

KIC 003557341

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R _★ (R _☉)	T _★ (K)	R _p (R _⊕)	S _p (S _⊕)
003557341-01	OBS	1190.01	0.787433	132.137368	168.1	1.085	7.9	8.9	0.81	5628	1.26	2267.95

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003557341-01	OBS	FP	0.00	1	0	0	1	LPP_DV—MOD_NONUNIQ_ALT—CENT_FEW_DIFFS—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 003557341-01

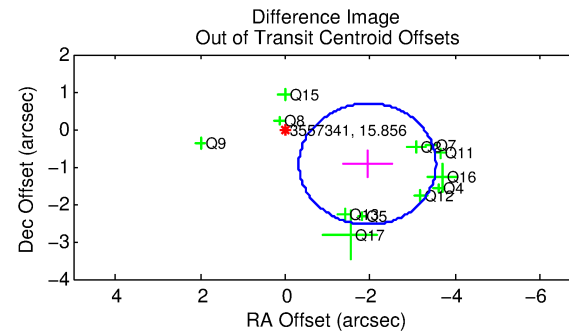
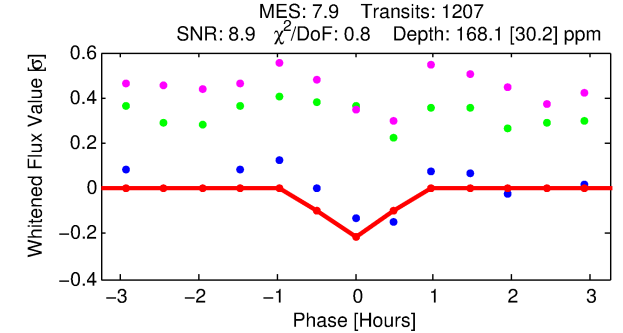
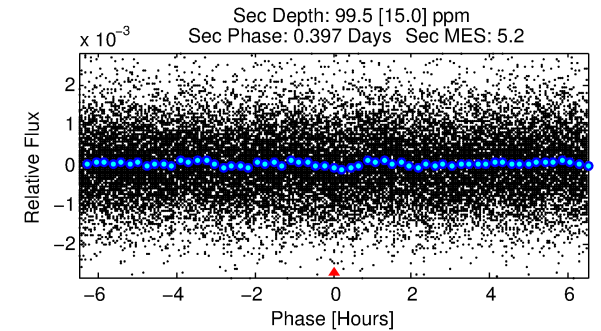
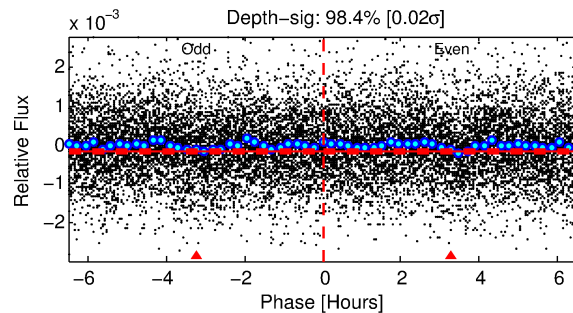
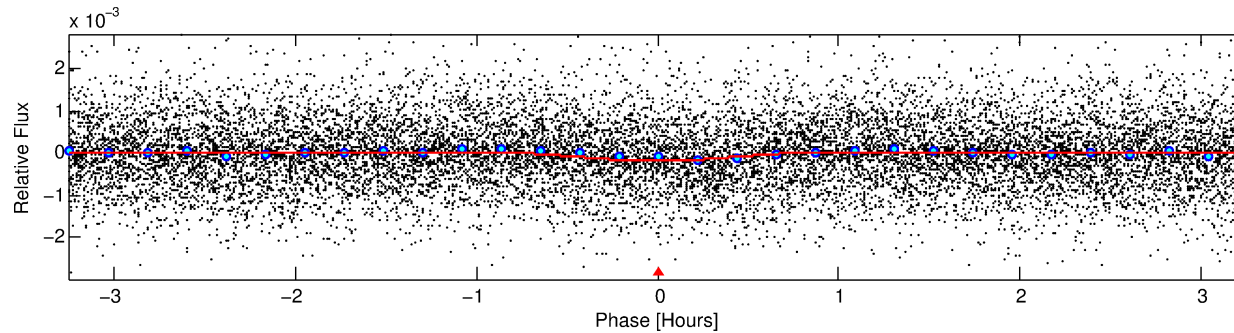
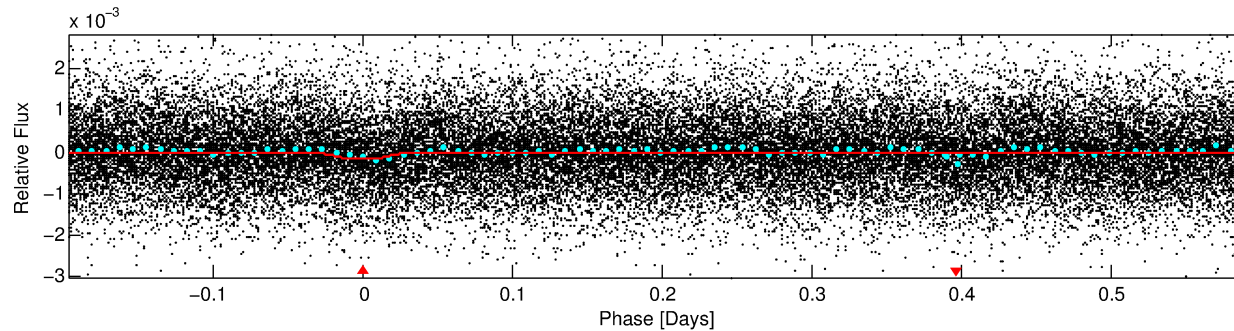
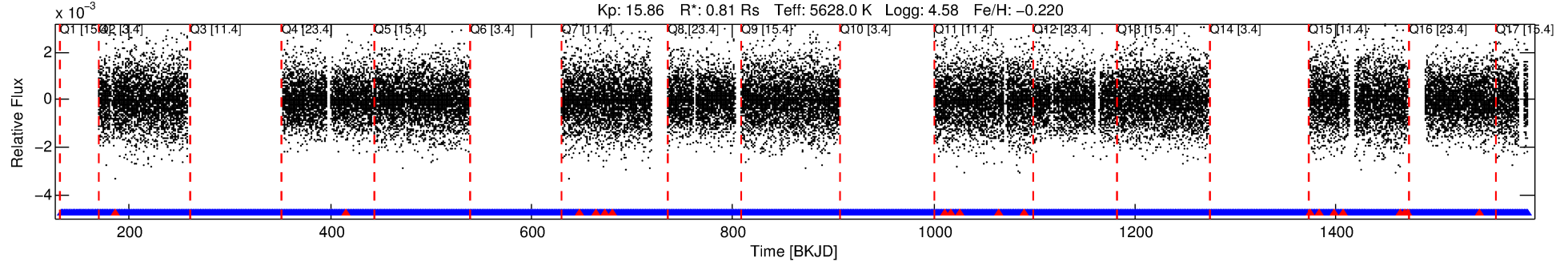
TCE (1)	KIC	Parent (2)	Parent KIC	P ₁ :P ₂	Dist (″)	ΔRow	ΔCol	m ₂	m ₁	D ₂ /D ₁	Mechanism	Flag	σ _P	σ _T
003557341-01	3557341	003557293-02	3557293	1:1	87.8	-22	-2	14.44	15.86	0.39	Direct-PRF	1	3.26	1.32

