

KIC 007257966

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})
007257966-01	OBS	4185.01	3.035191	132.331878	568.4	0.735	14.0	18.8	0.87	5505	2.55	403.97

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007257966-01	OBS	PC	0.99	0	0	0	0	NO_COMMENT

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.

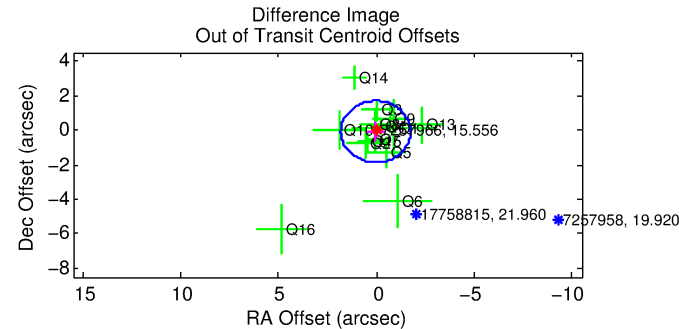
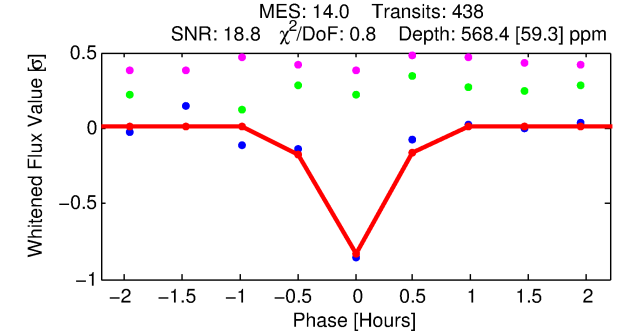
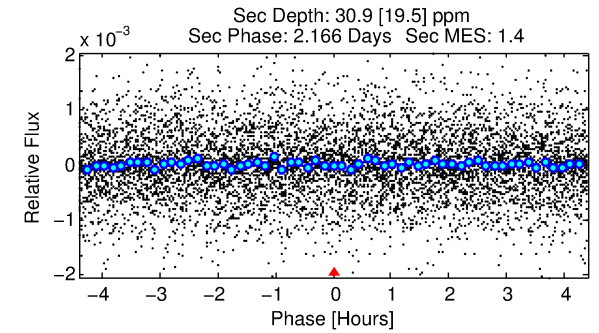
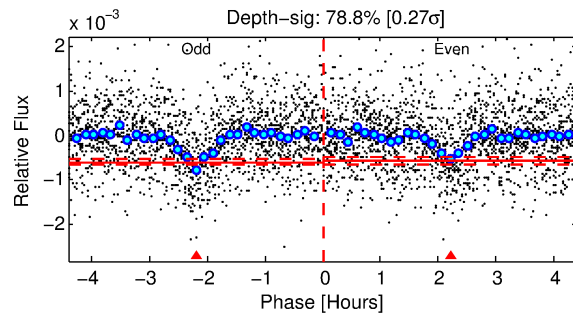
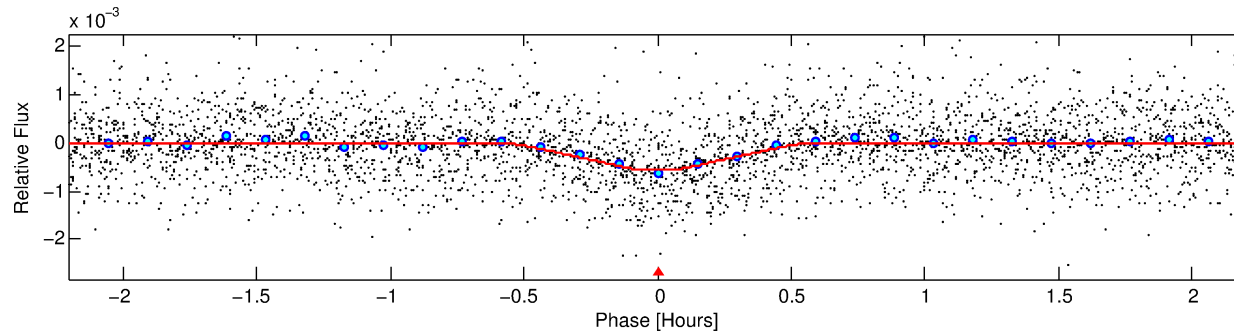
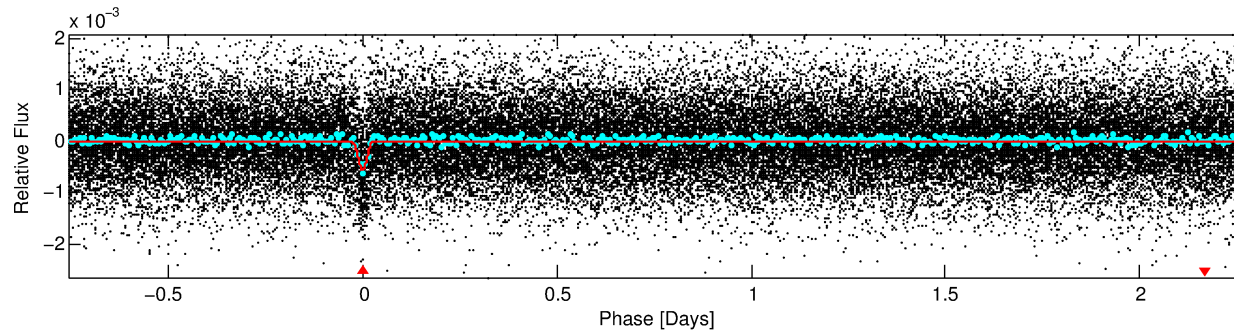
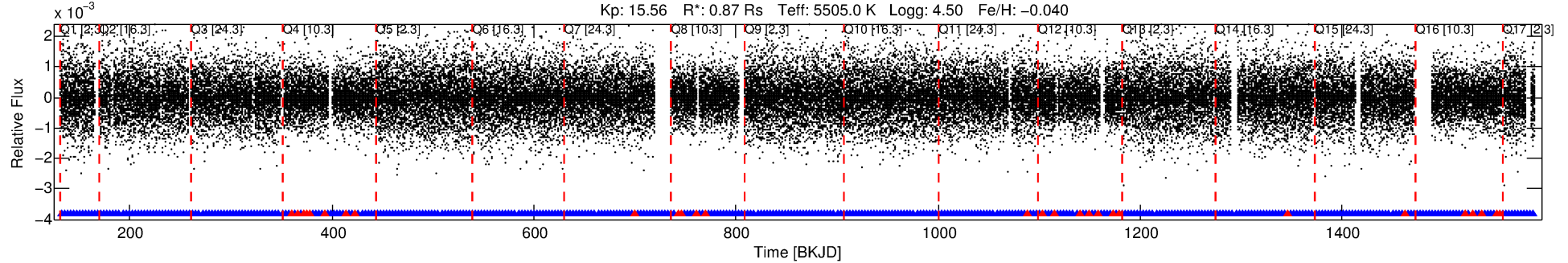
Ephemeris Match Information For 007257966-01

No Significant Match Found

DV One-Page Summary

KIC: 7257966 Candidate: 1 of 1 Period: 3.035 d
KOI: K04185.01 Corr: 0.909

Kp: 15.56 R*: 0.87 Rs Teff: 5505.0 K Logg: 4.50 Fe/H: -0.040



DV Fit Results:

Period = 3.03519 [0.00001] d
Epoch = 132.3319 [0.0008] BKJD
Rp/R* = 0.0268 [0.0102]
a/R* = 15.75 [24.96]
b = 0.90 [0.36]
Seff = 403.97 [124.64]
Teq = 1143 [88] K
Rp = 2.55 [1.13] Re
a = 0.0394 [0.0076] AU
Ag = 4.06 [4.18] [0.73σ]
Teffp = 2509 [626] K [2.16σ]

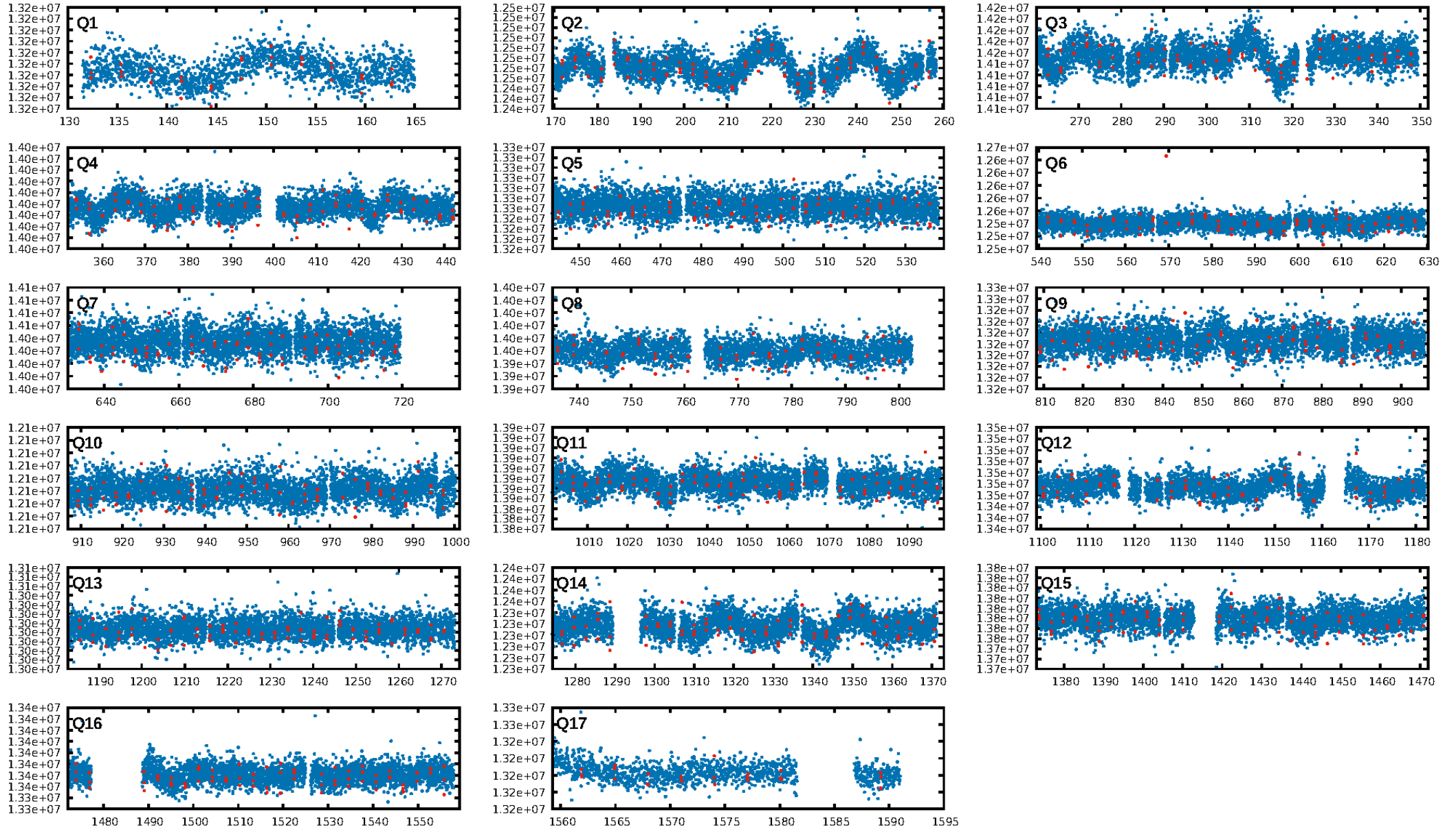
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 4.96e-45
RollingBand-fgt: 0.93 [391/419]
GhostDiagnostic-chr: 2.78
Centroid-sig: N/A
Centroid-so: 1.689 arcsec [2.53σ]
OotOffset-rm: 0.101 arcsec [0.17σ]
KicOffset-rm: 0.338 arcsec [0.61σ]
OotOffset-st: 4/3/3/4 [14]
KicOffset-st: 4/3/3/4 [14]
DiffImageQuality-fgm: 0.50 [7/14]
DiffImageOverlap-fno: 1.00 [17/17]

