

KIC 007599171

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})
007599171-01	OBS	No	1.303570	132.027167	19.8	7.066	10.2	10.0	1.37	5880	0.60	3625.80

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007599171-01	OBS	FP	0.00	1	0	1	0	LPP_DV—HALO_GHOST

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

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

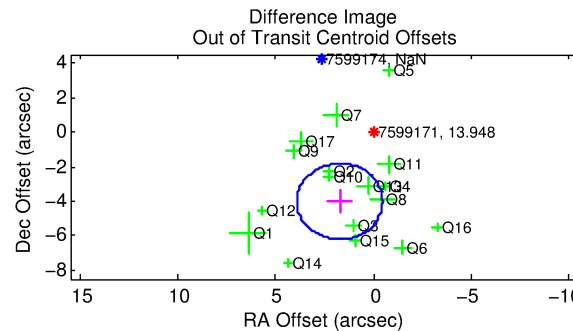
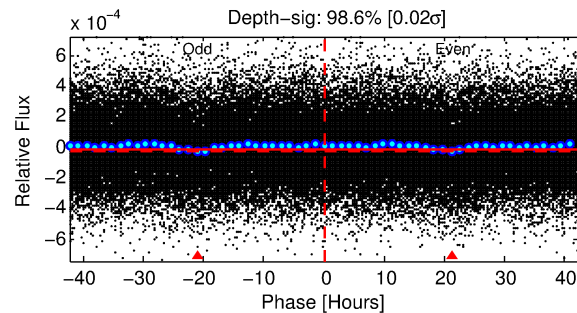
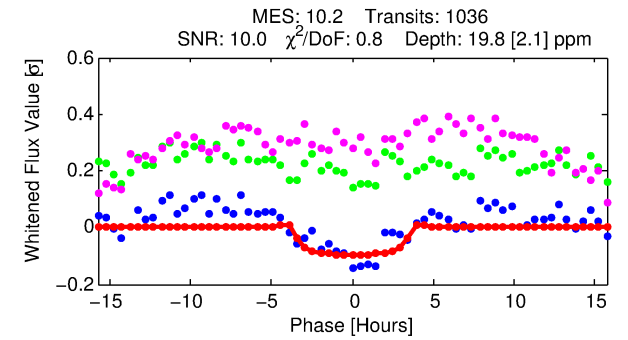
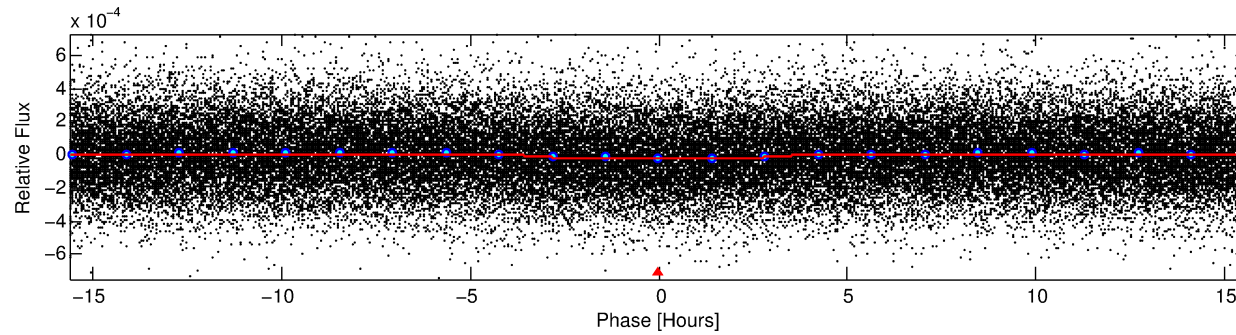
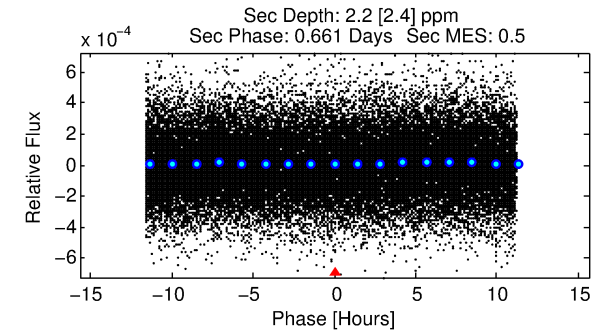
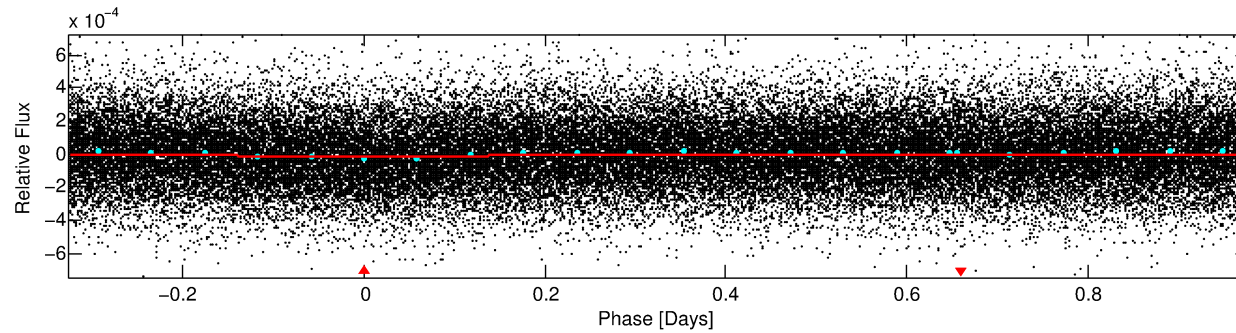
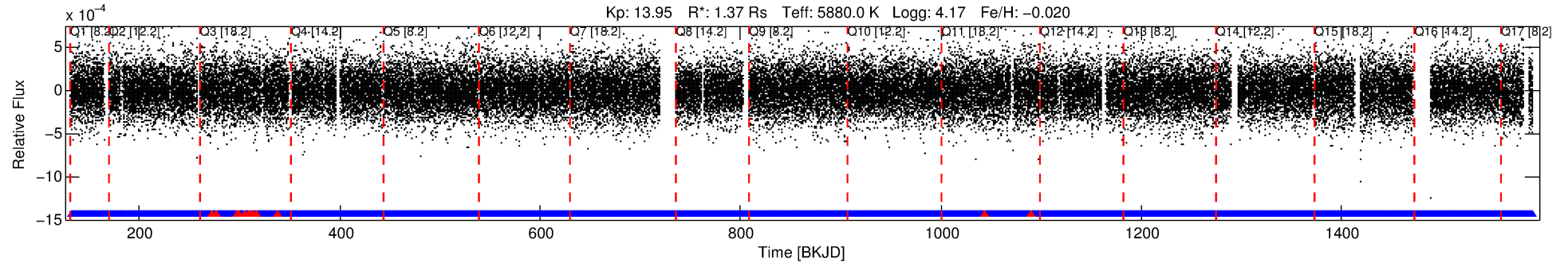
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007599171-01

No Significant Match Found

DV One-Page Summary

KIC: 7599171 Candidate: 1 of 1 Period: 1.304 d



DV Fit Results:

Period = 1.30357 [0.00002] d
Epoch = 132.0272 [0.0075] BKJD
Rp/R* = 0.0040 [0.0060]
a/R* = 1.54 [6.04]
b = 0.03 [211.26]
Seff = 3625.80 [1612.48]
Teq = 1979 [220] K
Rp = 0.60 [0.91] Re
a = 0.0235 [0.0063] AU
Ag = 1.86 [5.94] [0.14σ]
Teffp = 3572 [2829] K [0.56σ]

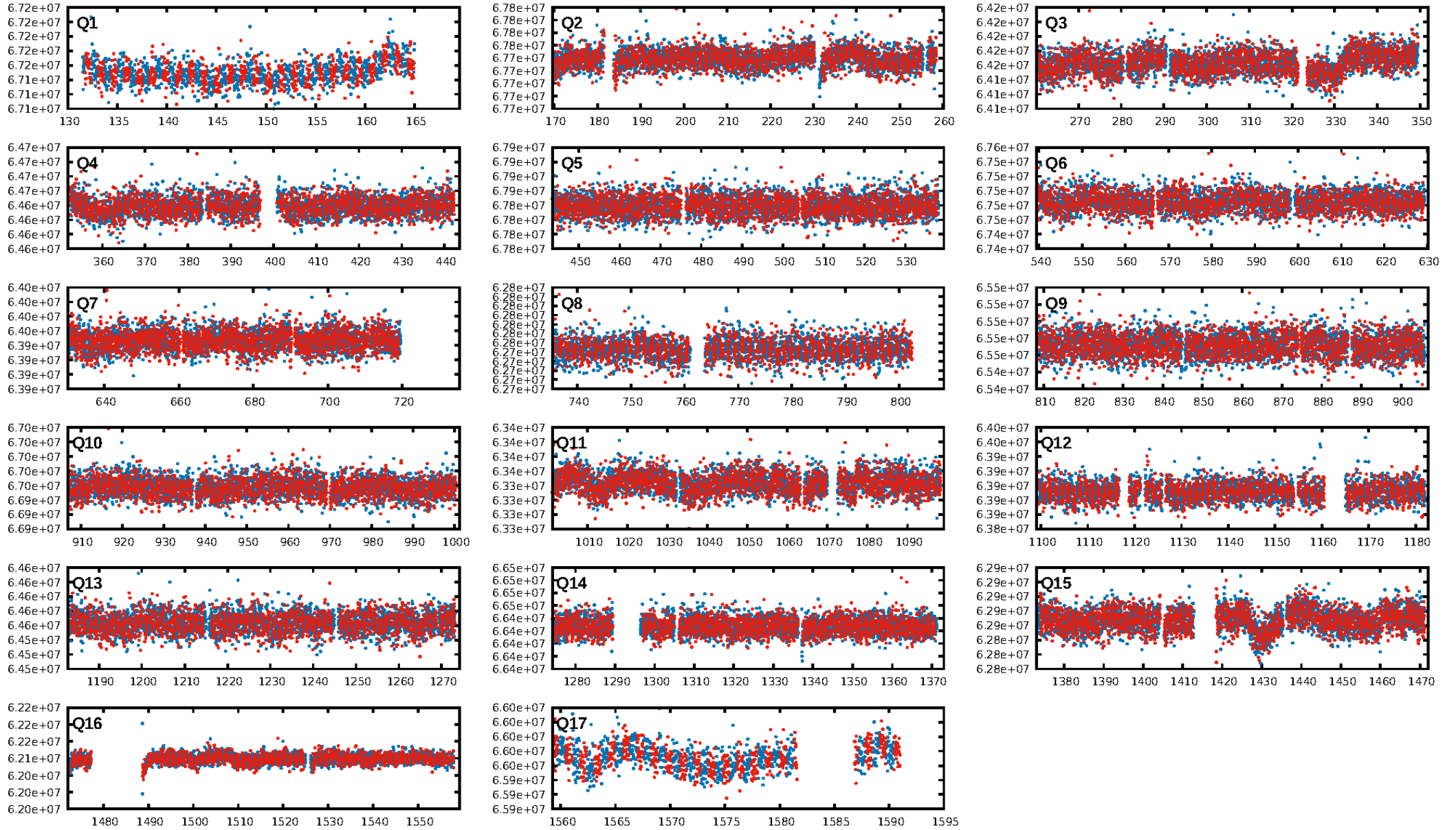
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 8.38e-19
RollingBand-fgt: 0.99 [976/988]
GhostDiagnostic-chr: 0.0251
Centroid-sig: 0.0%
Centroid-so: 4.532 arcsec [3.47σ]
OotOffset-rm: 4.375 arcsec [5.97σ]
KicOffset-rm: 4.229 arcsec [6.35σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.06 [1/17]
DiffImageOverlap-fno: 1.00 [17/17]

