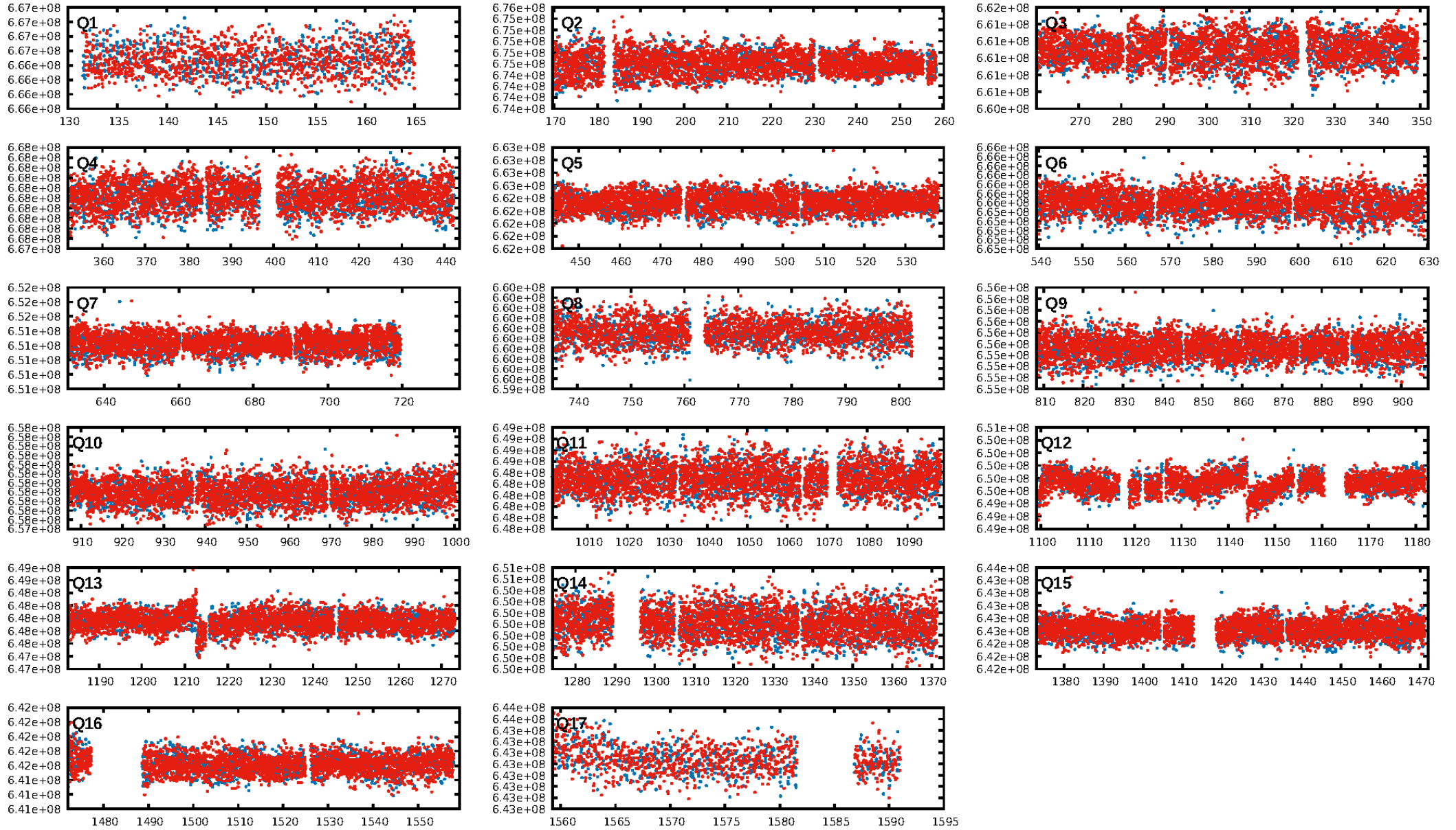
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 0.99 [1906/1919]
GhostDiagnostic-chr: 1.362
Centroid-sig: 13.7%
Centroid-so: 0.988 arcsec [1.15σ]
OotOffset-rm: 0.634 arcsec [0.55σ]
KicOffset-rm: 0.650 arcsec [0.55σ]
OotOffset-st: 0/3/0/3 [6]
KicOffset-st: 0/3/0/3 [6]
DiffImageQuality-fgm: 0.50 [3/6]
DiffImageOverlap-fno: 1.00 [17/17]

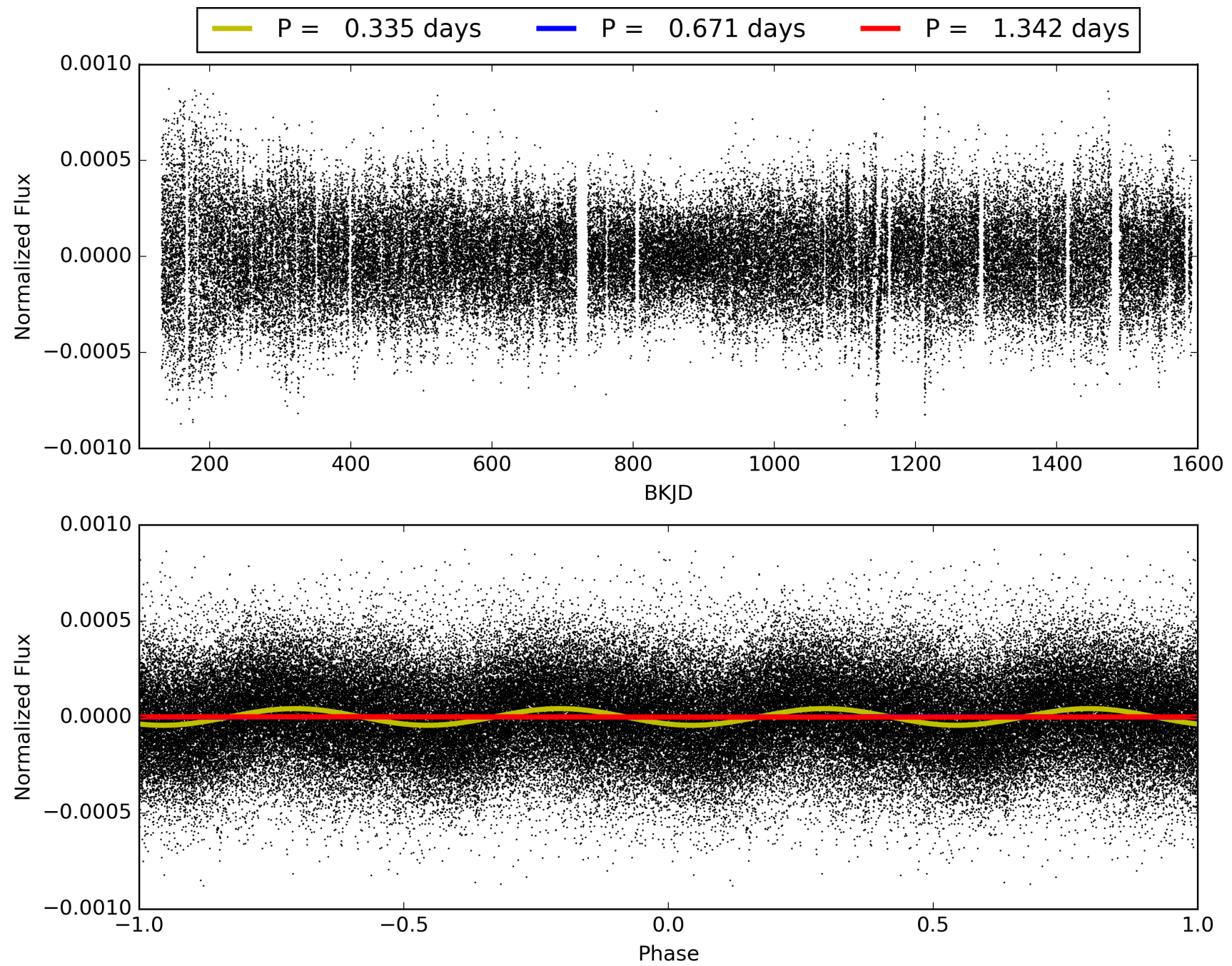
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 18:59:19 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 008054146-01, PDC Light Curves