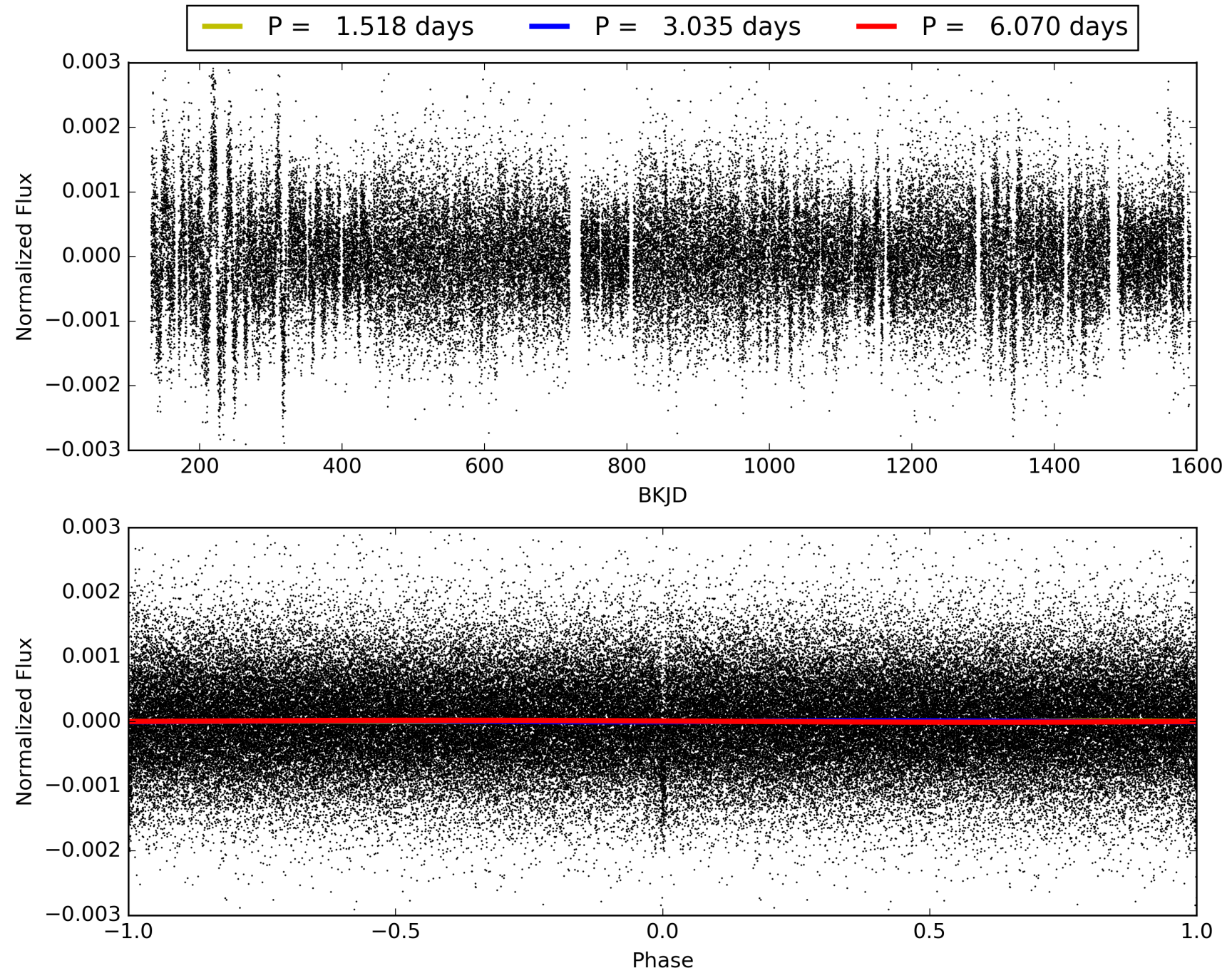
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 23:35:58 Z

