

KIC 008766405

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})
008766405-01	OBS	No	0.539196	132.067249	8.4	4.146	11.2	7.6	4.84	11056	1.45	0.00

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008766405-01	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.

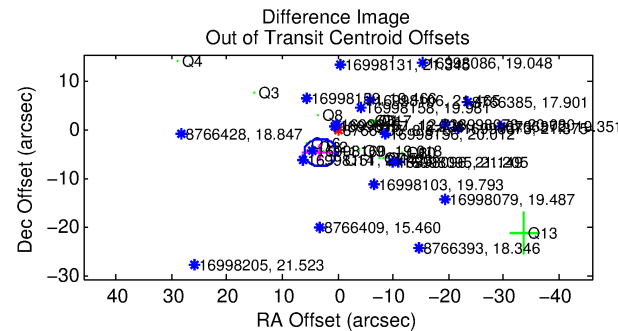
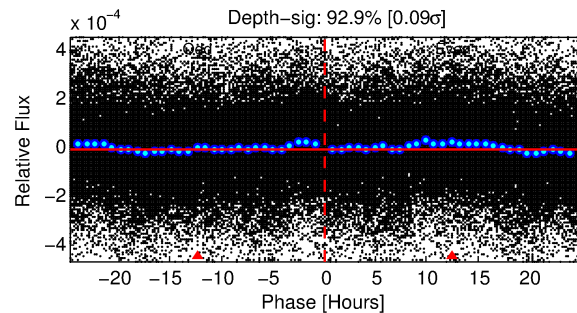
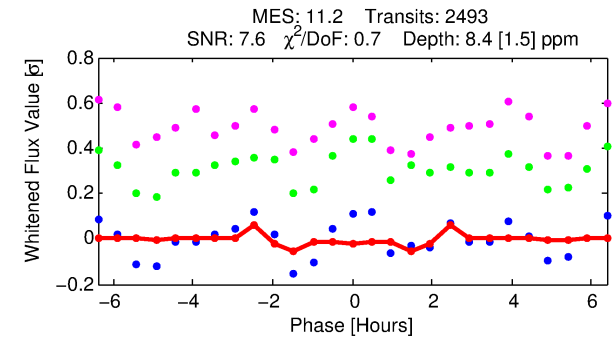
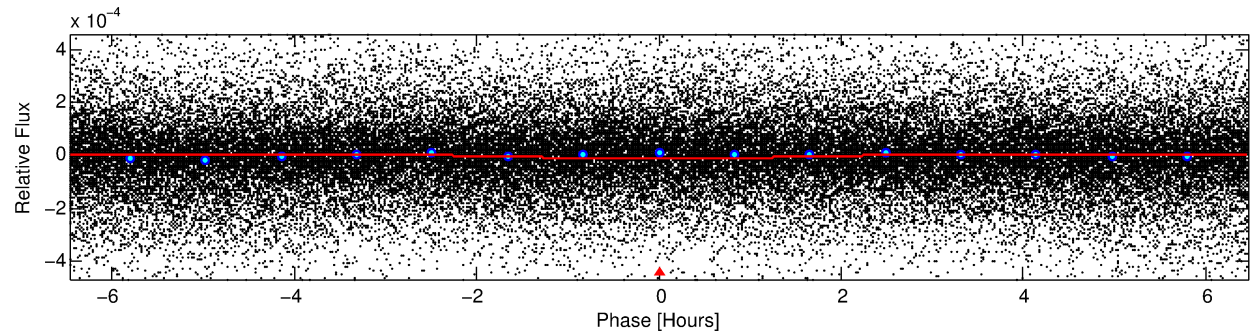
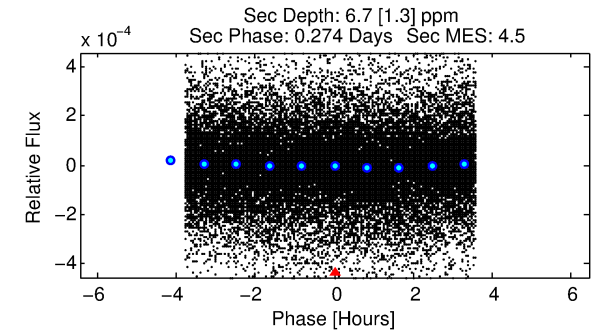
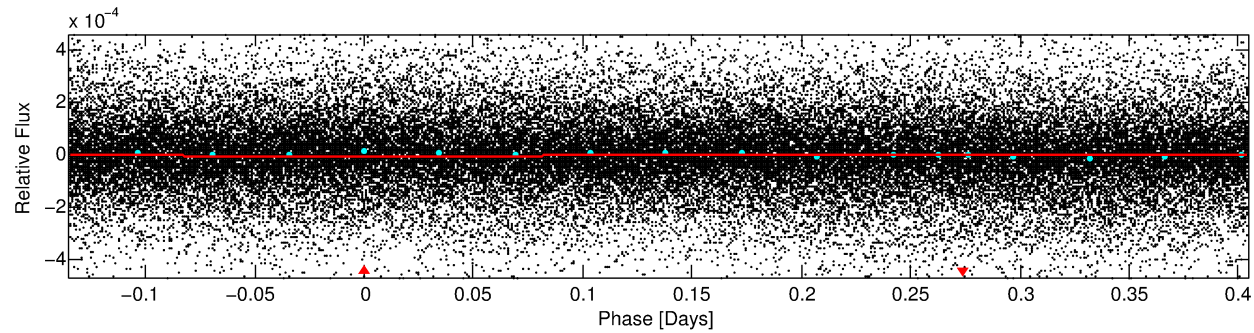
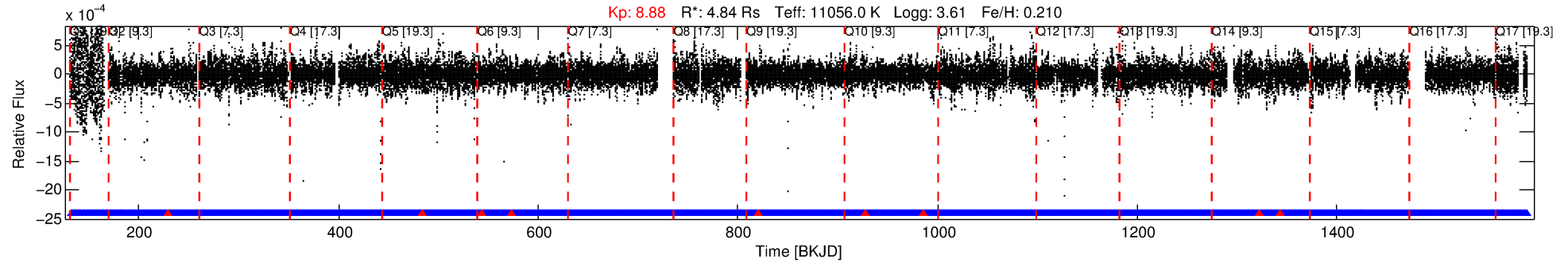
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008766405-01

No Significant Match Found

DV One-Page Summary

KIC: 8766405 Candidate: 1 of 1 Period: 0.539 d



DV Fit Results:

Period = 0.53920 [0.00001] d
Epoch = 132.0672 [0.0013] BKJD
Rp/R* = 0.0028 [0.0006]
a/R* = 1.17 [0.54]
b = 0.30 [5.26]
Seff = N/A
Teq = N/A
Rp = 1.45 [0.81] Re
a = N/A
Ag = N/A
Teffp = N/A

