

KIC 007115879

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})
007115879-01	OBS	No	0.566759	131.865187	19.2	3.802	10.6	8.4	0.87	5853	0.38	4524.36

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007115879-01	OBS	FP	0.00	1	0	1	1	LPP_DV—CENT_UNRESOLVED_OFFSET—HALO_GHOST—EPHEM_MATCH

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.

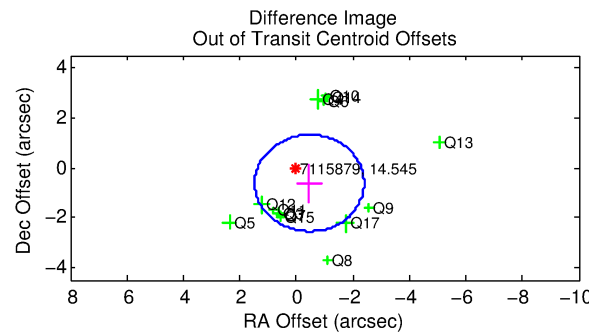
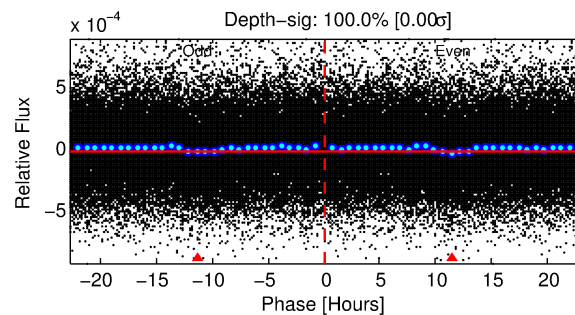
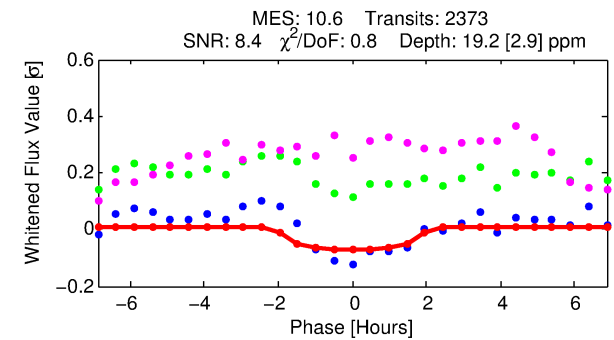
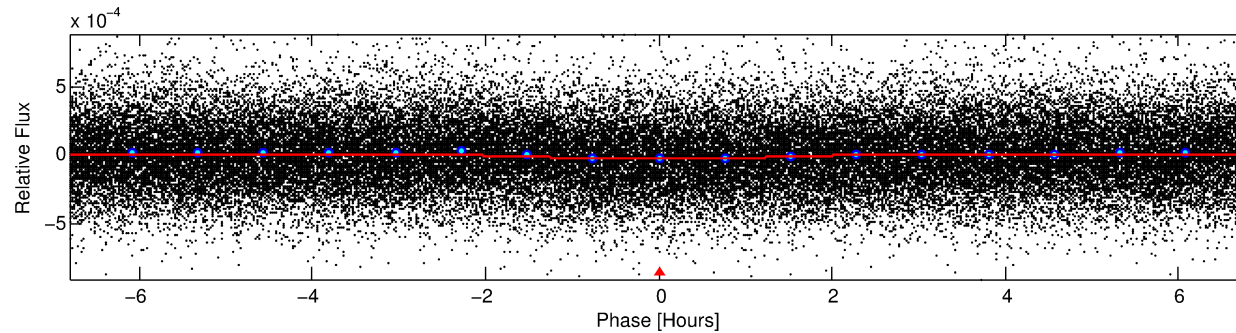
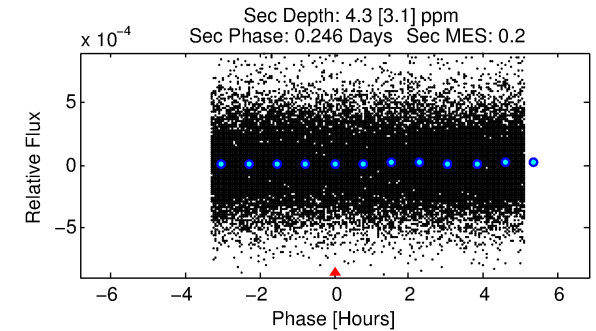
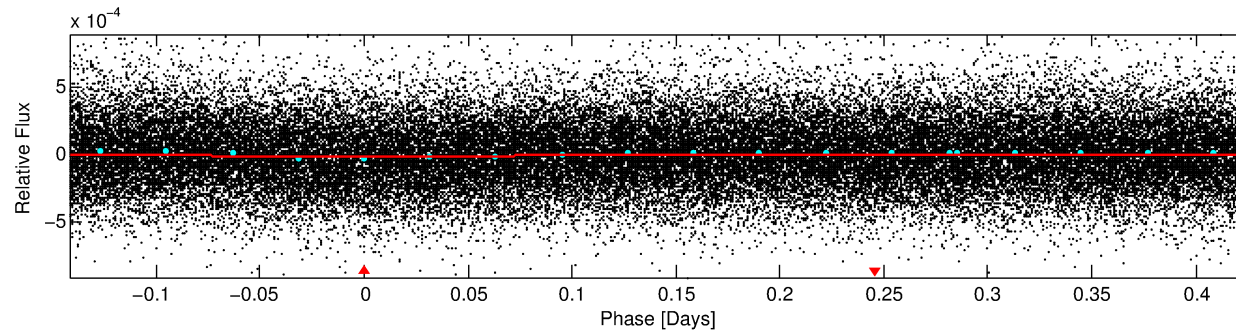
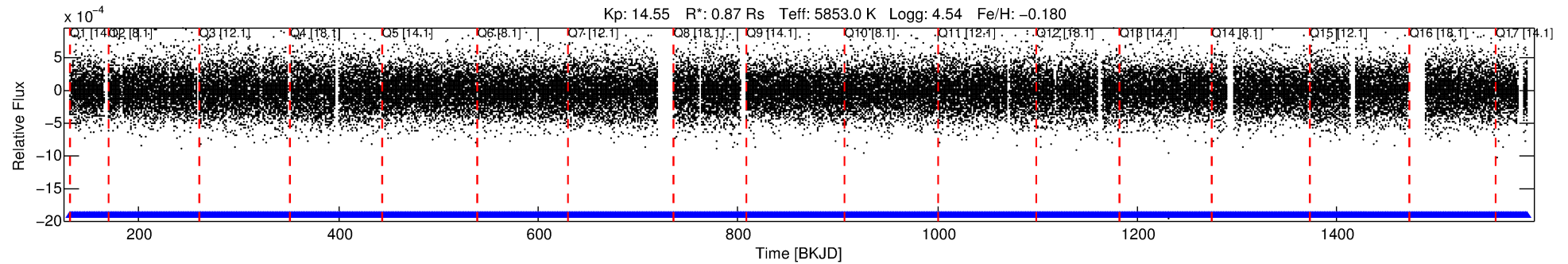
Ephemeris Match Information For 007115879-01

TCE (1)	KIC	Parent (2)	Parent KIC	$P_1:P_2$	Dist ($''$)	Δ Row	Δ Col	m_2	m_1	D_2/D_1	Mechanism	Flag	σ_P	σ_T
007115879-01	7115879	RR-Lyr-pri	7198959	1:1	543.6	8	-137	7.86	14.54	32805.00	Direct-PRF	0	2.27	21.91

Notes: $P_1:P_2$ is the period ratio. Dist is the distance in arcseconds. Δ Row and Δ Col are the number of pixels apart in row and column. m_2 and m_1 are the magnitudes of the parent and child. D_2/D_1 is the parent's transit depth divided by the child's. σ_P and σ_T are the significance of the match in period and epoch. For a match to be considered significant $\sigma_P < 5.0$ and $\sigma_T < 5.0$. Matches which have σ_P and σ_T very close to this cutoff should receive extra scrutiny, especially if the period ratio is very large.

DV One-Page Summary

KIC: 7115879 Candidate: 1 of 1 Period: 0.567 d



DV Fit Results:

Period = 0.56676 [0.00001] d
Epoch = 131.8652 [0.0050] BKJD
Rp/R* = 0.0040 [0.0059]
a/R* = 1.28 [3.37]
b = 0.30 [20.73]
Seff = 4524.36 [1773.44]
Teff = 2091 [205] K
Rp = 0.38 [0.57] Re
a = 0.0132 [0.0034] AU
Ag = 2.82 [8.60] [0.21σ]
Teffp = 4190 [3174] K [0.66σ]

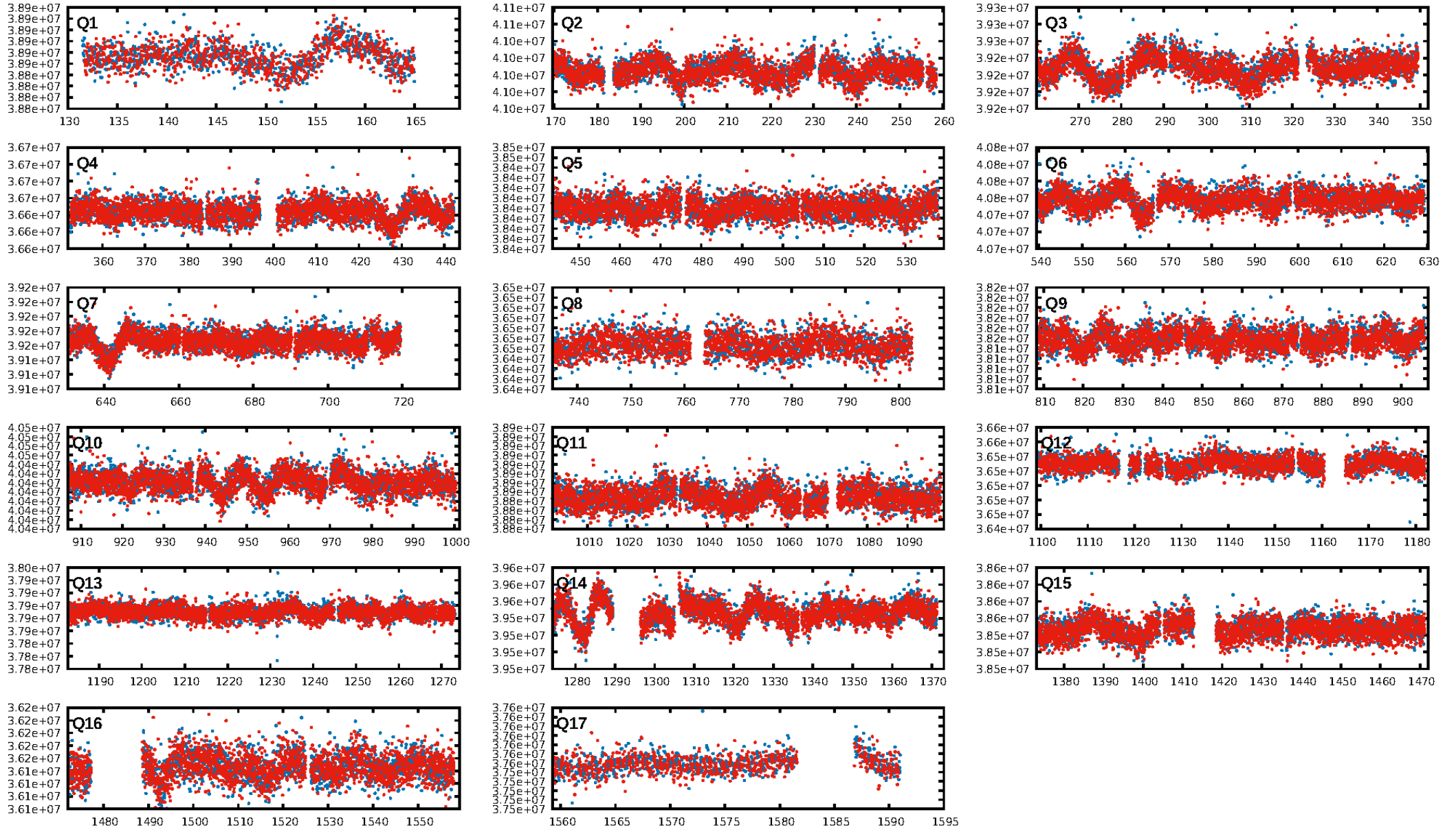
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 2.10e-16
RollingBand-fgt: 1.00 [2267/2267]
GhostDiagnostic-chr: 0.1833
Centroid-sig: 96.2%
Centroid-so: 0.338 arcsec [0.22σ]
OotOffset-rm: 0.772 arcsec [1.20σ]
KicOffset-rm: 0.830 arcsec [1.28σ]
OotOffset-st: 3/4/3/4 [14]
KicOffset-st: 3/4/3/4 [14]
DiffImageQuality-fgm: 0.50 [7/14]
DiffImageOverlap-fno: 1.00 [17/17]