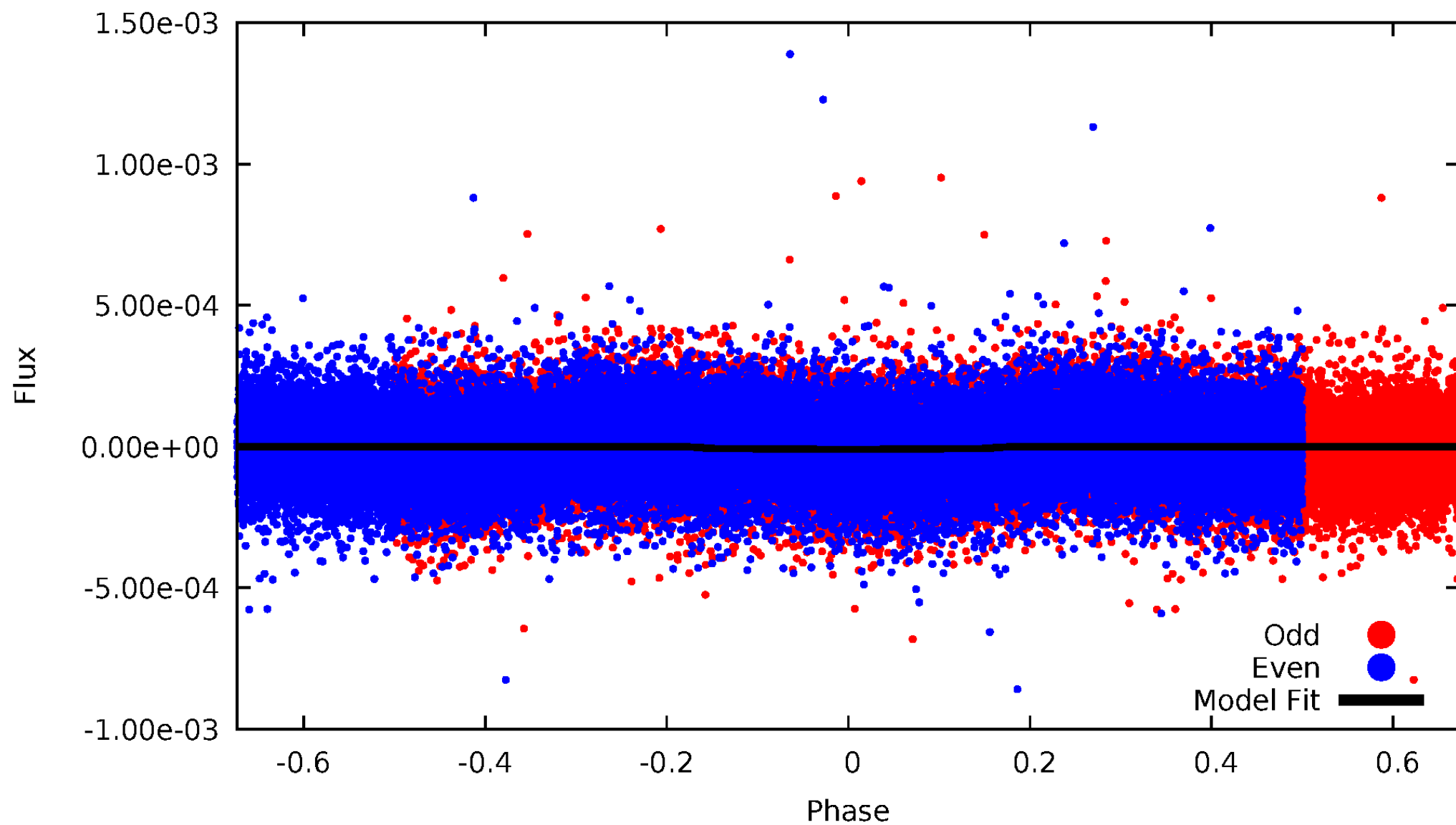


TCE 008054146-01



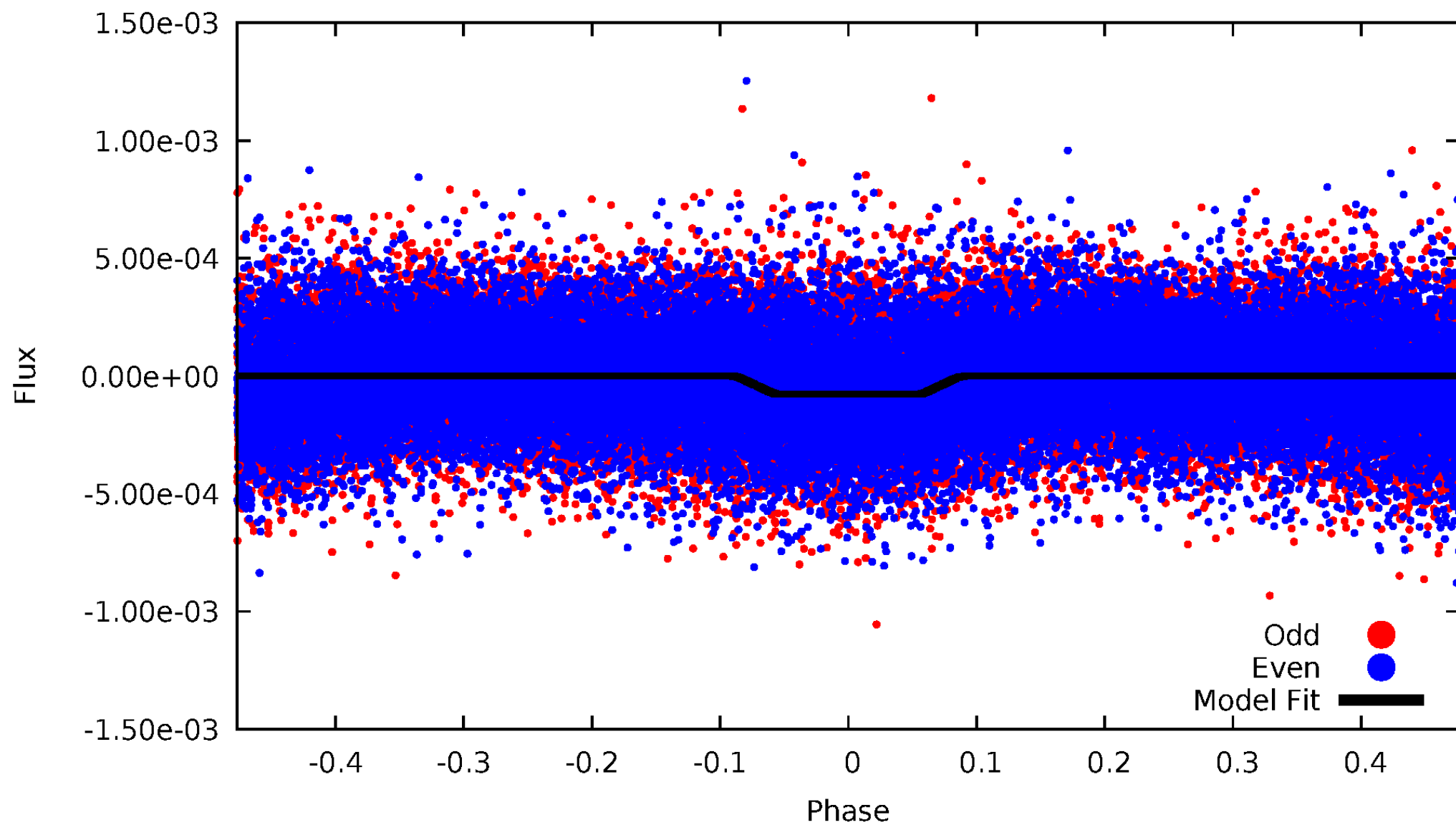
DV Odd/Even

TCE 008054146-01



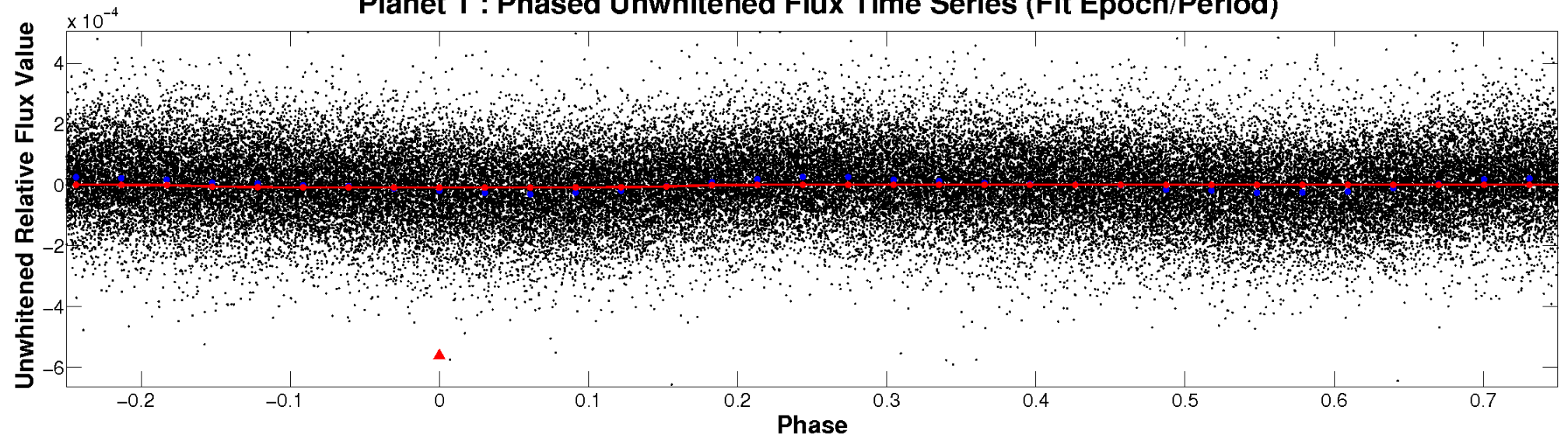
ALT Odd/Even

TCE 008054146-01

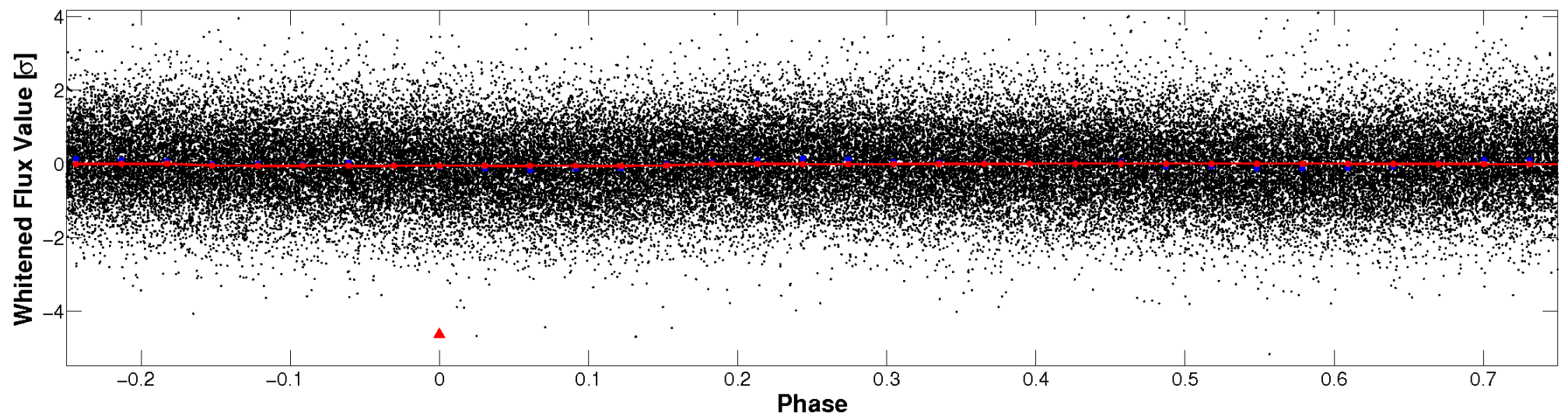