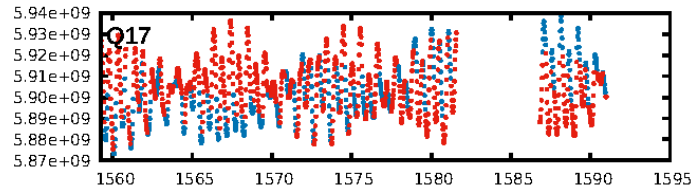
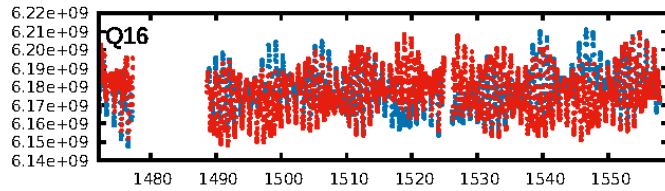
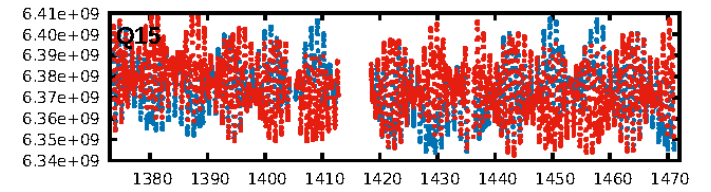
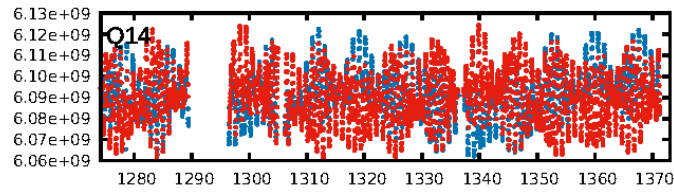
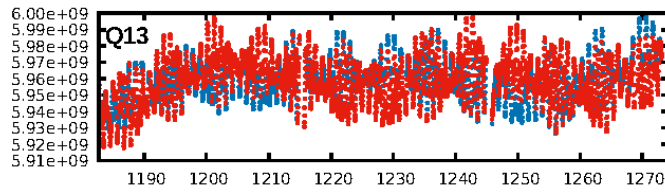
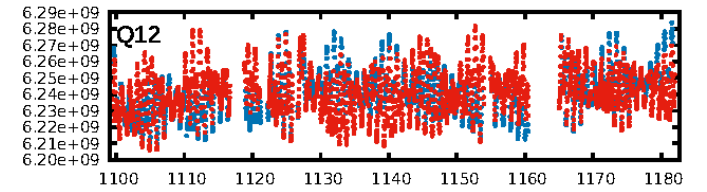
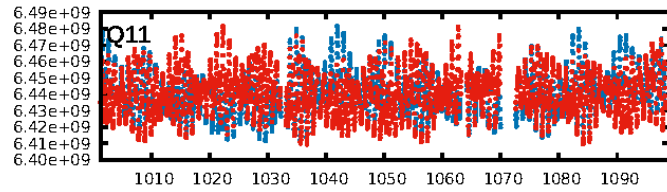
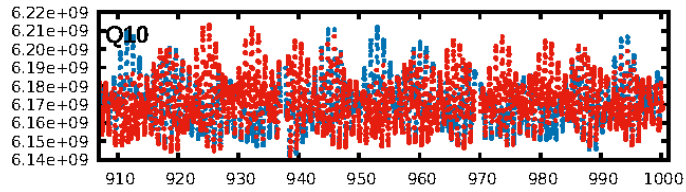
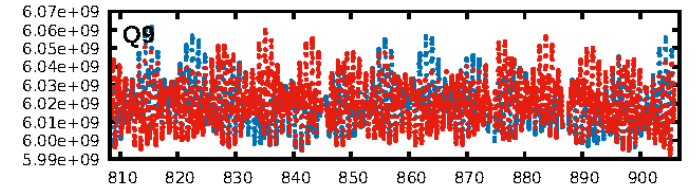
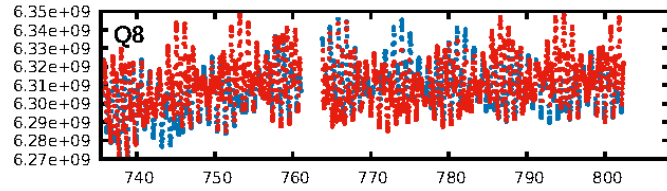
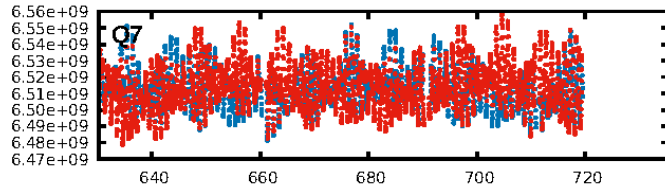
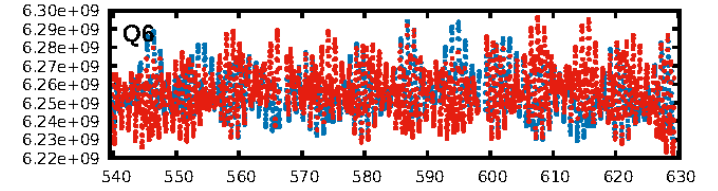
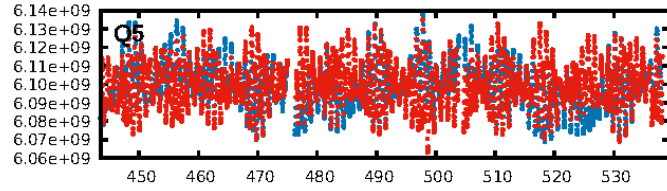
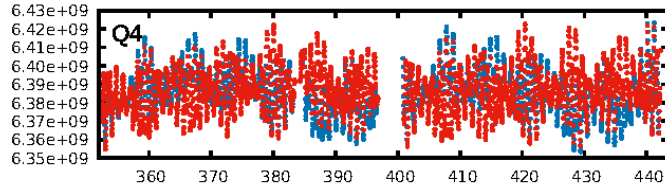
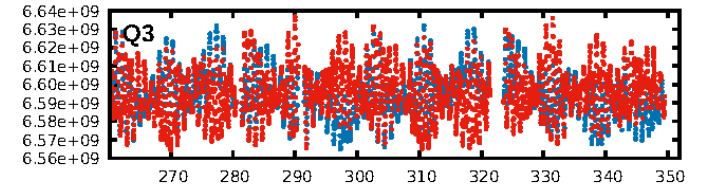
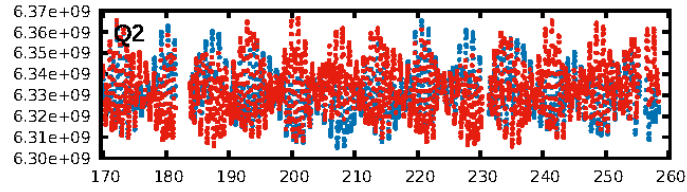
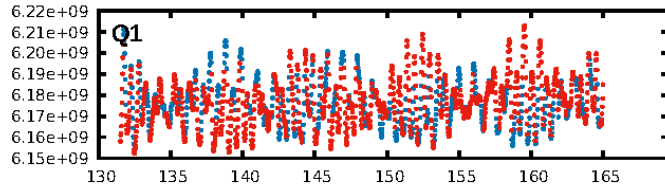
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [2371/2380]
GhostDiagnostic-chr: N/A
Centroid-sig: 41.6%
Centroid-so: 1.973 arcsec [0.90σ]
OotOffset-rm: 5.612 arcsec [5.91σ]
KicOffset-rm: 5.451 arcsec [4.98σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.00 [0/17]
DiffImageOverlap-fno: 1.00 [17/17]

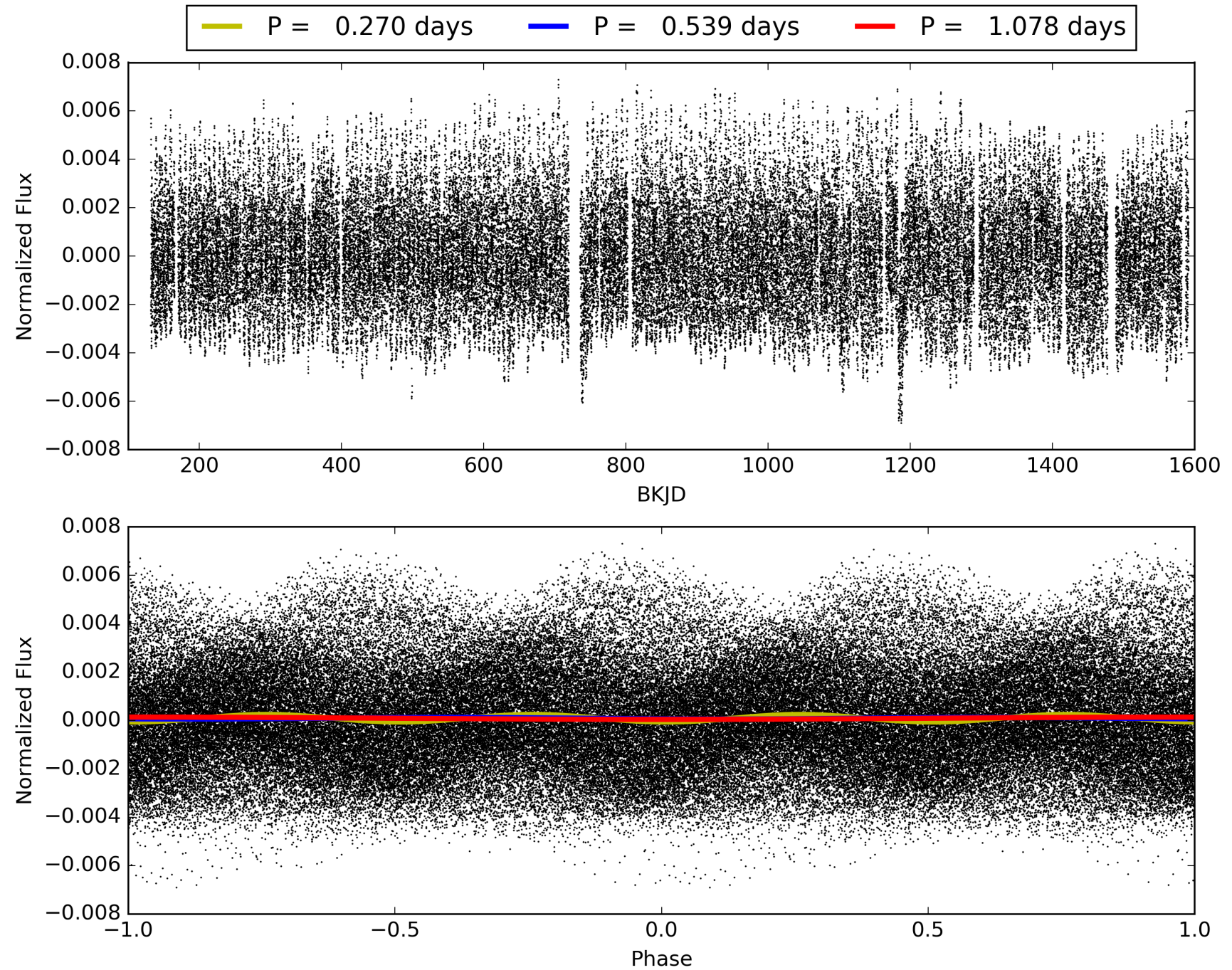
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 23:25:54 Z