Notes: P₁:P₂ is the period ratio. Dist is the distance in arcseconds. ΔRow and ΔCol are the number of pixels apart in row and column. m₂ and m₁ are the magnitudes of the parent and child. D₂/D₁ 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 σ_P < 5.0 and σ_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: 3557341 Candidate: 1 of 1 Period: 0.787 d
KOI: K01190 Corr: No Ephemeris Match

Kp: 15.86 R*: 0.81 Rs Teff: 5628.0 K Logg: 4.58 Fe/H: -0.220



DV Fit Results:

Period = 0.78743 [0.00001] d
Epoch = 132.1374 [0.0021] BKJD
Rp/R* = 0.0143 [0.0133]
a/R* = 2.71 [10.24]
b = 0.90 [0.90]
Seff = 2267.95 [727.18]
Teq = 1760 [141] K
Rp = 1.26 [1.22] Re
a = 0.0161 [0.0033] AU
Ag = 8.88 [16.77] [0.47σ]
Teffp = 4697 [2194] K [1.34σ]

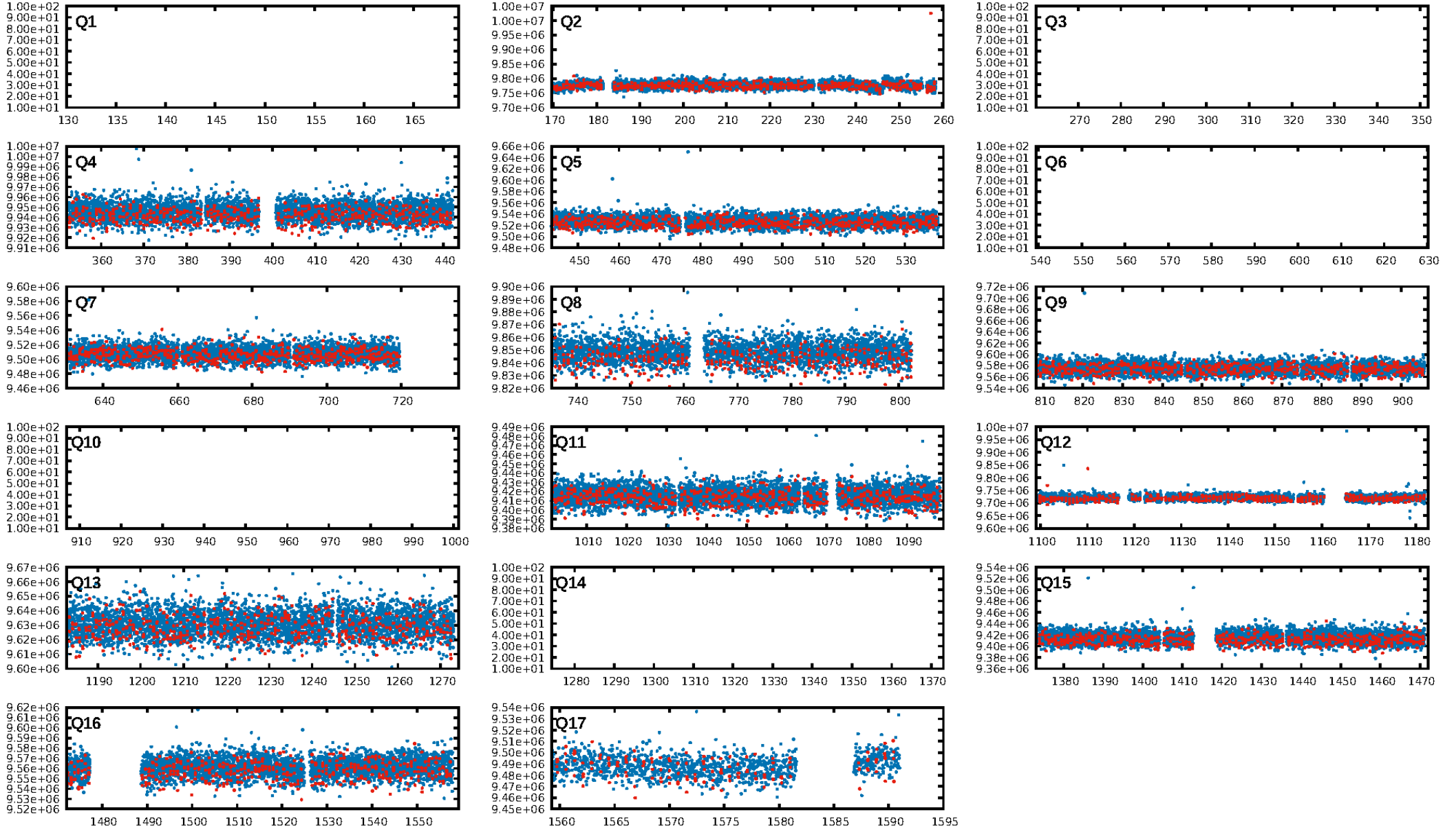
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 8.46e-17
RollingBand-fgt: 0.98 [1155/1174]
GhostDiagnostic-chr: -4.117
Centroid-sig: 0.0%
Centroid-so: 5.190 arcsec [3.13σ]
OotOffset-rm: 2.157 arcsec [4.00σ]
KicOffset-rm: 2.175 arcsec [4.05σ]
OotOffset-st: 1/3/4/4 [12]
KicOffset-st: 1/3/4/4 [12]
DiffImageQuality-fgm: 0.00 [0/12]
DiffImageOverlap-fno: 1.00 [12/12]