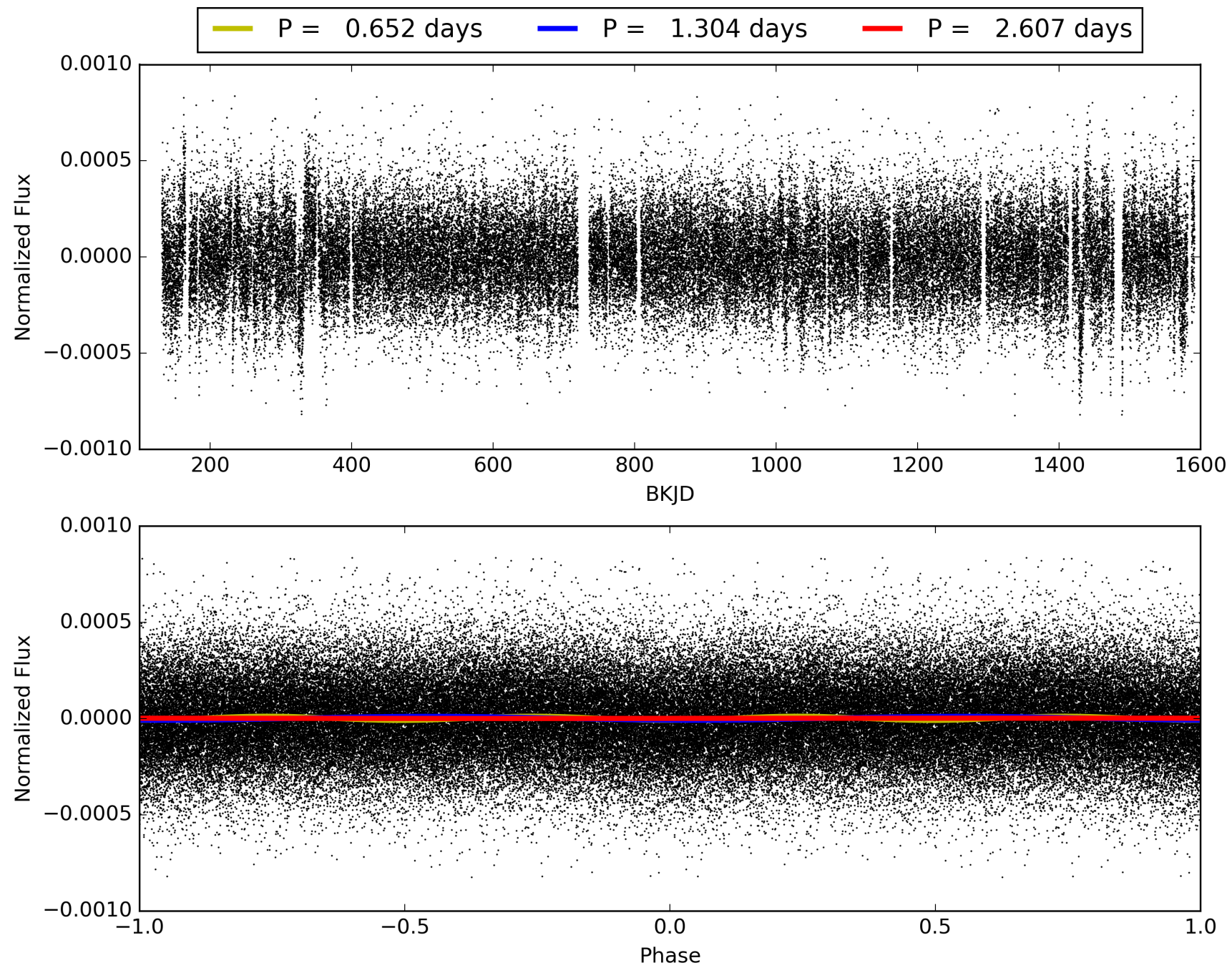
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 17:15:22 Z