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

TCE 008766405-01, PDC Light Curves

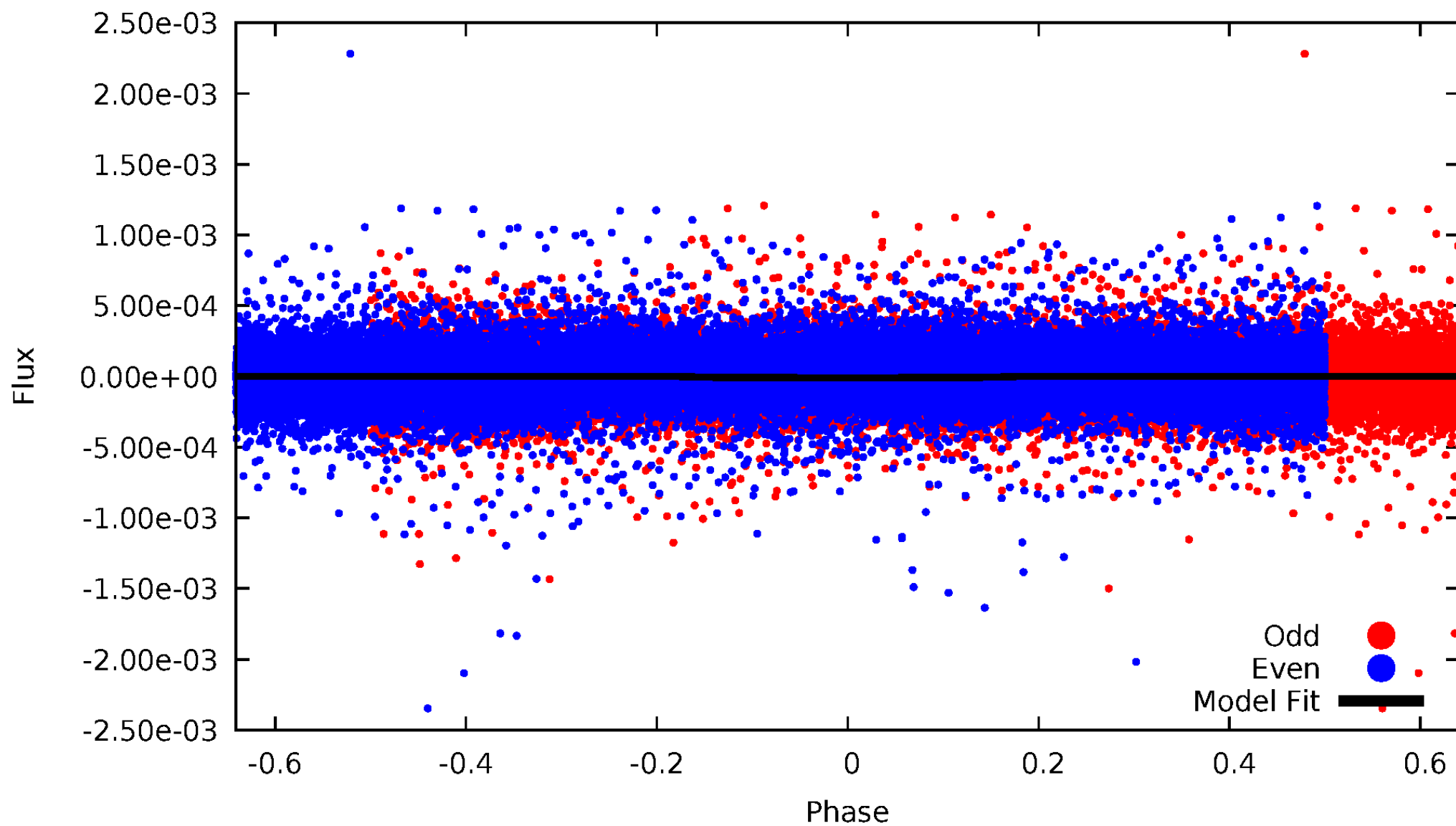


TCE 008766405-01



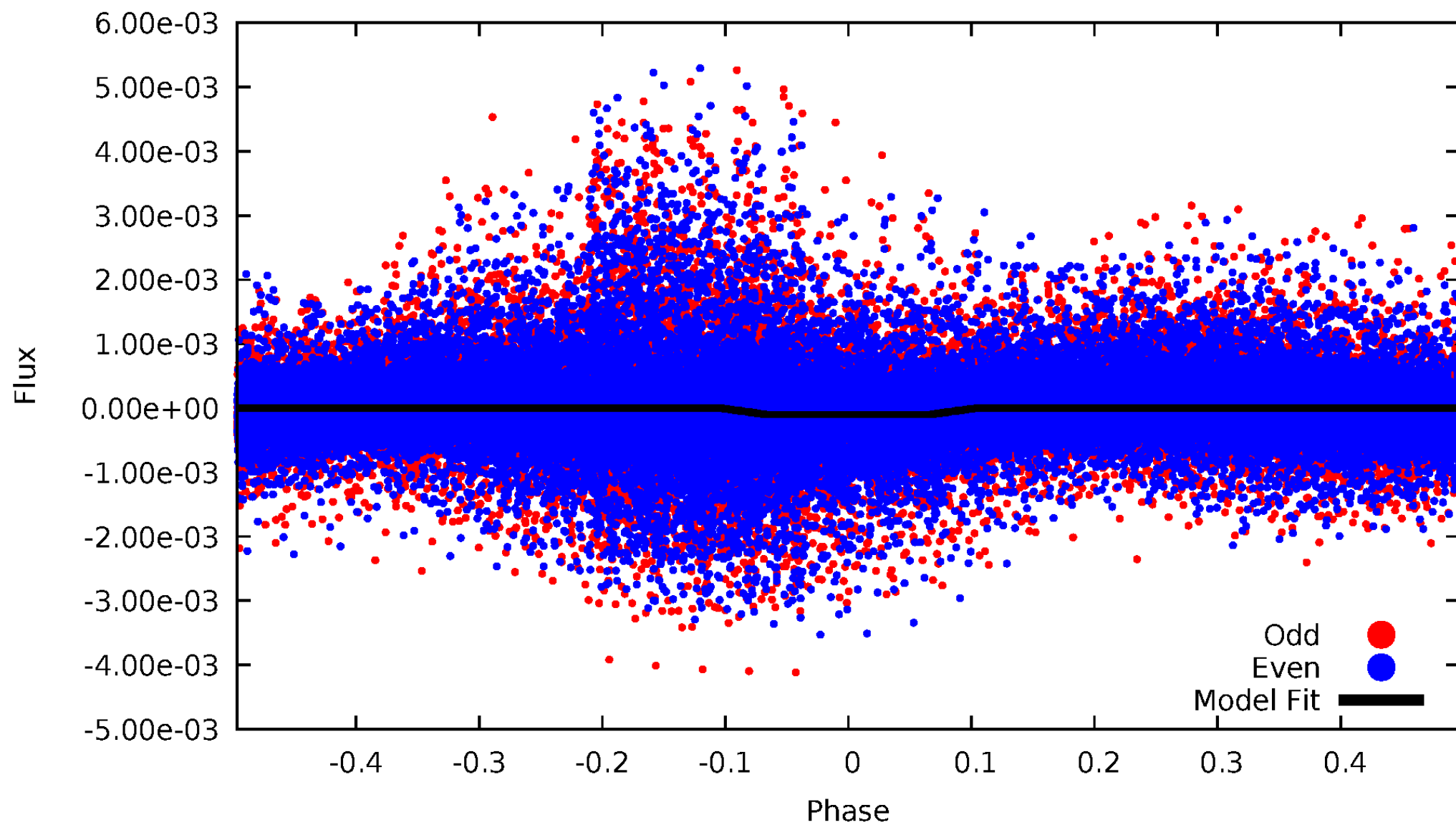
DV Odd/Even

TCE 008766405-01



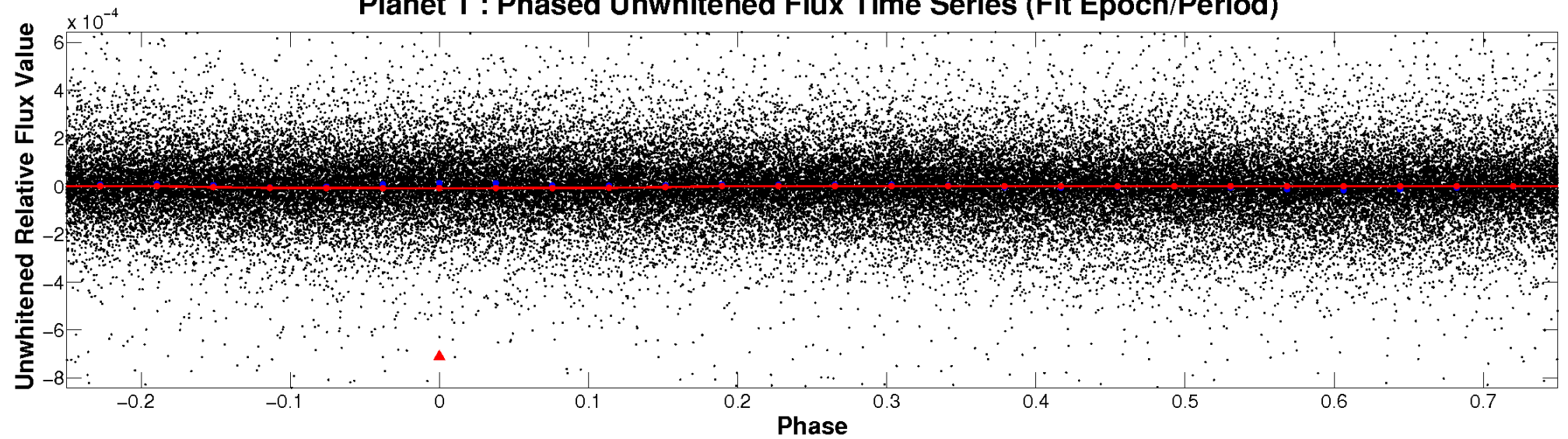
ALT Odd/Even

TCE 008766405-01

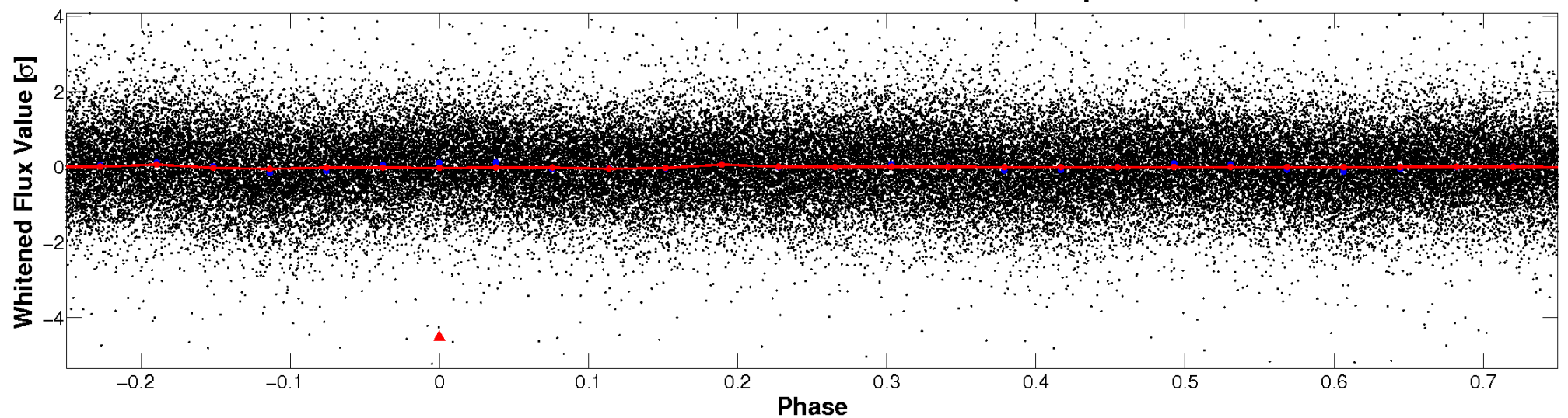