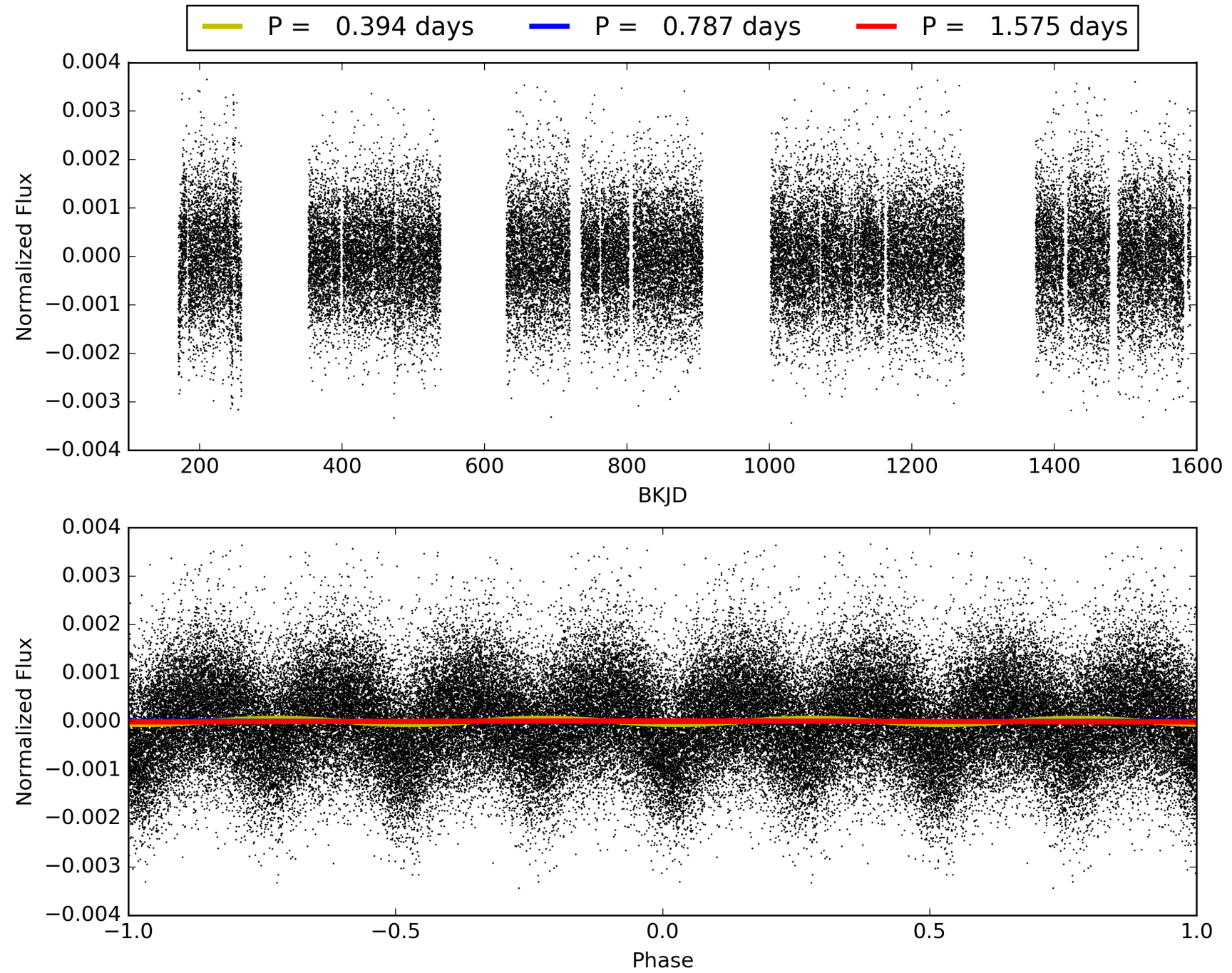
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 18:16:39 Z