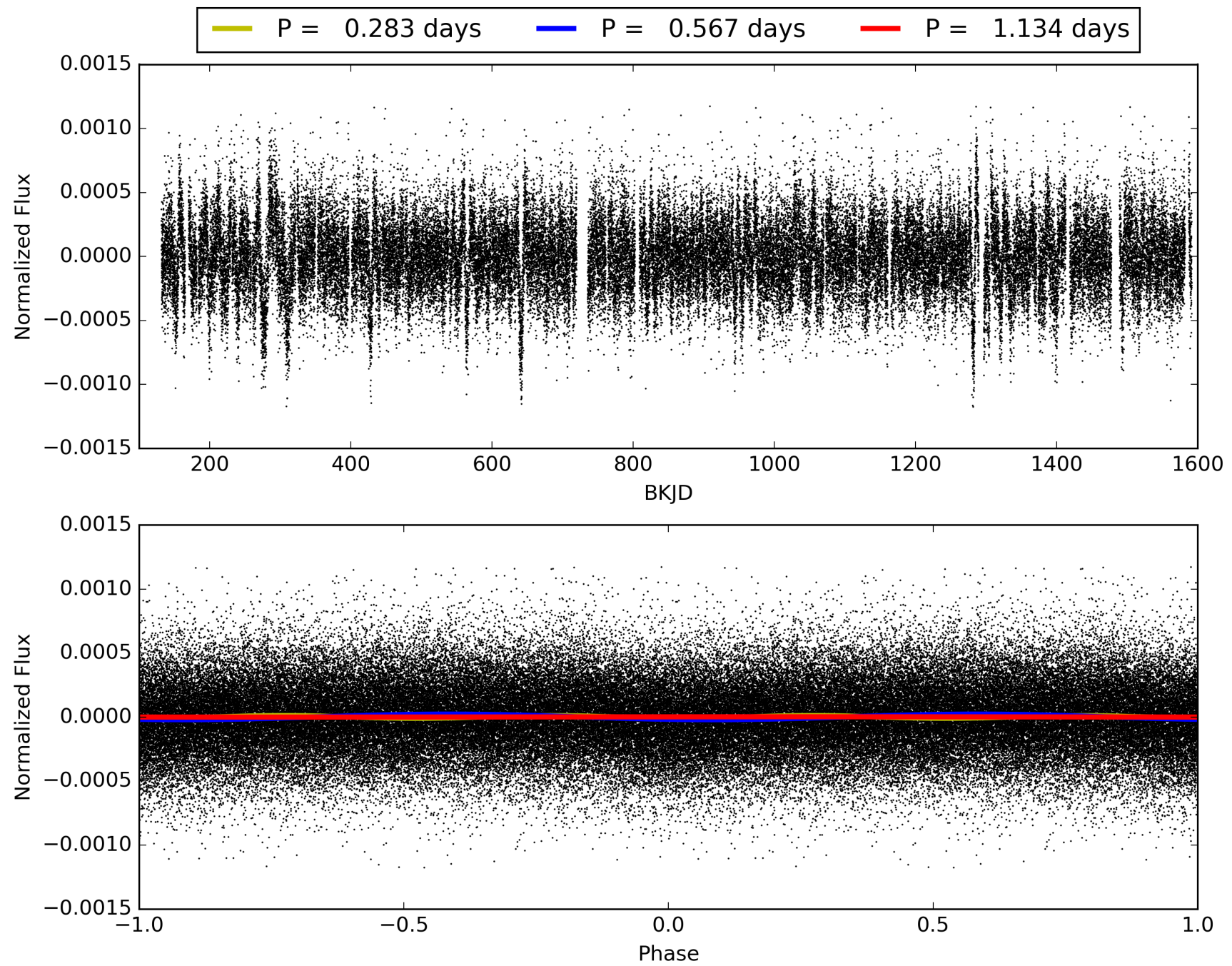
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 10:03:13 Z