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

TCE 007599171-01, PDC Light Curves

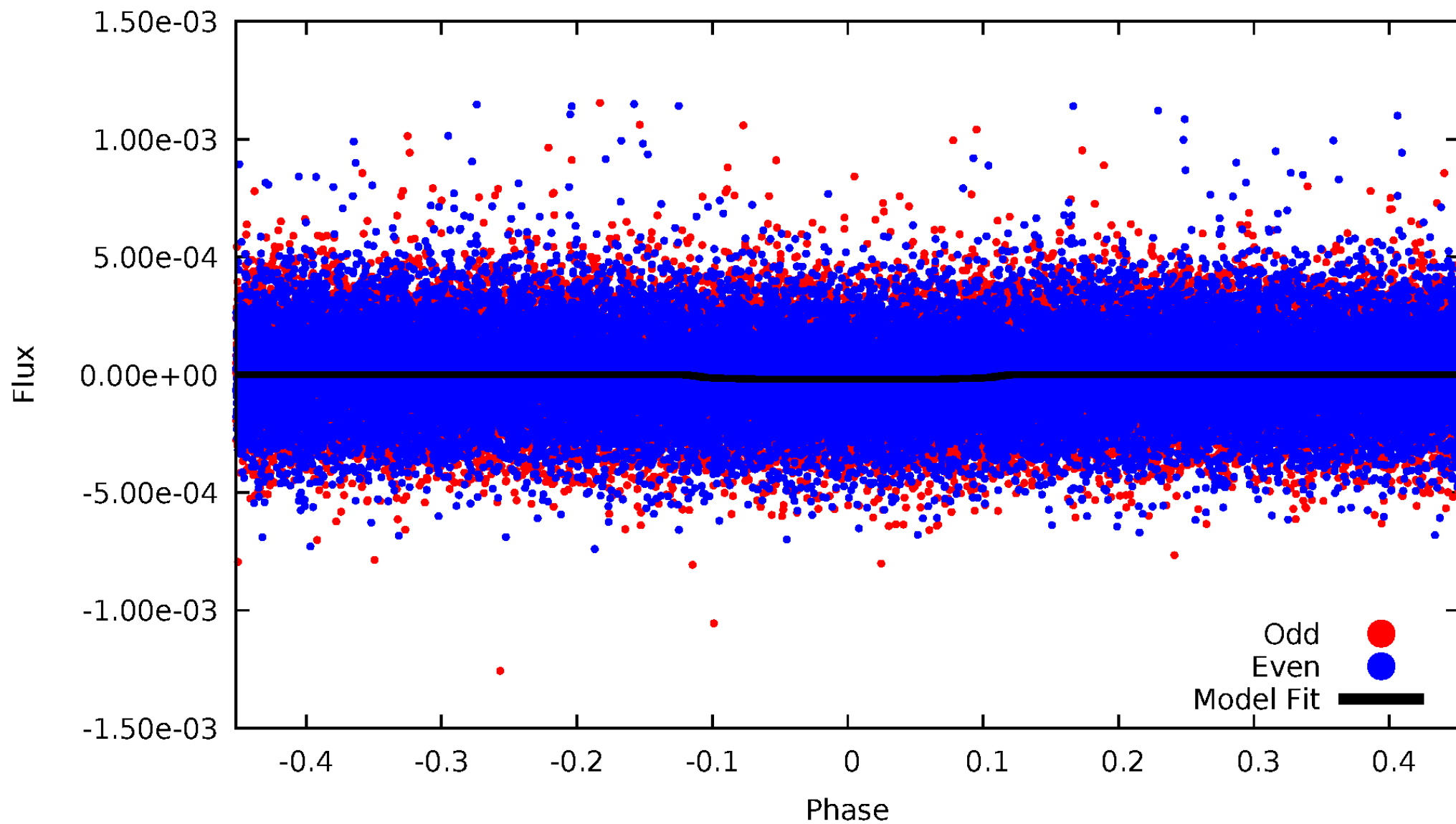


TCE 007599171-01



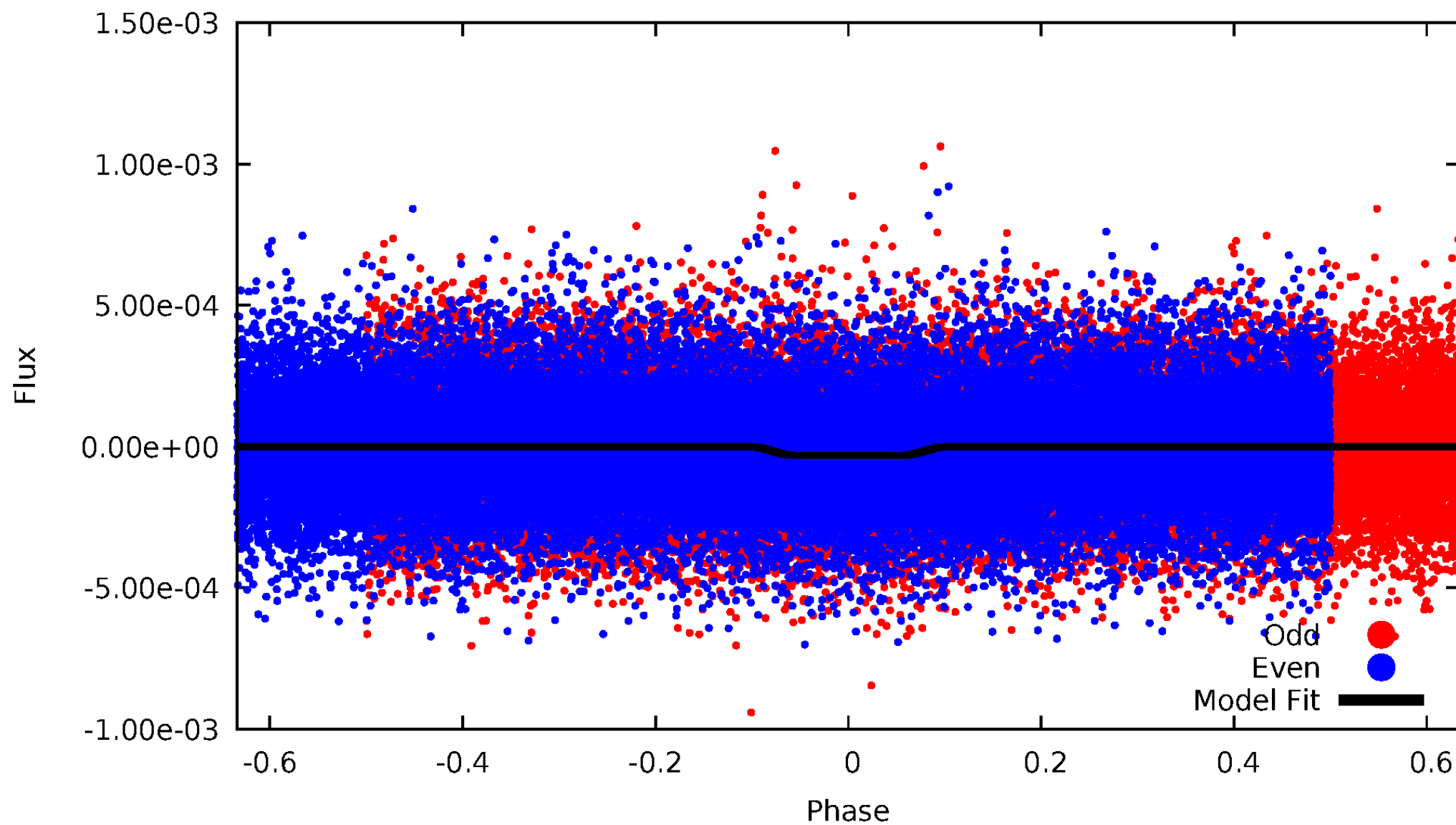
DV Odd/Even

TCE 007599171-01

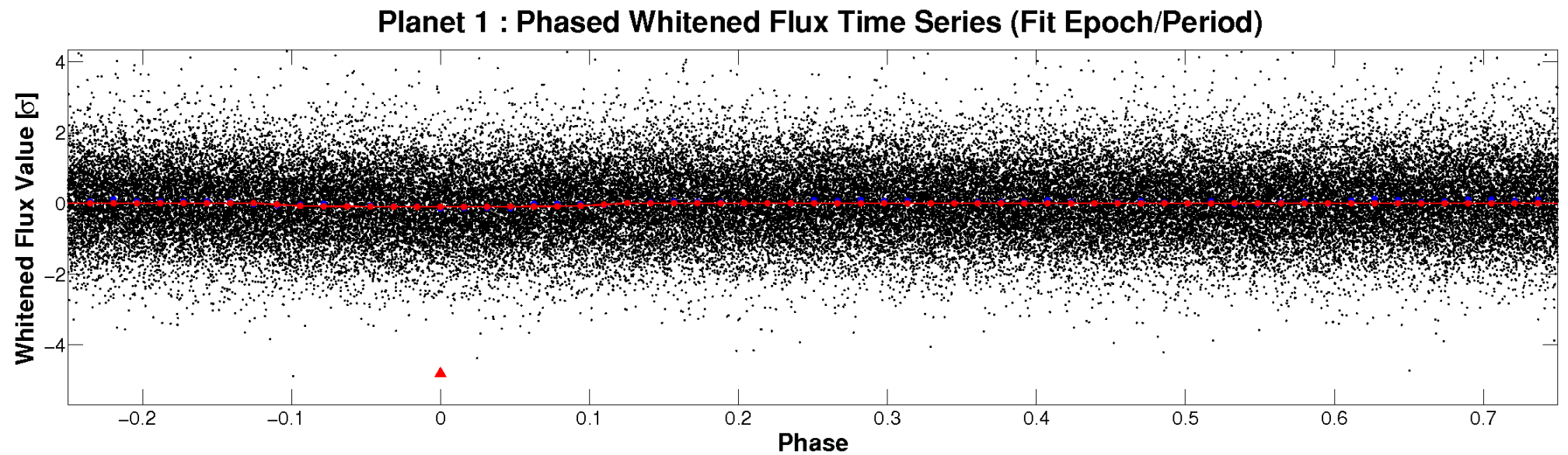
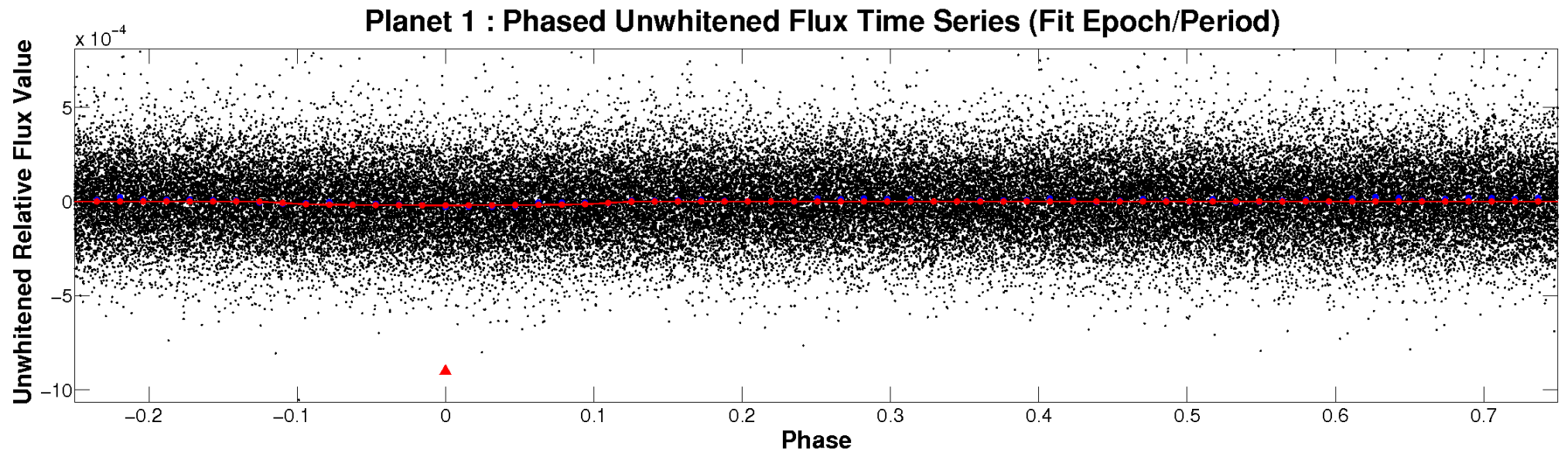


ALT Odd/Even

TCE 007599171-01

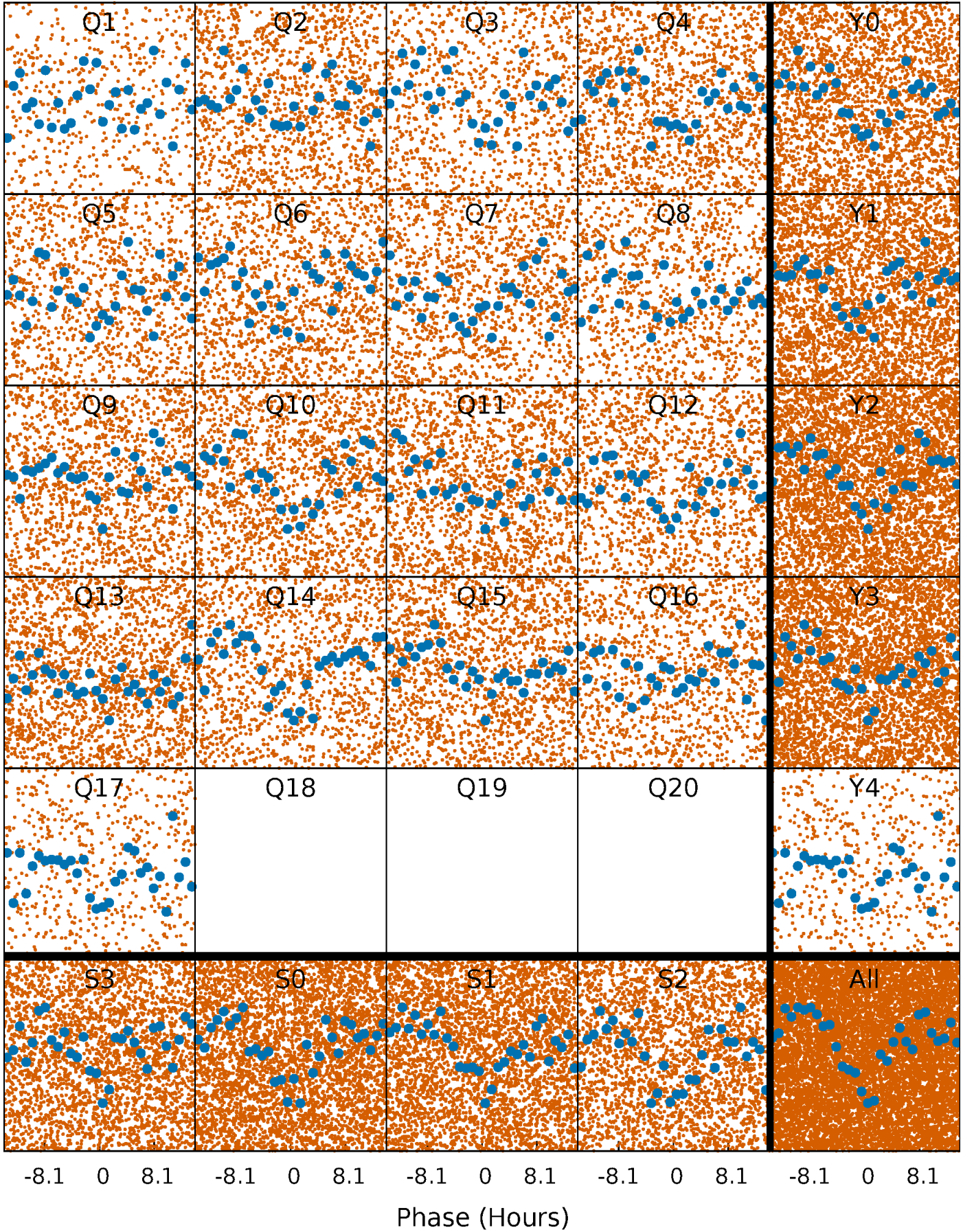


Non-Whitened Vs. Whitened Light Curve



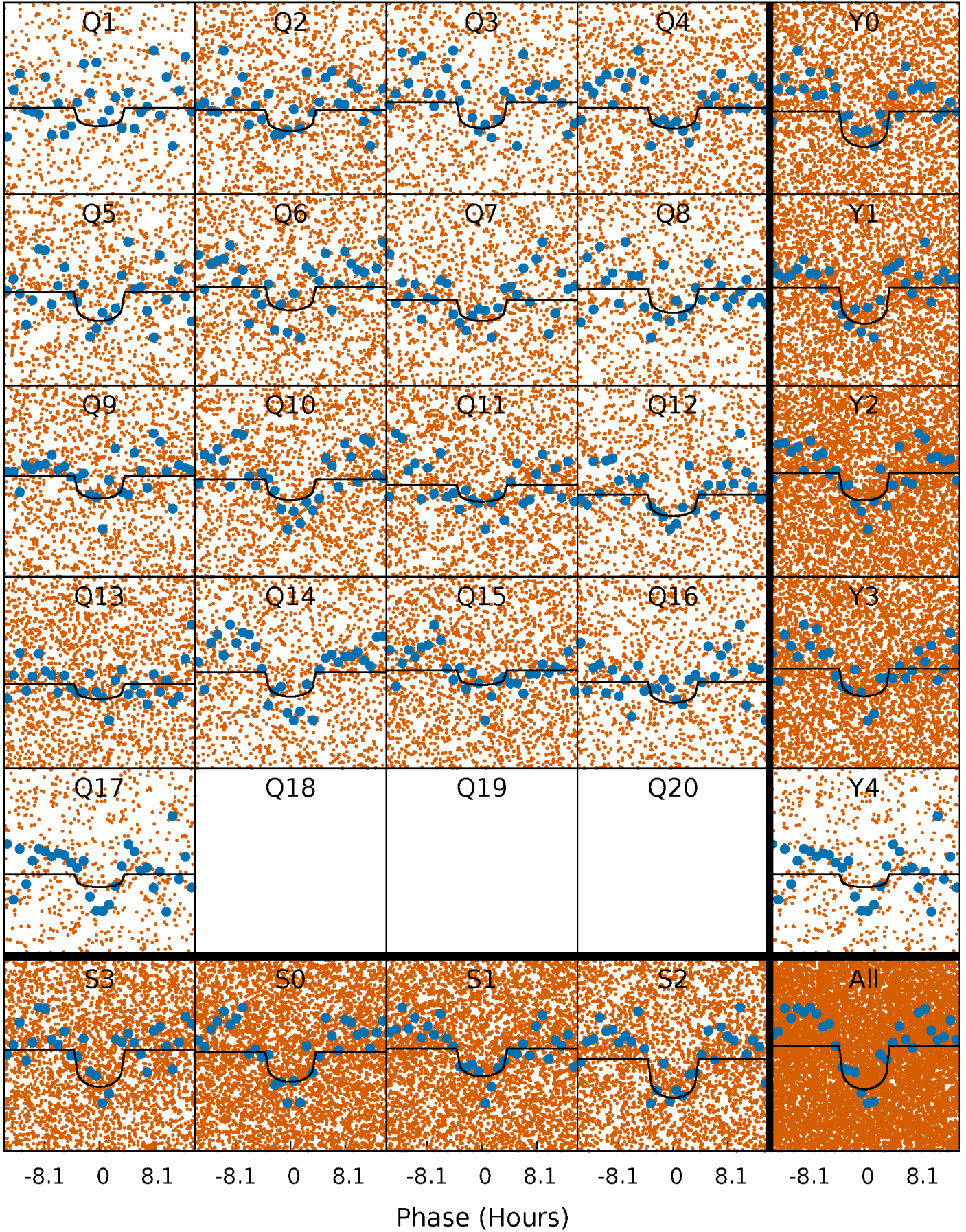
PDC Quarter-Phased Transit Curves

TCE 007599171-01 P= 1.303570 Days $T_0=132.027167$ (BKJD)