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

TCE 003557341-01, PDC Light Curves

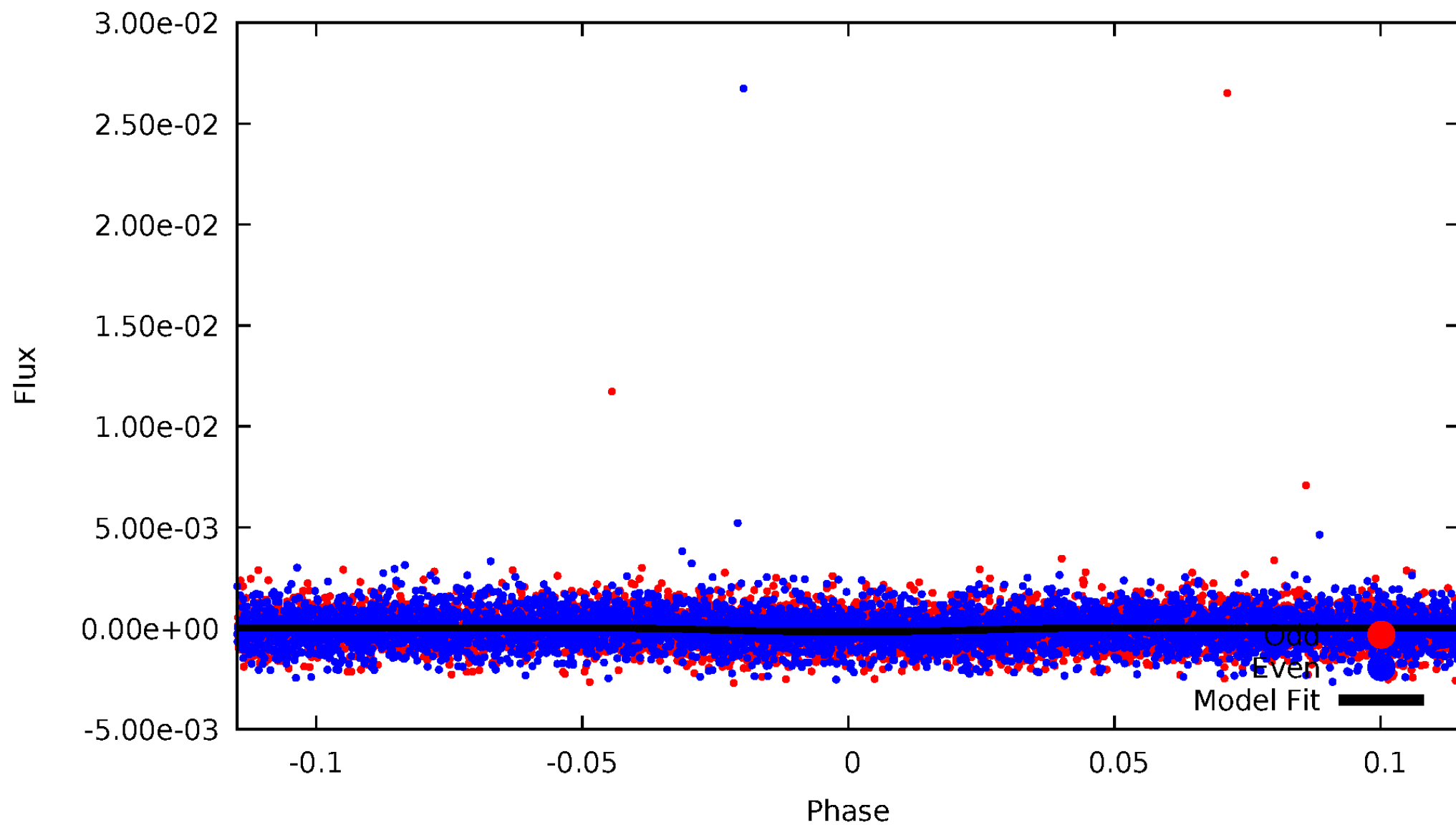


TCE 003557341-01