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

TCE 007115879-01, PDC Light Curves

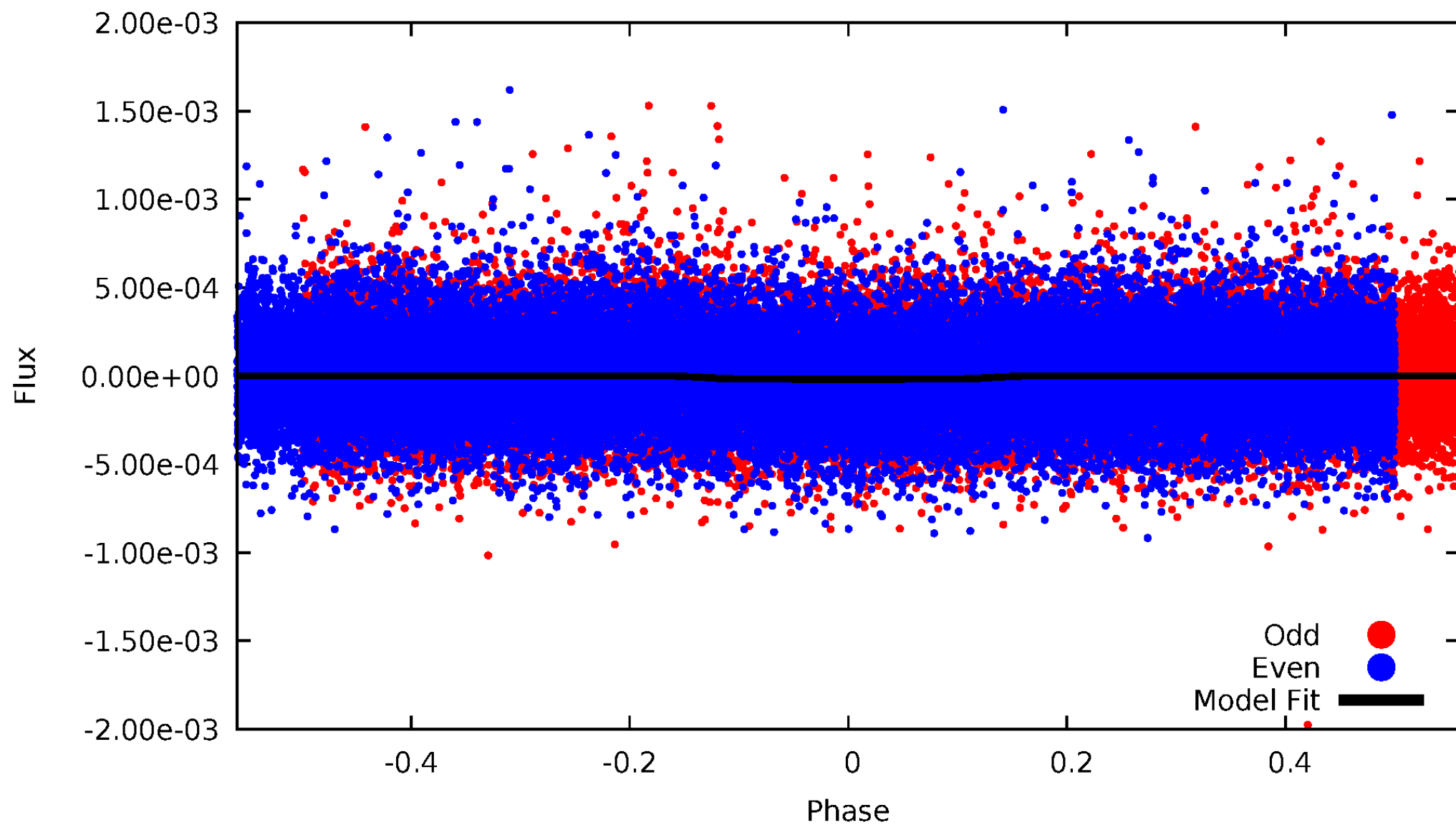


TCE 007115879-01



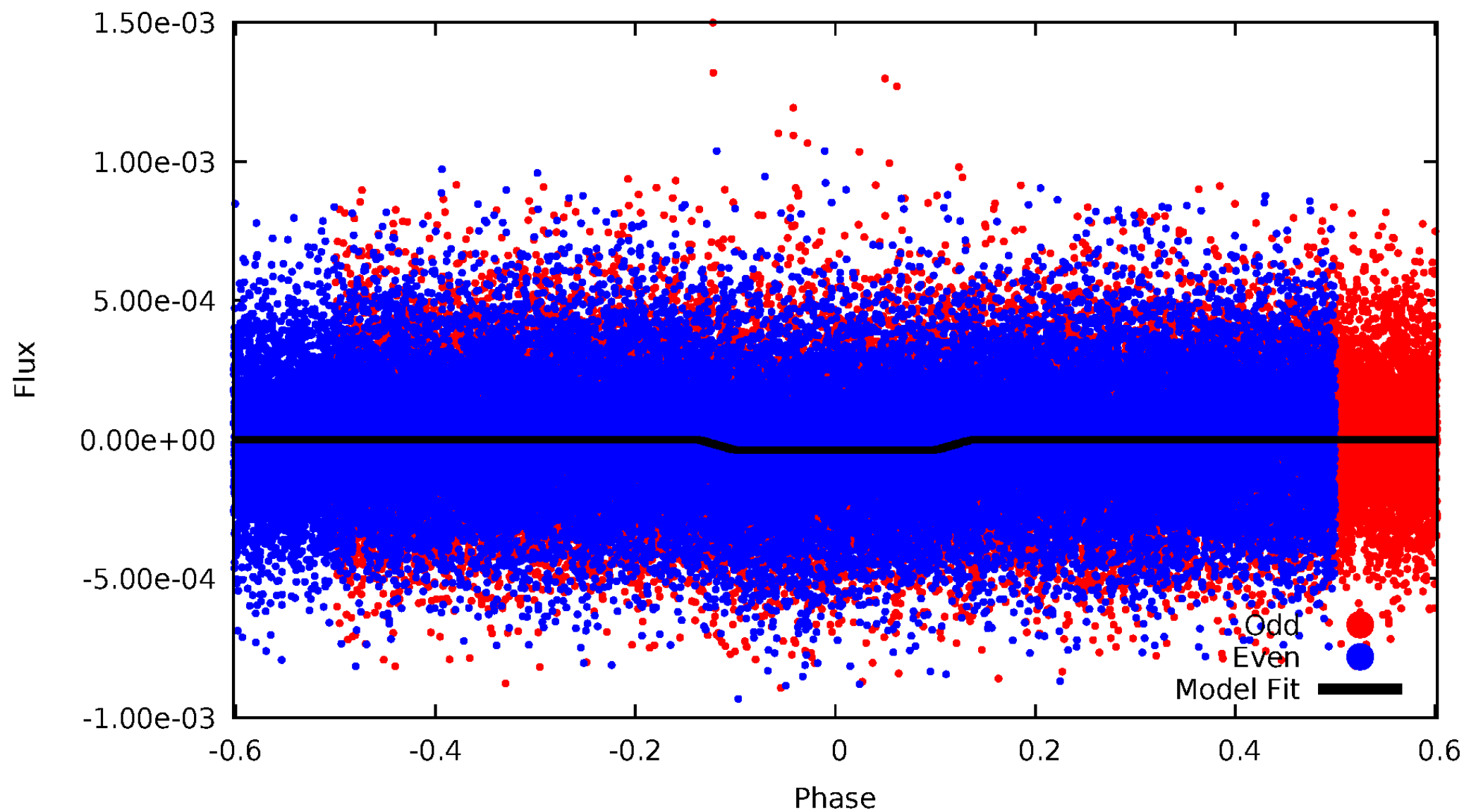
DV Odd/Even

TCE 007115879-01



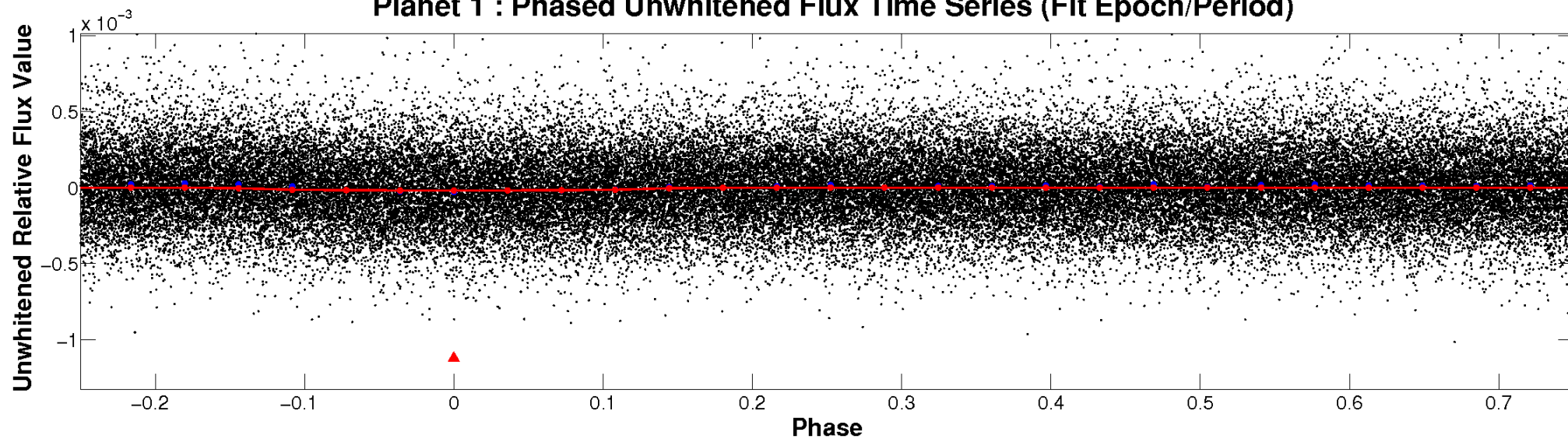
ALT Odd/Even

TCE 007115879-01

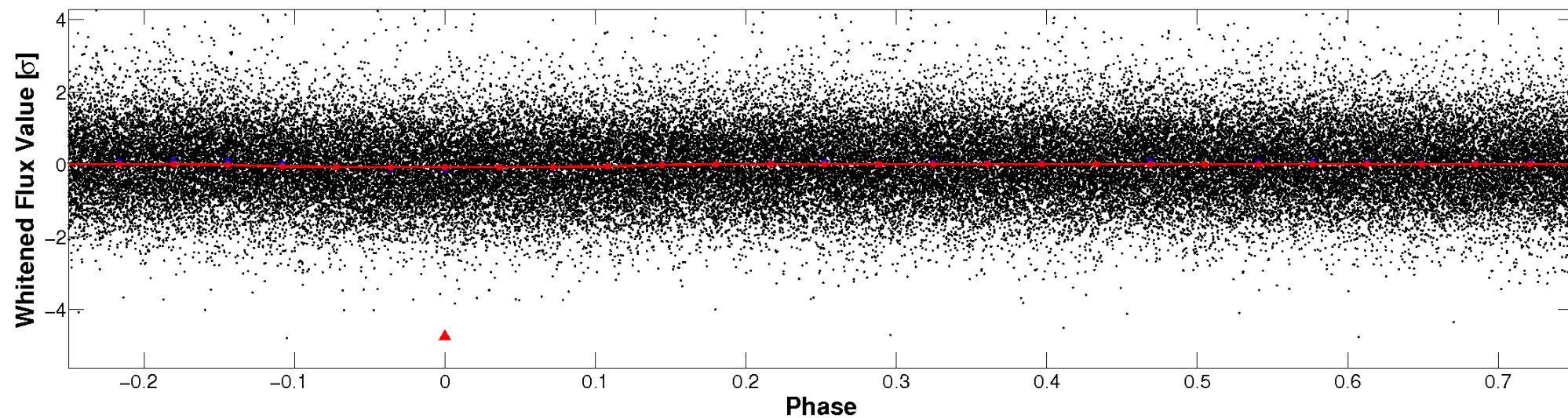


Non-Whitened Vs. Whitened Light Curve

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

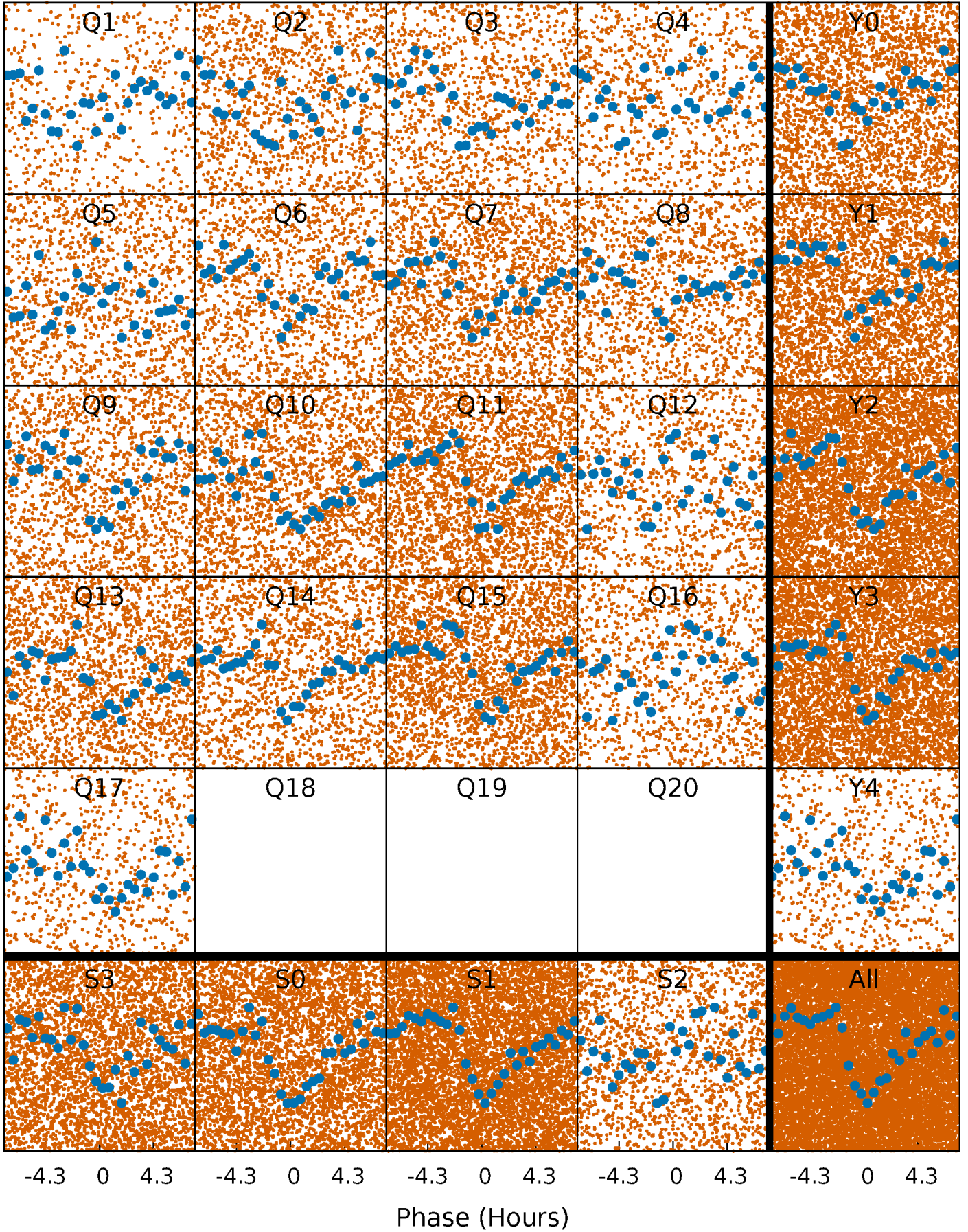