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

TCE 007257966-01, PDC Light Curves

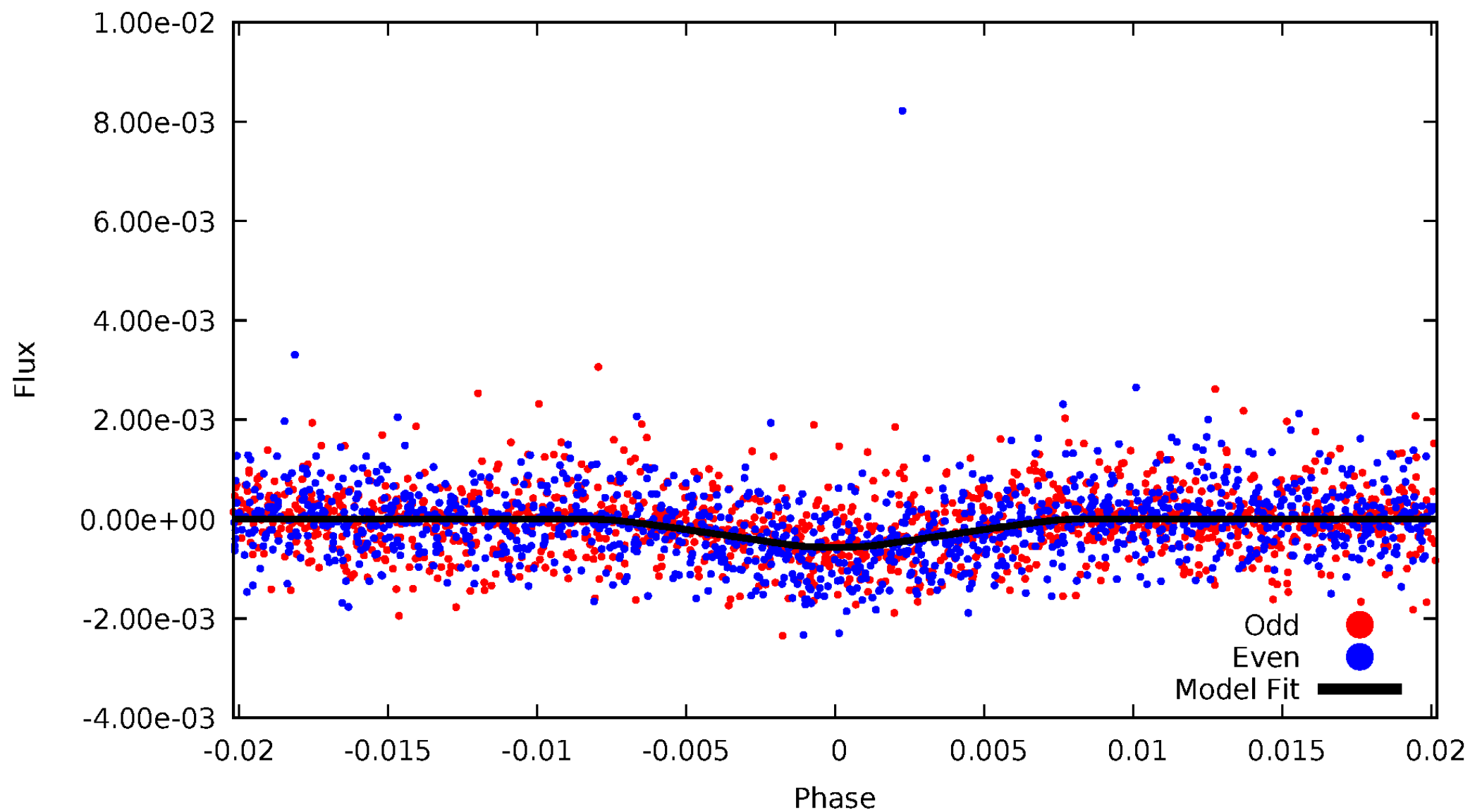


TCE 007257966-01



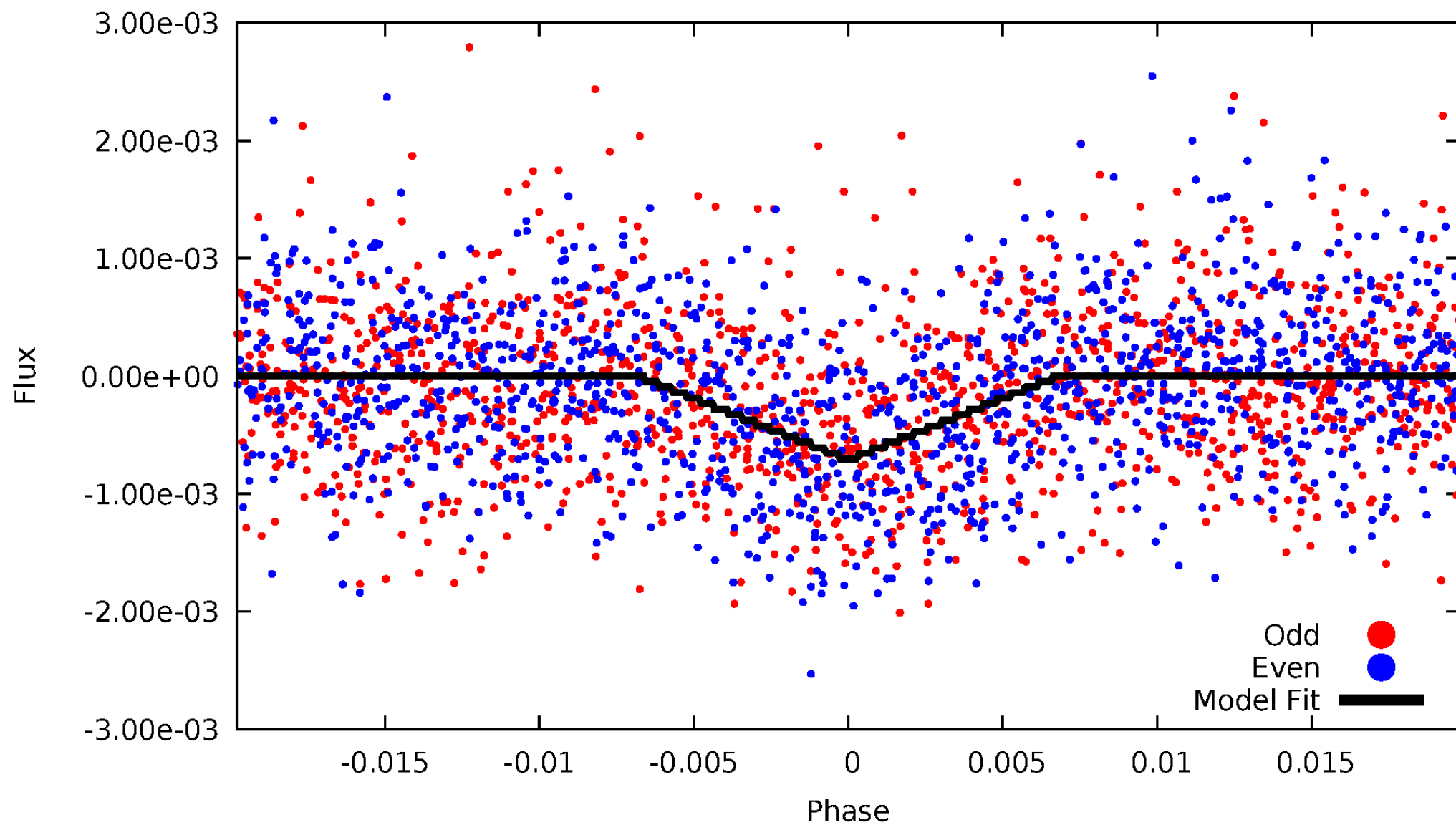
DV Odd/Even

TCE 007257966-01



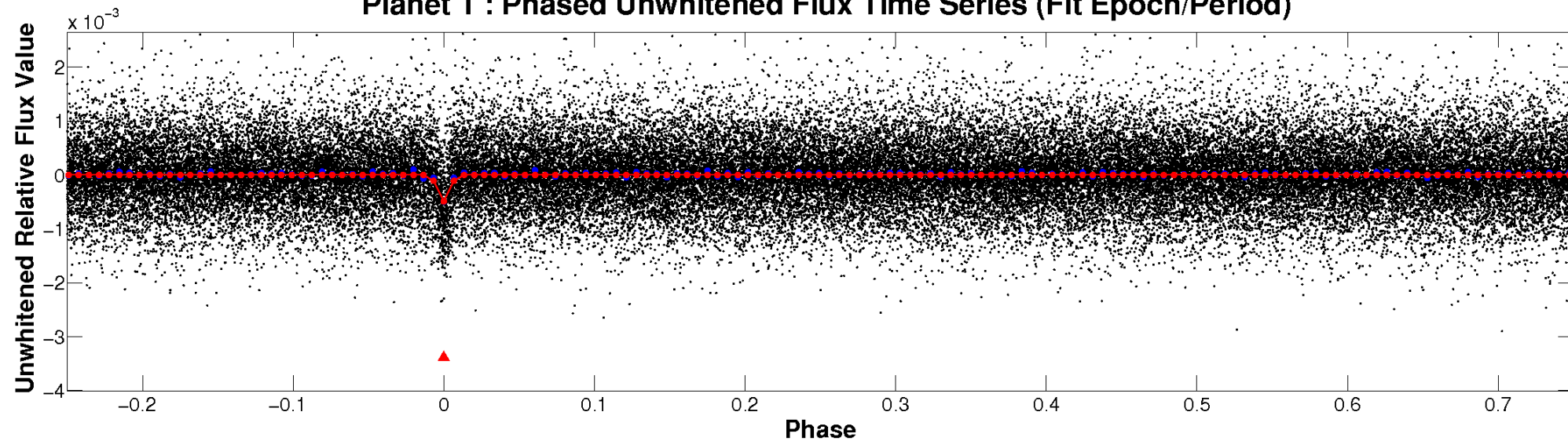
ALT Odd/Even

TCE 007257966-01

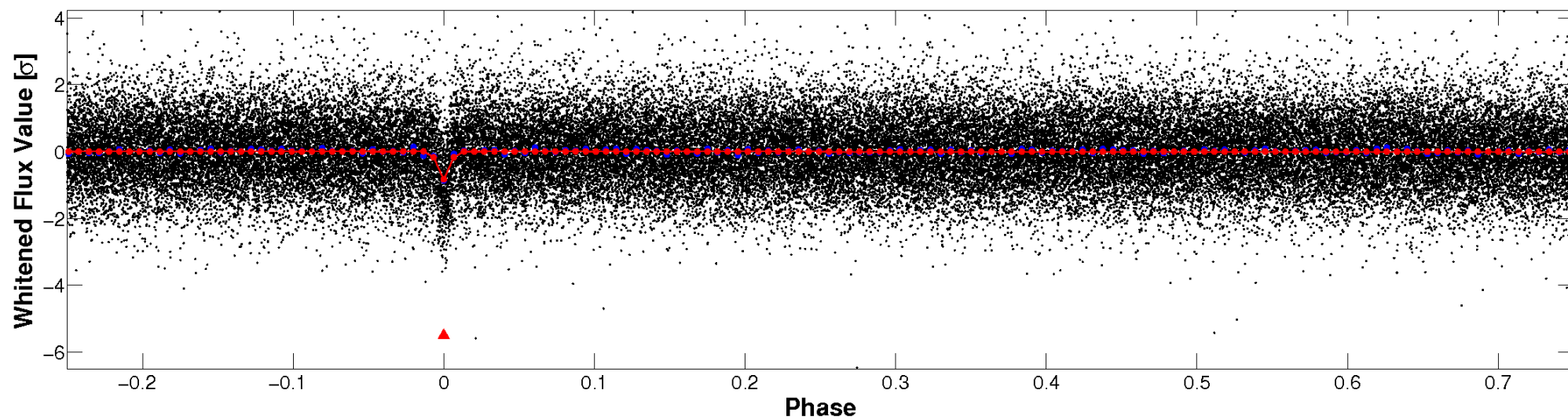


Non-Whitened Vs. Whitened Light Curve

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

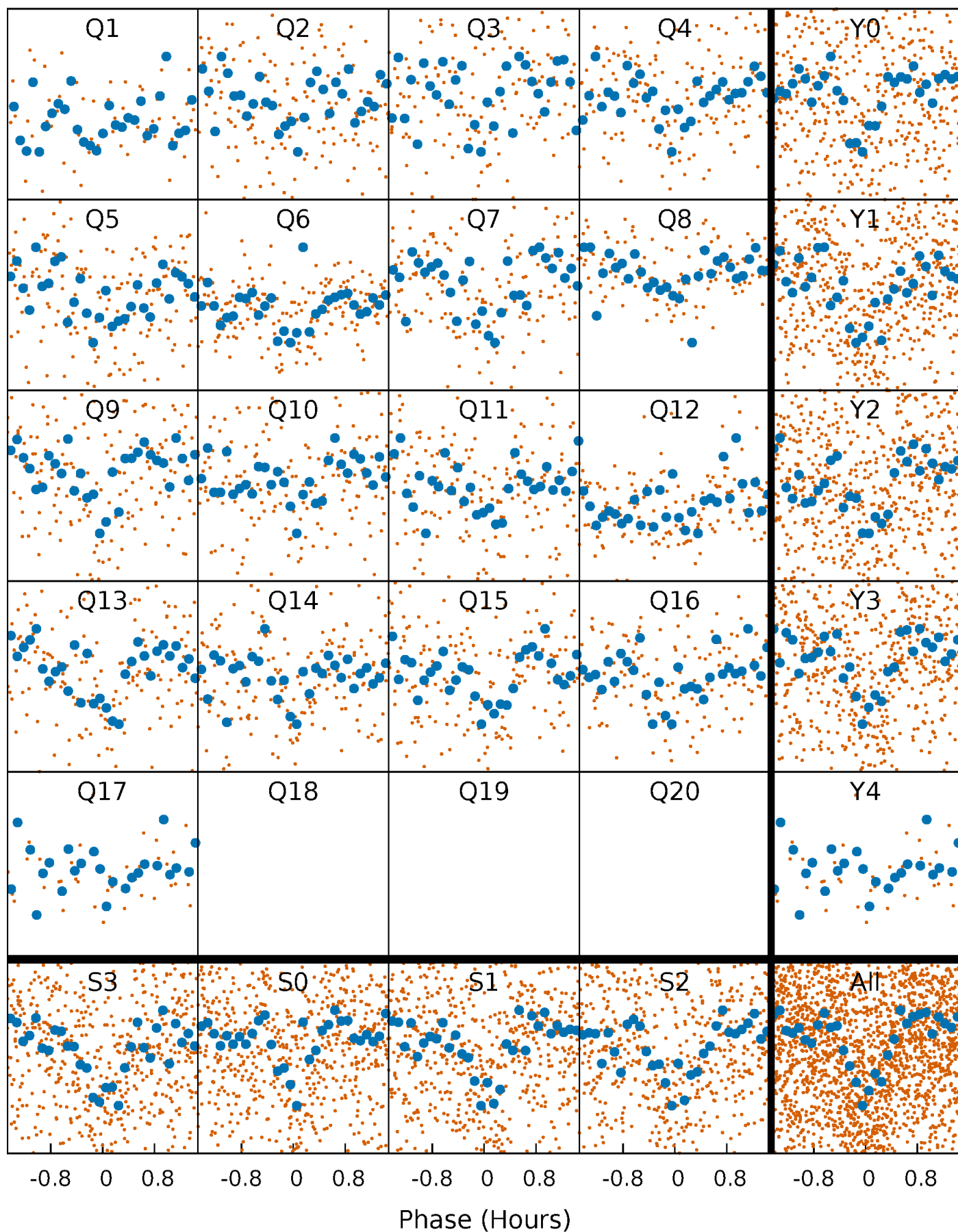


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



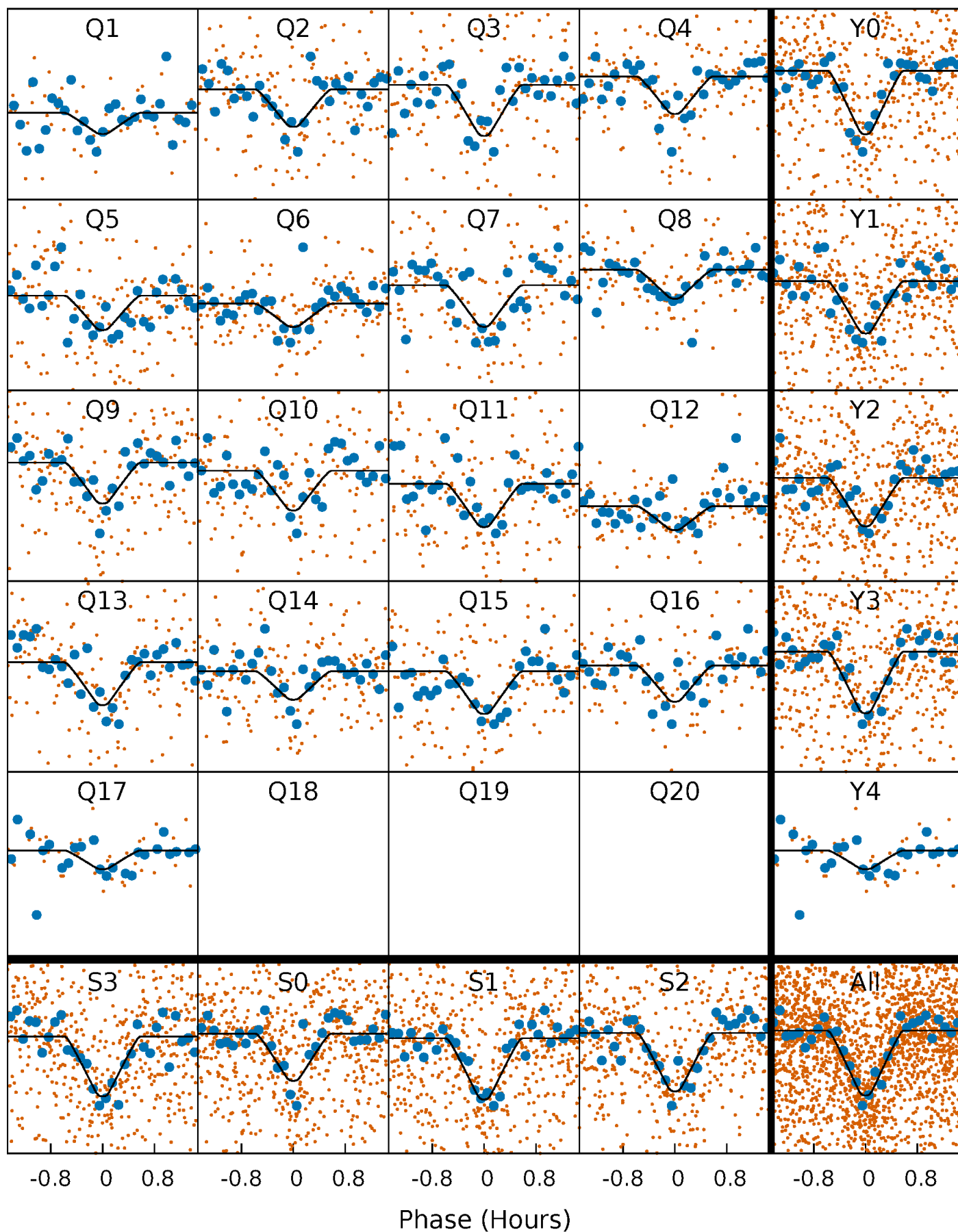
PDC Quarter-Phased Transit Curves

TCE 007257966-01 P= 3.035191 Days $T_0=132.331878$ (BKJD)