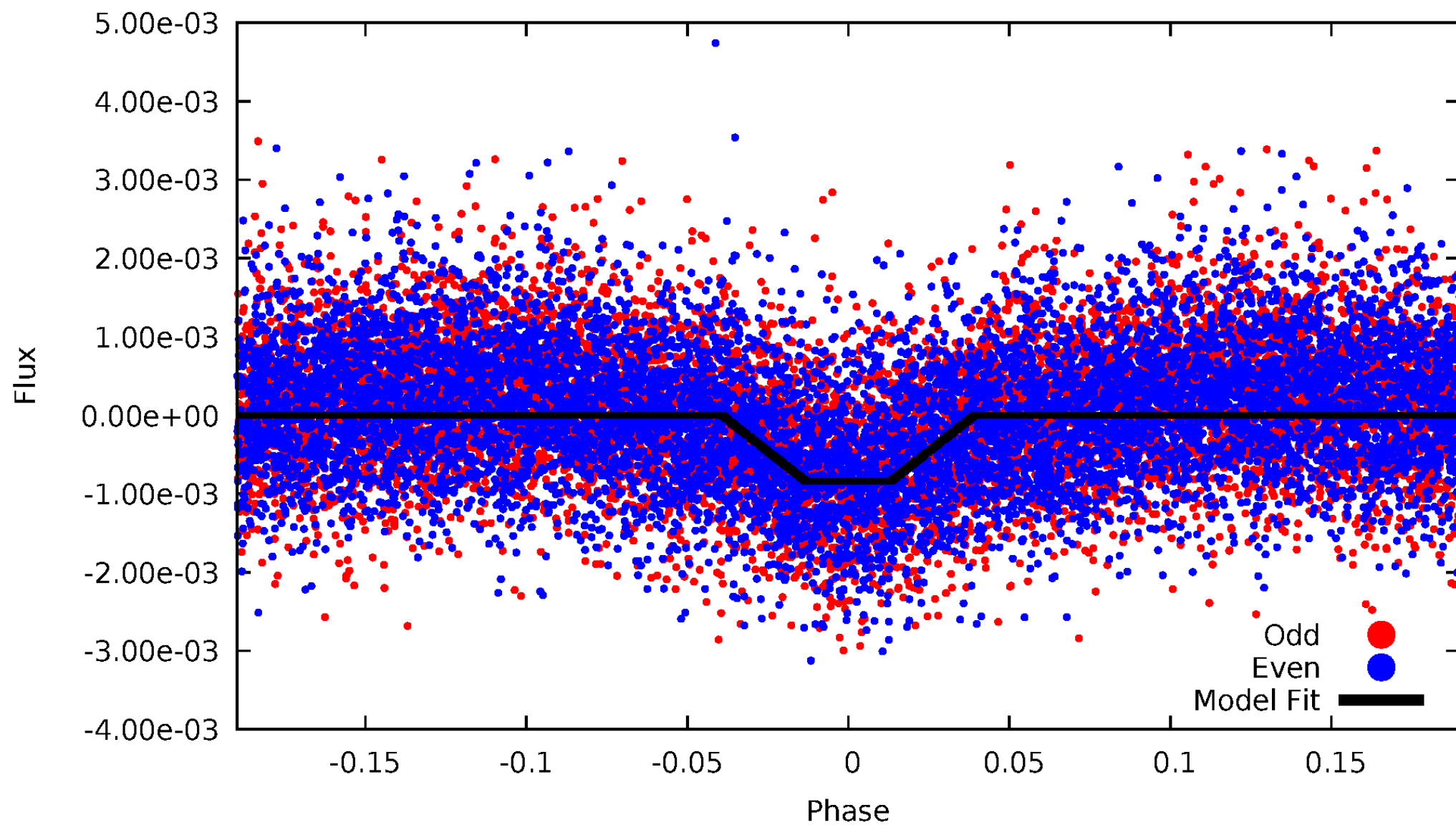
DV Odd/Even

TCE 003557341-01

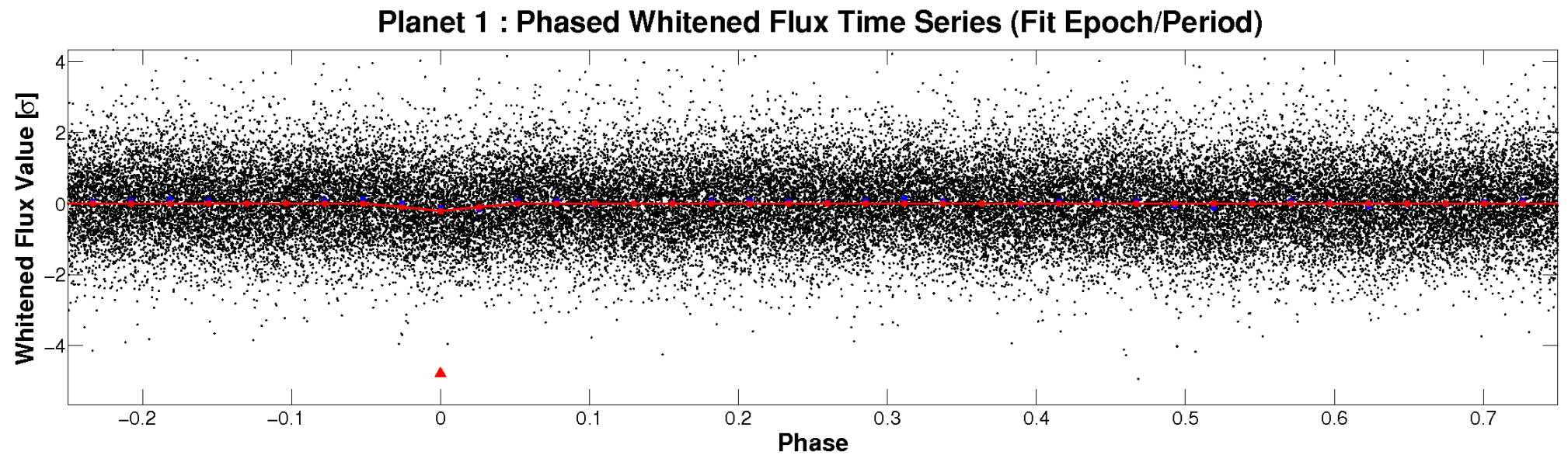
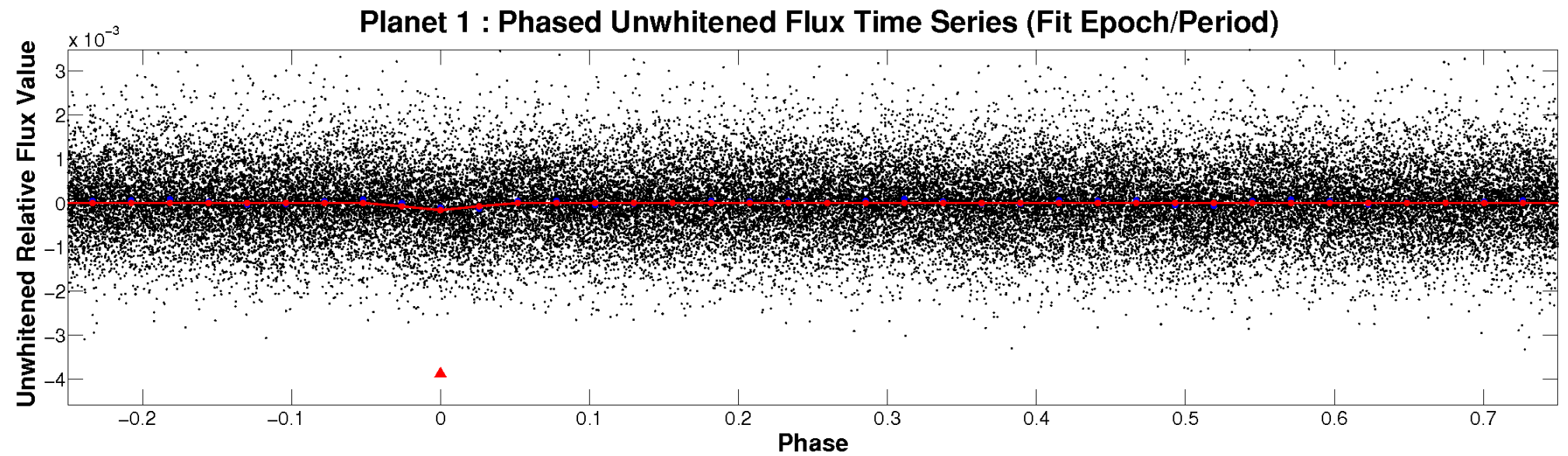