Non-Whitened Vs. Whitened Light Curve

Planet 1 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

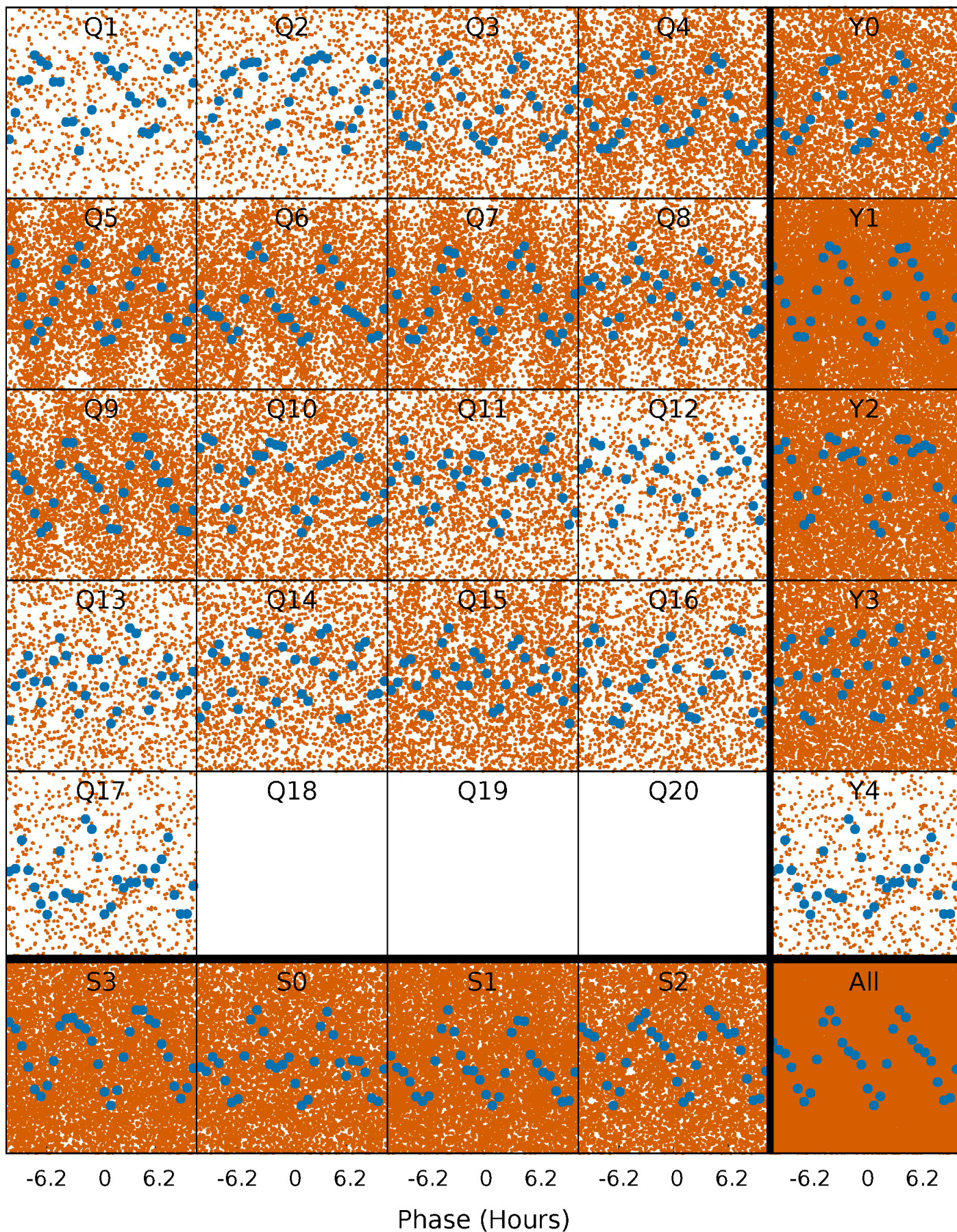


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



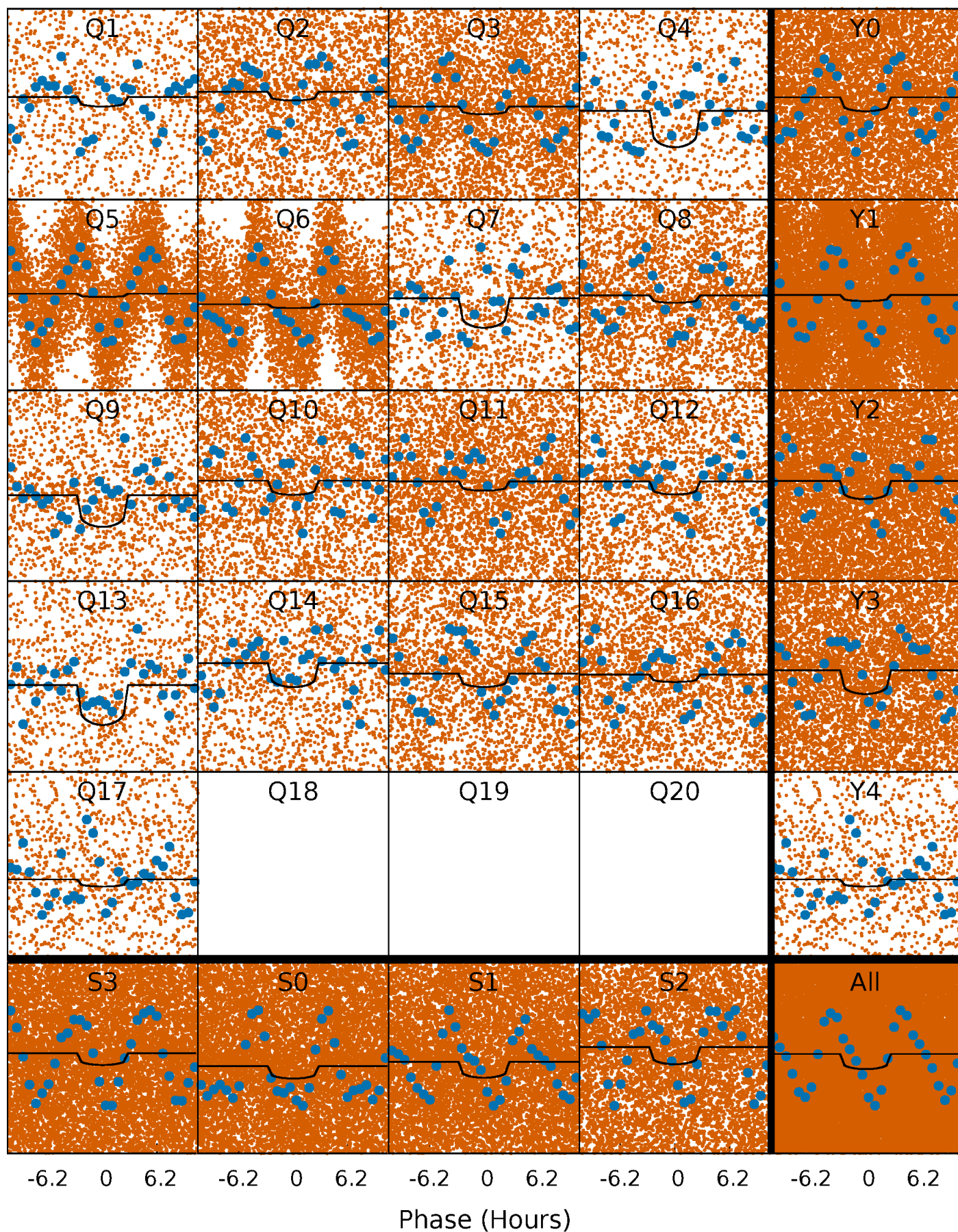
PDC Quarter-Phased Transit Curves