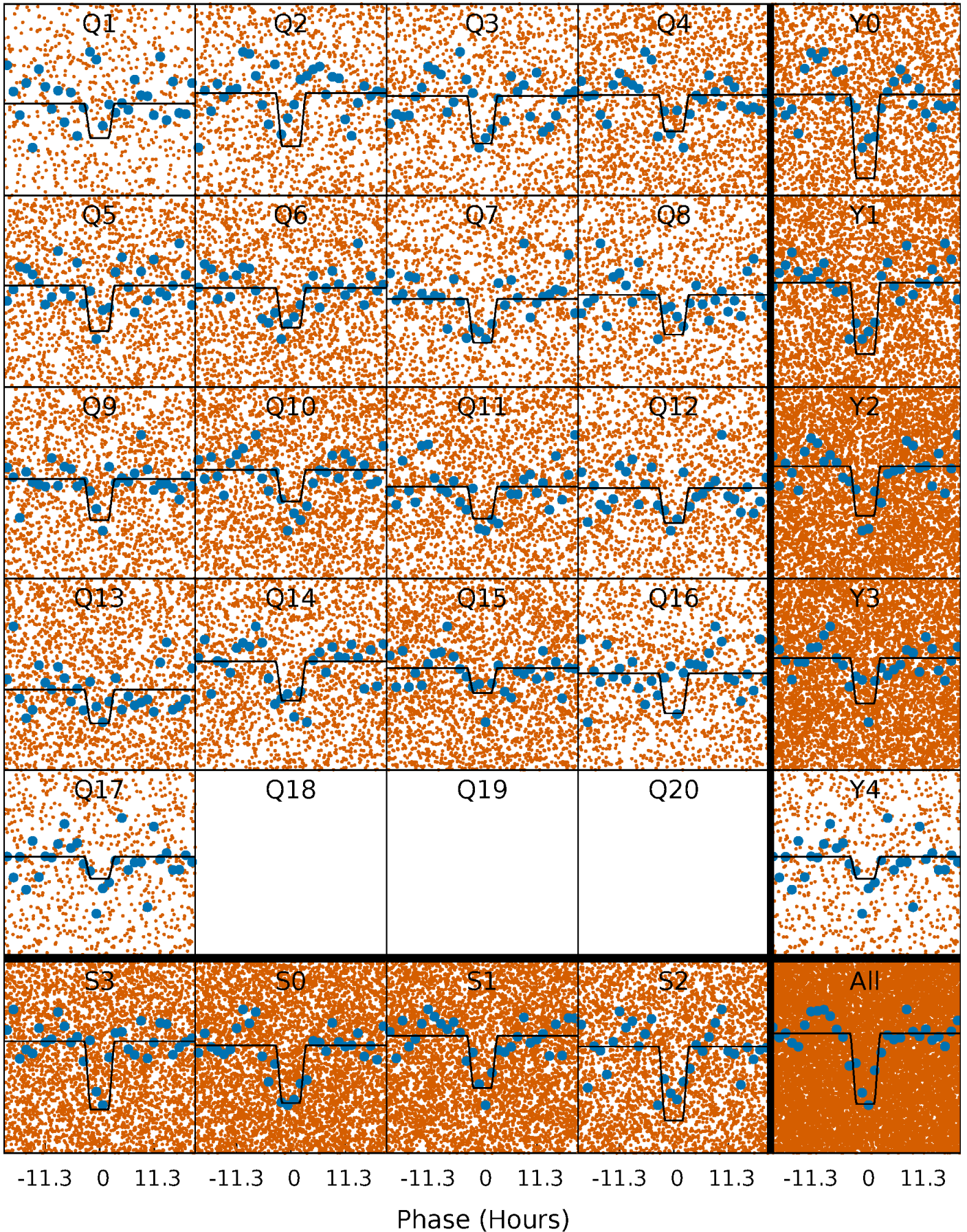
DV Quarter-Phased Transit Curves

TCE 007599171-01 P= 1.303570 Days $T_0=132.027167$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

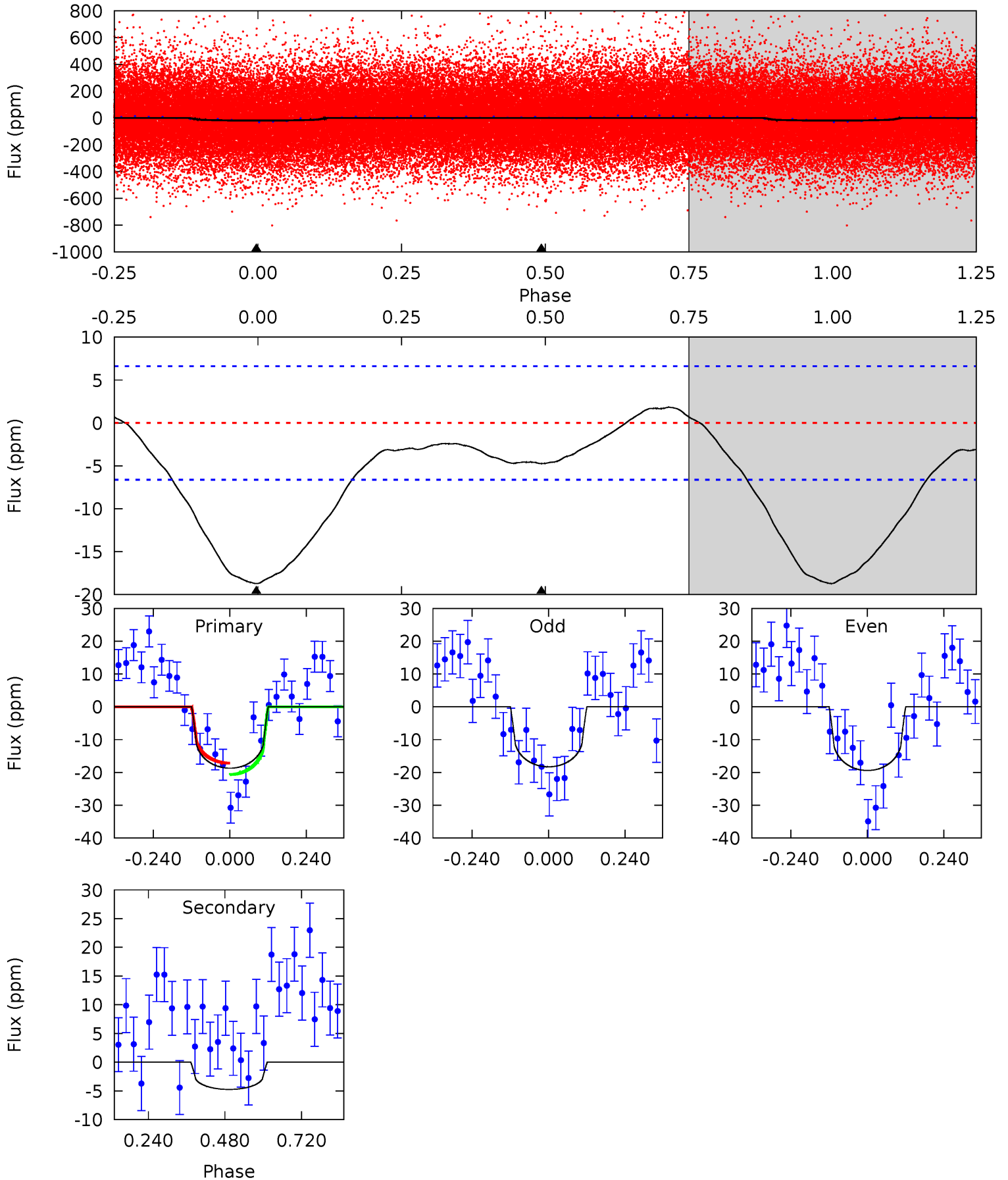
TCE 007599171-01 P= 1.303574 Days $T_0=132.025323$ (BKJD)