ALT Odd/Even

TCE 003557341-01

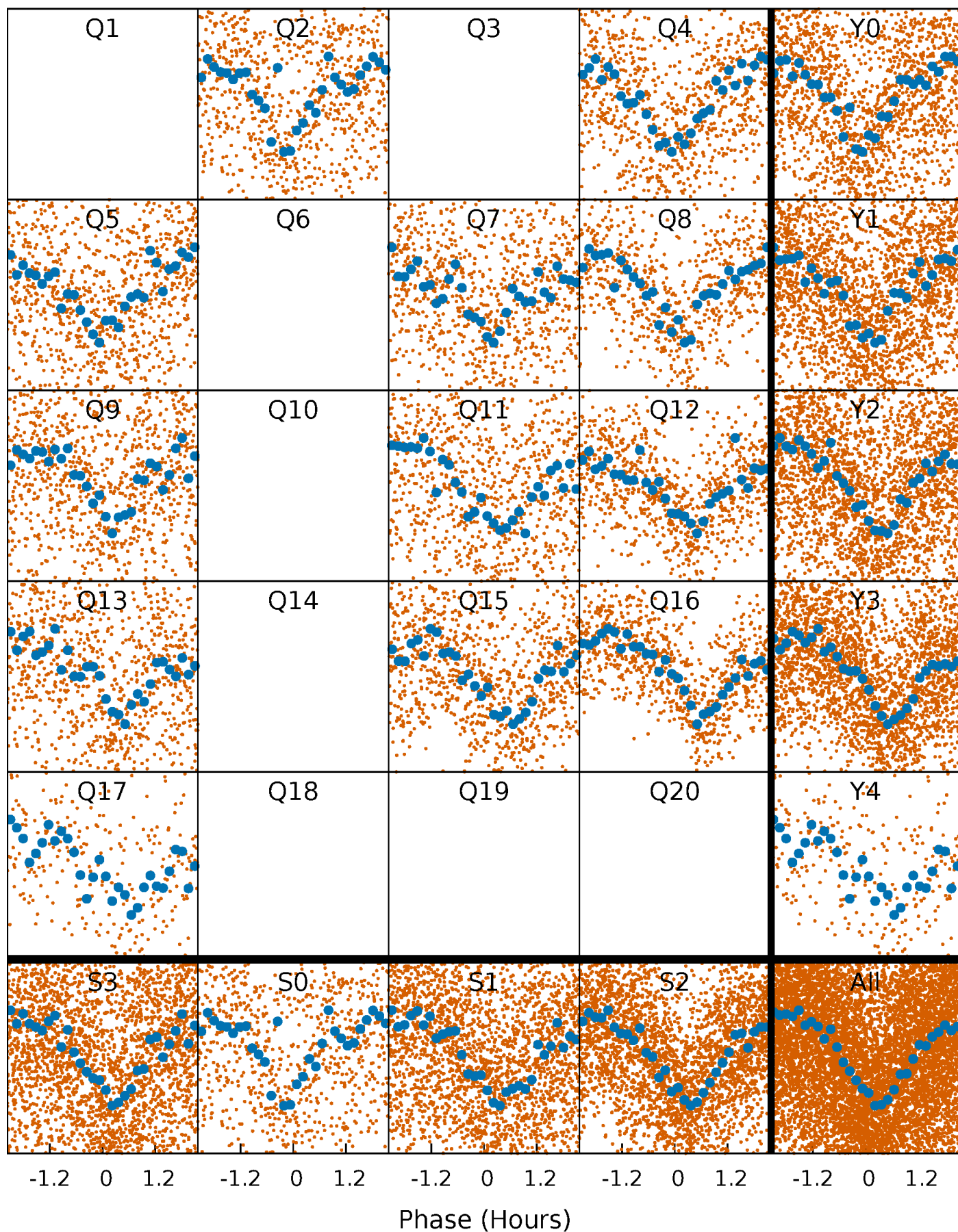


Non-Whitened Vs. Whitened Light Curve



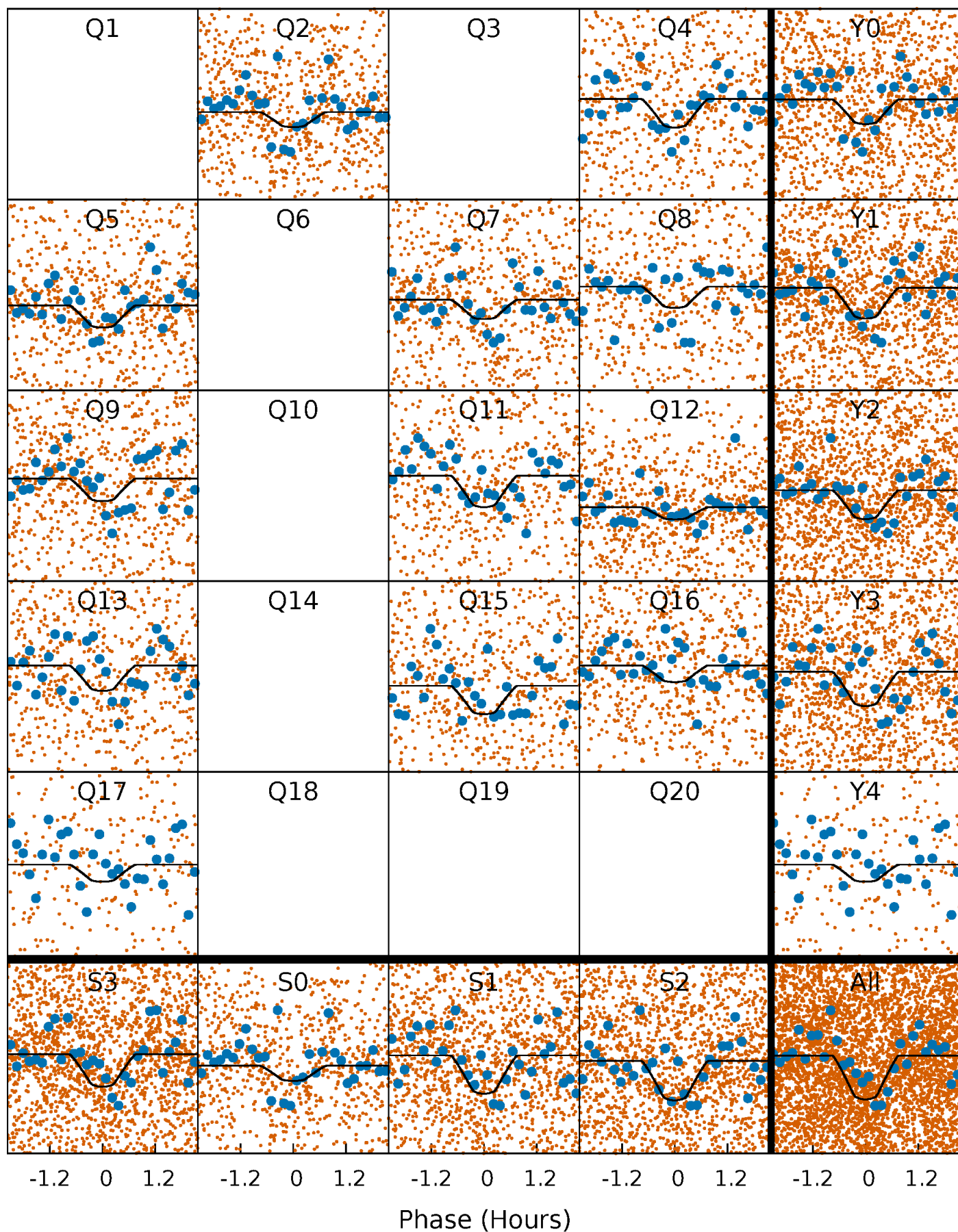
PDC Quarter-Phased Transit Curves

TCE 003557341-01 P= 0.787433 Days $T_0=132.137368$ (BKJD)