TCE 008054146-01 P= 0.670876 Days $T_0=131.965133$ (BKJD)



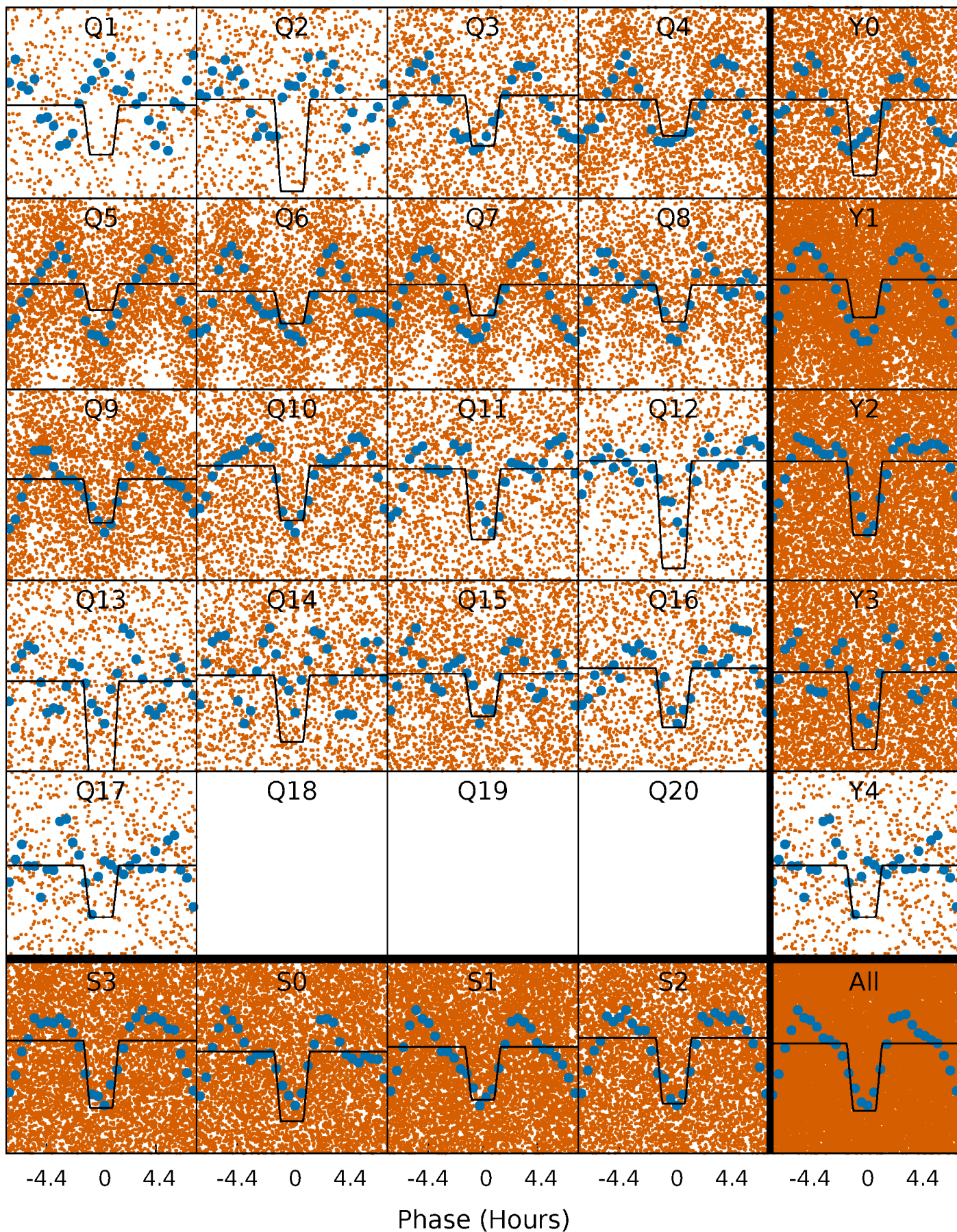
DV Quarter-Phased Transit Curves

TCE 008054146-01 P= 0.670876 Days $T_0=131.965133$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