Non-Whitened Vs. Whitened Light Curve

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

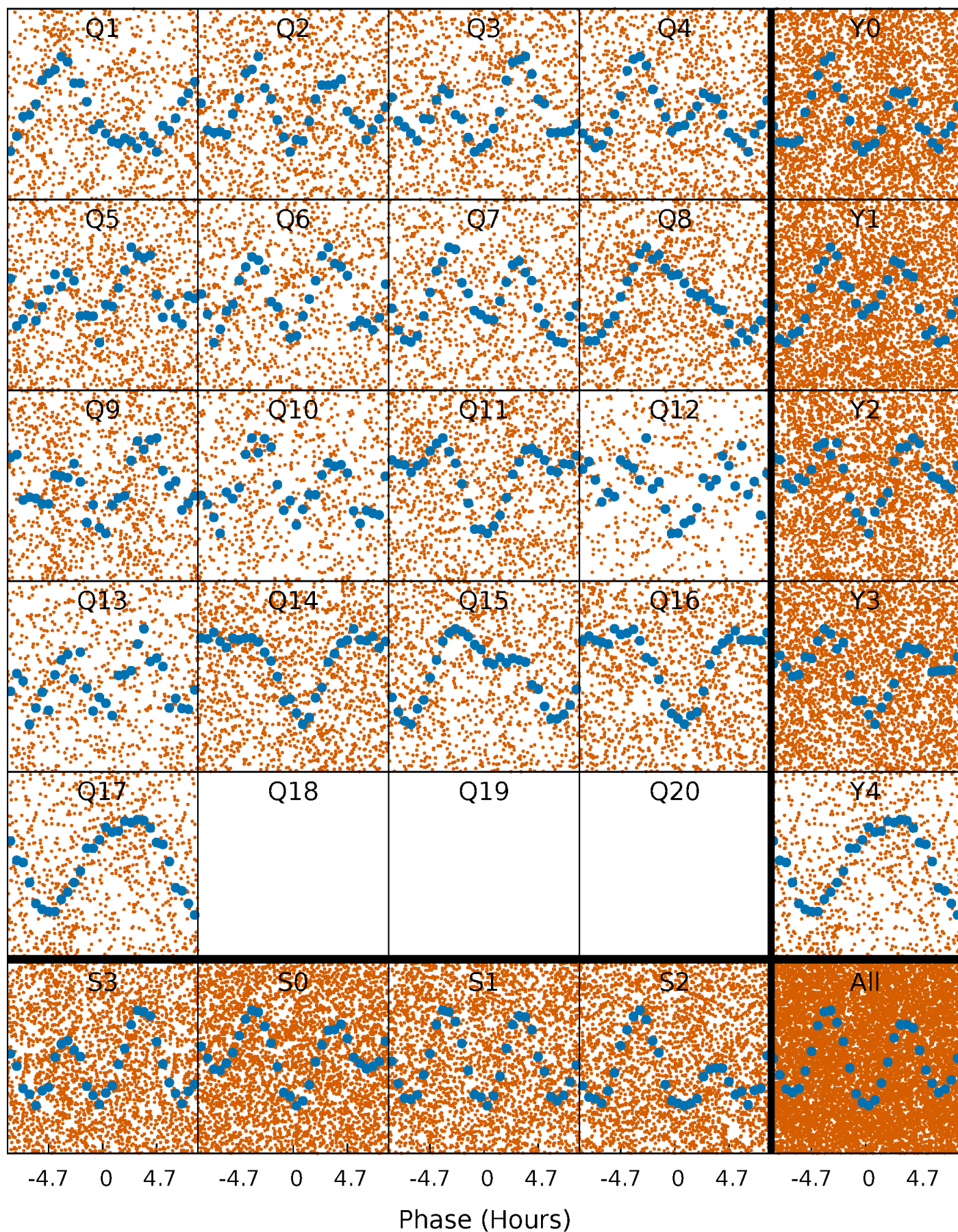


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



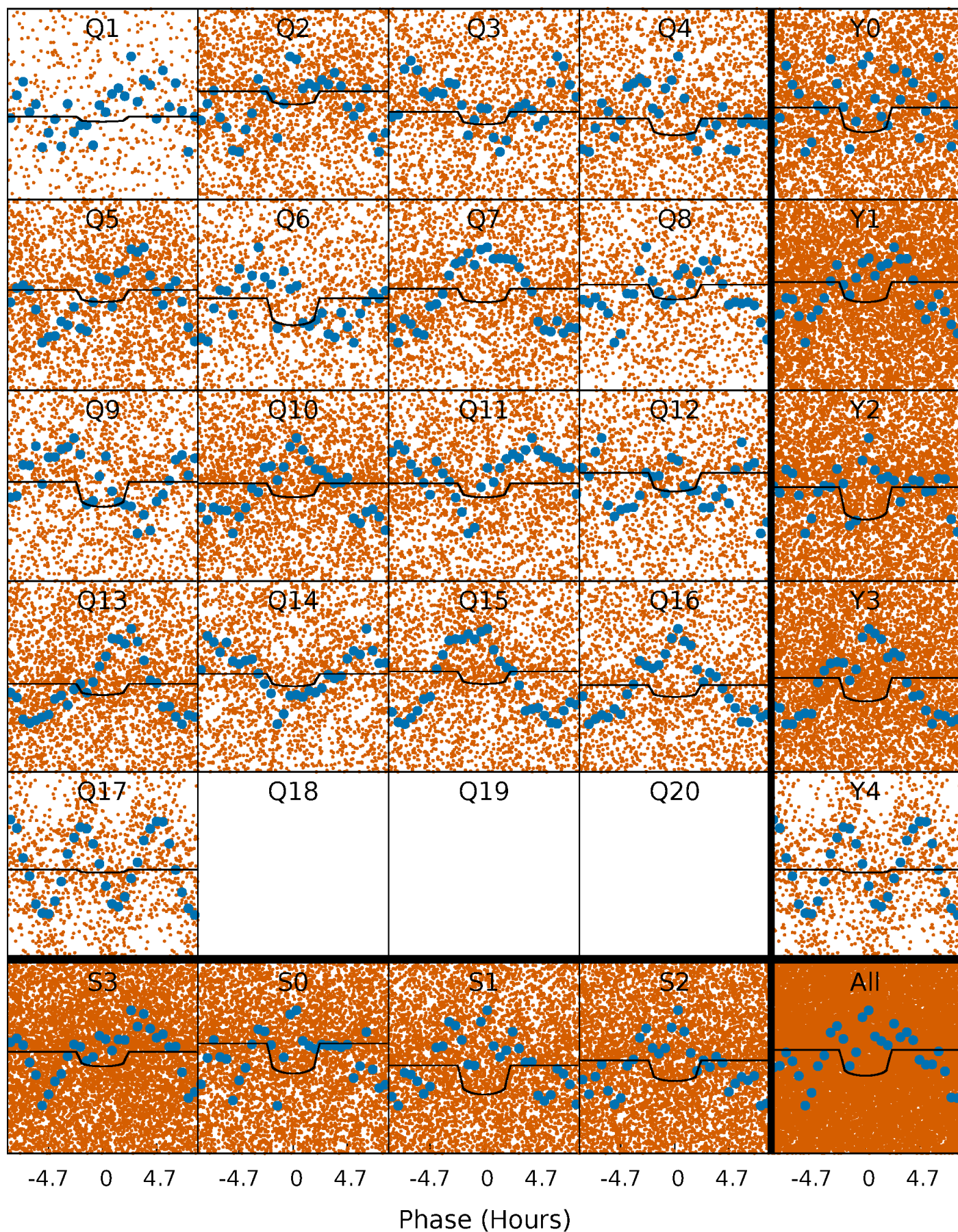
PDC Quarter-Phased Transit Curves

TCE 008766405-01 P= 0.539196 Days $T_0=132.067249$ (BKJD)