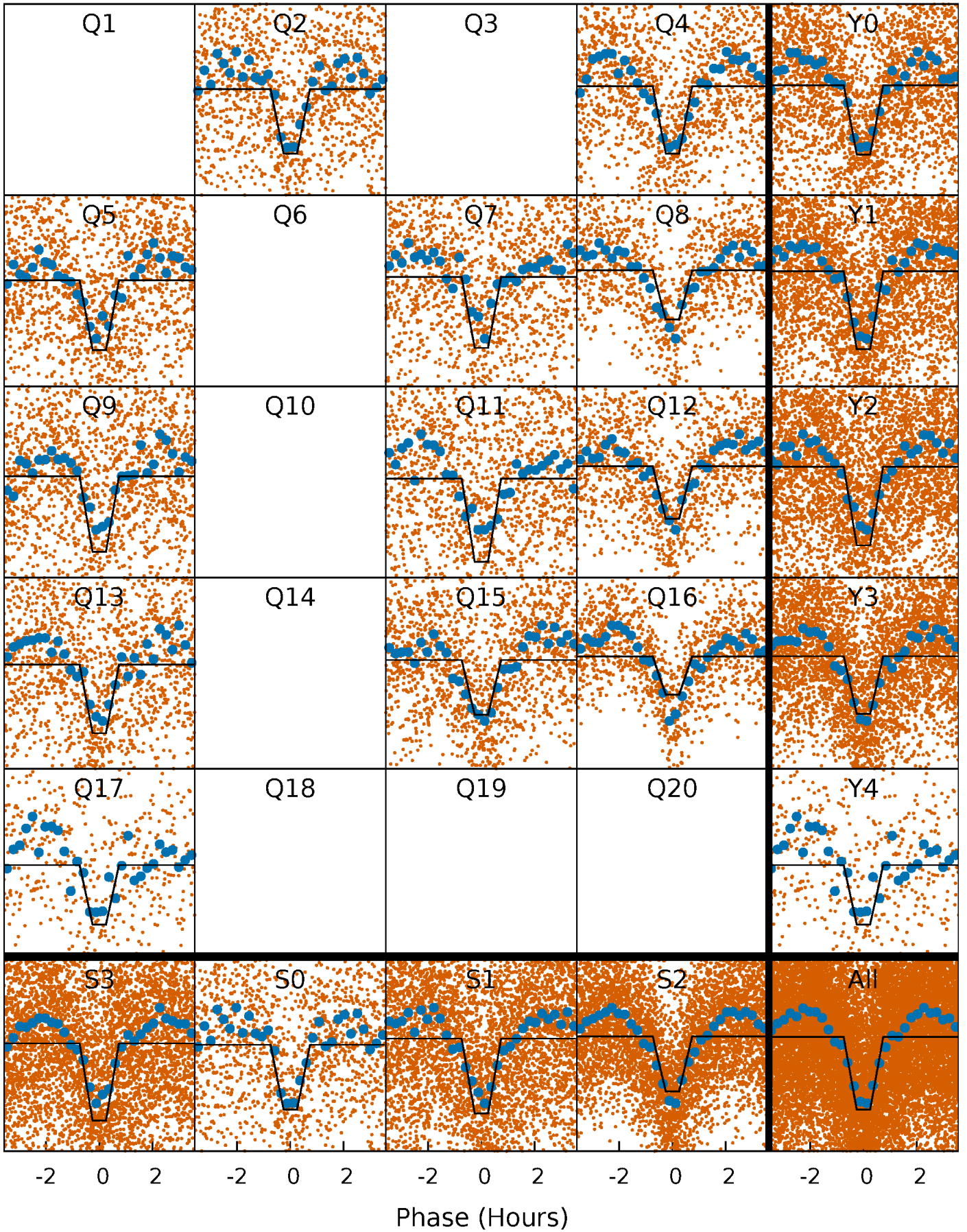
DV Quarter-Phased Transit Curves

TCE 003557341-01 P= 0.787433 Days $T_0=132.137368$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

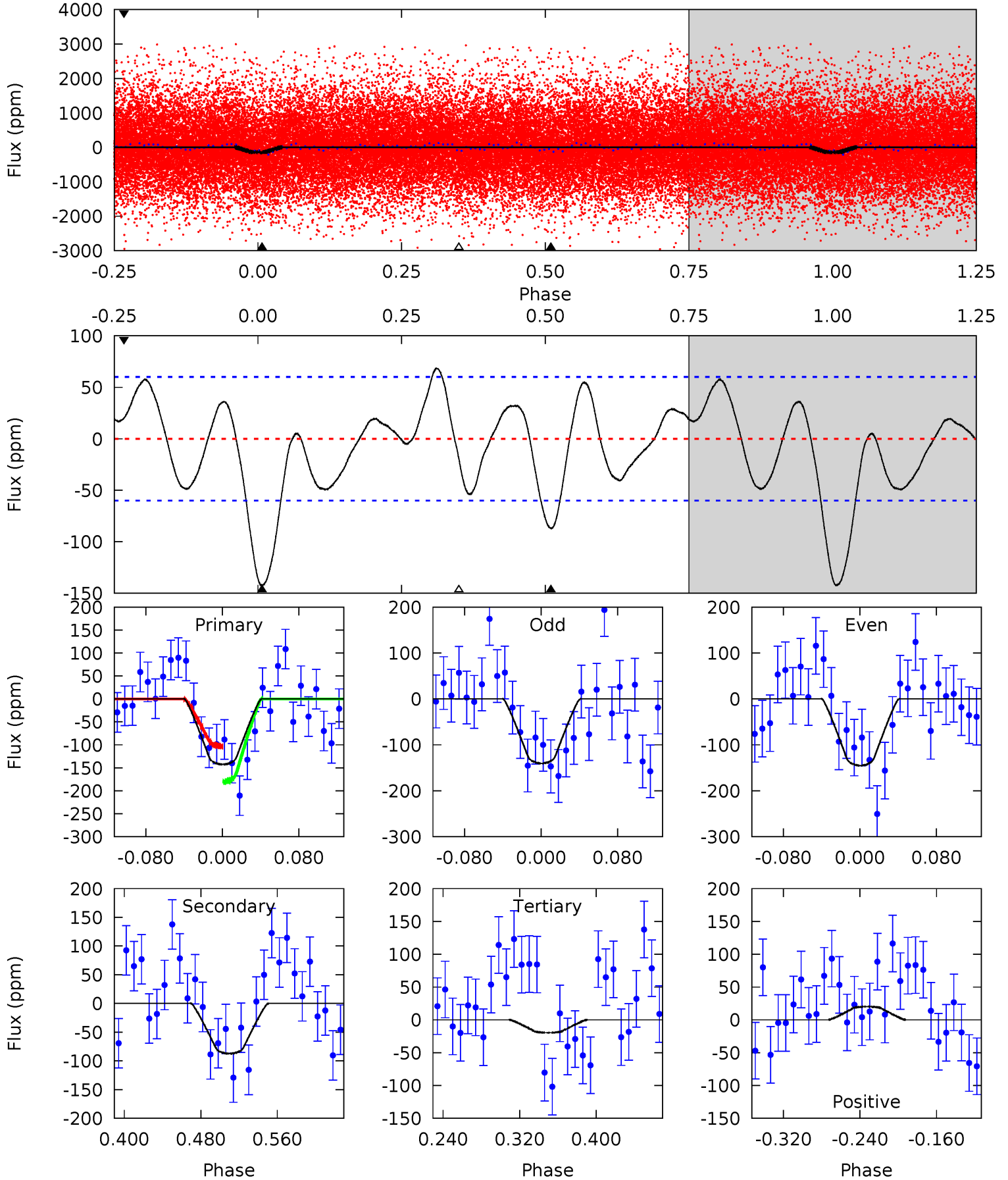
TCE 003557341-01 P= 0.787454 Days $T_0=132.128277$ (BKJD)