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



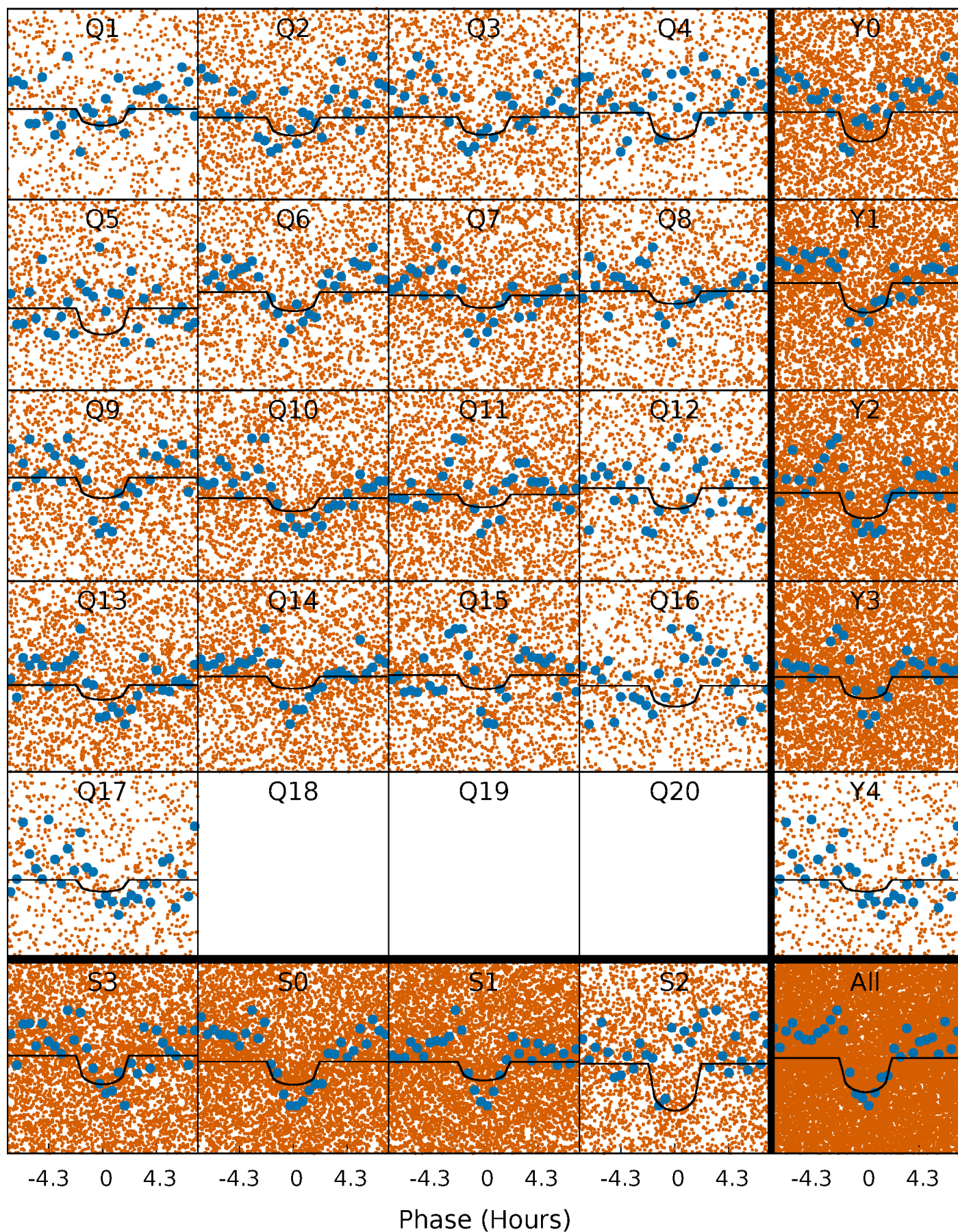
PDC Quarter-Phased Transit Curves

TCE 007115879-01 P= 0.566759 Days $T_0=131.865187$ (BKJD)



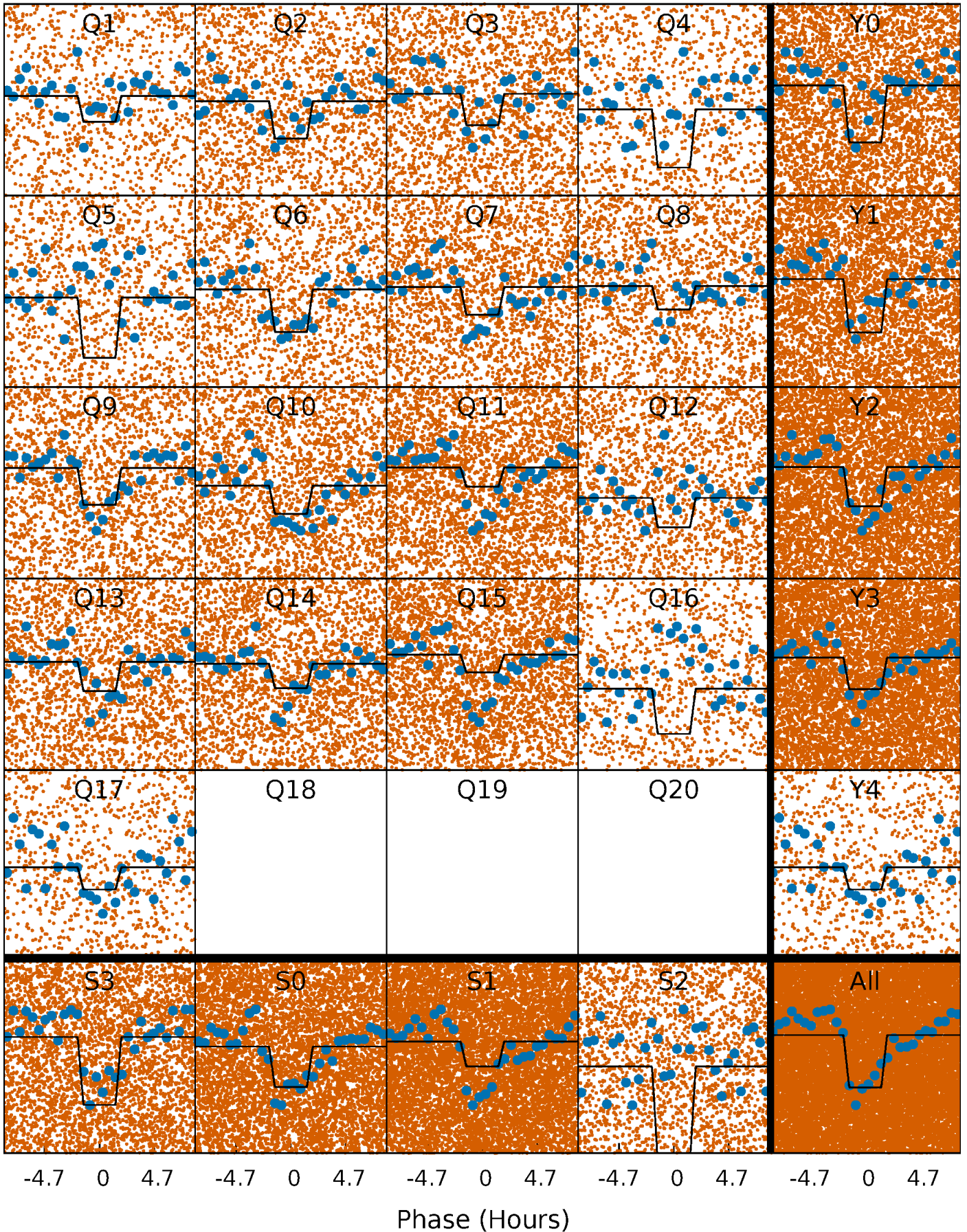
DV Quarter-Phased Transit Curves

TCE 007115879-01 P= 0.566759 Days $T_0=131.865187$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

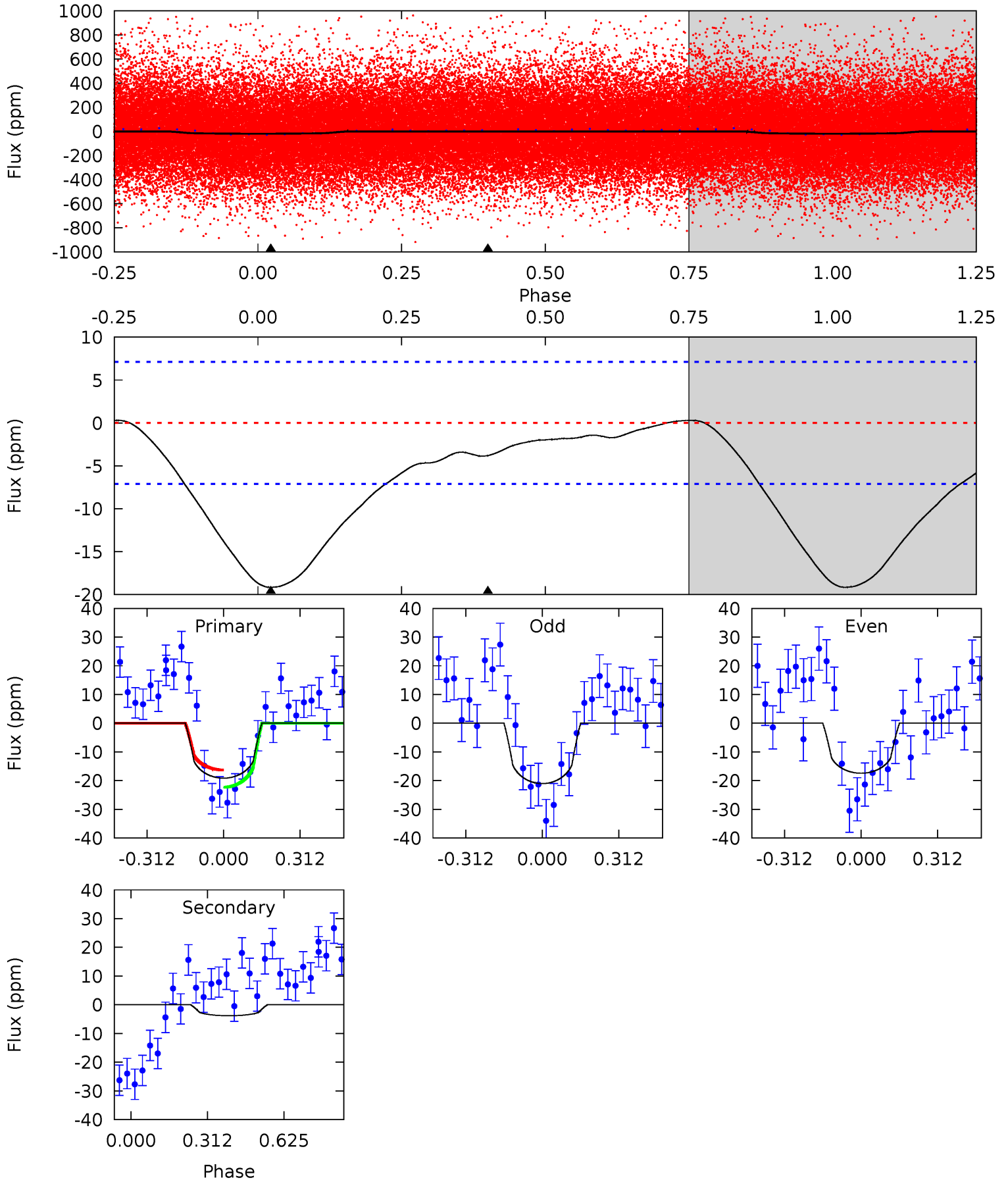
TCE 007115879-01 P= 0.566788 Days $T_0=131.841125$ (BKJD)