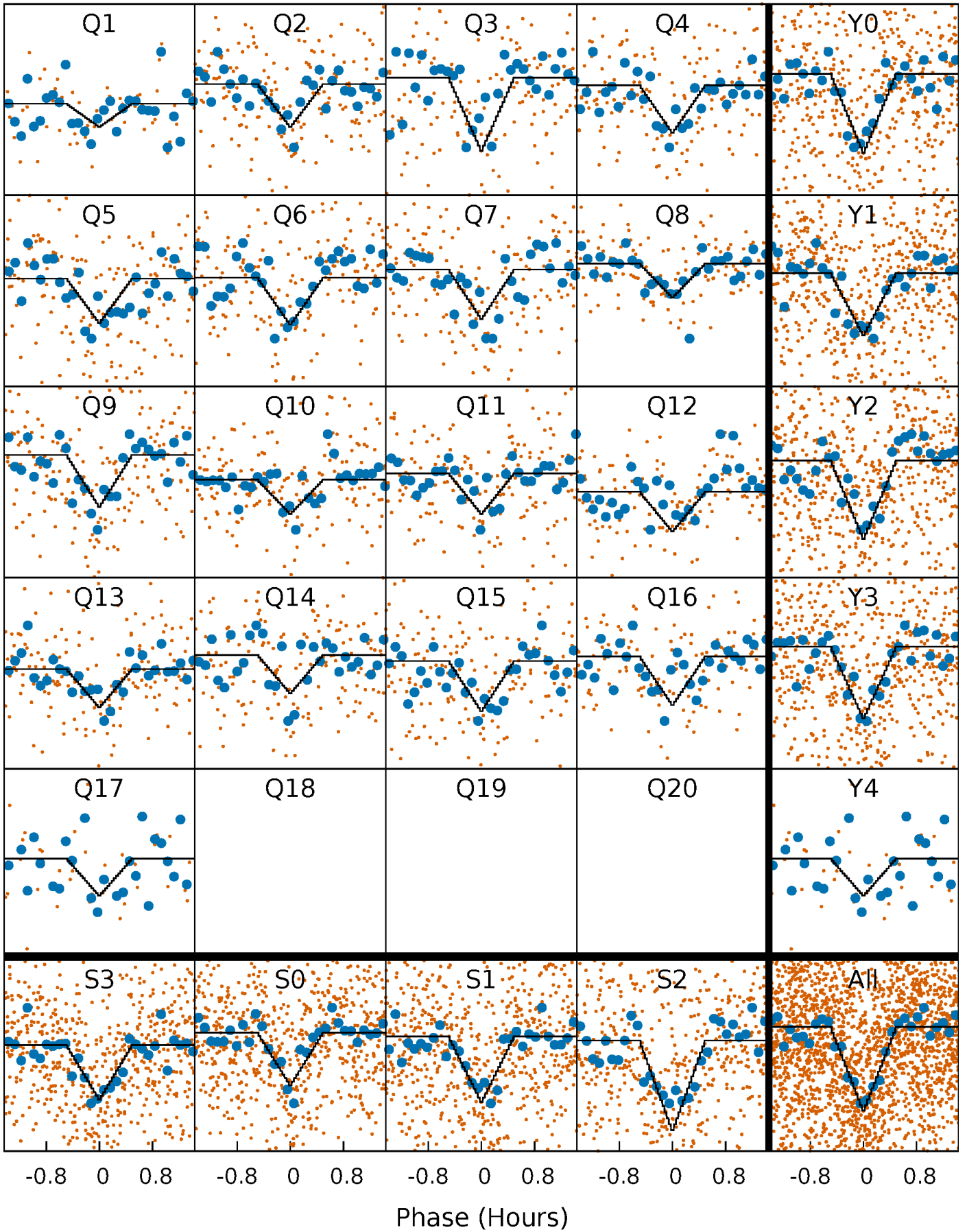
DV Quarter-Phased Transit Curves

TCE 007257966-01 P= 3.035191 Days $T_0=132.331878$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

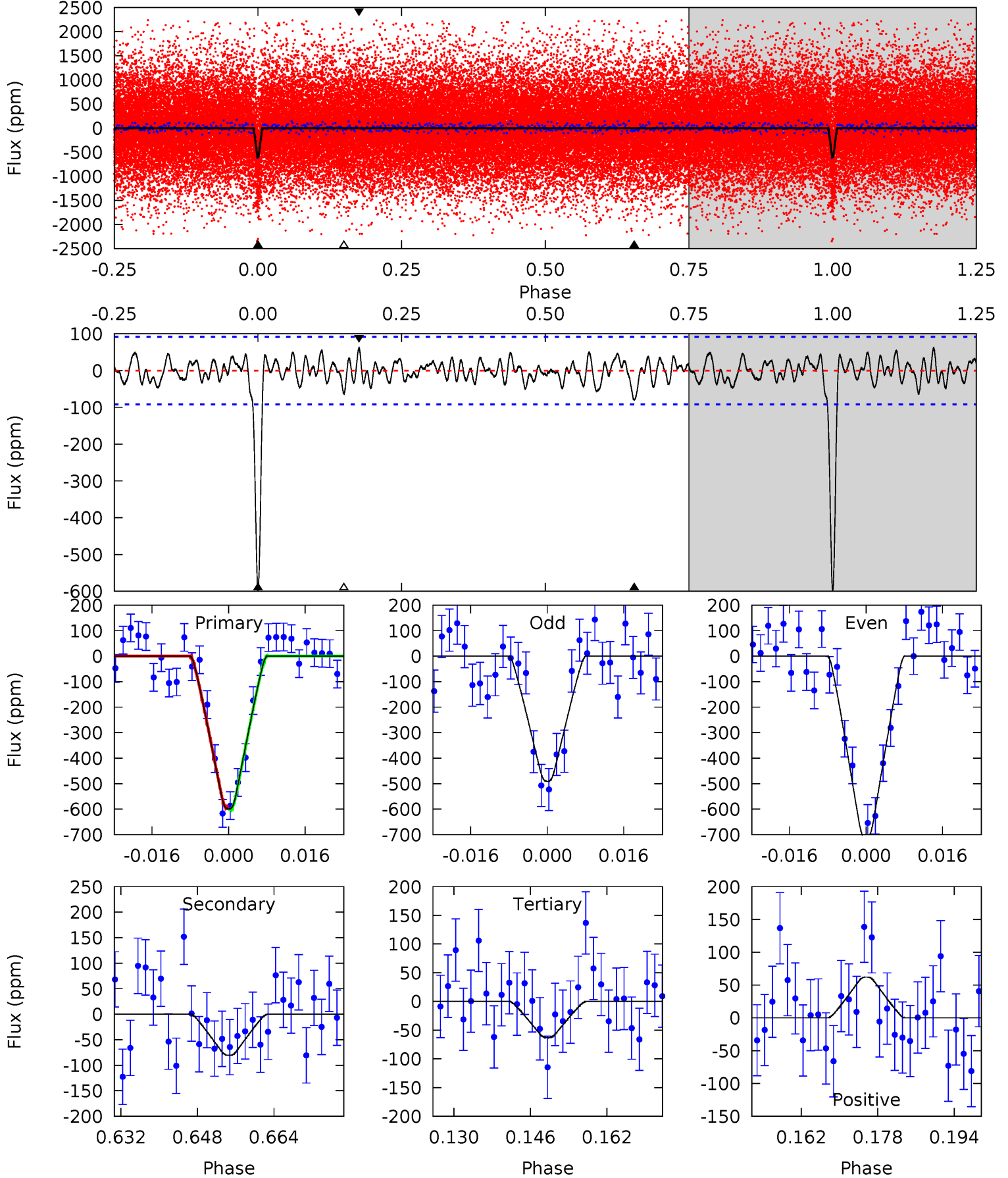
TCE 007257966-01 P= 3.035193 Days $T_0=132.331993$ (BKJD)



DV Model-Shift Uniqueness Test

007257966-01, P = 3.035191 Days, E = 129.296687 Days

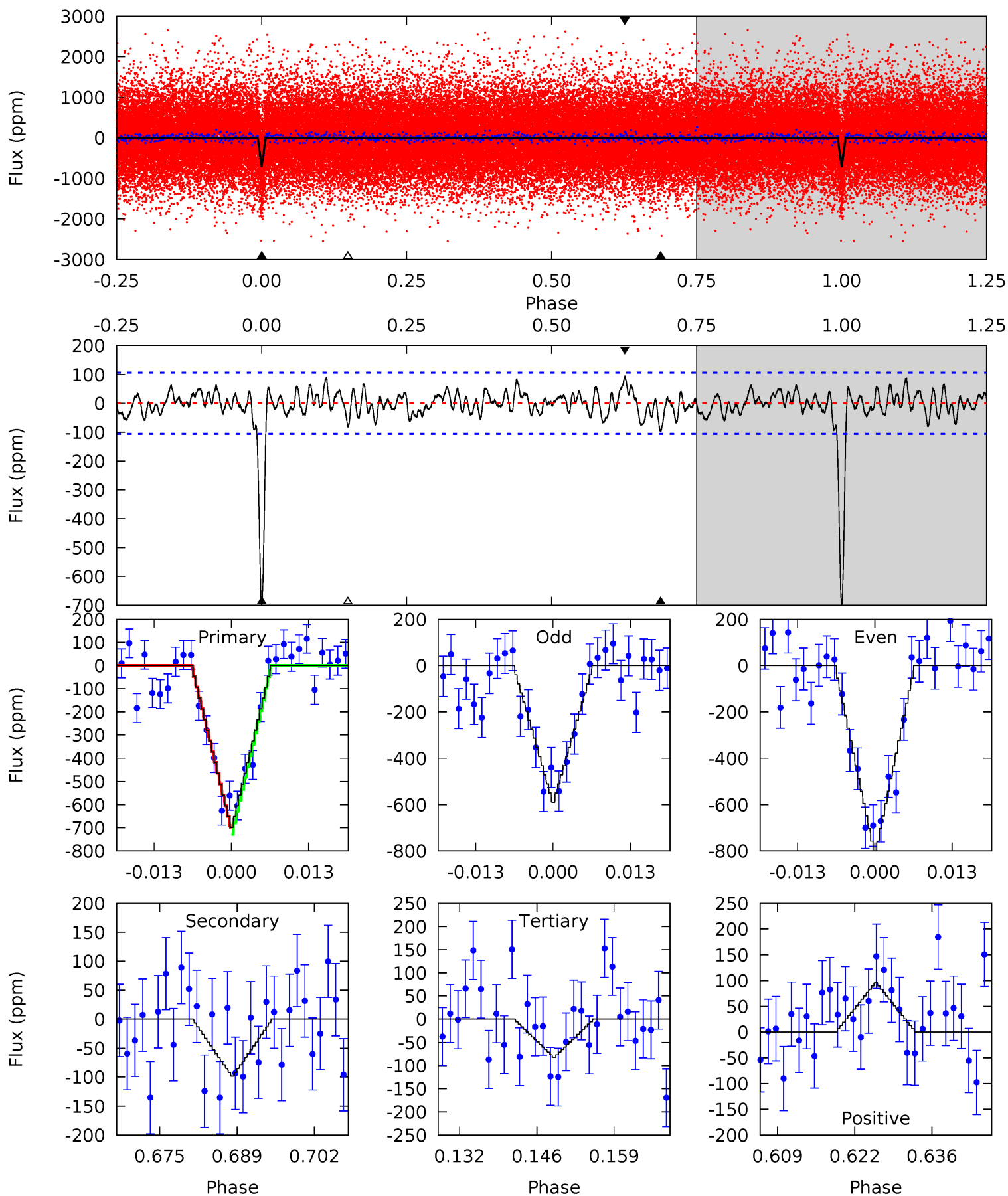
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
32.2	4.32	3.40	3.34	4.93	2.40	1.25	28.8	28.9	0.92	0.98	5.97	0.94	0.09	0.16