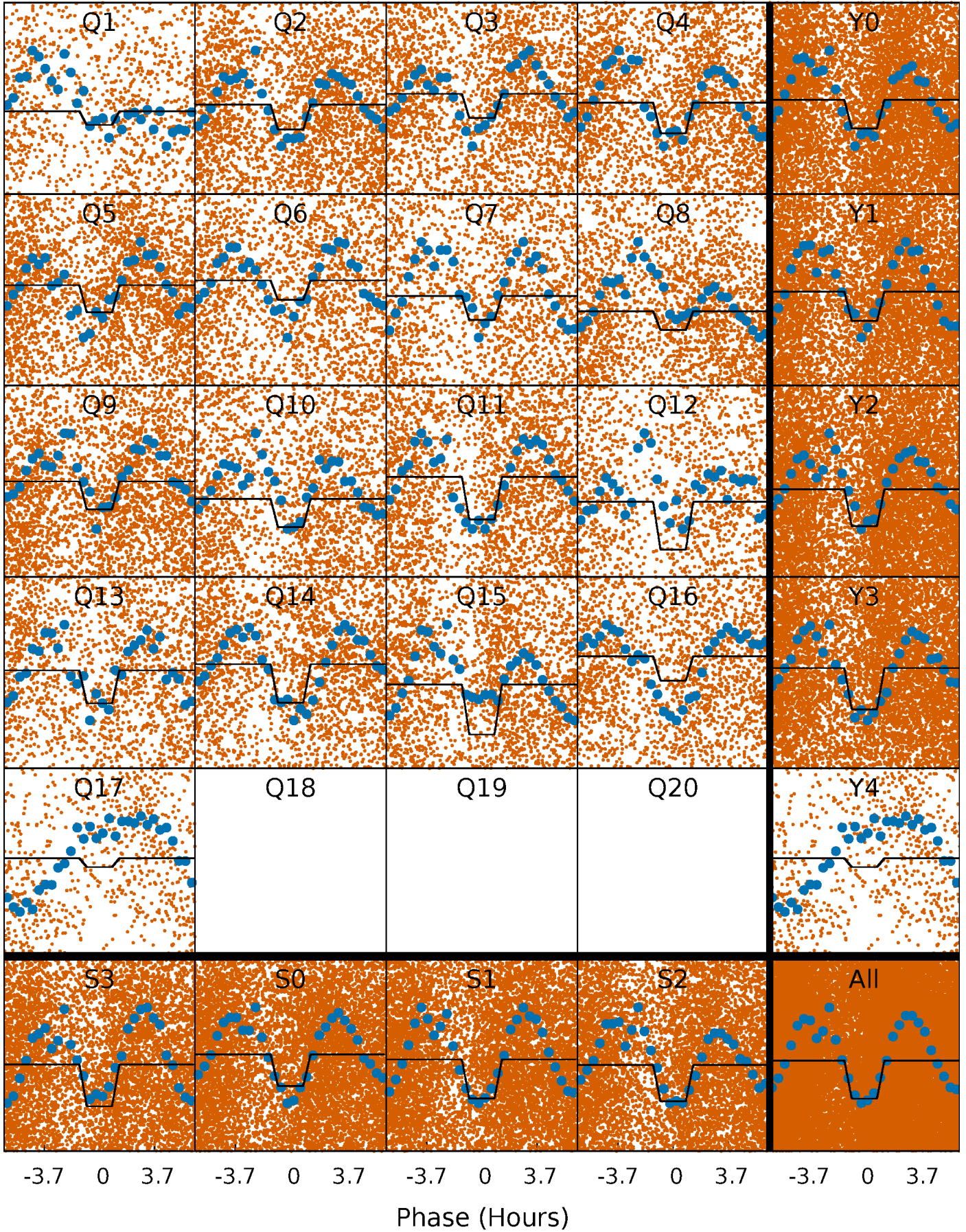
DV Quarter-Phased Transit Curves

TCE 008766405-01 P= 0.539196 Days $T_0=132.067249$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

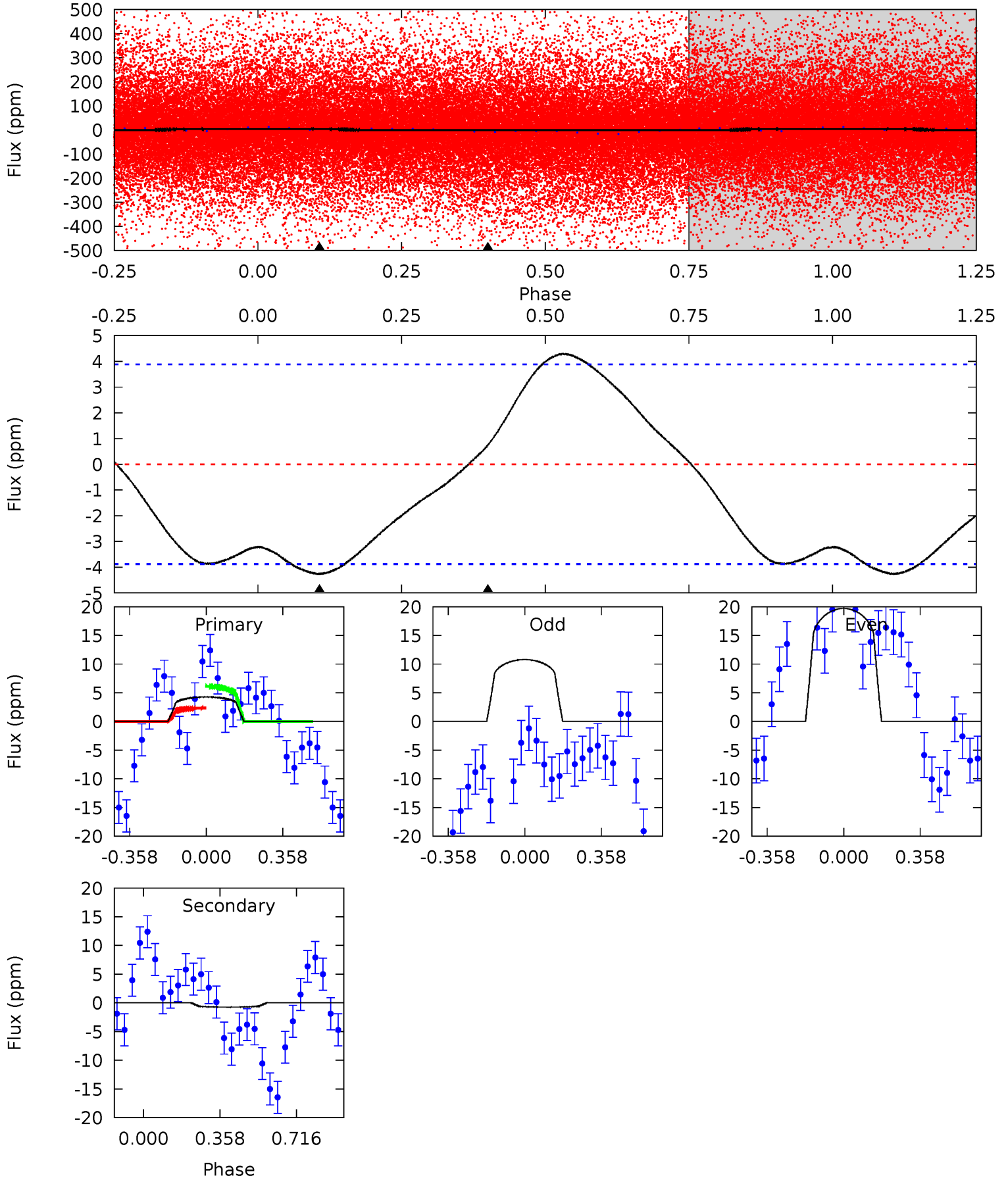
TCE 008766405-01 P= 0.539202 Days $T_0=132.069047$ (BKJD)



DV Model-Shift Uniqueness Test

008766405-01, P = 0.539196 Days, E = 130.988857 Days

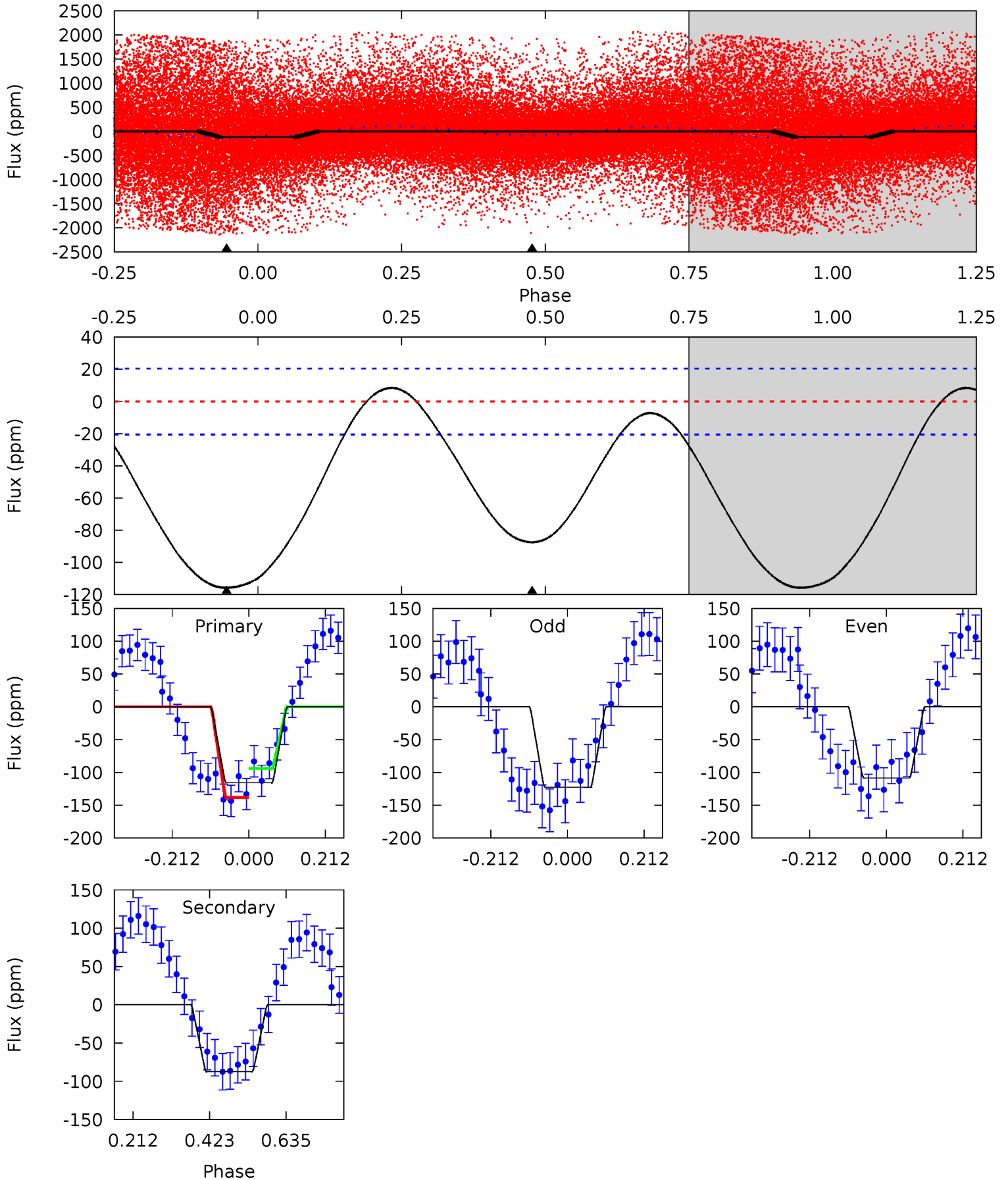
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4.71	-0.82	0	0	4.29	0.92	0.80	4.71	4.71	-0.82	-0.82	4.95	2.22	0.50	2.02