DV Model-Shift Uniqueness Test

007599171-01, P = 1.303570 Days, E = 130.723597 Days

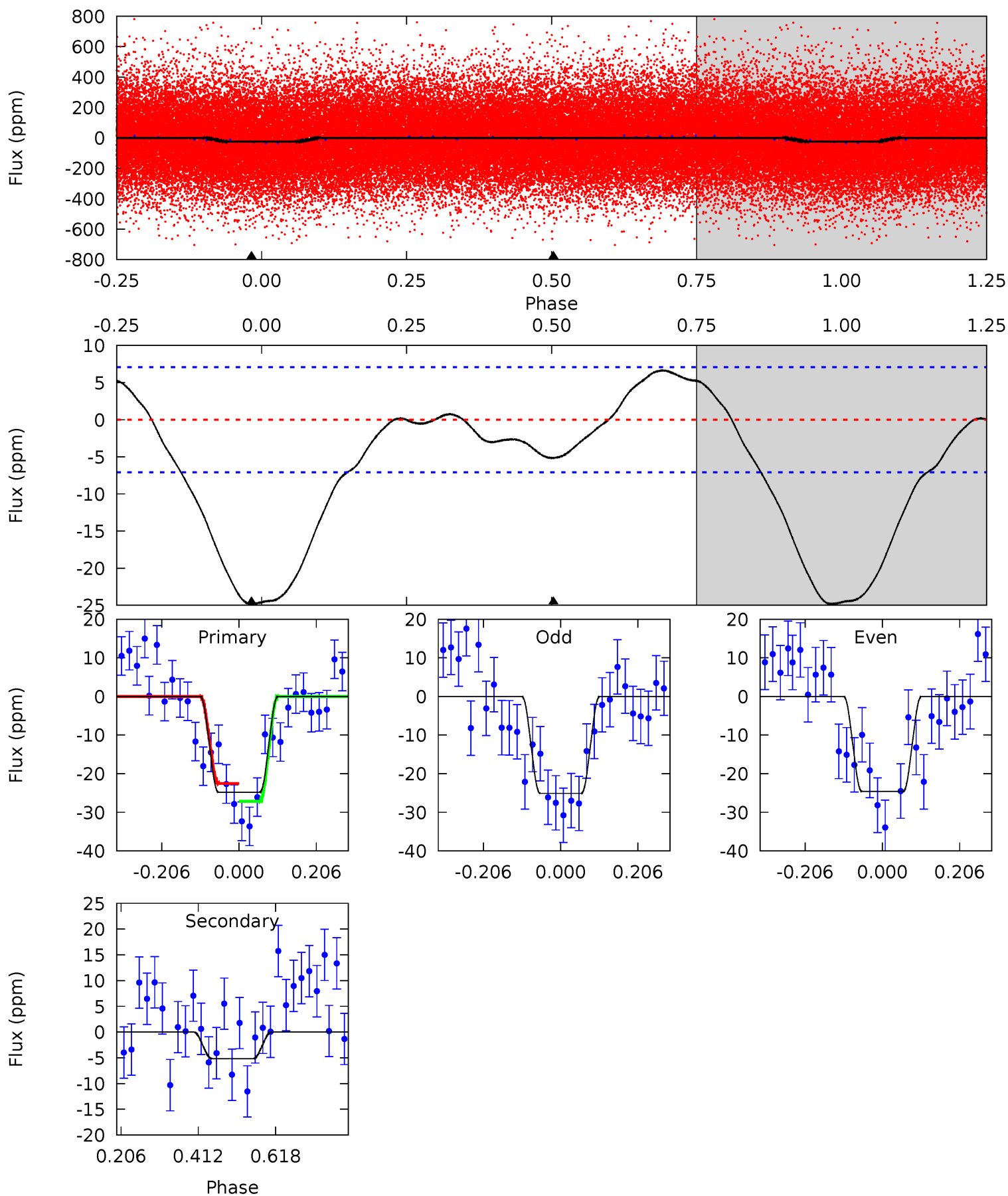
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.4	3.14	0	0	4.38	1.17	1.37	12.4	12.4	3.14	3.14	0.38	1.01	0.09	1.15



Alt Model-Shift Uniqueness Test

007599171-01, P = 1.303574 Days, E = 130.721749 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.4	3.21	0	0	4.41	1.26	1.84	15.4	15.4	3.21	3.21	0.14	0.92	0.21	1.44



Stellar Parameters For KIC 007599171

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5880^{+158}_{-176}	$4.174^{+0.252}_{-0.168}$	$-0.020^{+0.300}_{-0.300}$	$1.367^{+0.377}_{-0.377}$	$1.017^{+0.152}_{-0.124}$	$0.561^{+0.882}_{-0.267}$
	+3%/-3%	+6%/-4%	+1500%/-1500%	+28%/-28%	+15%/-12%	+157%/-48%
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 007599171-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-5 ± 2	$0.88^{+0.74}_{-0.59}$	2736^{+222}_{-231}	3789^{+2141}_{-1054}	$1.878^{+13.318}_{-1.392}$
Alt.	-5 ± 2	$1.03^{+0.87}_{-0.65}$	2738^{+215}_{-216}	3532^{+1918}_{-940}	$1.405^{+9.631}_{-0.998}$

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 $A_{\text{obs}} \gg 1.0$

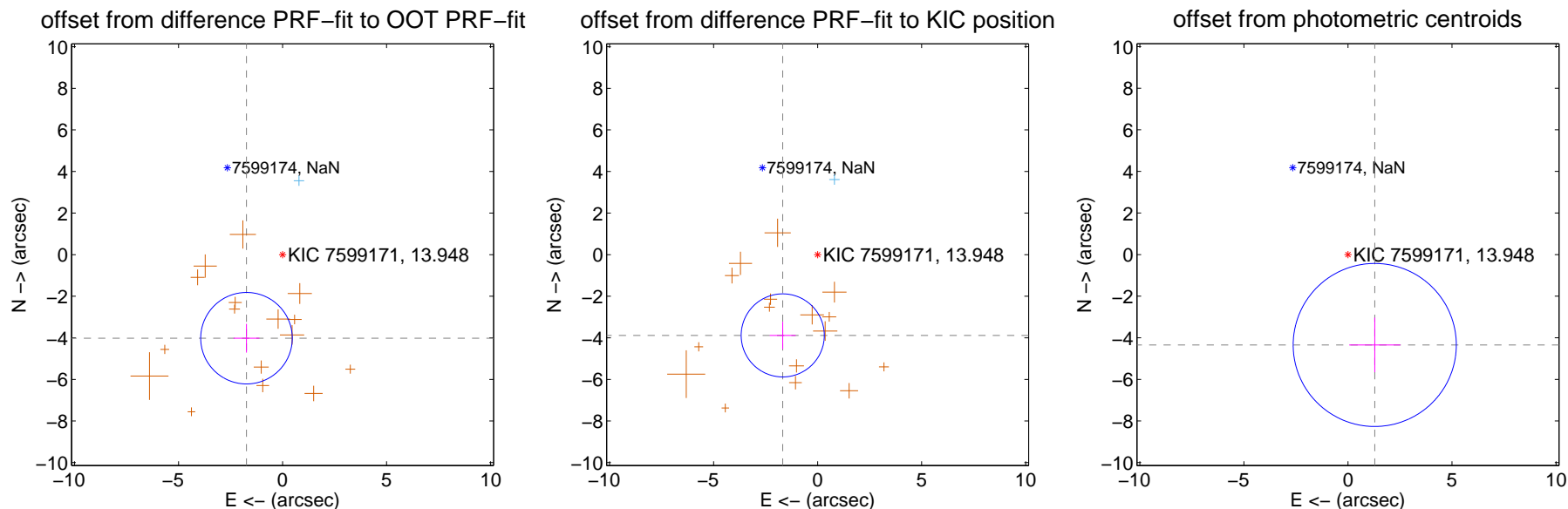
DV Centroid Data

Supplemental centroid analysis for 007599171-01. Kepler magnitude: 13.95. Transit SNR 10.04

There are 1 quarters with good PRF difference image offsets

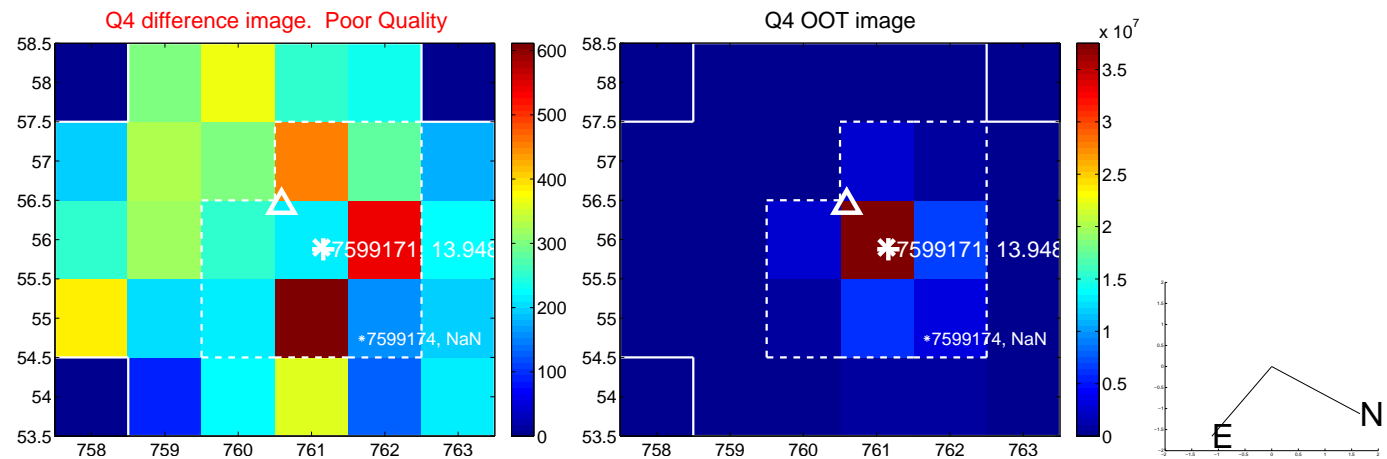
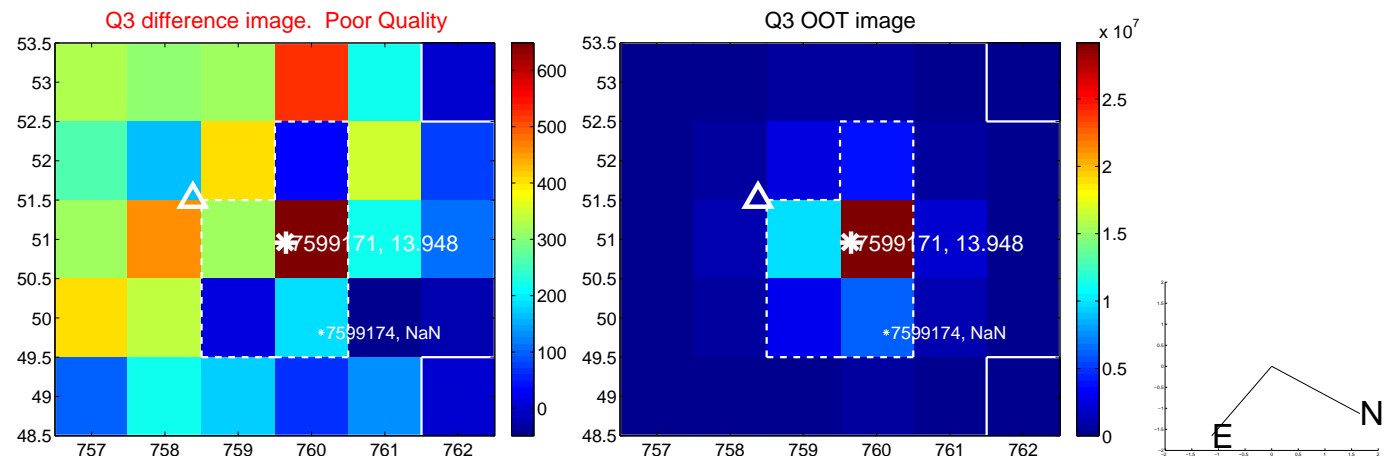
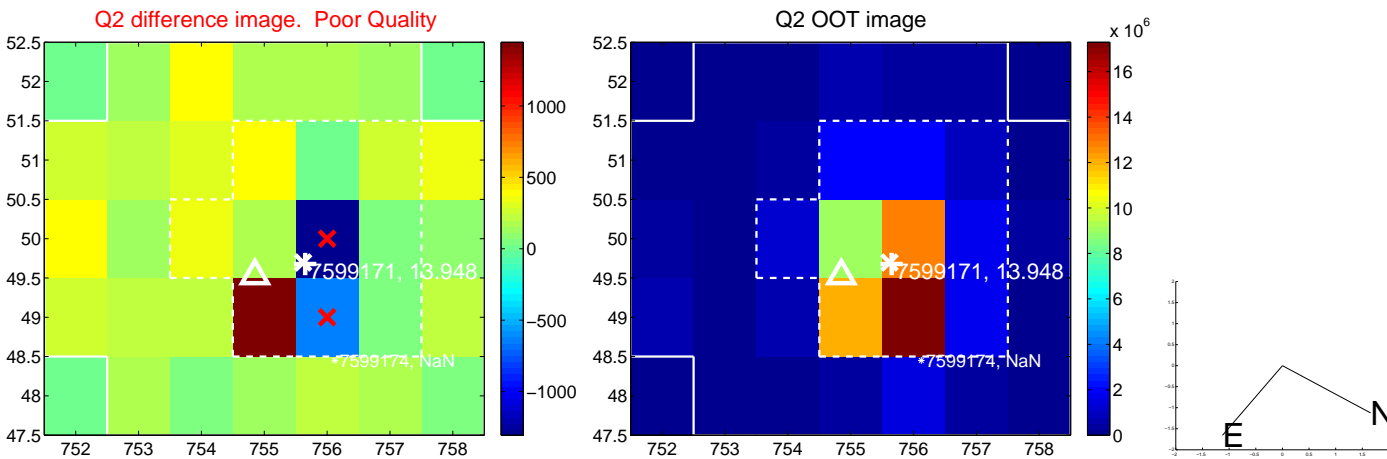
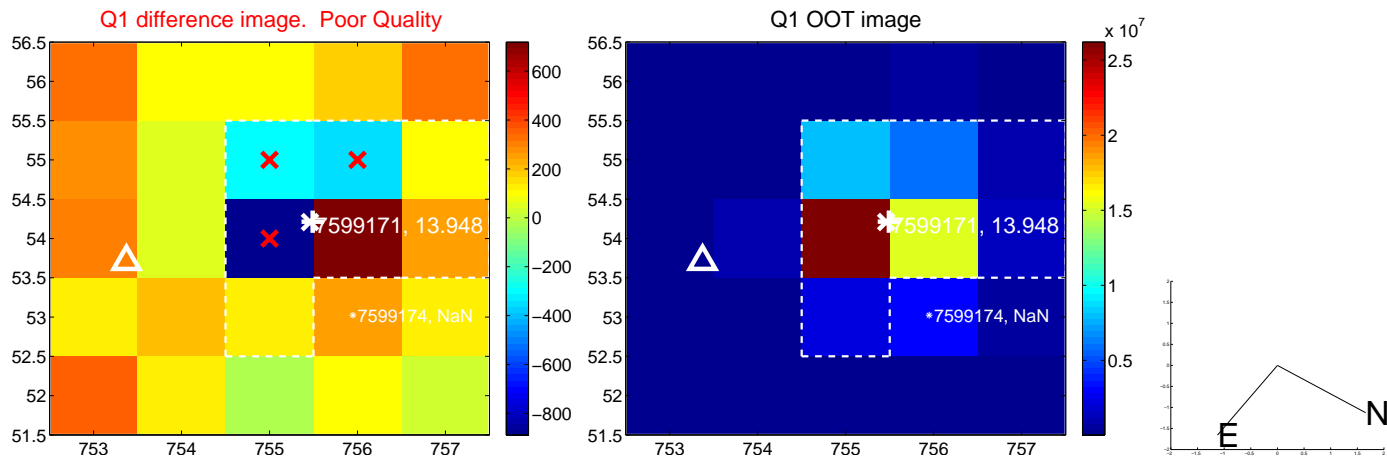
The direct PRF centroid is offset from the target star catalog position by about 0.13 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	4.375 \pm 0.733	5.97	1.733 \pm 0.621	-4.018 \pm 0.691
PRF-fit source offset from KIC position	4.229 \pm 0.666	6.35	1.677 \pm 0.624	-3.883 \pm 0.653
photometric centroid source offset	4.53 \pm 1.31	3.47	-1.29 \pm 1.23	-4.35 \pm 1.31