Alt Model-Shift Uniqueness Test

007257966-01, P = 3.035193 Days, E = 129.296800 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
32.6	4.60	3.83	4.47	4.97	2.48	1.50	28.8	28.2	0.77	0.13	5.21	0.96	0.12	0.73



Stellar Parameters For KIC 007257966

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5505^{+164}_{-164}	$4.503^{+0.063}_{-0.158}$	$-0.040^{+0.300}_{-0.300}$	$0.873^{+0.195}_{-0.090}$	$0.887^{+0.091}_{-0.082}$	$1.874^{+0.523}_{-0.824}$
	+3%/-3%	+1%/-4%	+750%/-750%	+22%/-10%	+10%/-9%	+28%/-44%
Source	PHO1	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 007257966-01 / KOI 4185.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-80 ± 19	$2.56^{+1.04}_{-0.93}$	1619^{+91}_{-76}	3610^{+660}_{-404}	10^{+16}_{-5}
Alt.	-99 ± 21	$2.57^{+1.15}_{-1.00}$	1619^{+103}_{-70}	3722^{+746}_{-425}	12^{+21}_{-6}

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 $A_{obs} \gg 1.0$

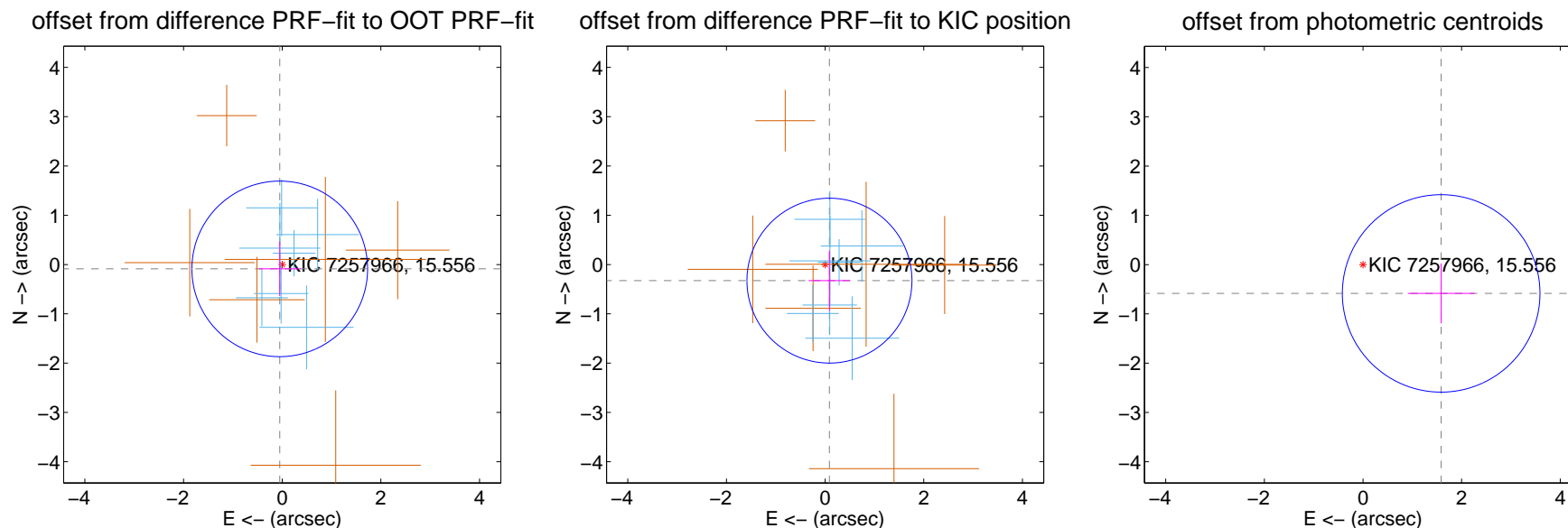
DV Centroid Data

Supplemental centroid analysis for 007257966-01. Kepler magnitude: 15.56. Transit SNR 18.75

There are 7 quarters with good PRF difference image offsets

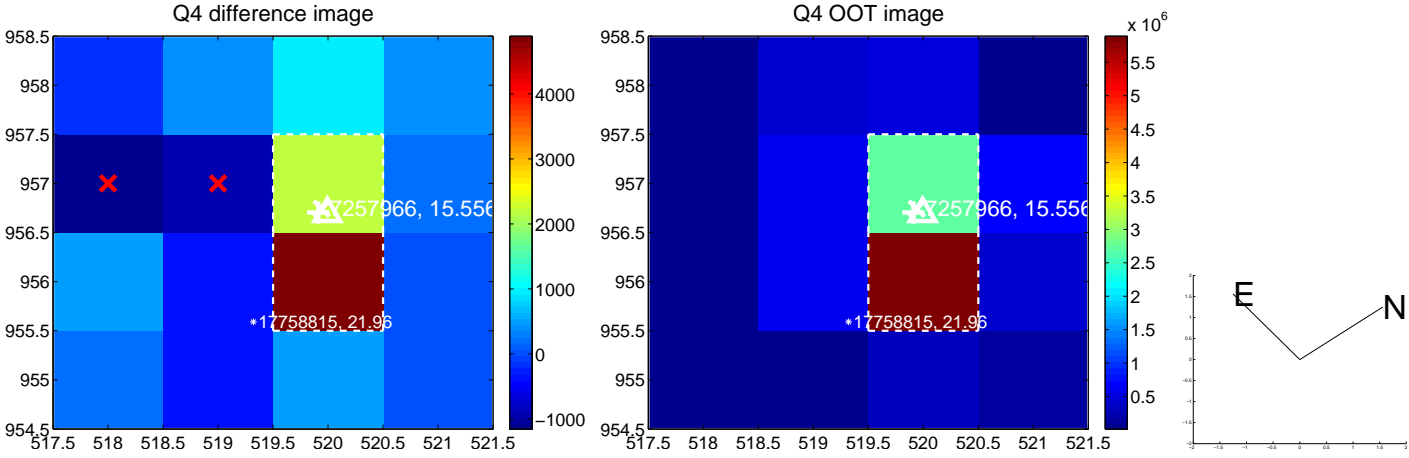
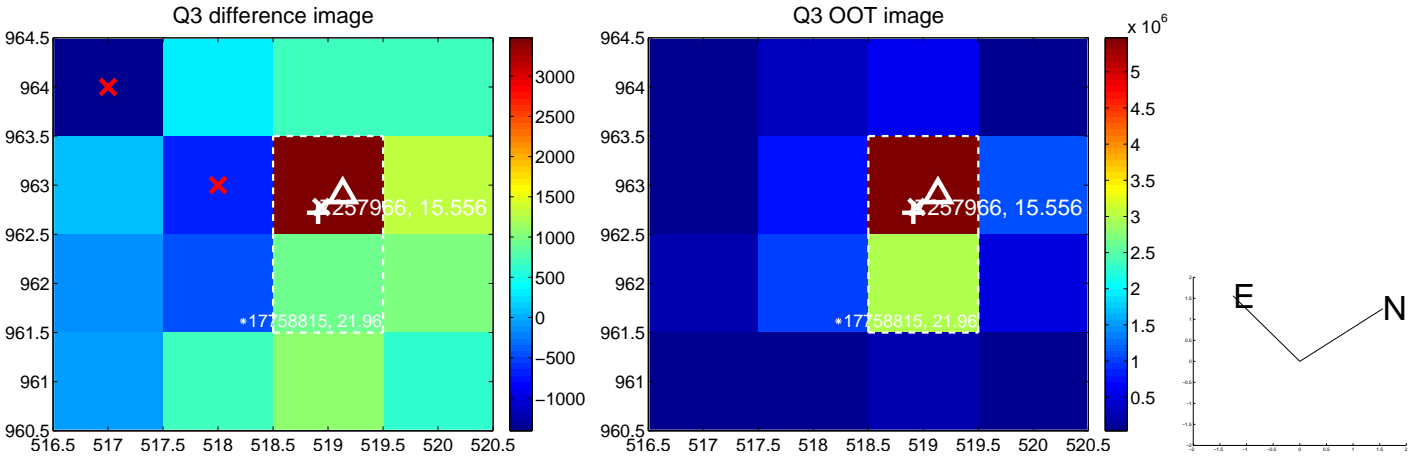
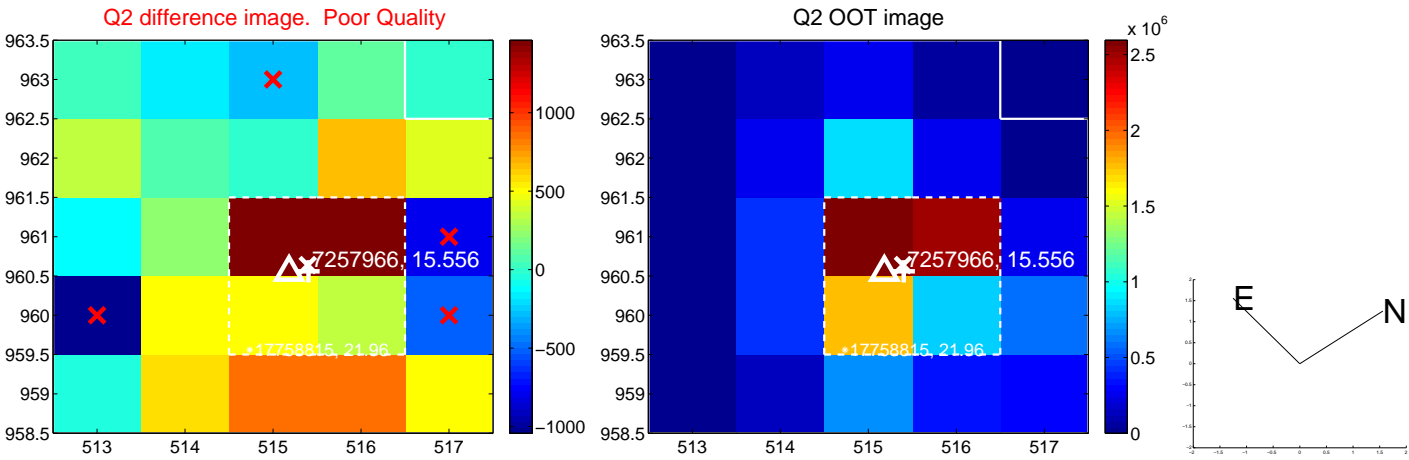
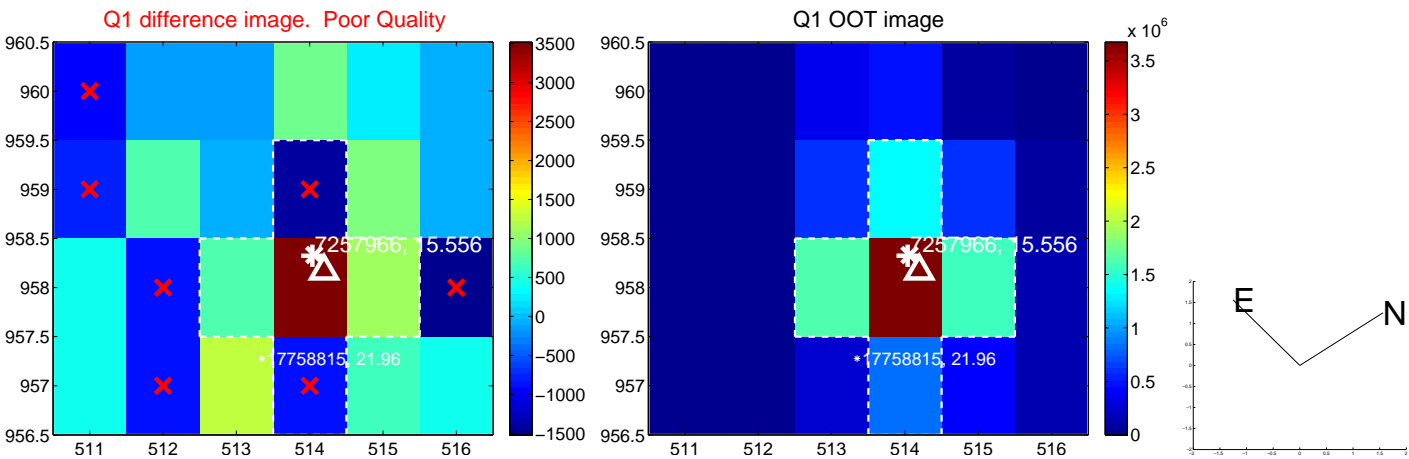
The direct PRF centroid is offset from the target star catalog position by about 0.28 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.101 ± 0.594	0.17	0.050 ± 0.423	-0.088 ± 0.550
PRF-fit source offset from KIC position	0.338 ± 0.558	0.61	-0.088 ± 0.421	-0.327 ± 0.614
photometric centroid source offset	1.69 ± 0.67	2.53	-1.59 ± 0.68	-0.58 ± 0.61