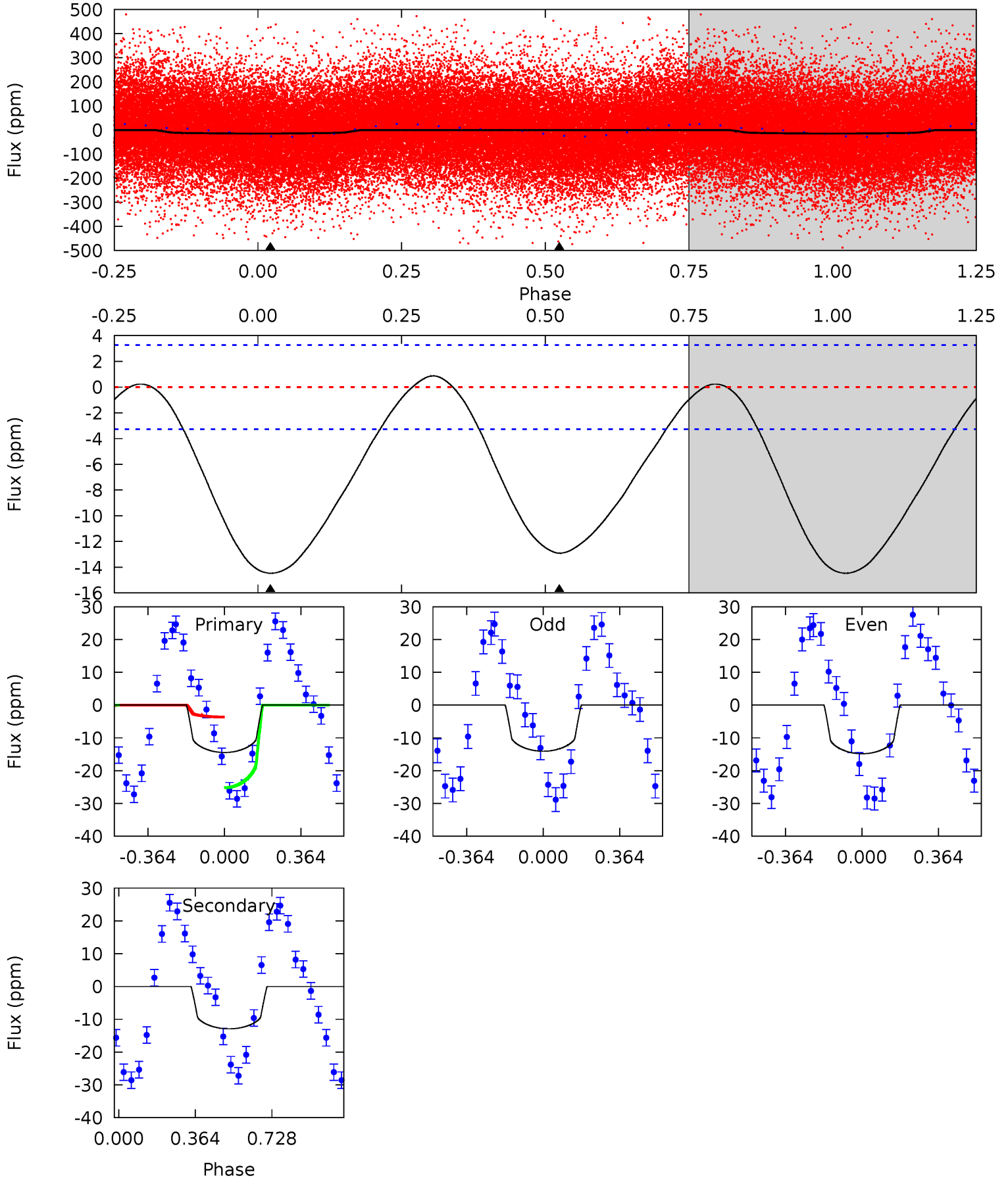
TCE 008054146-01 P= 0.670896 Days $T_0=131.988632$ (BKJD)



DV Model-Shift Uniqueness Test

008054146-01, P = 0.670876 Days, E = 131.294257 Days

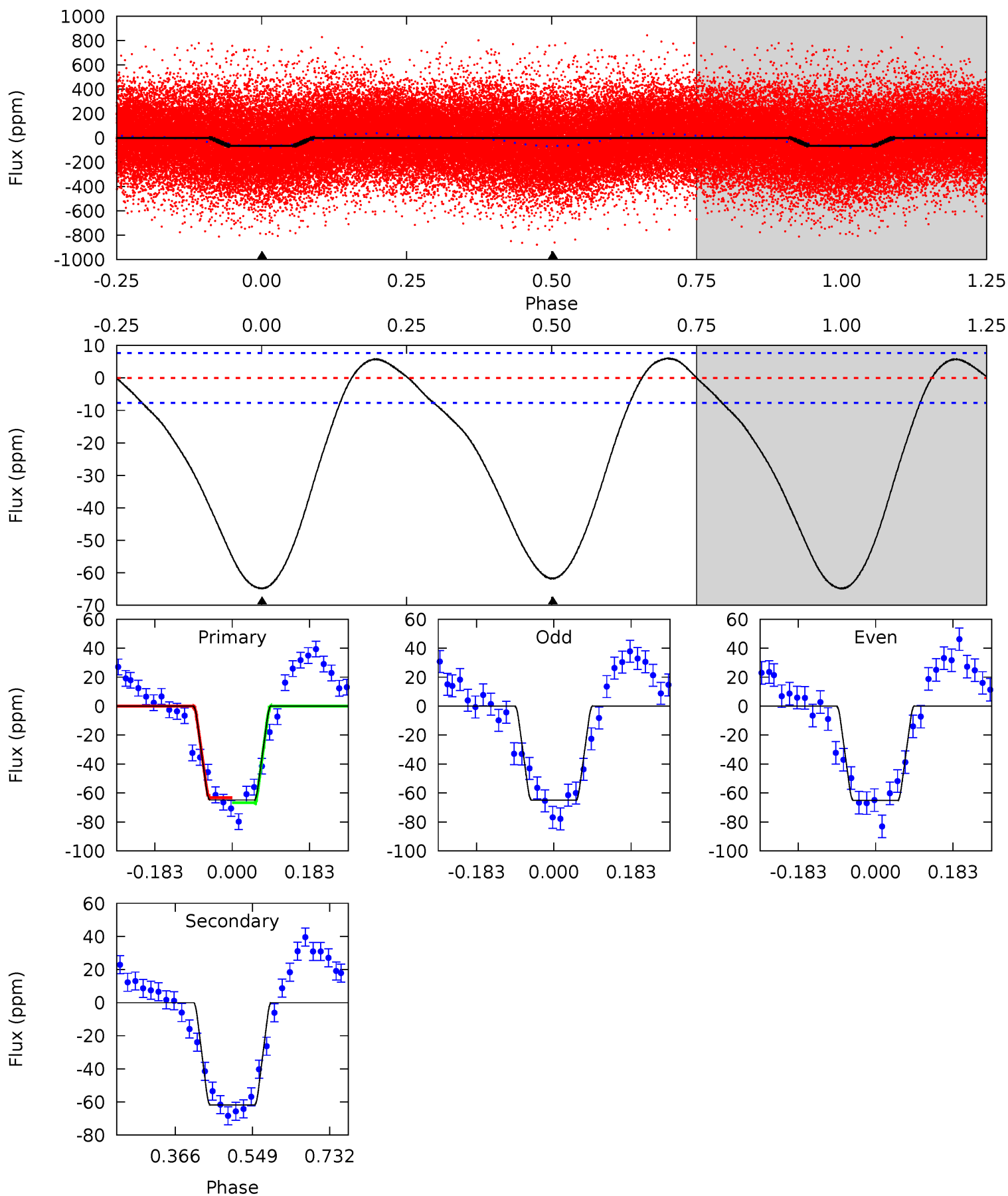
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
19.0	16.9	0	0	4.29	0.91	0.68	19.0	19.0	16.9	16.9	0.51	0.97	0.06	13.9



Alt Model-Shift Uniqueness Test

008054146-01, P = 0.670896 Days, E = 131.317736 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
37.5	35.7	0	0	4.44	1.33	3.25	37.5	37.5	35.7	35.7	0.03	0.98	0.08	1.02



Stellar Parameters For KIC 008054146

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	8357^{+203}_{-349}	$3.752^{+0.405}_{-0.108}$	$-0.200^{+0.250}_{-0.350}$	$3.120^{+0.890}_{-1.447}$	$2.009^{+0.395}_{-0.482}$	$0.093^{+0.340}_{-0.037}$
	+2%/-4%	+11%/-3%	+125%/-175%	+29%/-46%	+20%/-24%	+364%/-39%
Source	KIC0	KIC0	KIC0	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 008054146-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-13 ± 1	$0.97^{+0.20}_{-0.23}$	6353^{+545}_{-702}	8856^{+831}_{-661}	$2.713^{+1.713}_{-0.771}$
Alt.	-62 ± 2	$2.89^{+0.46}_{-0.69}$	6386^{+512}_{-746}	7245^{+330}_{-315}	$1.490^{+0.971}_{-0.339}$