Alt Model-Shift Uniqueness Test

008766405-01, P = 0.539202 Days, E = 130.990643 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
24.9	18.8	0	0	4.40	1.25	1.90	24.9	24.9	18.8	18.8	1.53	0.82	0.07	4.33



Stellar Parameters For KIC 008766405

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	11056^{+429}_{-1609}	$3.613^{+0.468}_{-0.083}$	$0.210^{+0.150}_{-0.200}$	$4.842^{+0.440}_{-2.494}$	$3.503^{+0.070}_{-1.062}$	$0.043^{+0.212}_{-0.012}$
	+4%/-15%	+13%/-2%	+71%/-95%	+9%/-52%	+2%/-30%	+488%/-27%
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 008766405-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	1 ± 1	$1.33^{+0.38}_{-0.41}$	10018^{+1177}_{-1670}	-8040^{+1344}_{-1127}	$-0.081^{+0.090}_{-0.163}$
Alt.	-87 ± 5	$5.13^{+0.63}_{-1.33}$	10016^{+1152}_{-1634}	8423^{+1162}_{-1238}	$0.702^{+0.453}_{-0.148}$

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 $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

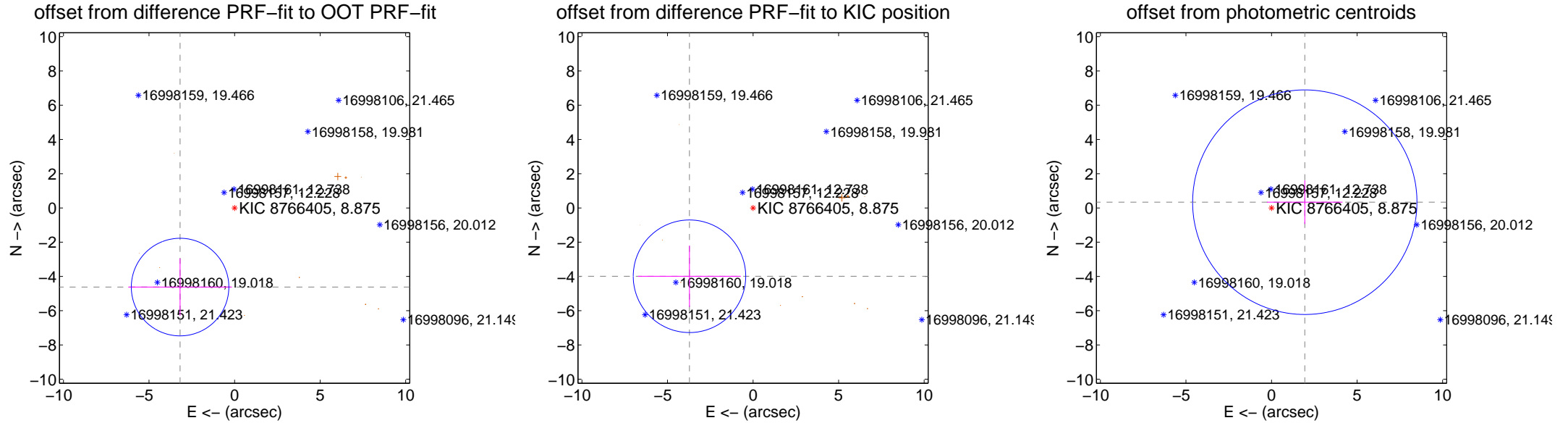
DV Centroid Data

Supplemental centroid analysis for 008766405-01. **Kepler magnitude: 8.88.** Transit SNR 7.59

There are 0 quarters with good PRF difference image offsets

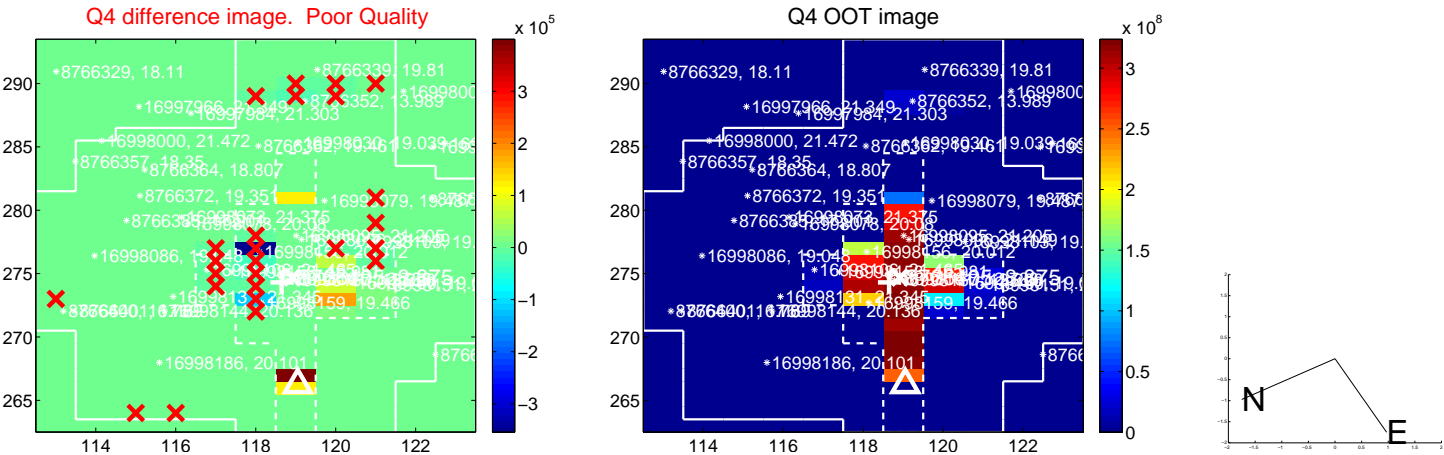
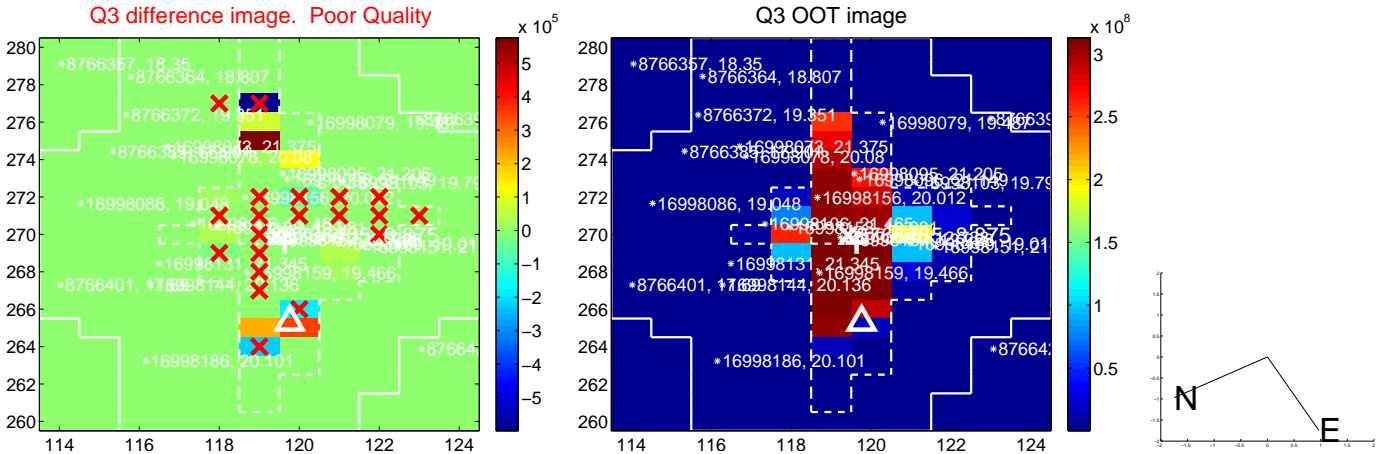
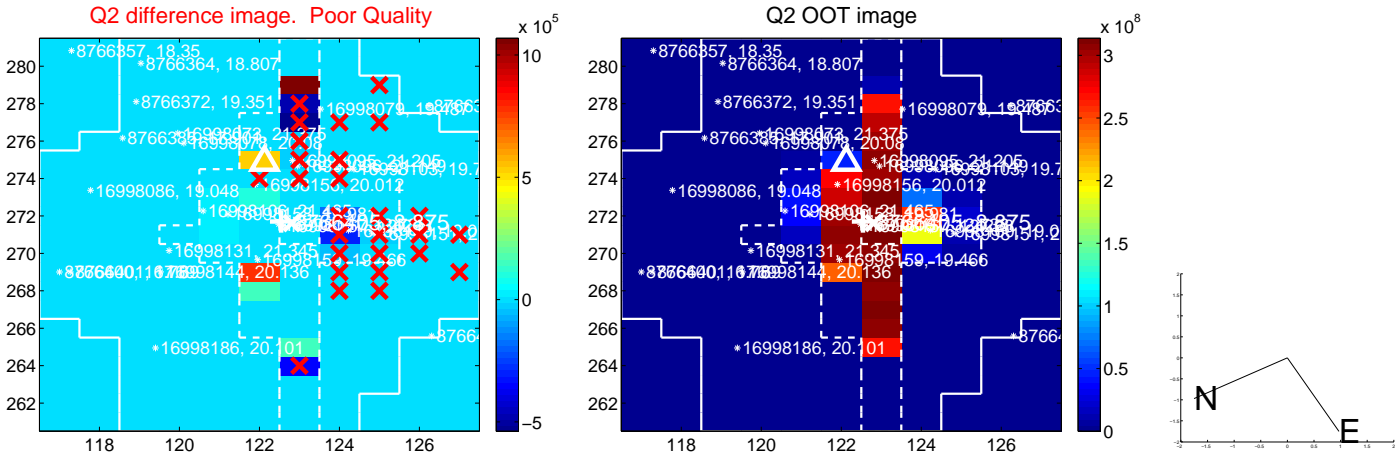
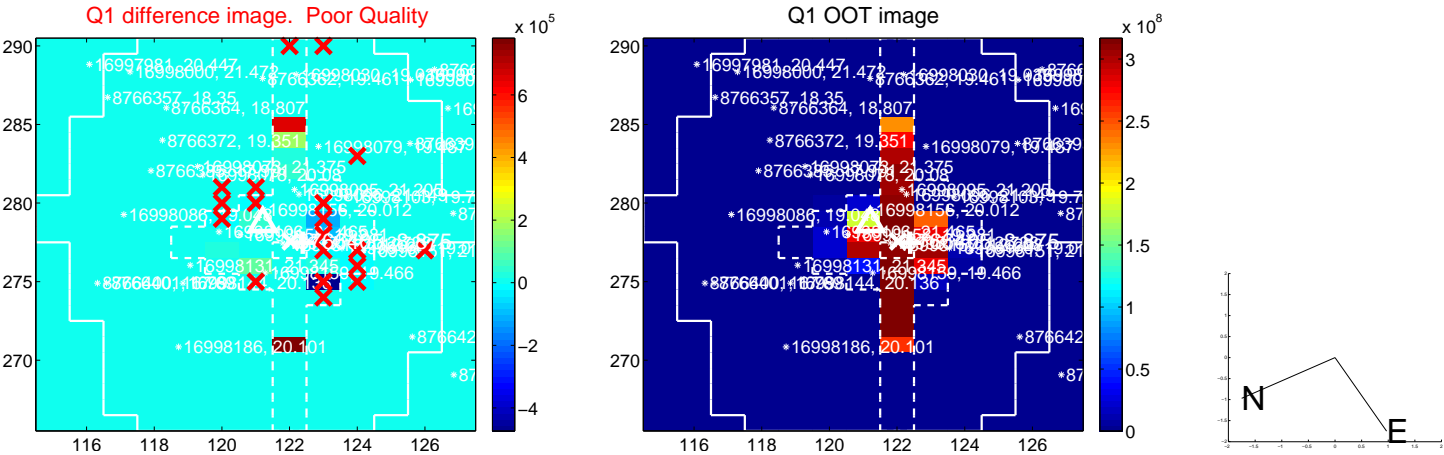
The direct PRF centroid is offset from the target star catalog position by about 1.43 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	5.612 ± 0.950	5.91	3.185 ± 3.034	-4.620 ± 1.668
PRF-fit source offset from KIC position	5.451 ± 1.096	4.98	3.716 ± 3.001	-3.989 ± 1.788
photometric centroid source offset	1.97 ± 2.19	0.90	-1.94 ± 2.21	0.34 ± 1.28