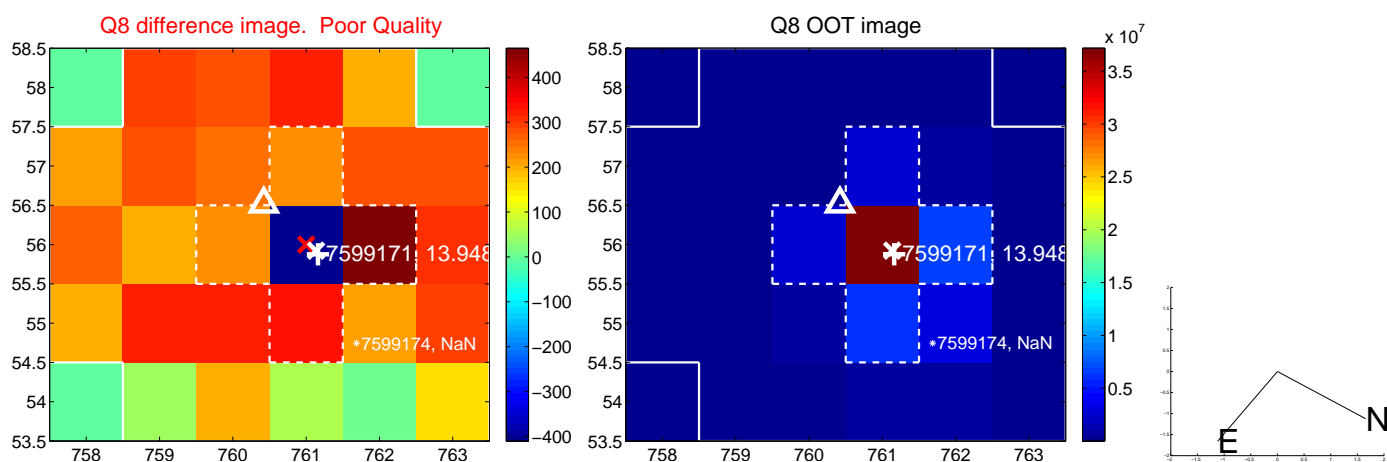
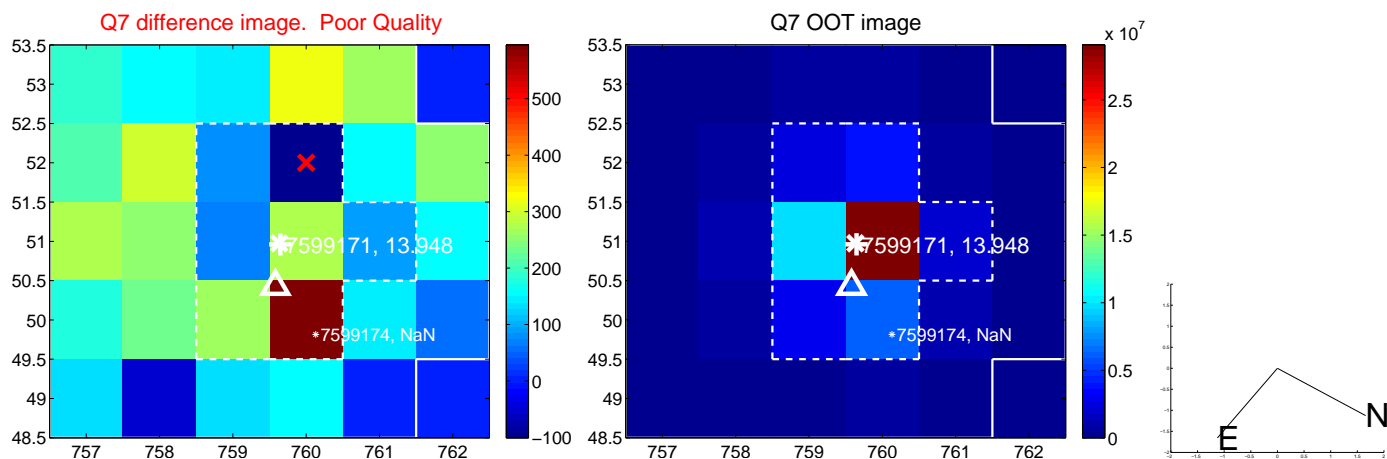
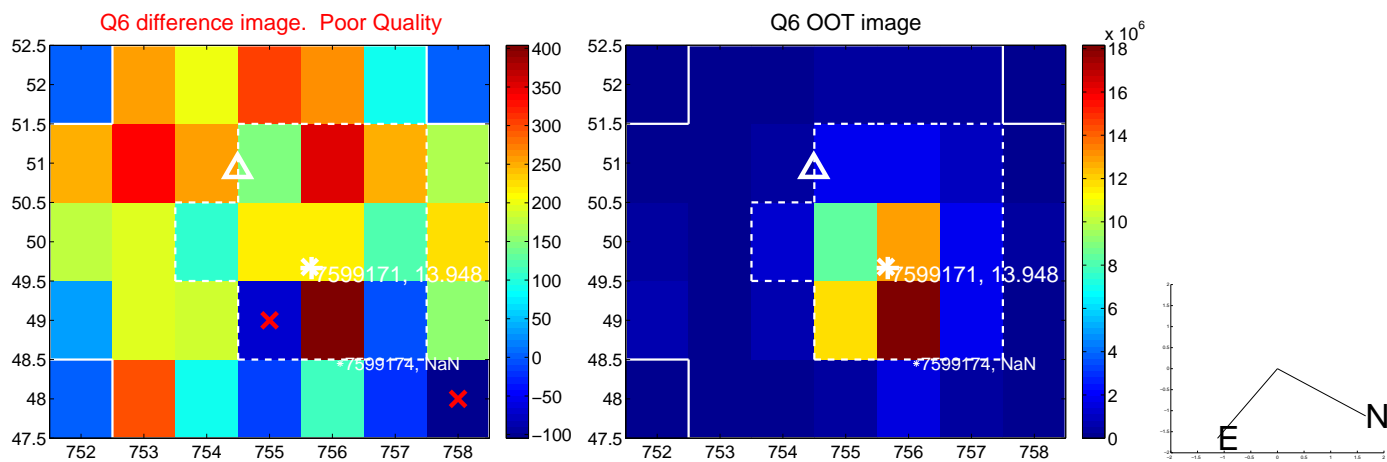
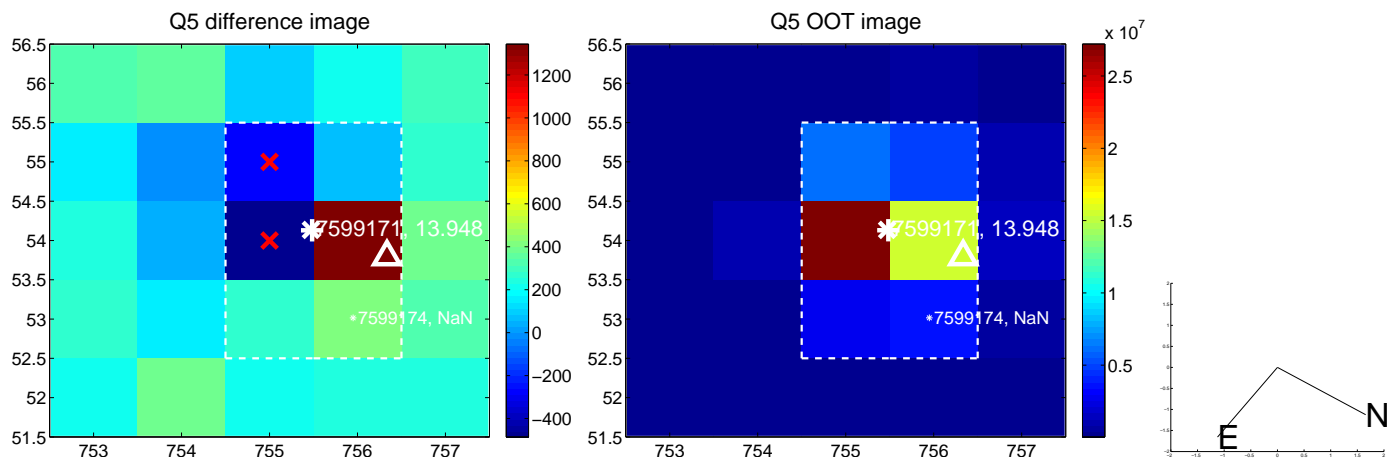