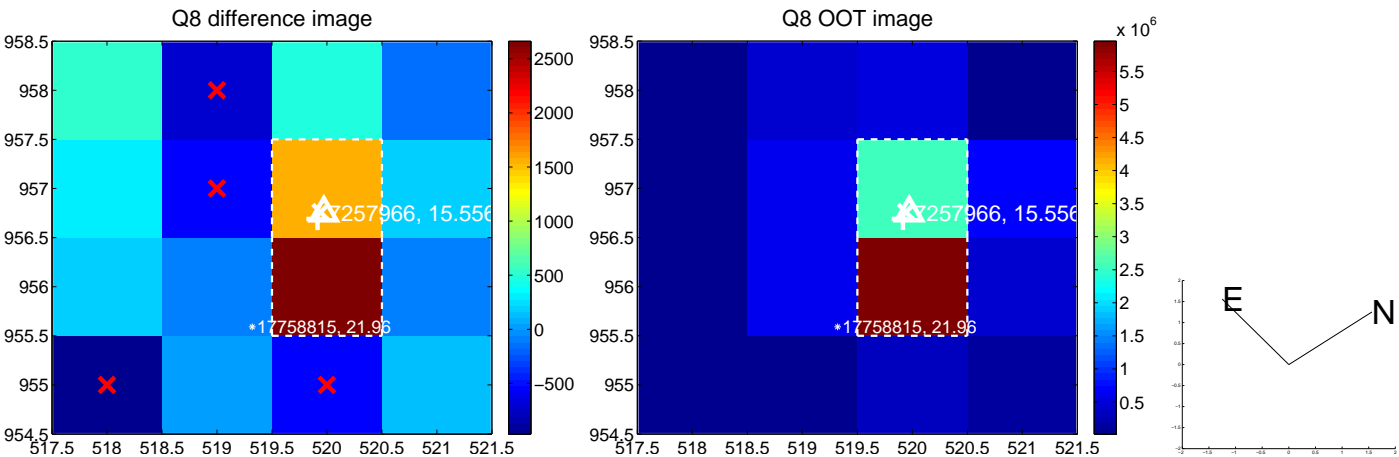
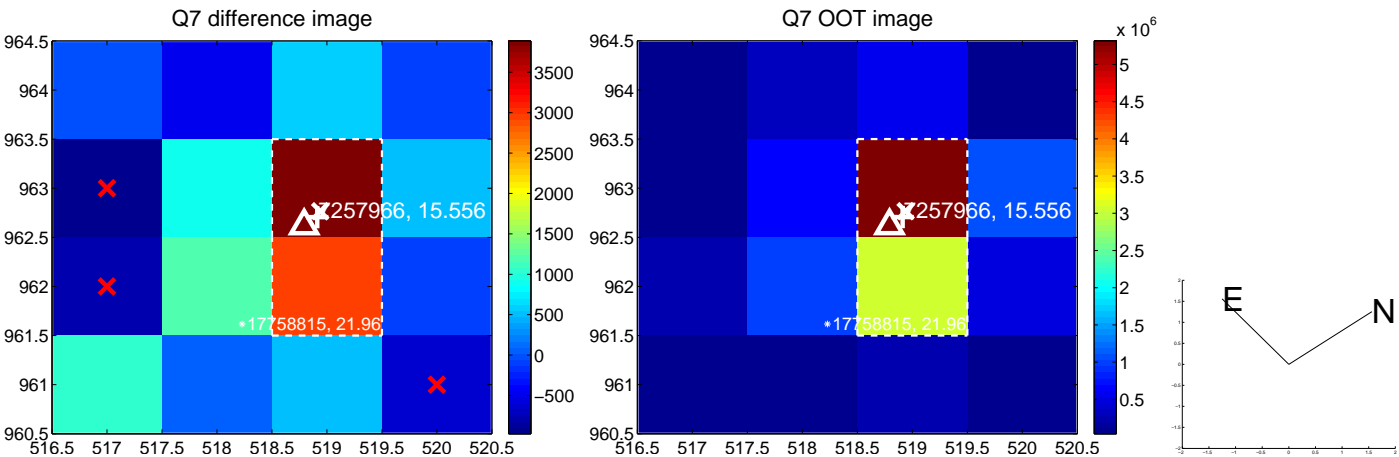
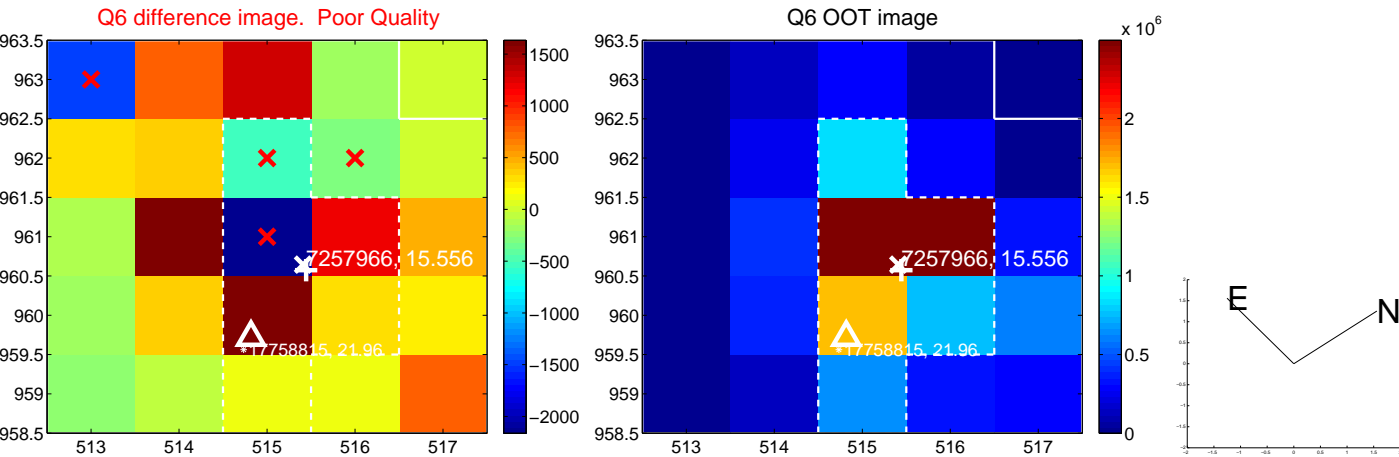
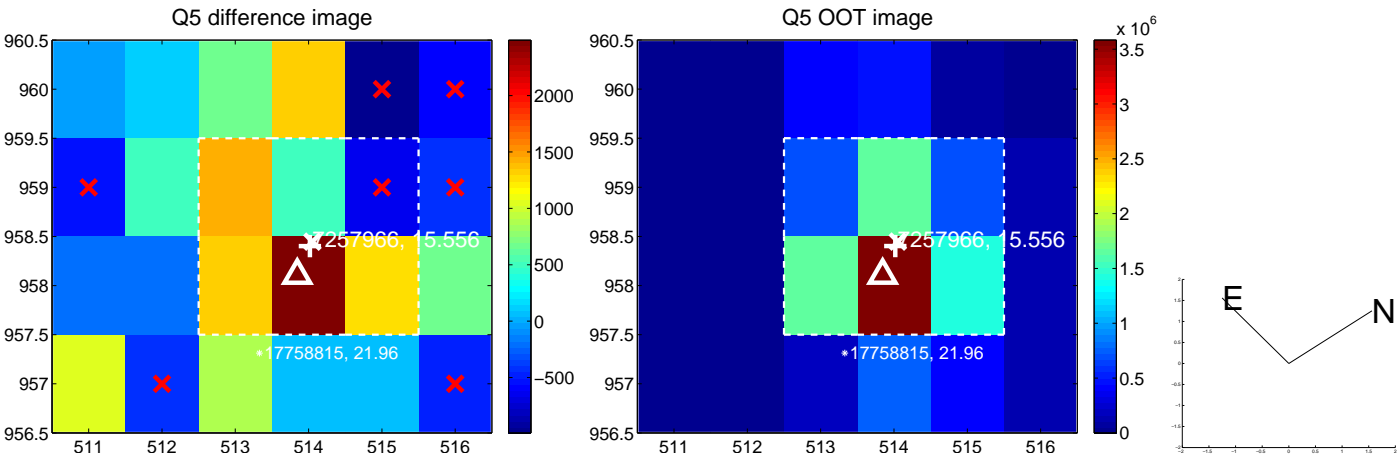