DV Model-Shift Uniqueness Test

007115879-01, P = 0.566759 Days, E = 131.298428 Days

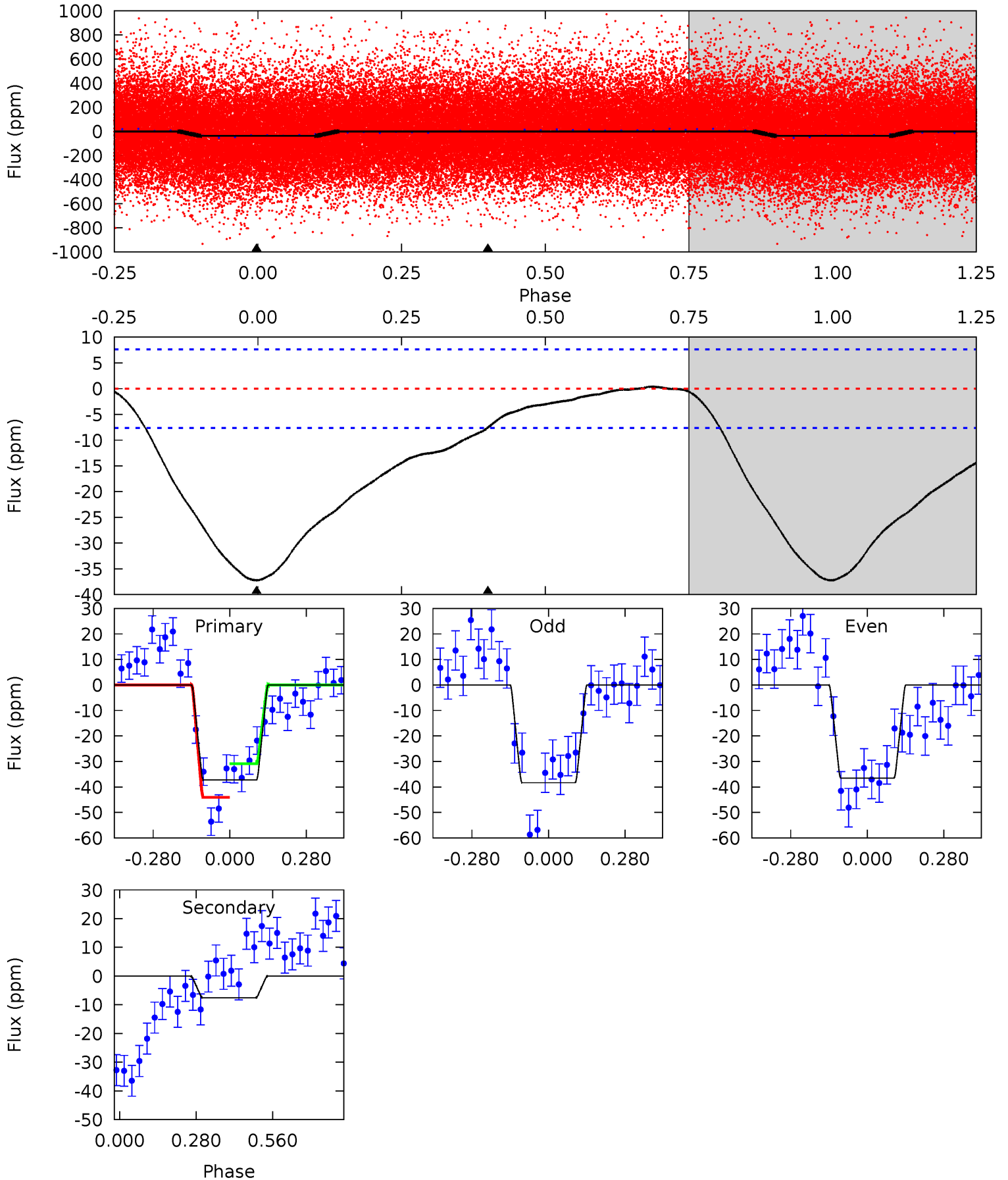
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.6	2.32	0	0	4.32	1.01	0.22	11.6	11.6	2.32	2.32	1.10	0.90	0.02	1.83



Alt Model-Shift Uniqueness Test

007115879-01, P = 0.566788 Days, E = 131.274337 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
21.2	4.31	0	0	4.34	1.08	0.12	21.2	21.2	4.31	4.31	0.50	1.01	0.01	3.78



Stellar Parameters For KIC 007115879

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5853^{+147}_{-176}	$4.544^{+0.036}_{-0.204}$	$-0.180^{+0.300}_{-0.300}$	$0.868^{+0.264}_{-0.082}$	$0.961^{+0.110}_{-0.121}$	$2.069^{+0.408}_{-1.063}$
	+3%/-3%	+1%/-4%	+167%/-167%	+30%/-9%	+11%/-13%	+20%/-51%
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 007115879-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-4 ± 2	$0.58^{+0.56}_{-0.38}$	2995^{+203}_{-134}	3496^{+2087}_{-6025}	$0.970^{+7.730}_{-0.733}$
Alt.	-8 ± 2	$0.75^{+0.52}_{-0.47}$	2995^{+212}_{-129}	3735^{+2137}_{-960}	$1.241^{+8.374}_{-0.807}$

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 $A_{obs} \gg 1.0$

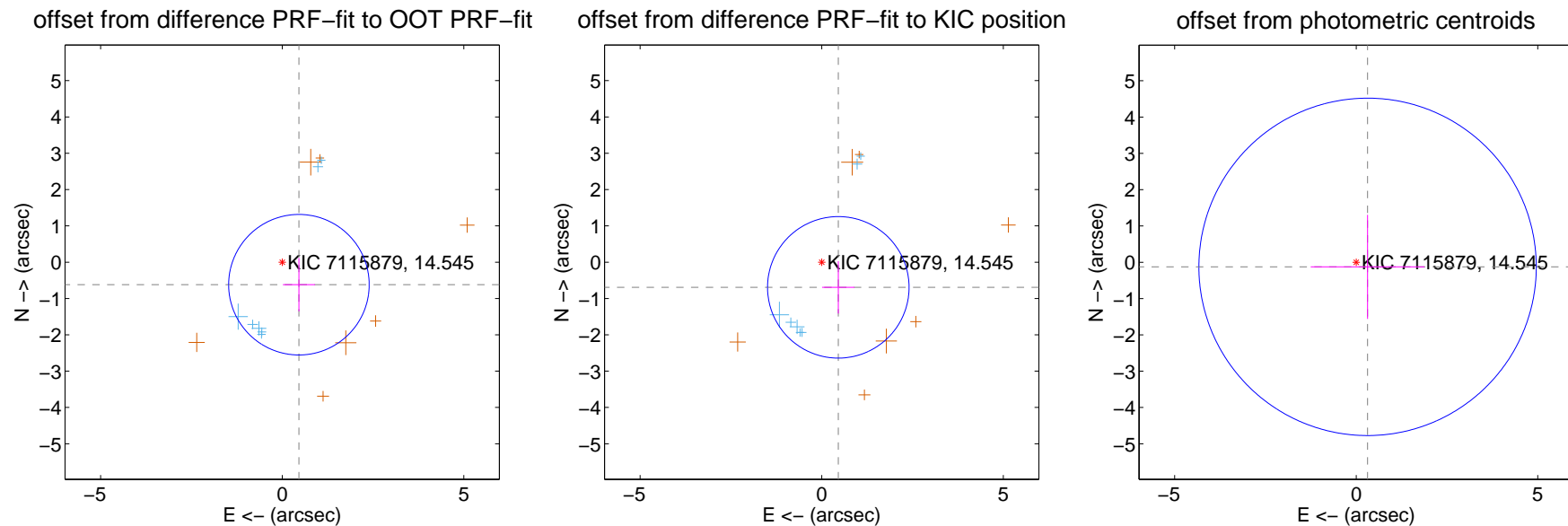
DV Centroid Data

Supplemental centroid analysis for 007115879-01. Kepler magnitude: 14.54. Transit SNR 8.38

There are 7 quarters with good PRF difference image offsets

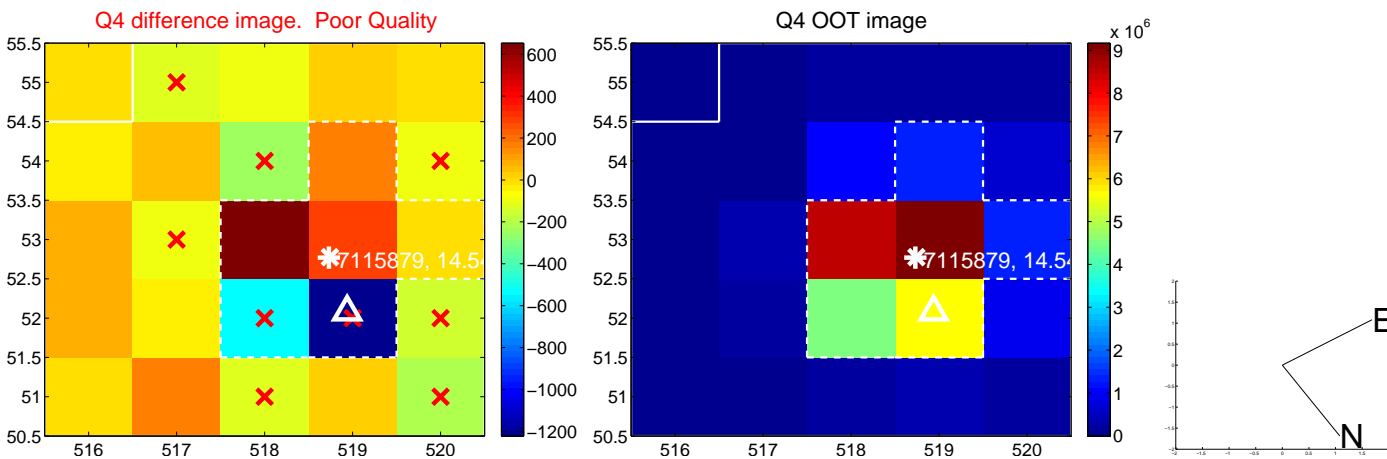
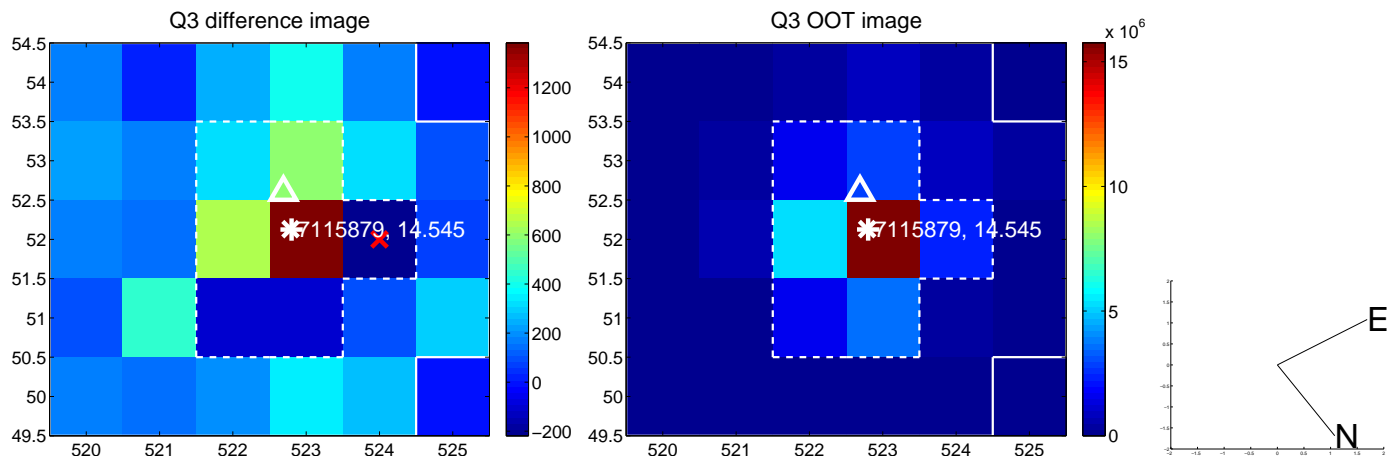
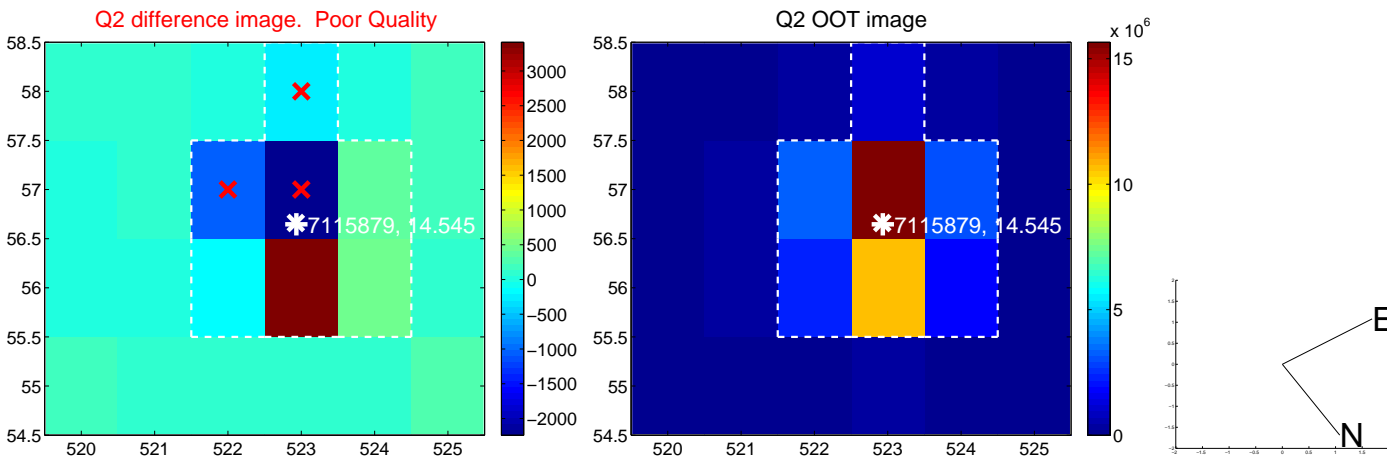
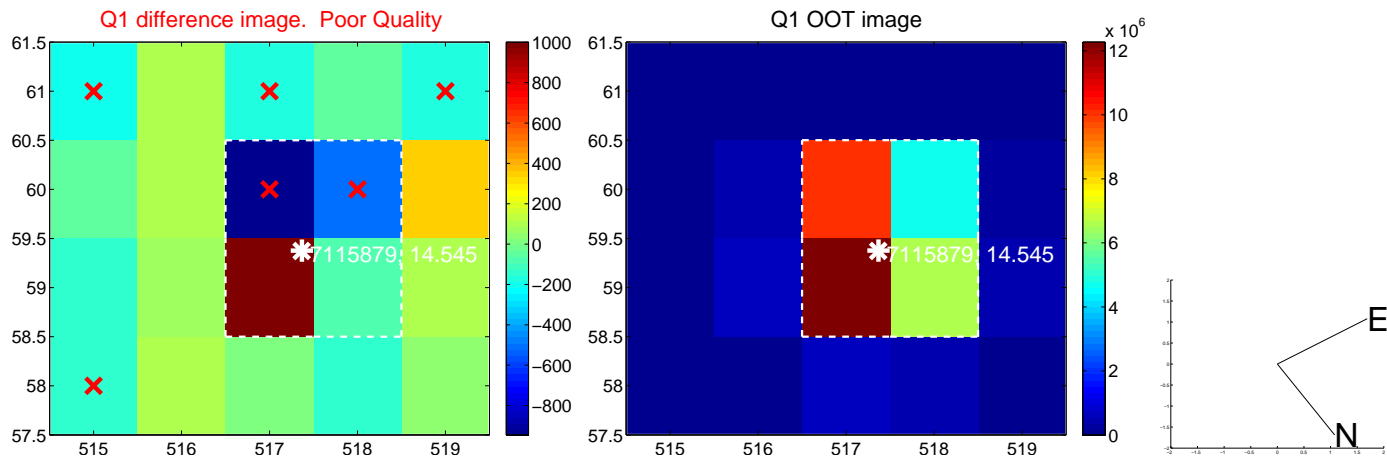
The direct PRF centroid is offset from the target star catalog position by about 0.05 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.772 ± 0.645	1.20	-0.460 ± 0.441	-0.620 ± 0.734
PRF-fit source offset from KIC position	0.830 ± 0.650	1.28	-0.457 ± 0.446	-0.693 ± 0.720
photometric centroid source offset	0.34 ± 1.55	0.22	-0.31 ± 1.57	-0.13 ± 1.43