T_{max} = Theoretical Maximum Planetary Temperature
 T_{obs} = Observed Planetary Temperature (Assuming $A=0.3$)
 A_{obs} = Observed Albedo (Assuming $T=0$)

If a secondary eclipse is present, the system is likely an EB if $T_{\text{obs}} \gg T_{\text{max}}$ AND $A_{\text{obs}} \gg 1.0$

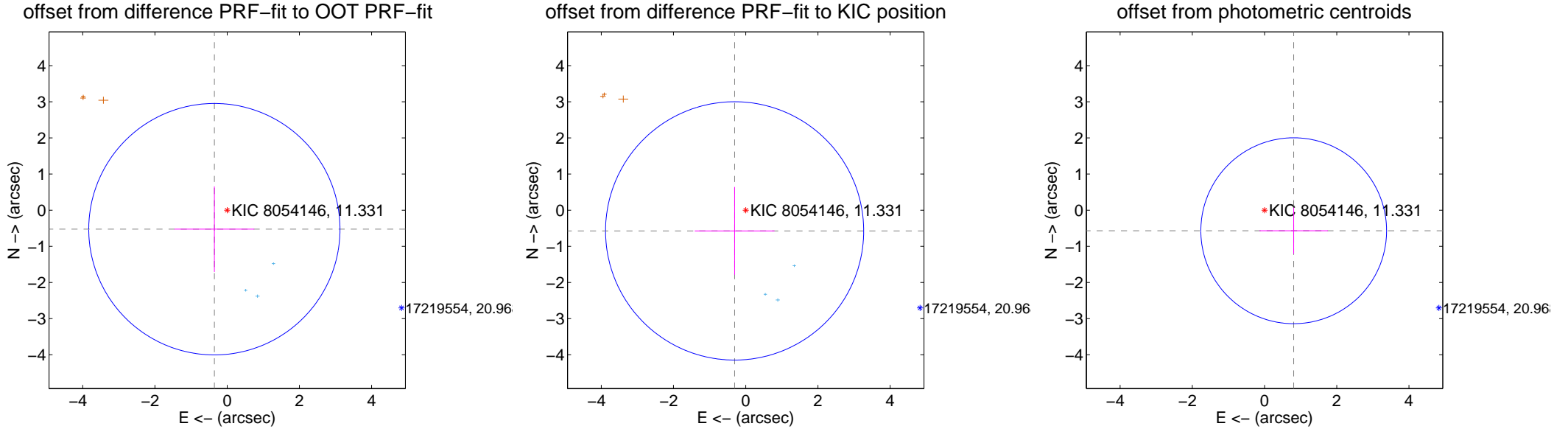
DV Centroid Data

Supplemental centroid analysis for 008054146-01. **Kepler magnitude: 11.33.** Transit SNR 7.49

There are 3 quarters with good PRF difference image offsets

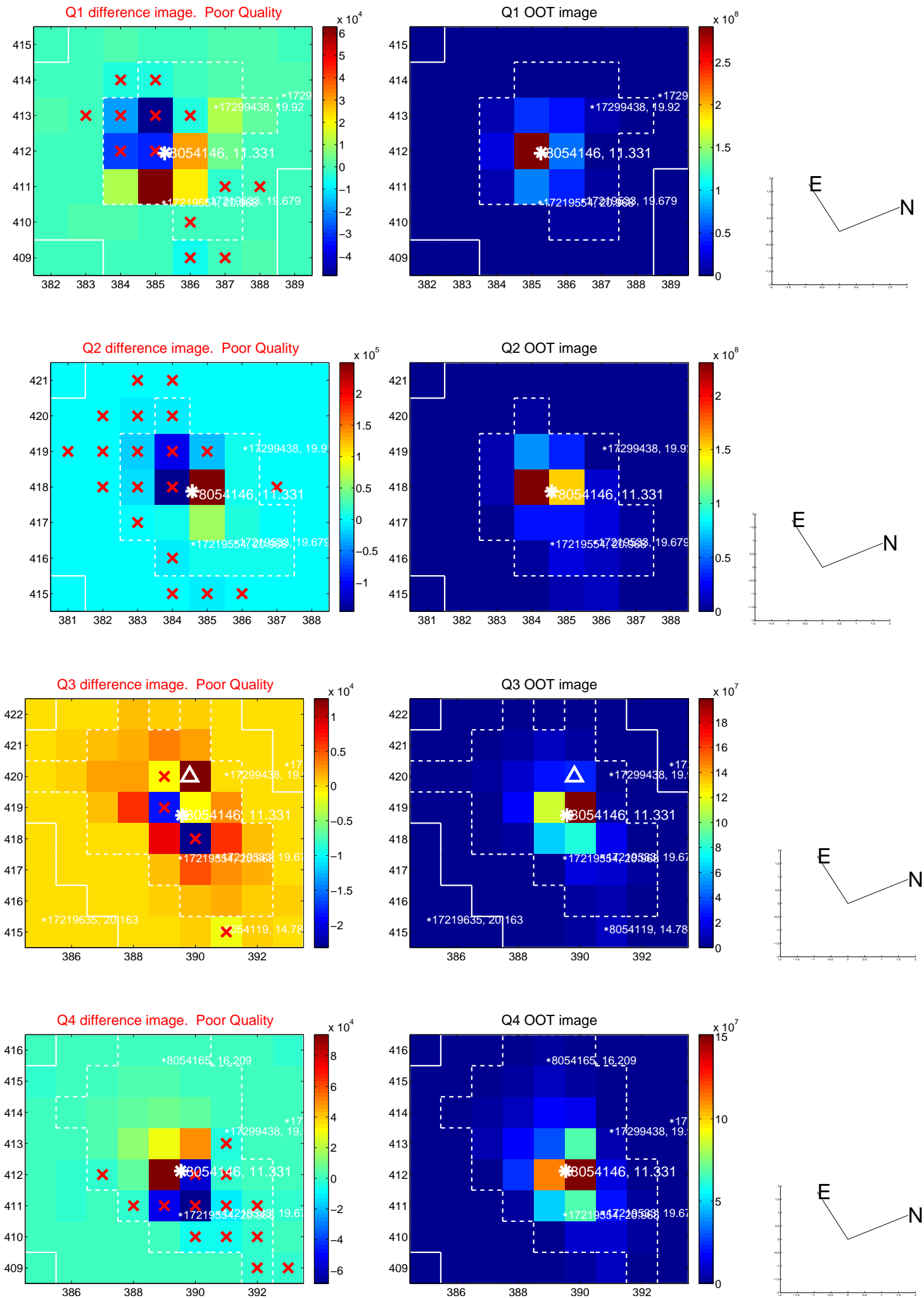
The direct PRF centroid is offset from the target star catalog position by about 0.05 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.634 ± 1.160	0.55	0.355 ± 1.106	-0.525 ± 1.184
PRF-fit source offset from KIC position	0.650 ± 1.192	0.55	0.307 ± 1.105	-0.573 ± 1.216
photometric centroid source offset	0.99 ± 0.86	1.15	-0.81 ± 0.95	-0.57 ± 0.64