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

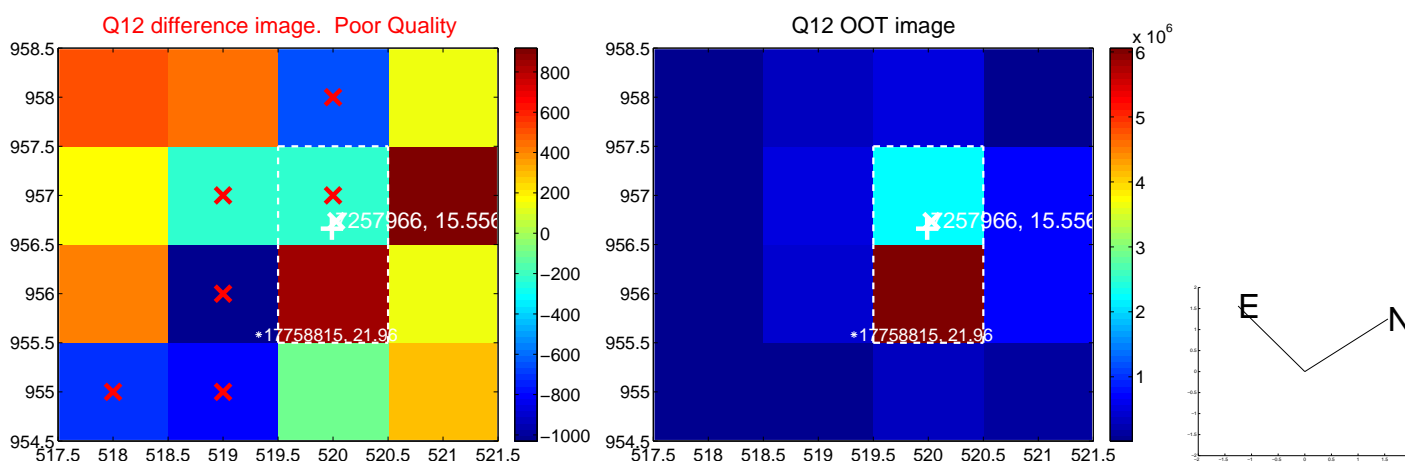
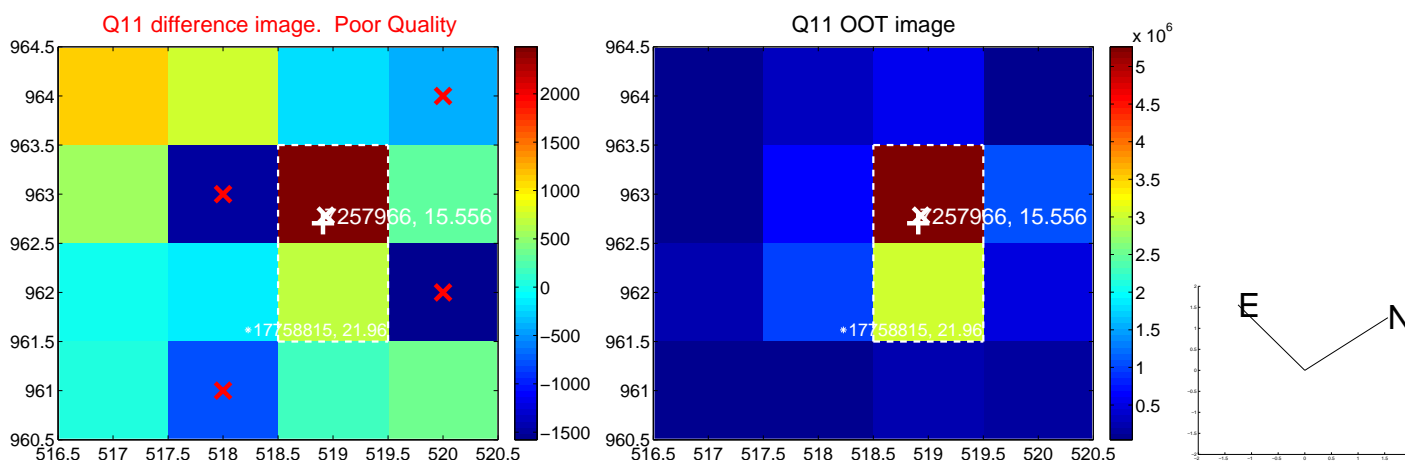
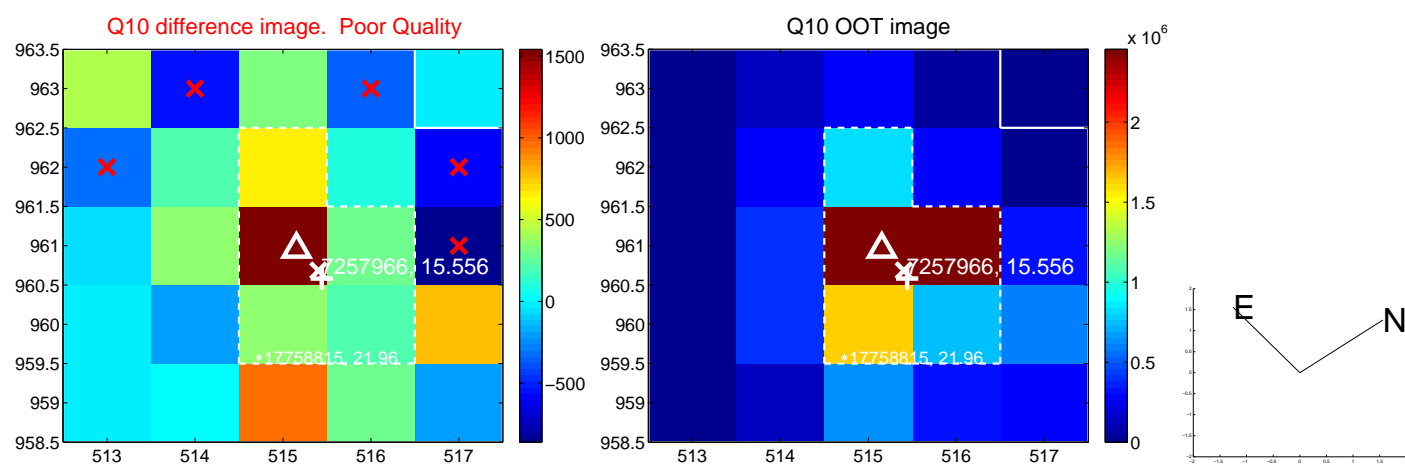
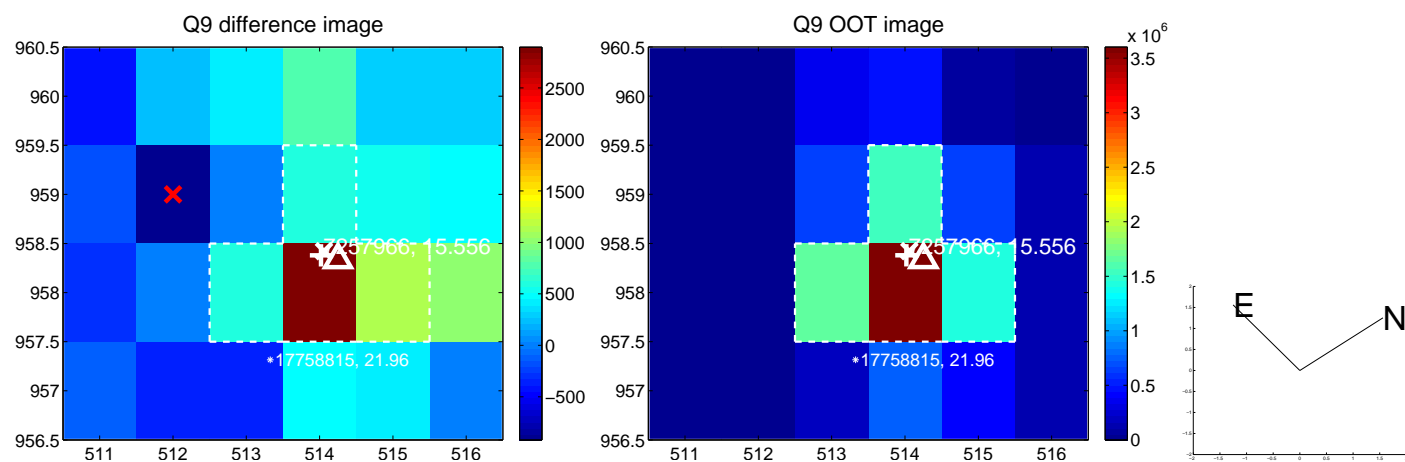
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