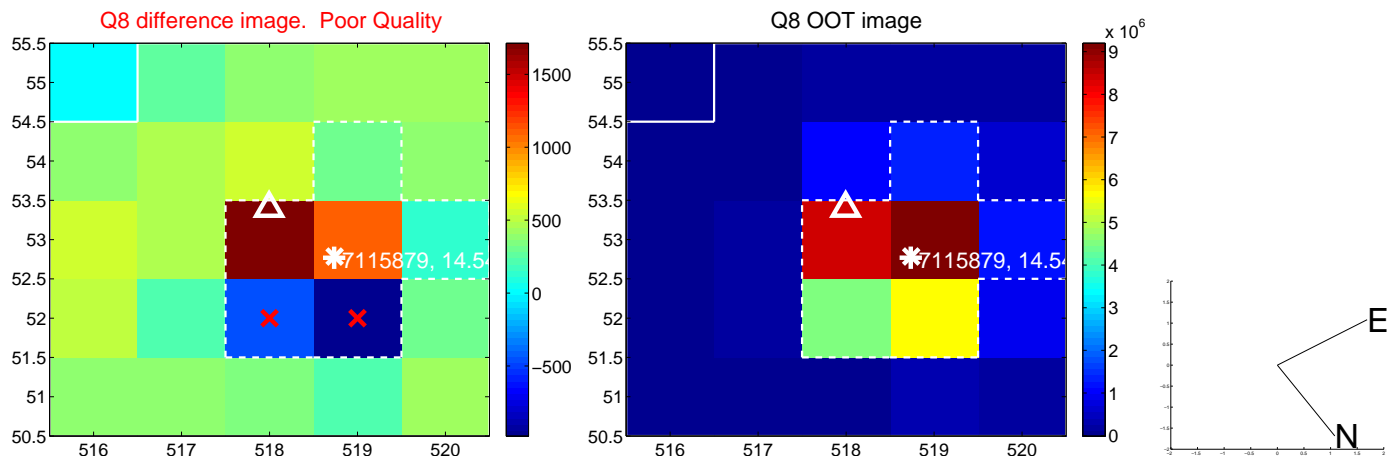
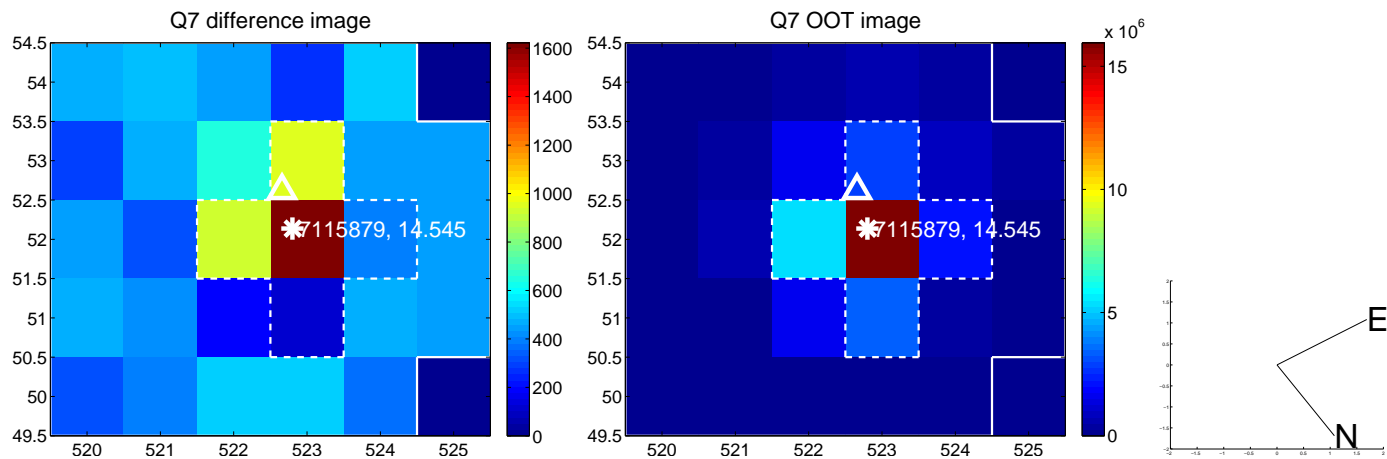
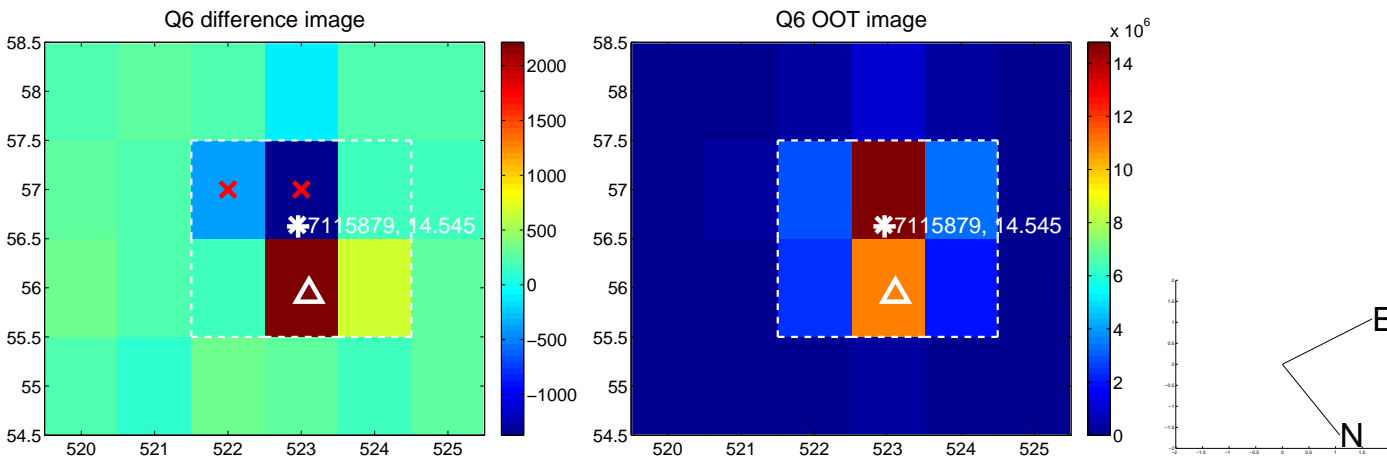
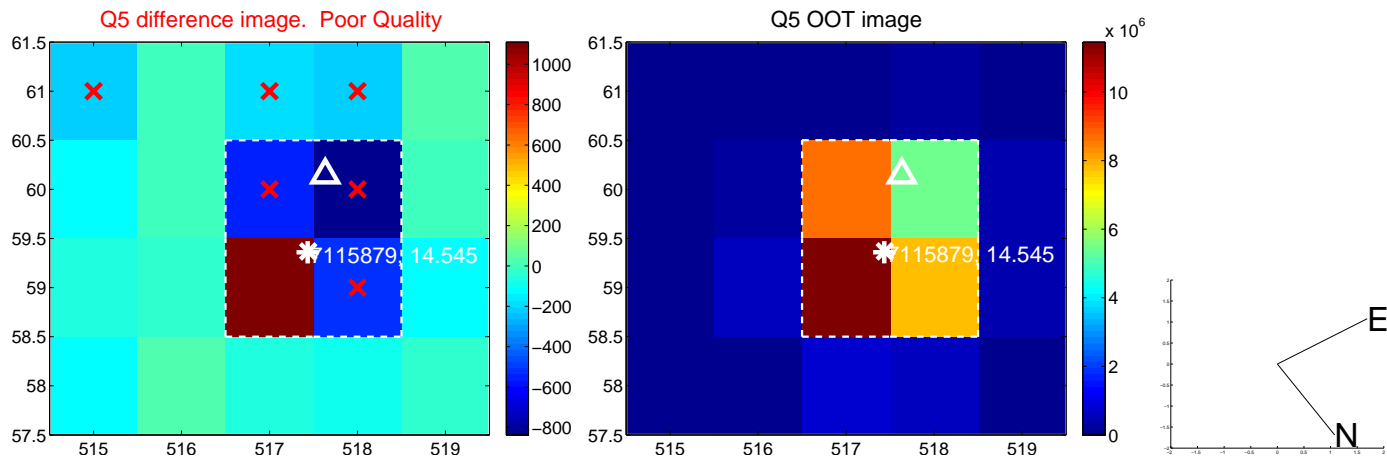