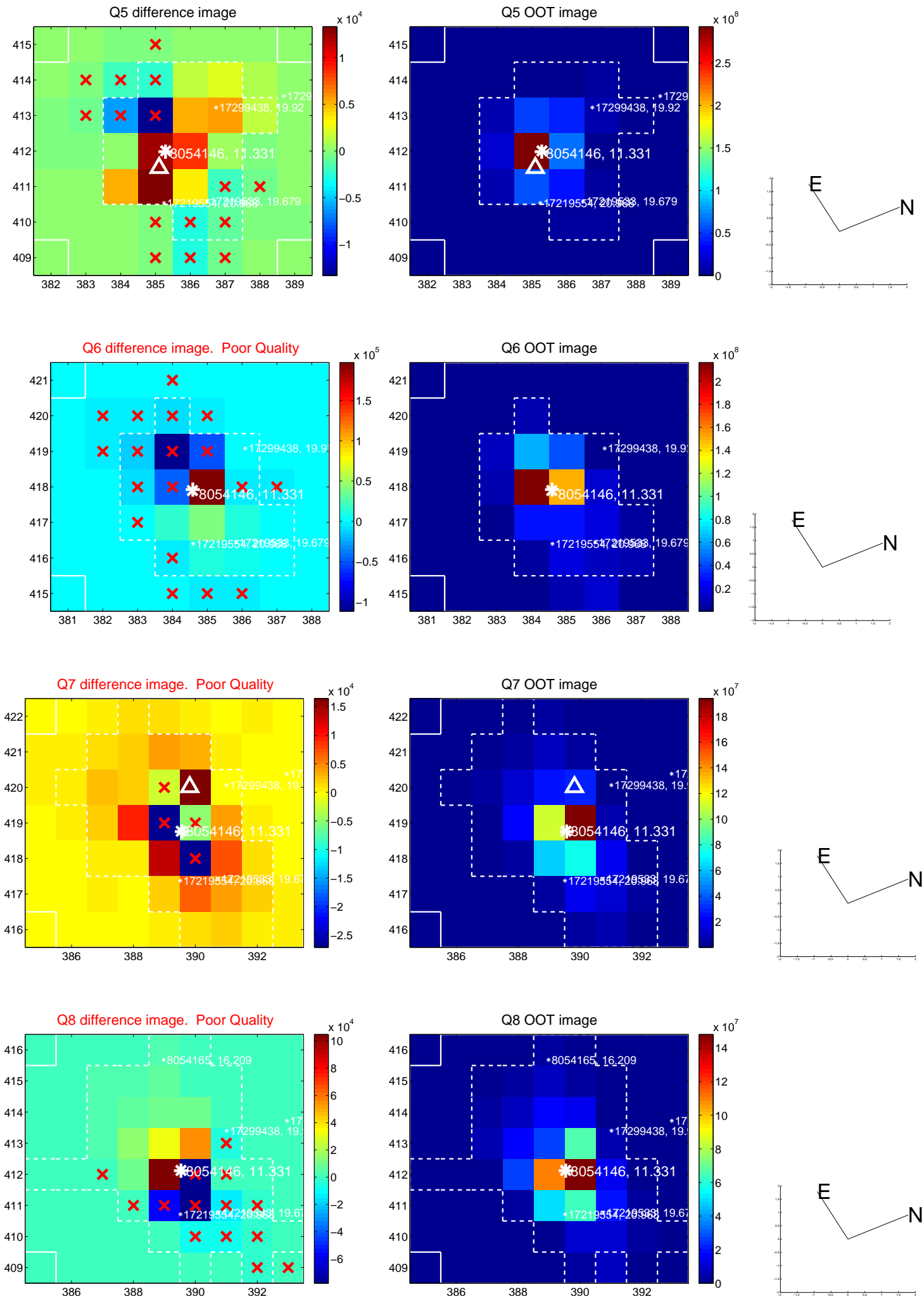


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

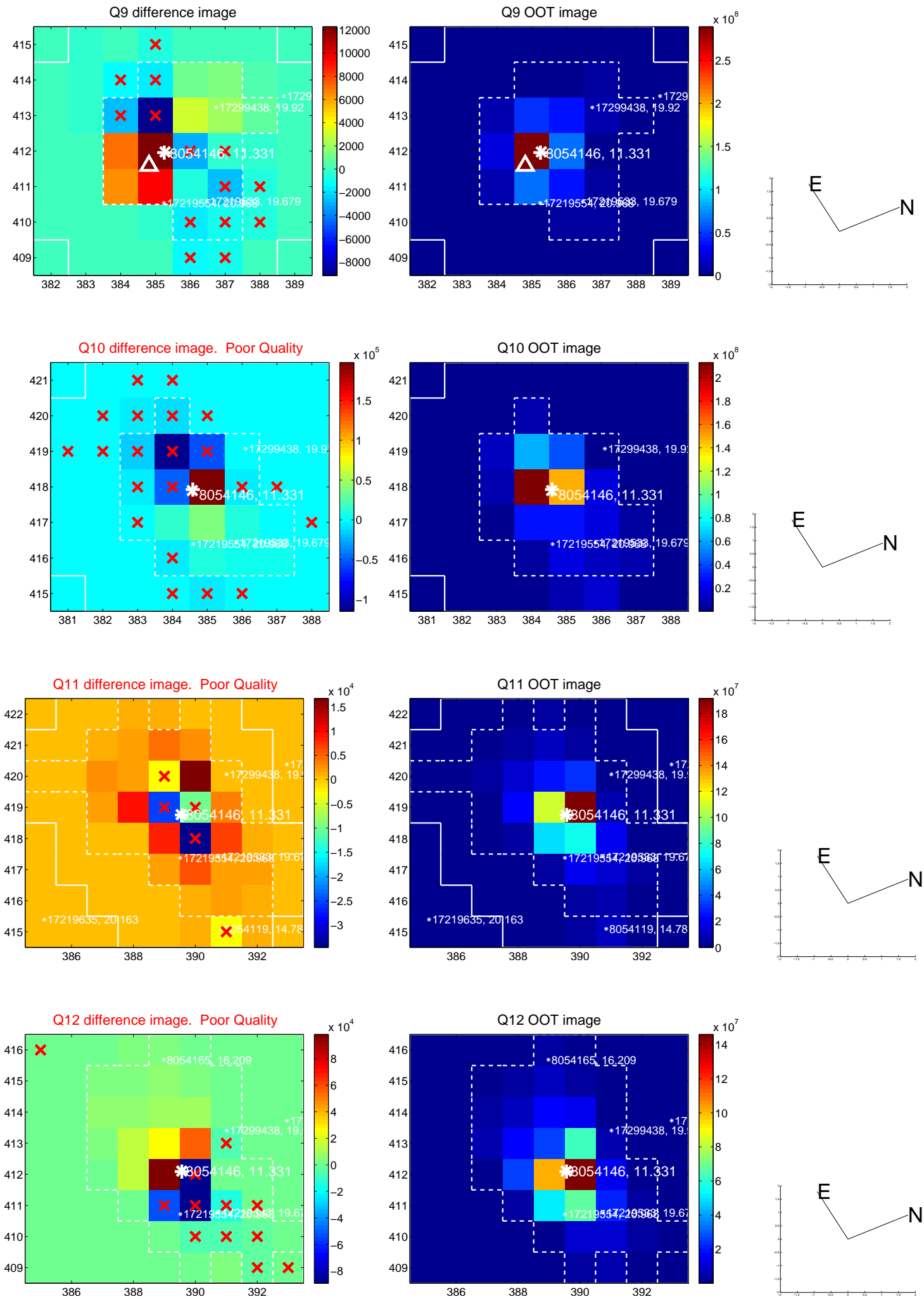
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