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

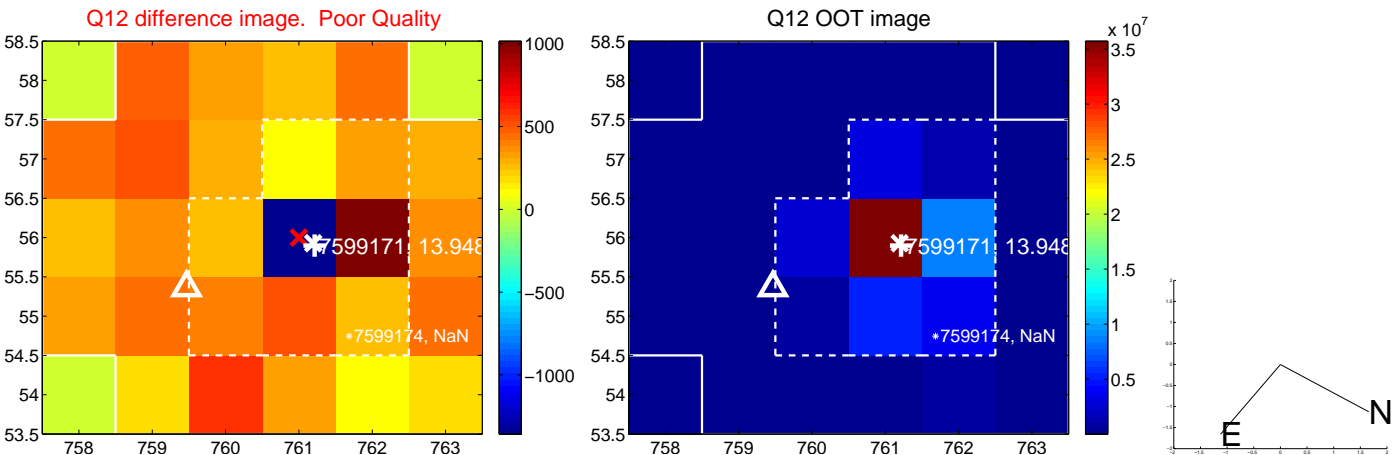
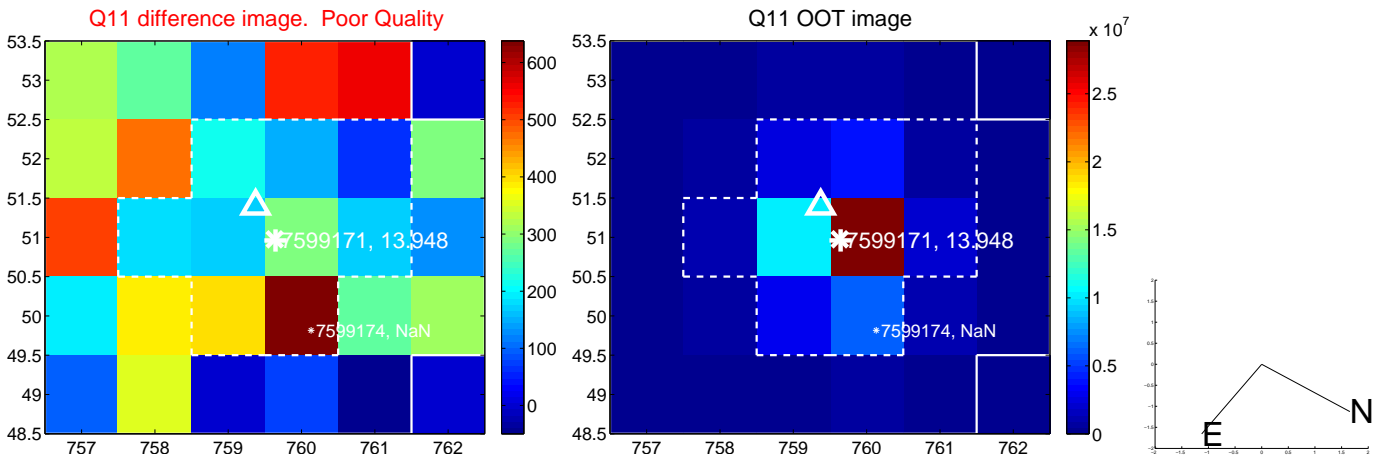
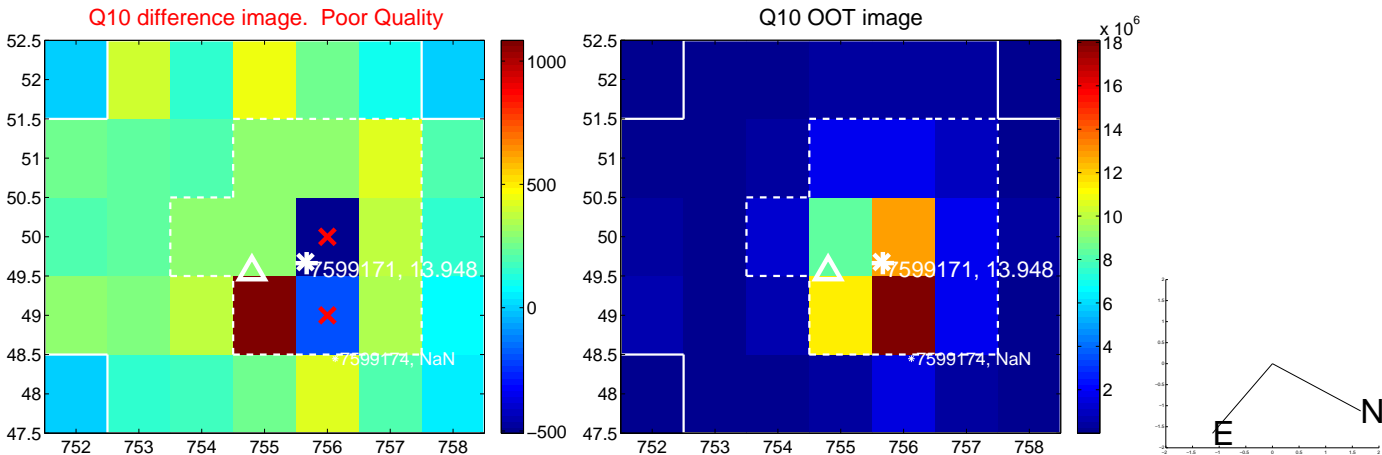
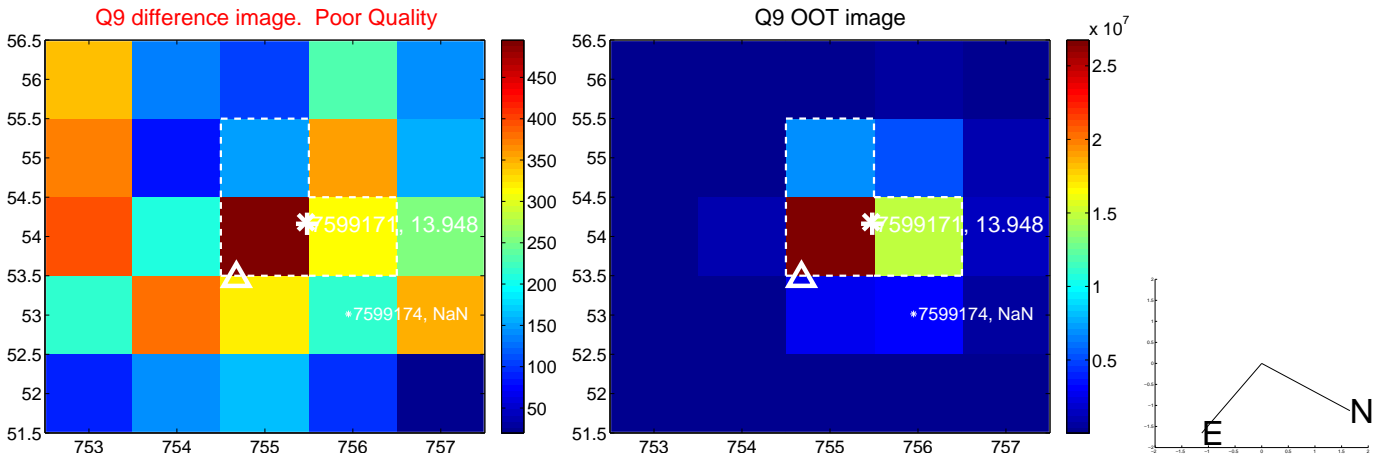
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