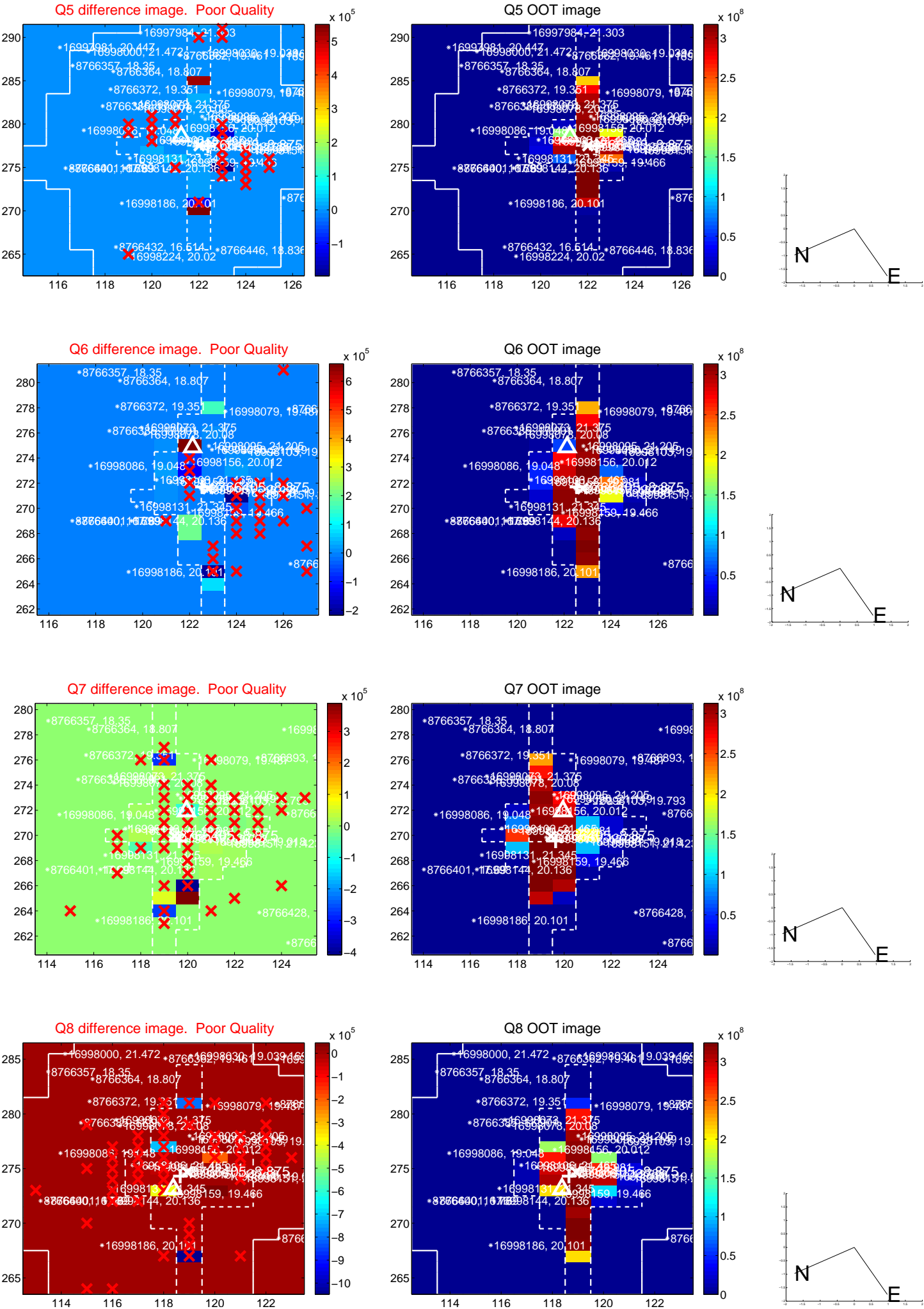


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- 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.

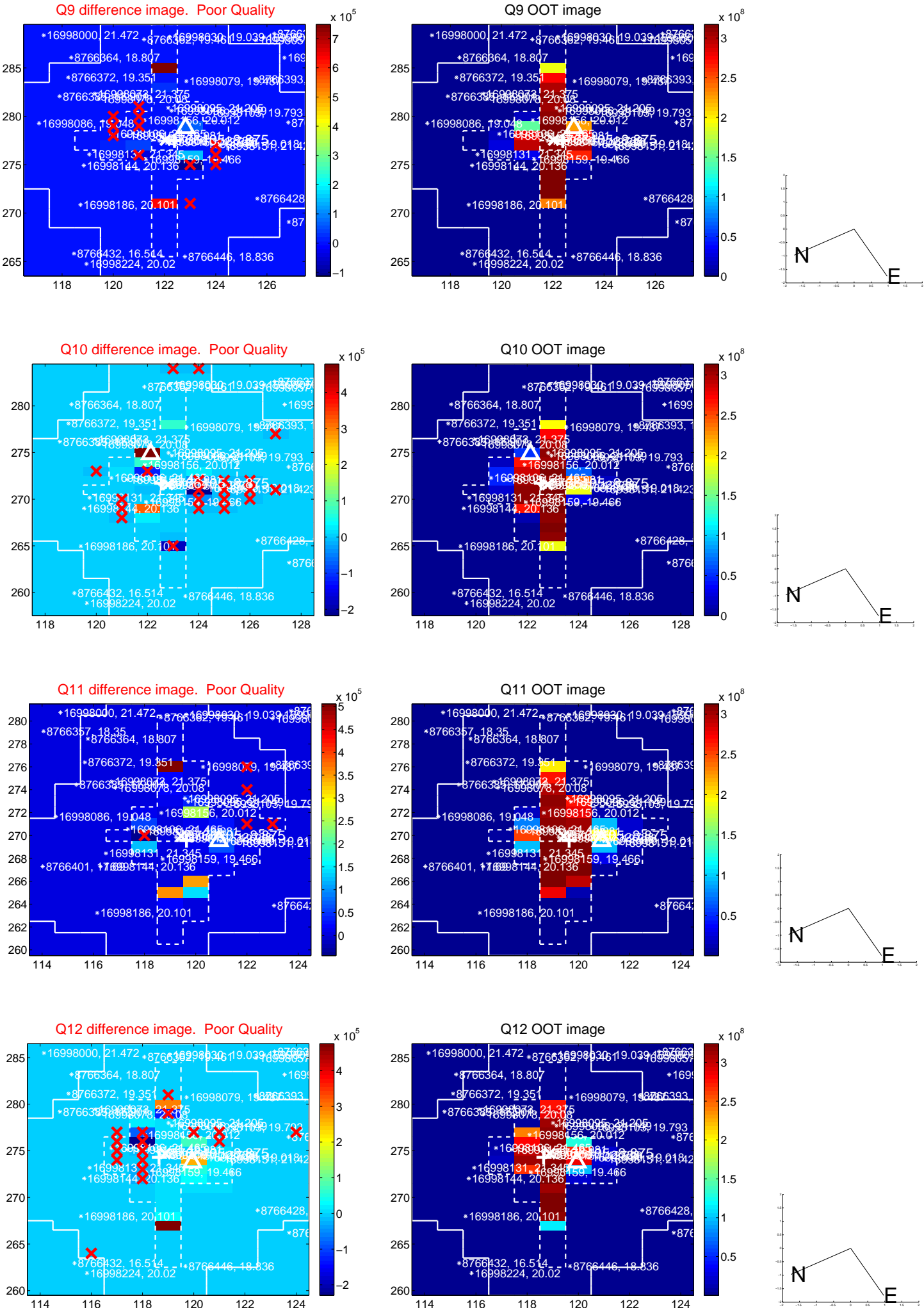
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