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

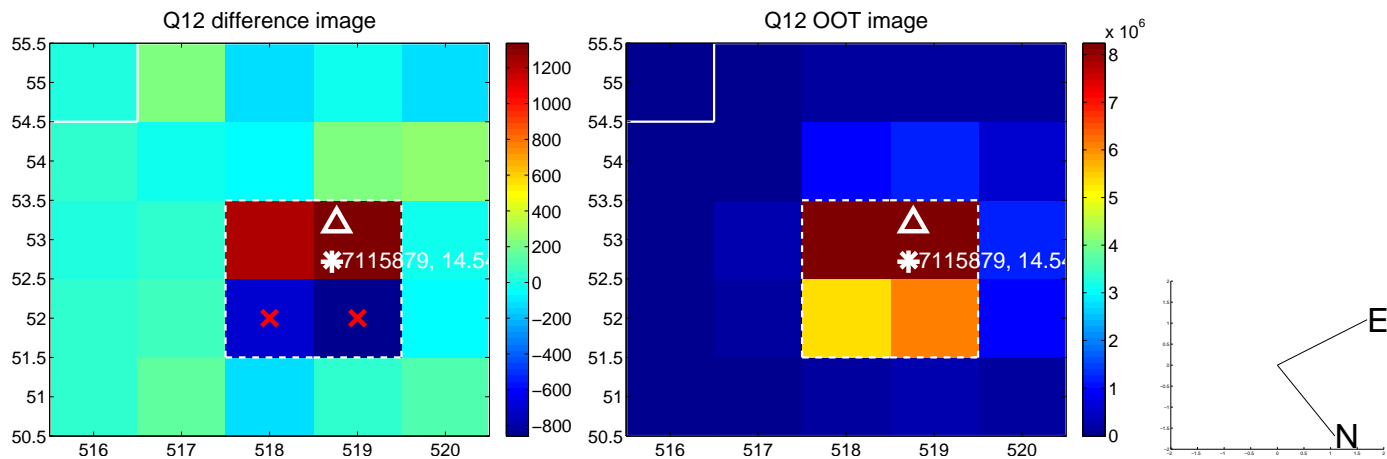
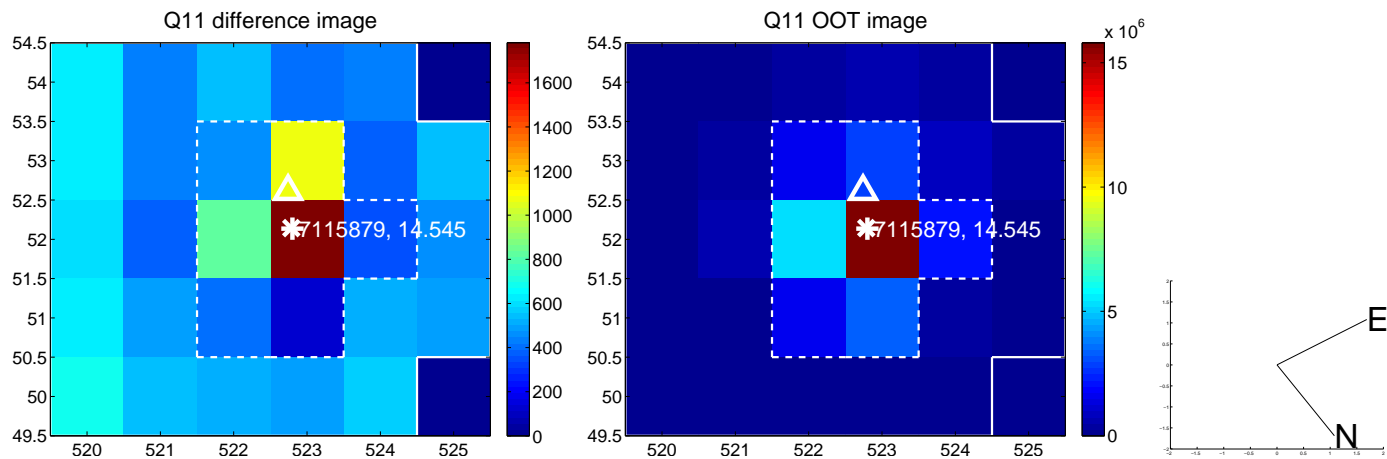
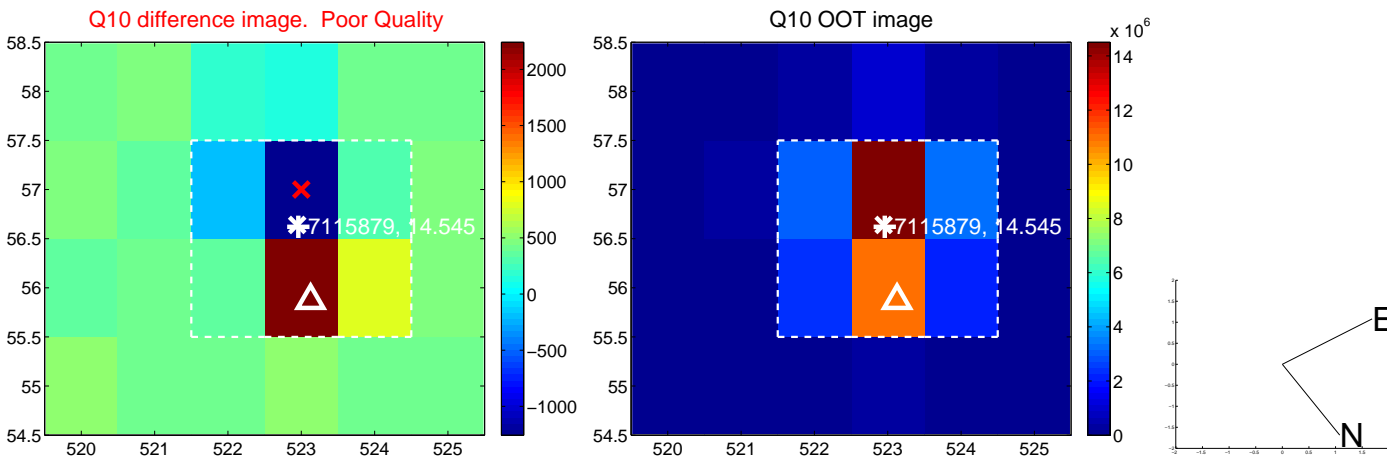
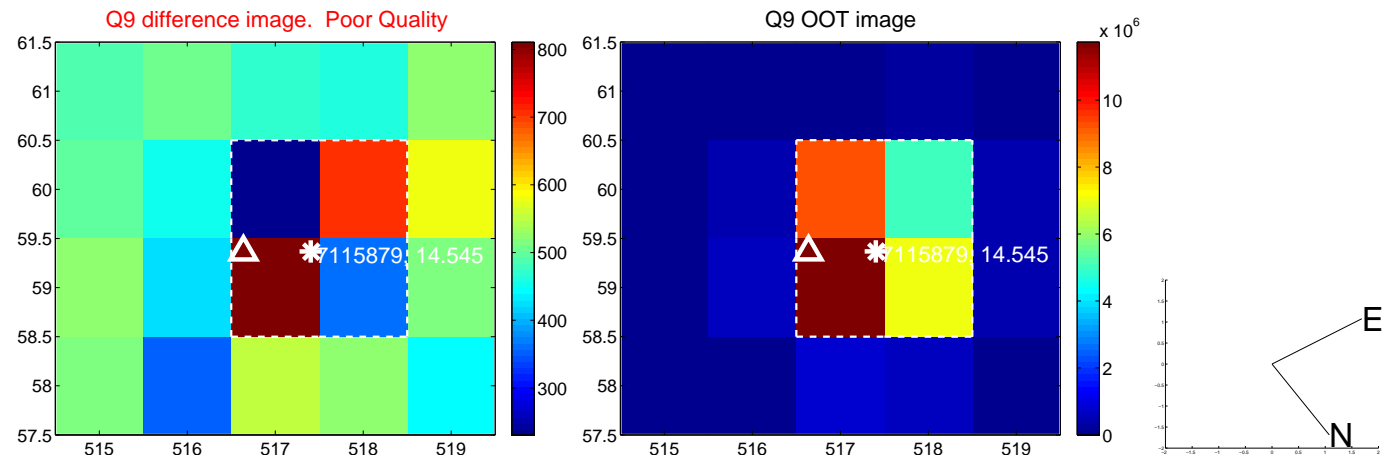
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