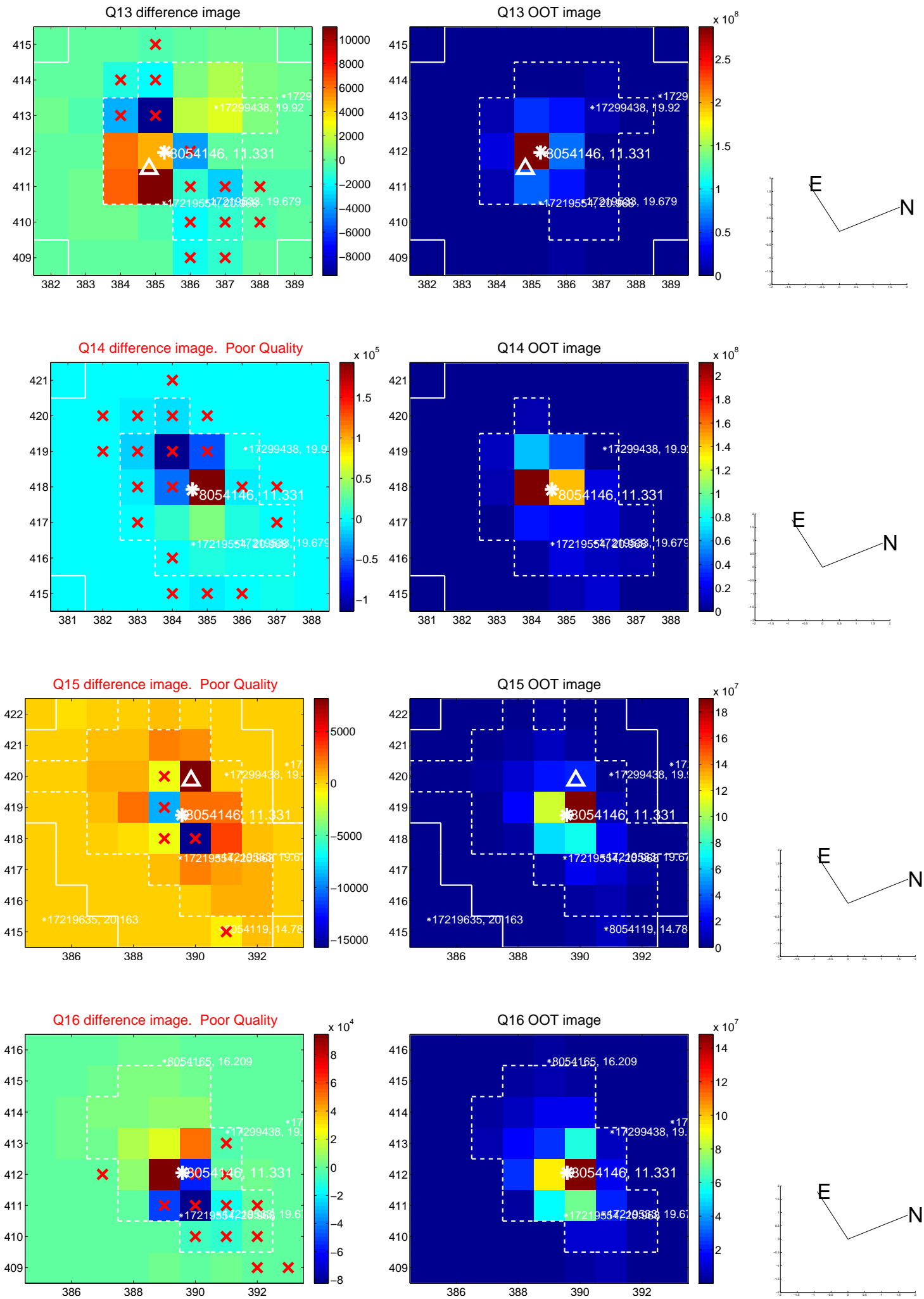
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



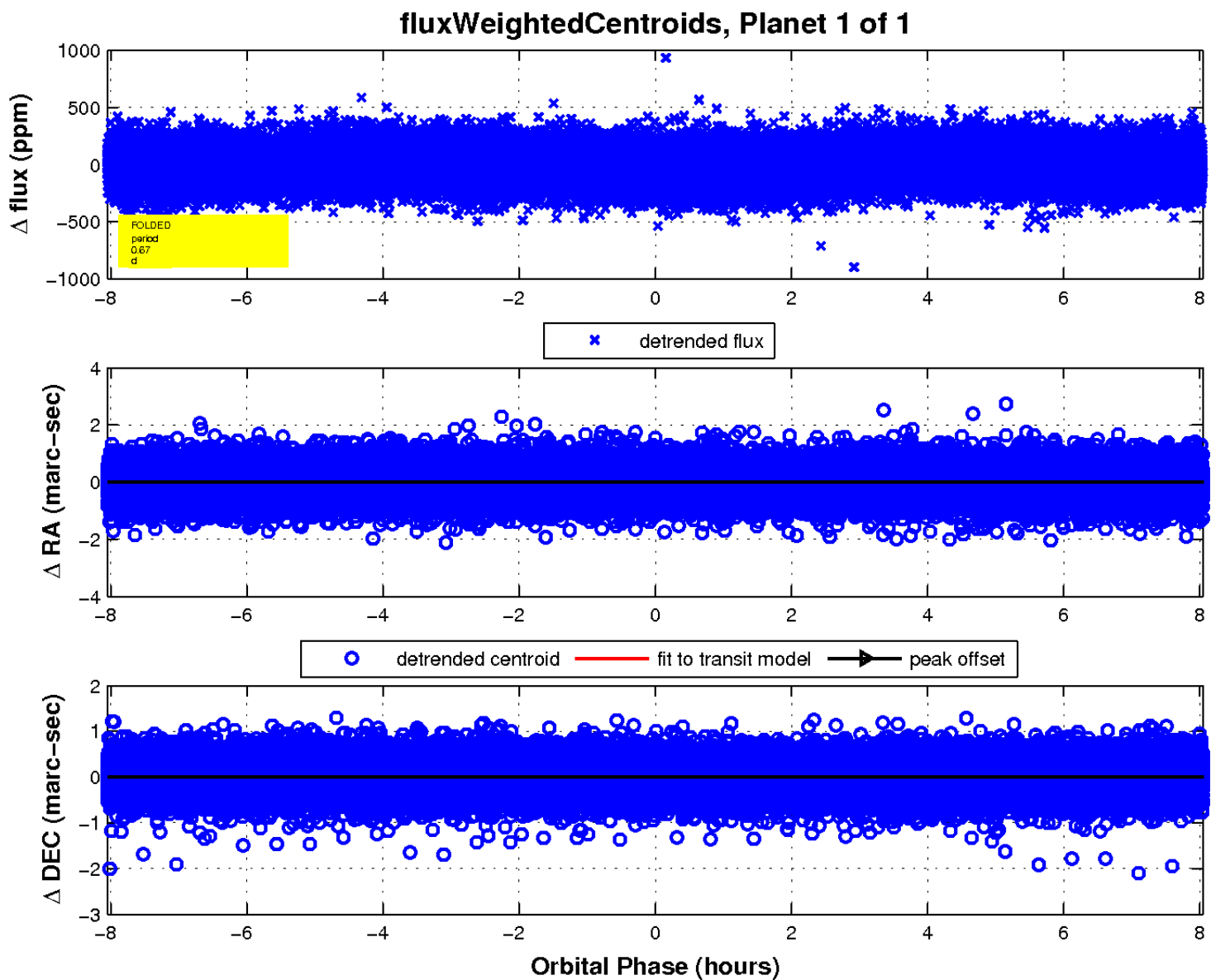
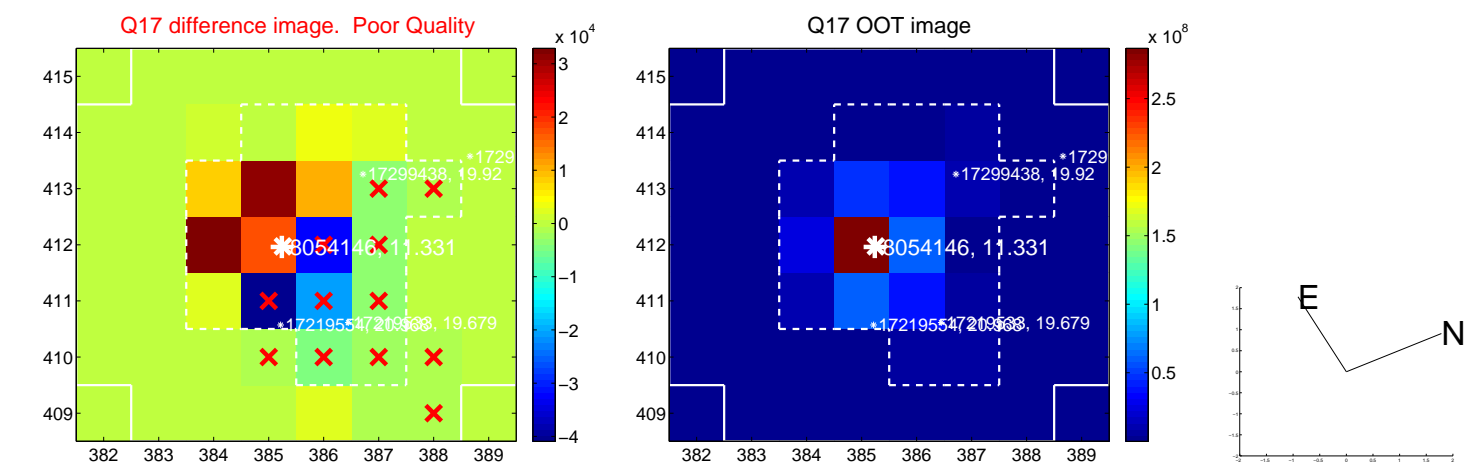
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UKIRT Image