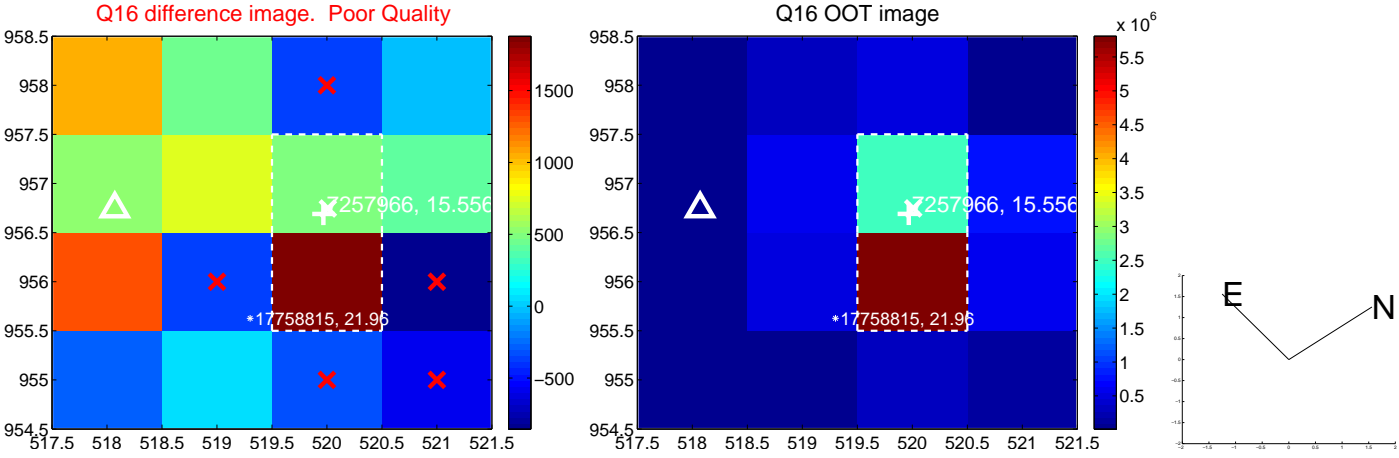
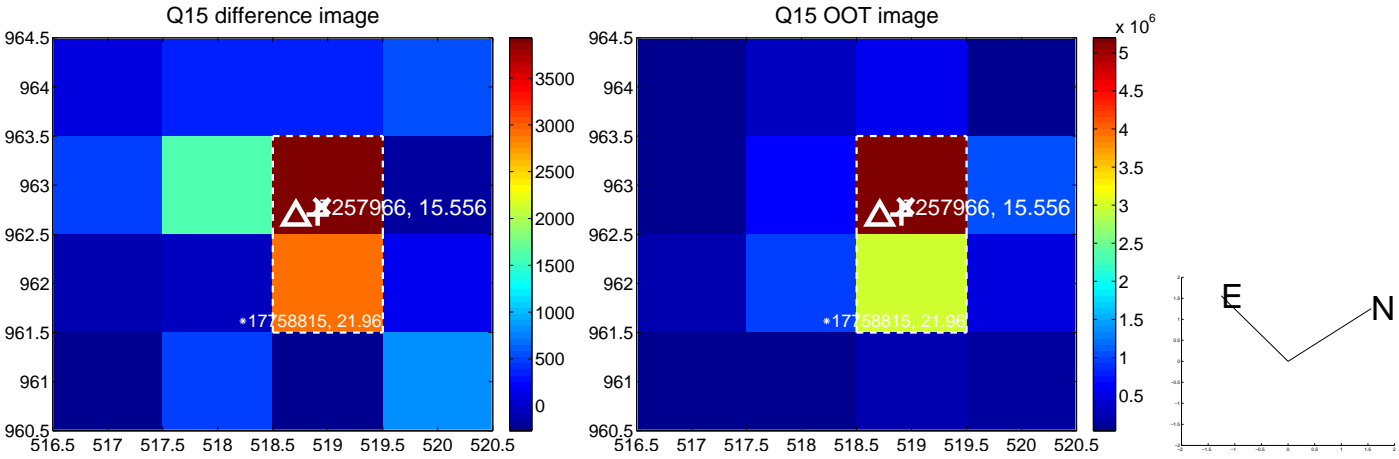
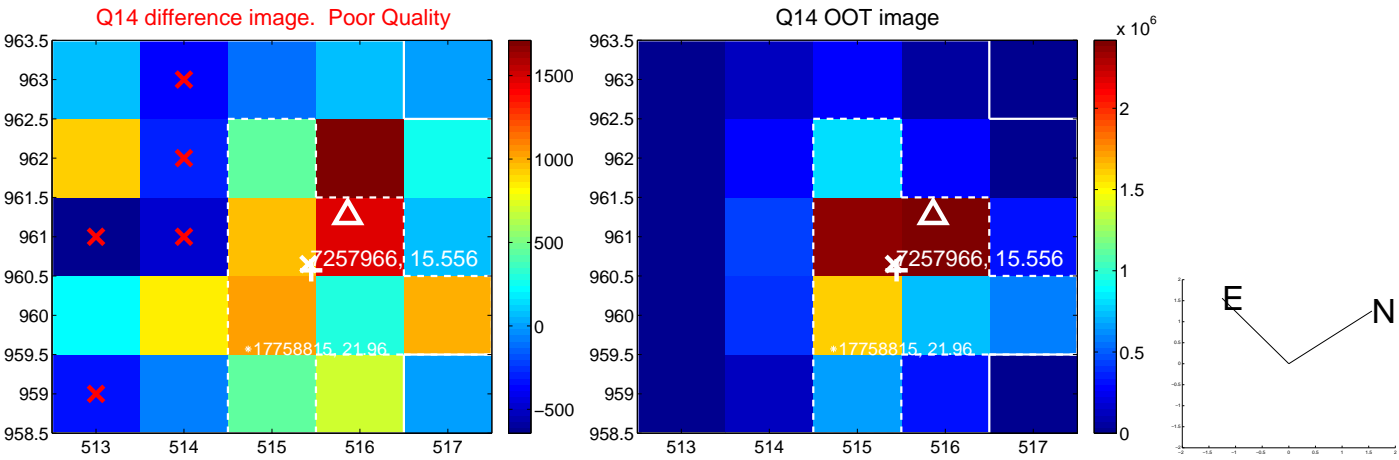
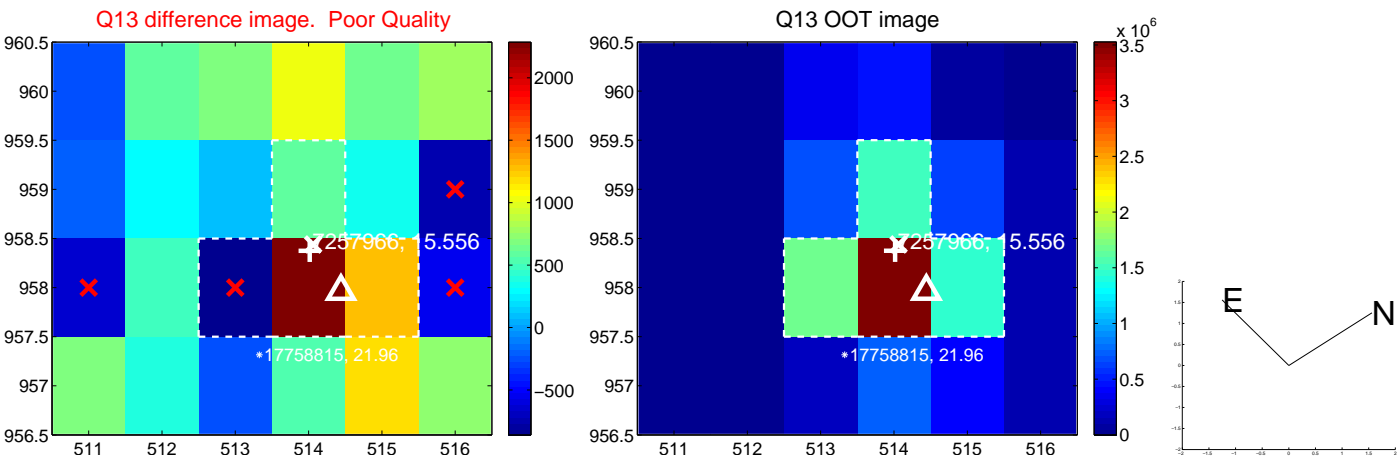
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



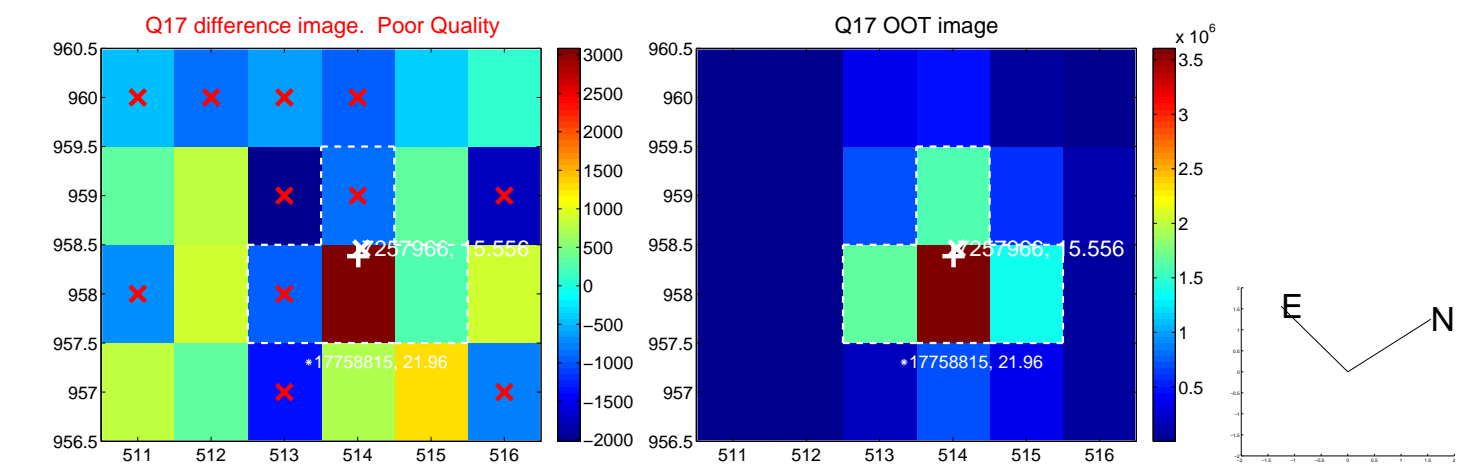
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



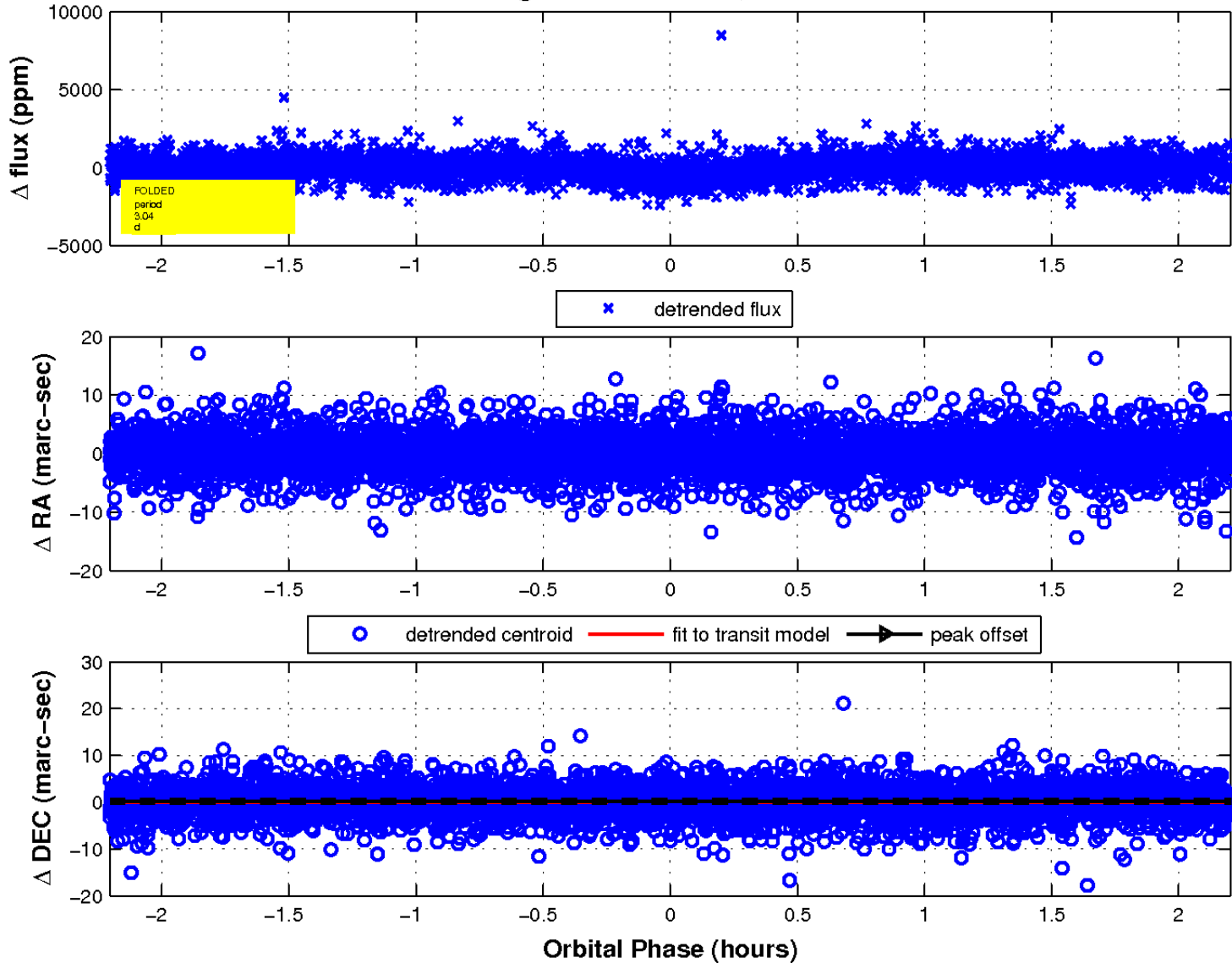
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