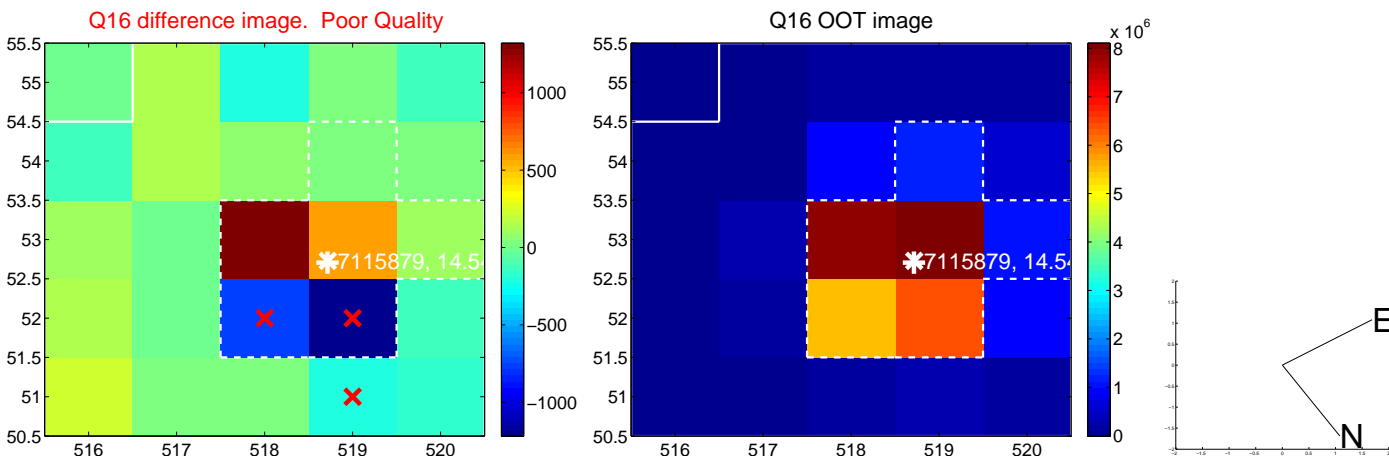
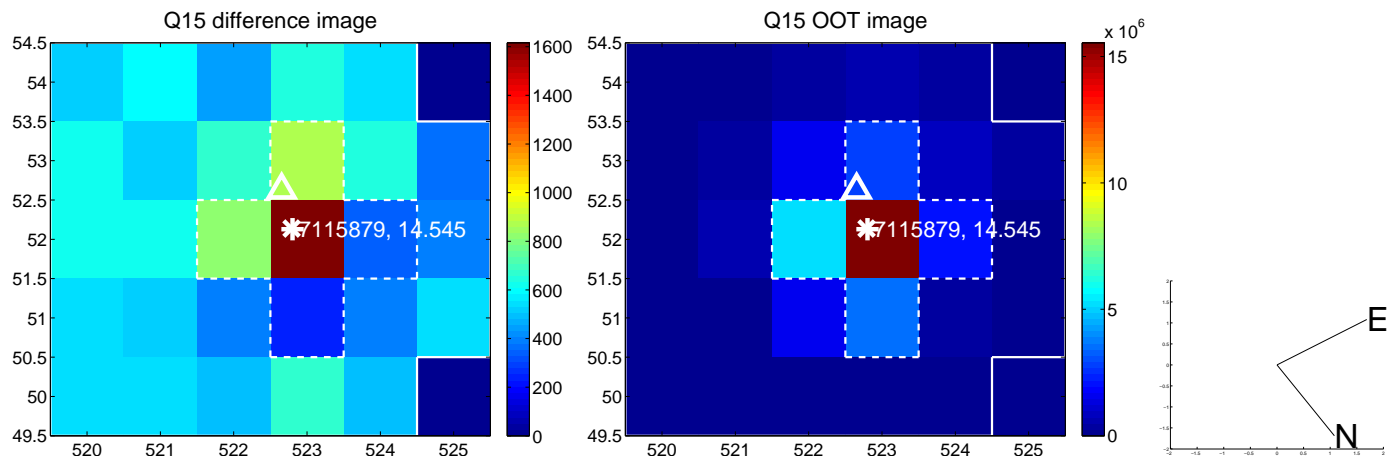
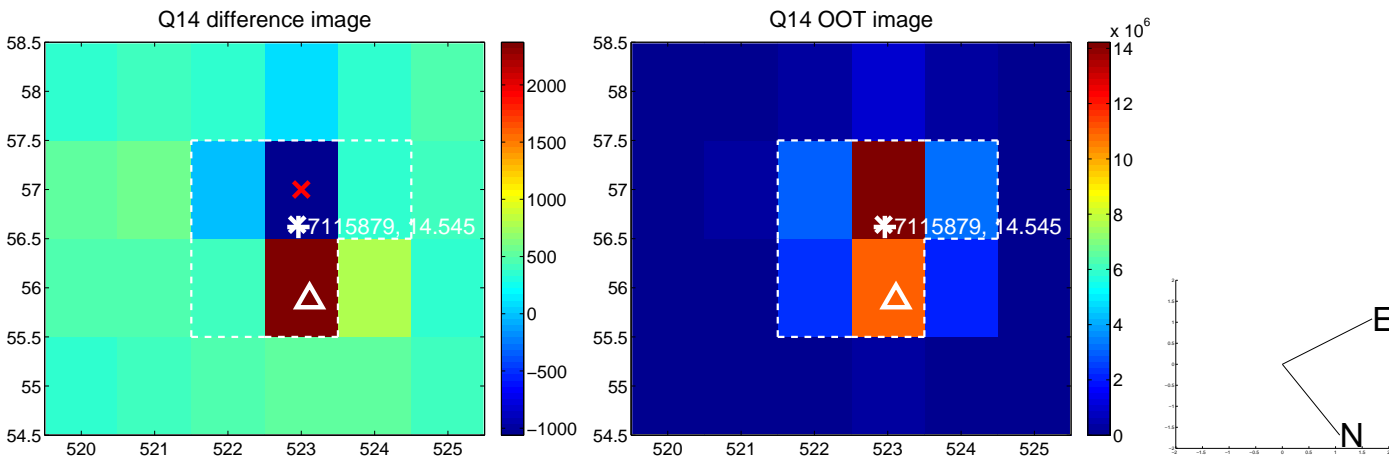
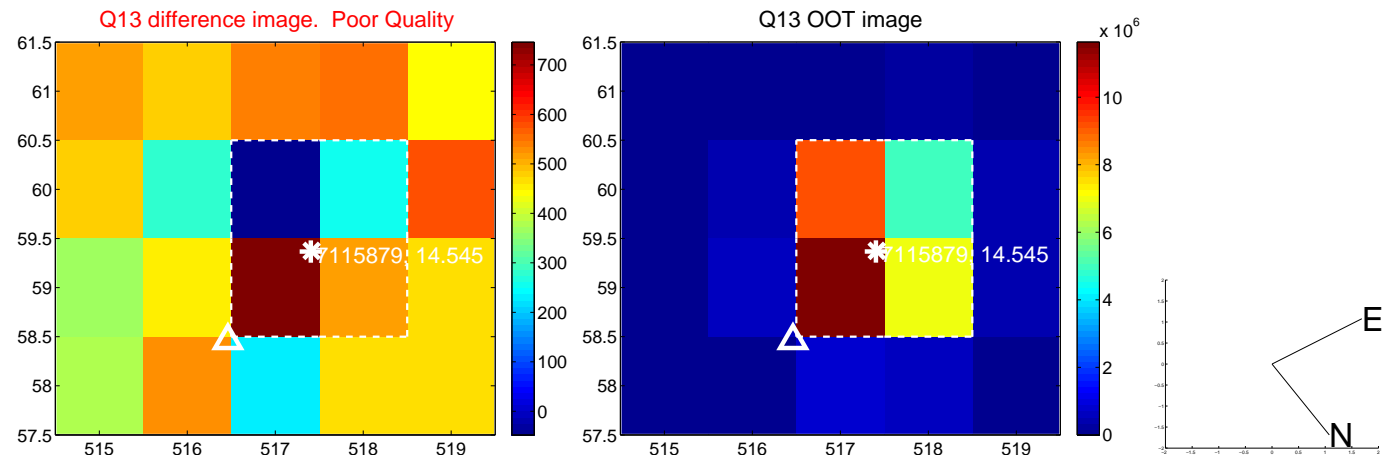
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



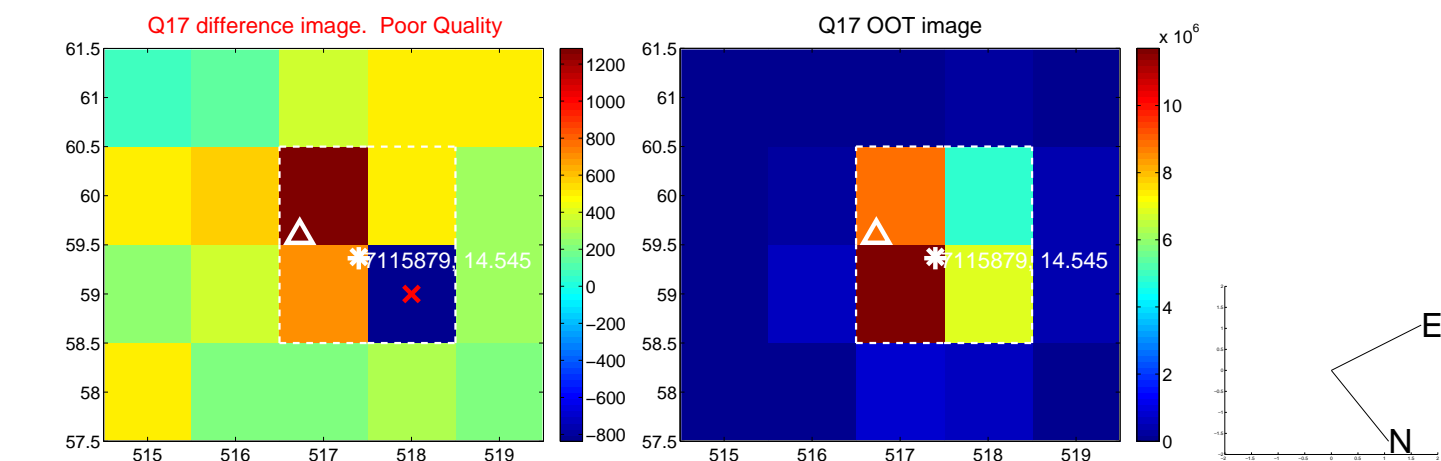
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



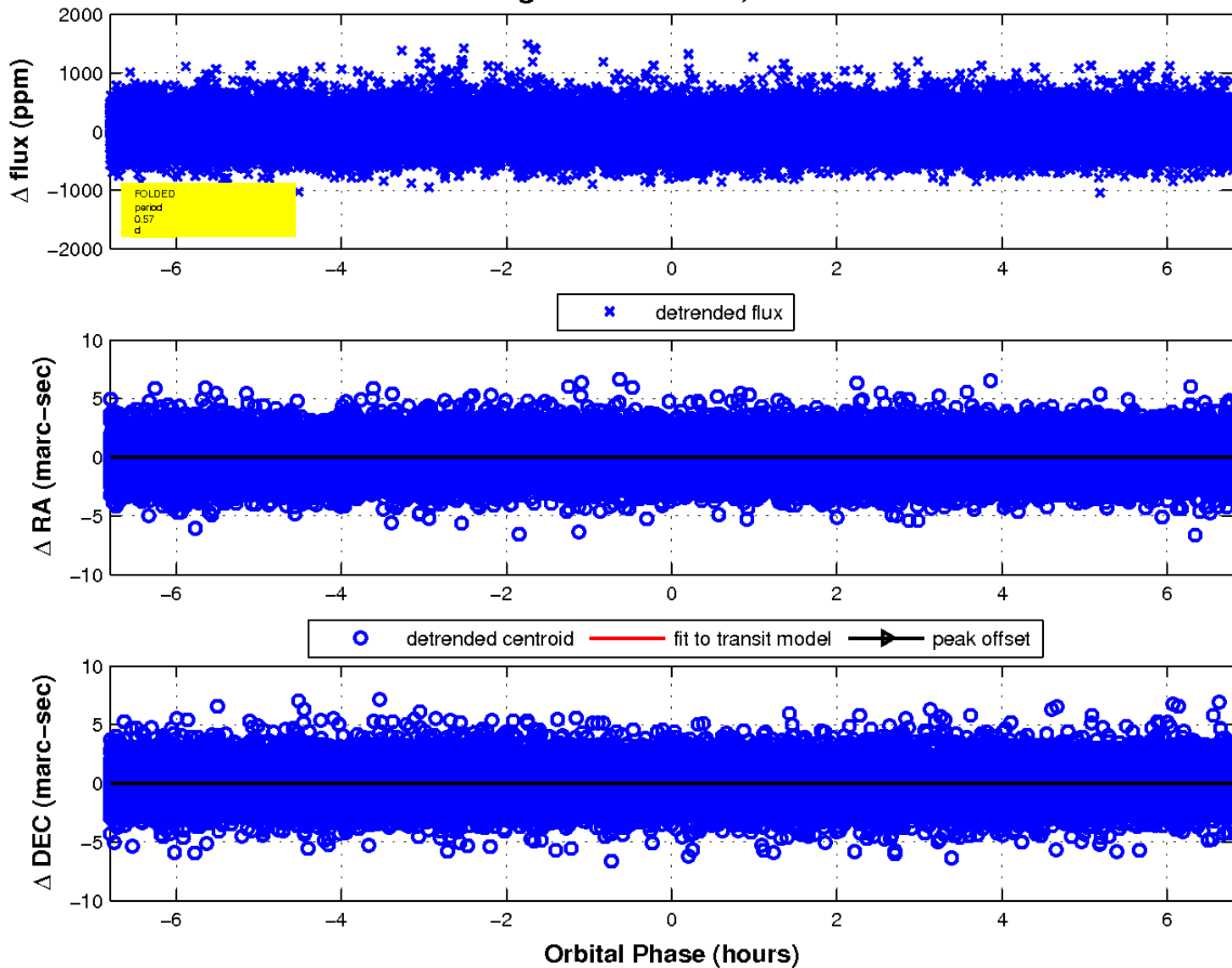
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fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