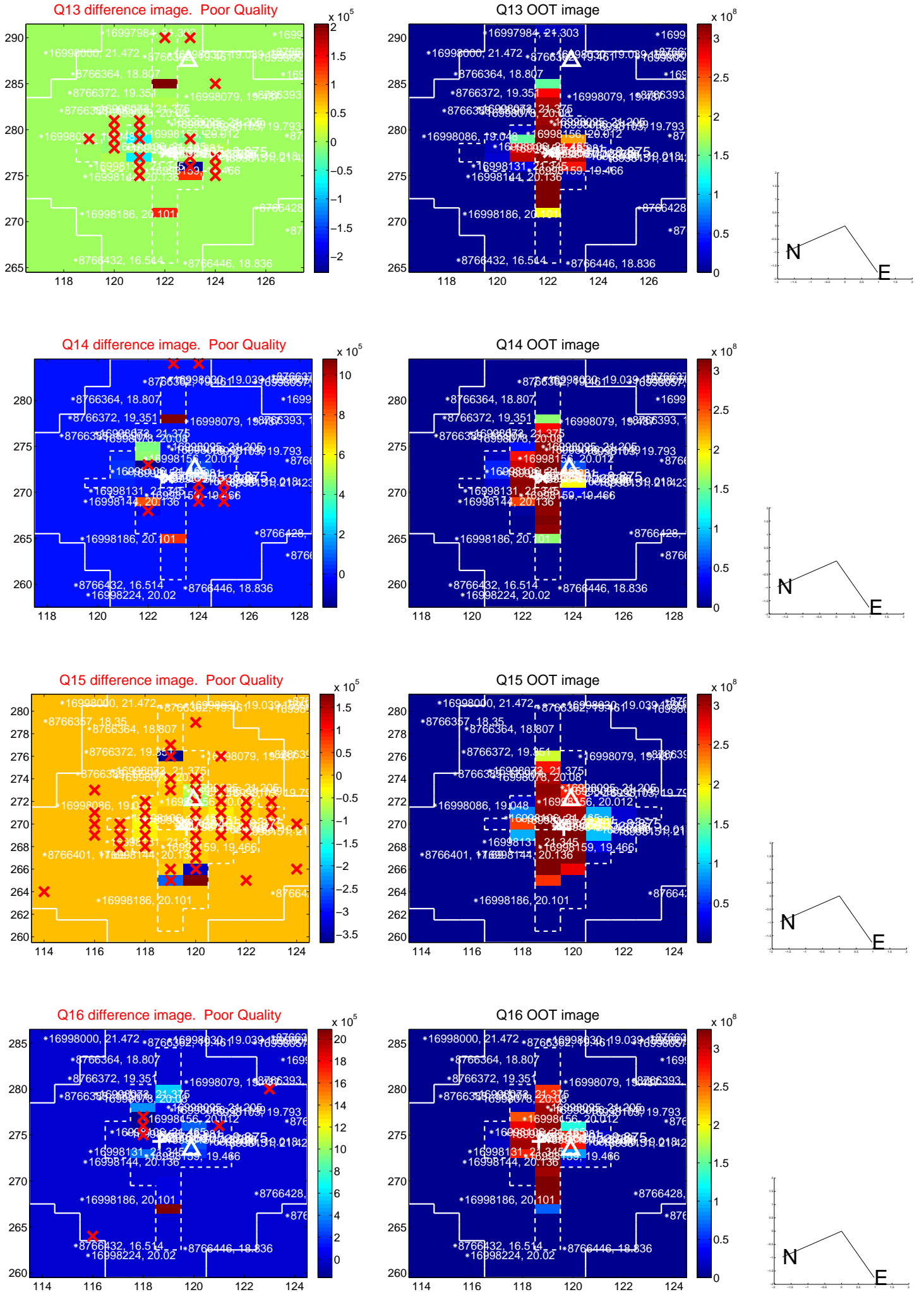
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



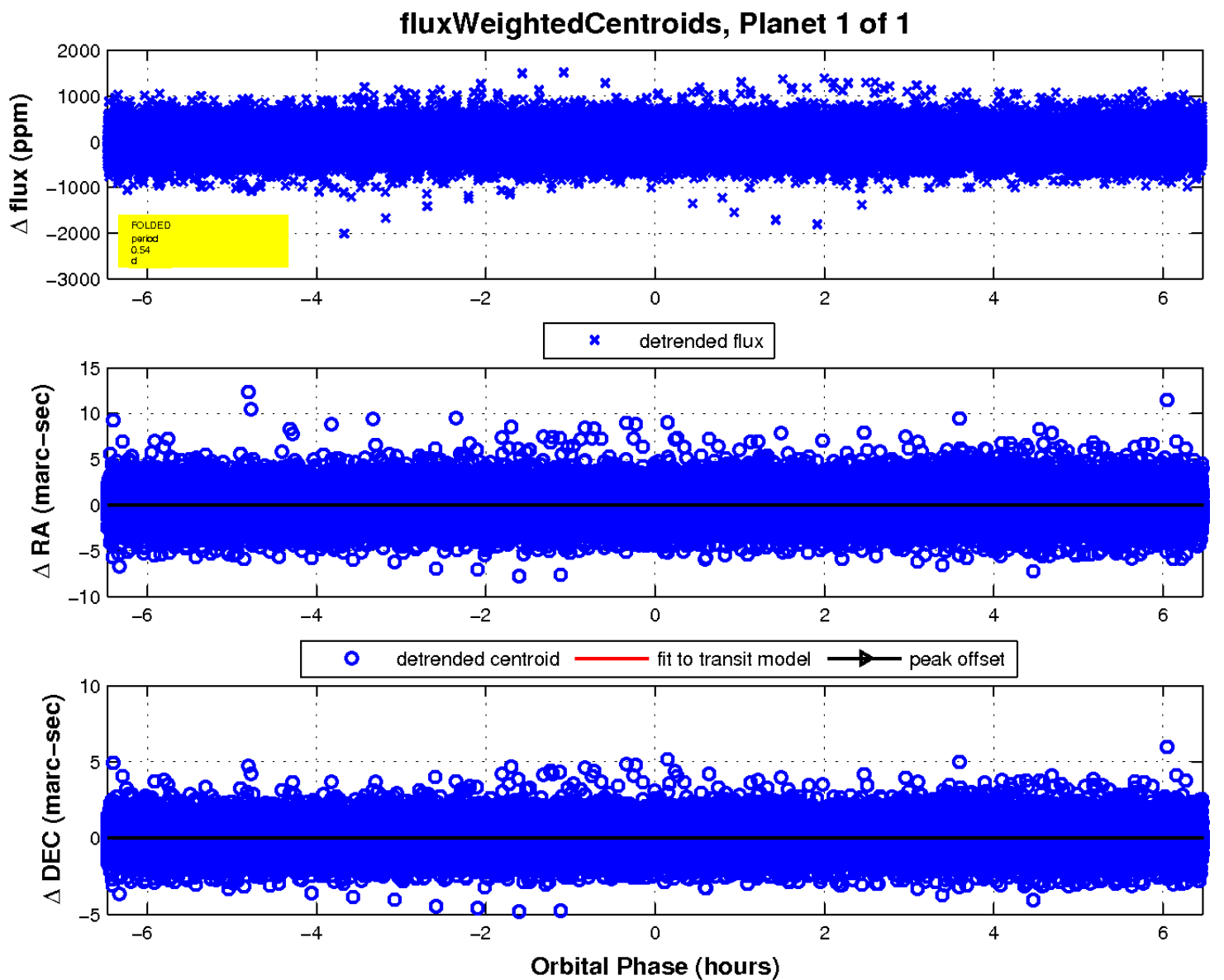
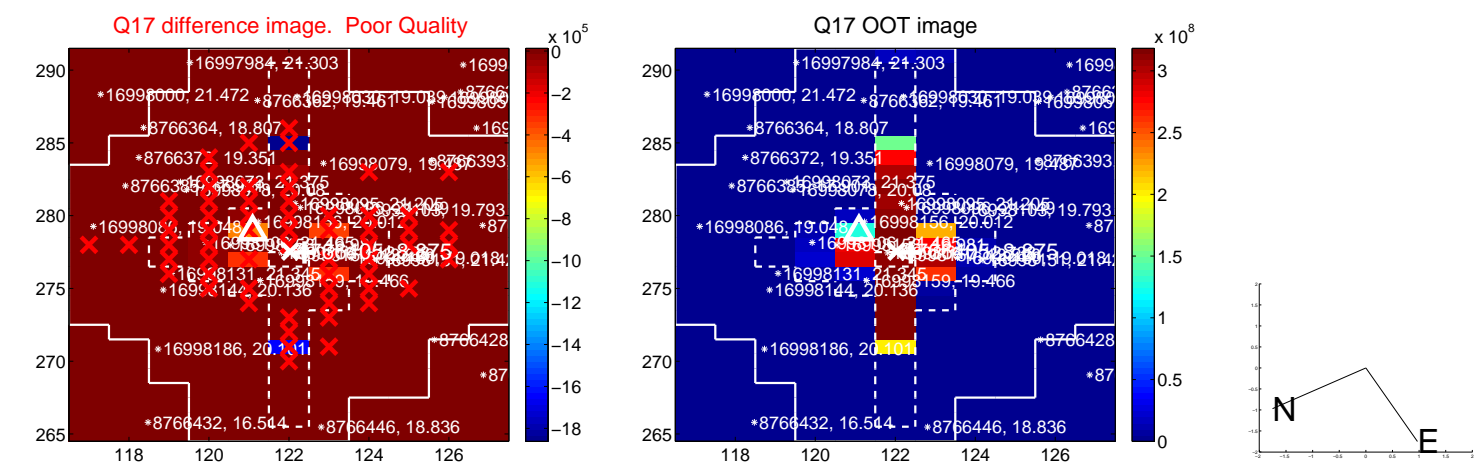
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



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



UKIRT Image