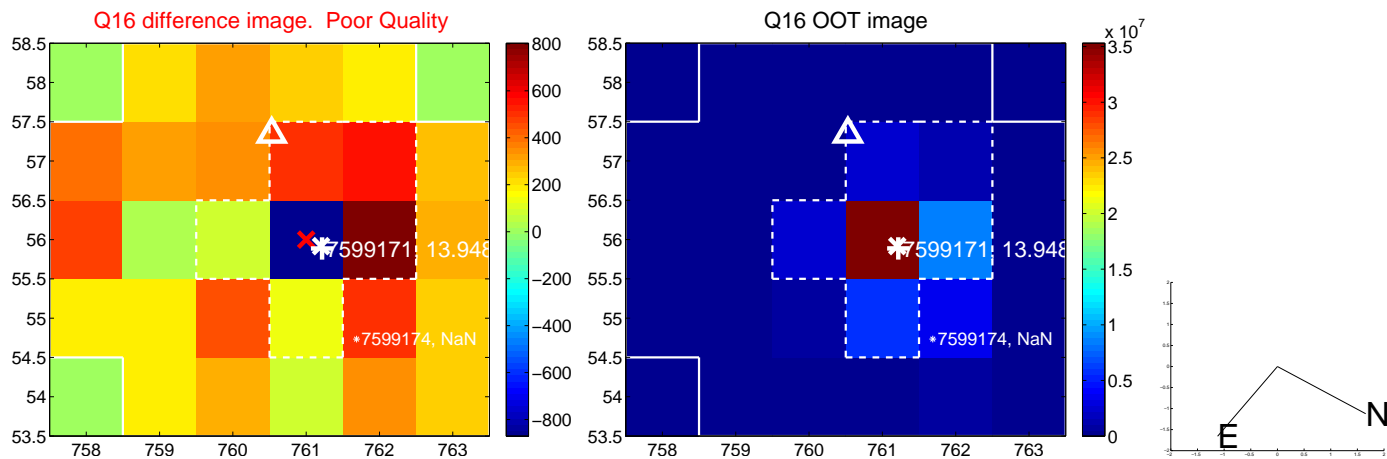
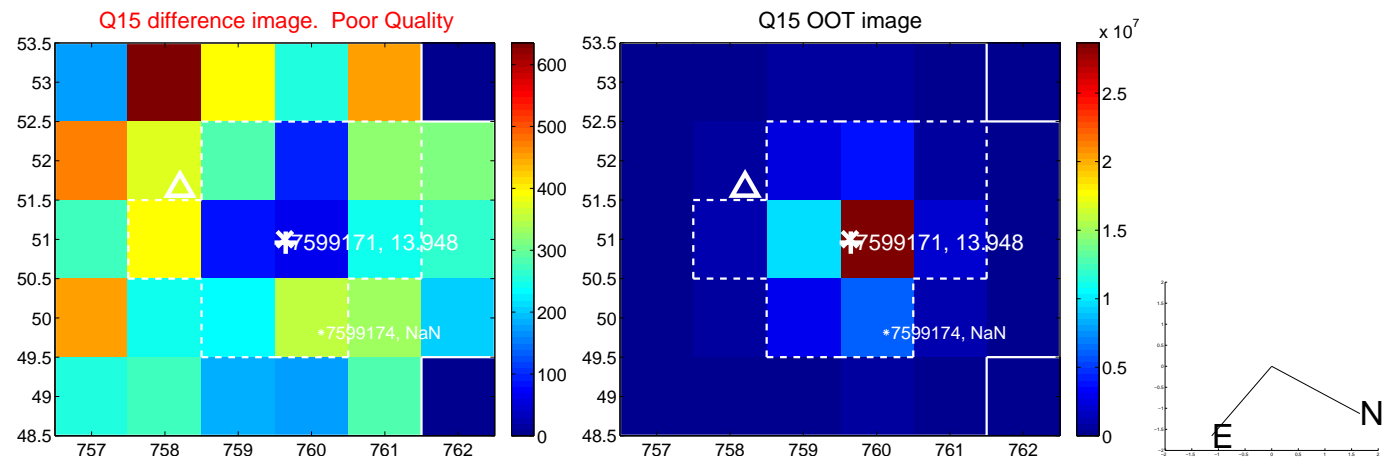
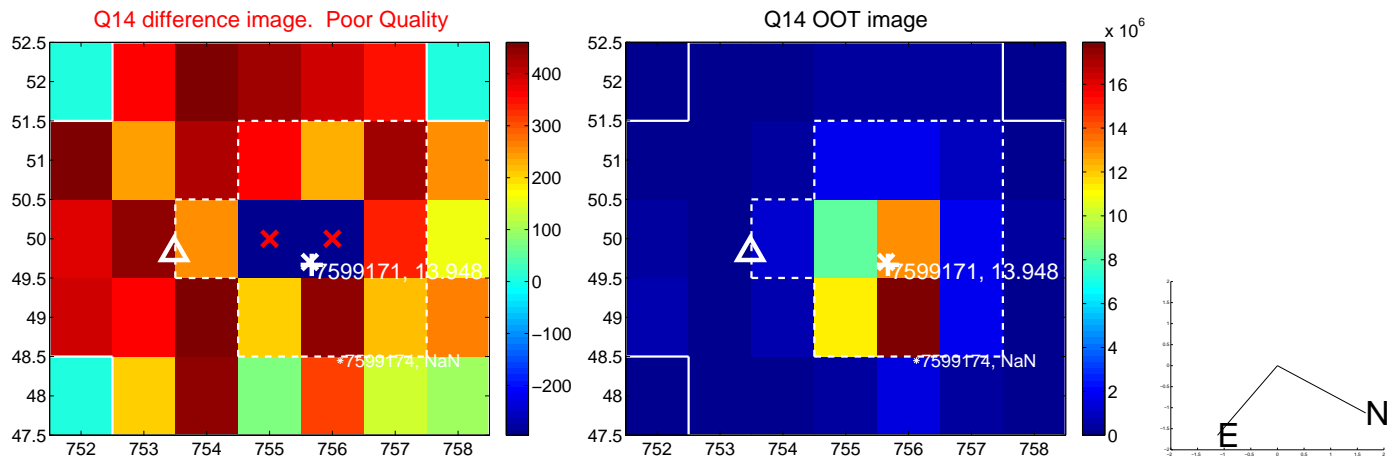
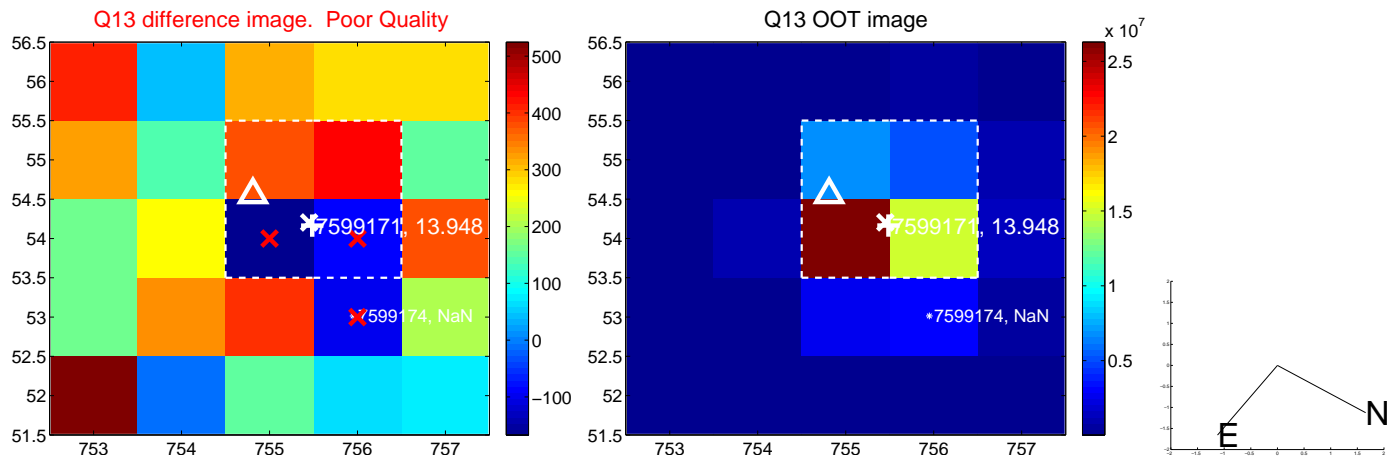
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



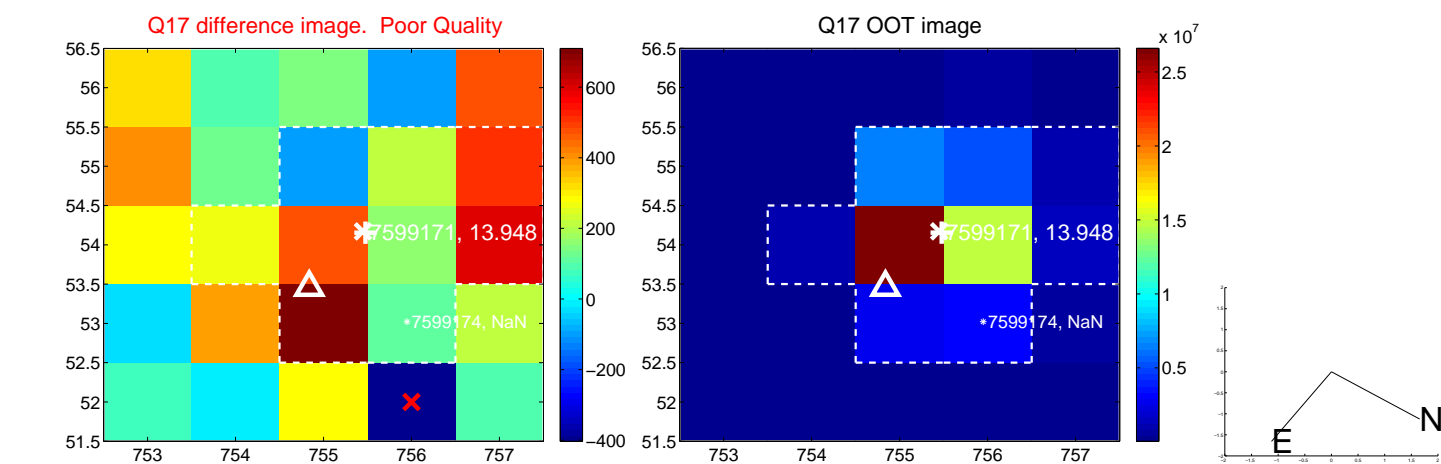
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



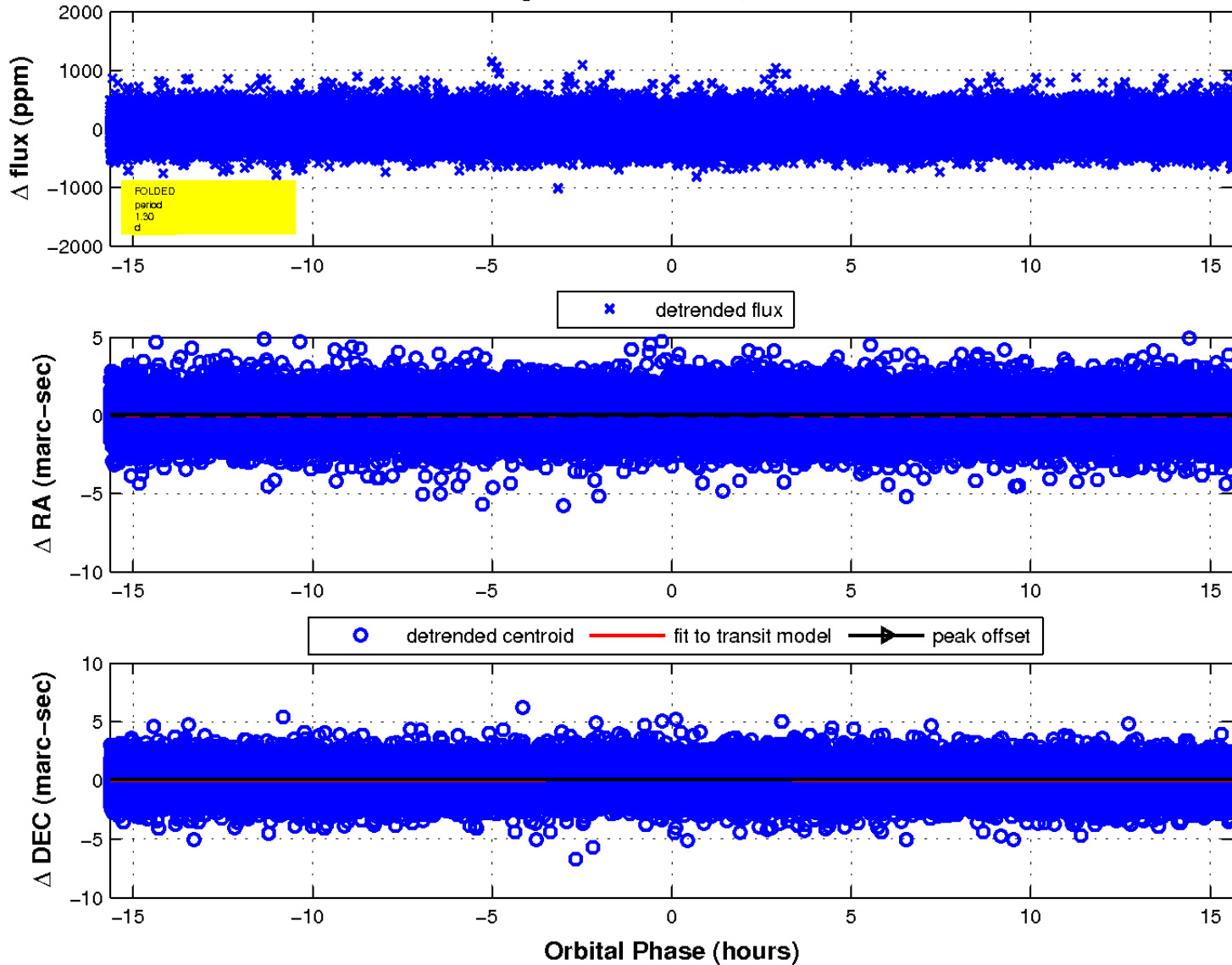
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