DV Model-Shift Uniqueness Test

003557341-01, P = 0.787433 Days, E = 132.137368 Days

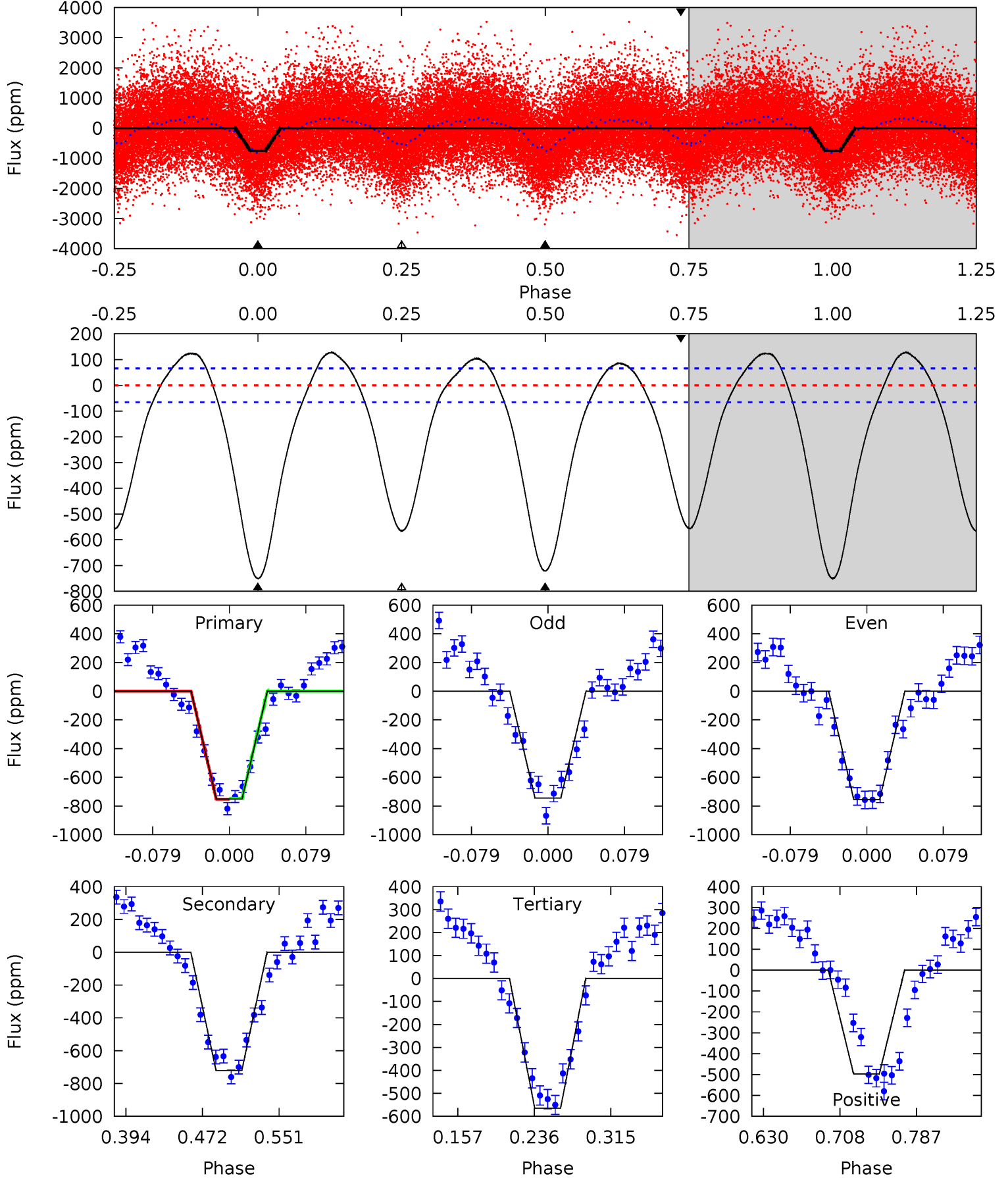
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.9	6.70	1.50	1.55	4.61	1.75	2.40	9.44	9.39	5.20	5.15	0.18	0.74	0.33	2.98



Alt Model-Shift Uniqueness Test

003557341-01, P = 0.787454 Days, E = 132.128277 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
53.0	50.9	39.9	-35.1	4.61	1.76	15.3	13.1	88.0	11.0	86.0	0.38	0.96	0.15	0.24



Stellar Parameters For KIC 003557341

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5628^{+169}_{-169}	$4.575^{+0.040}_{-0.160}$	$-0.220^{+0.300}_{-0.300}$	$0.808^{+0.203}_{-0.068}$	$0.903^{+0.093}_{-0.111}$	$2.412^{+0.400}_{-1.110}$
	+3%/-3%	+1%/-3%	+136%/-136%	+25%/-8%	+10%/-12%	+17%/-46%
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 003557341-01 / KOI 1190.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-87 ± 13	$1.53^{+1.17}_{-0.96}$	2498^{+143}_{-111}	4333^{+2414}_{-895}	$5.096^{+31.993}_{-3.449}$
Alt.	-721 ± 14	$2.74^{+1.29}_{-1.25}$	2506^{+137}_{-105}	5353^{+1910}_{-829}	14^{+30}_{-8}

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 $A_{obs} \gg 1.0$

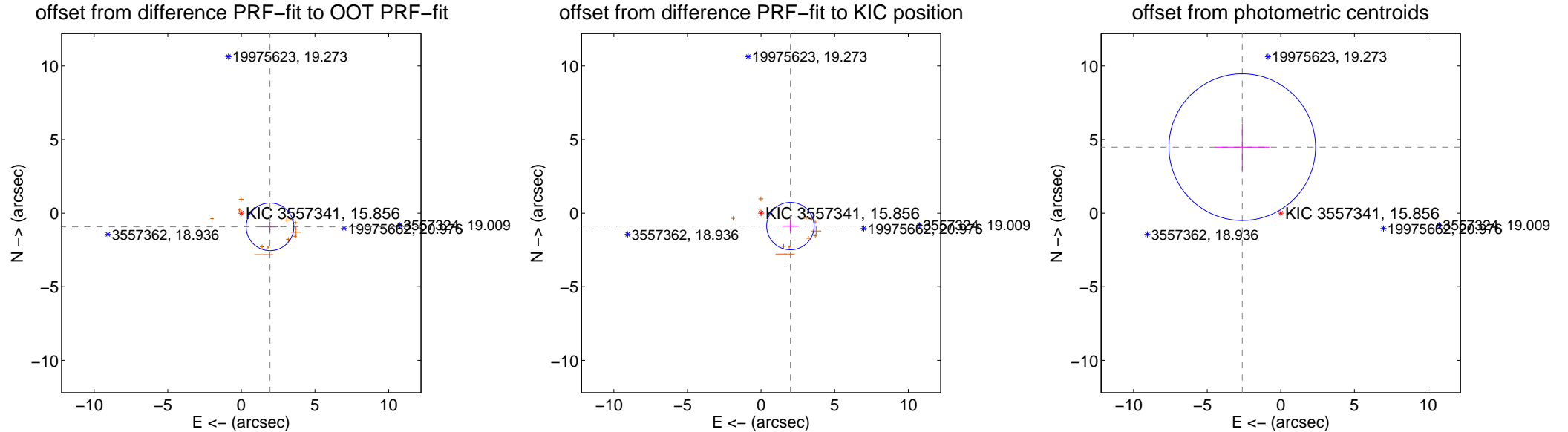
DV Centroid Data

Supplemental centroid analysis for 003557341-01. Kepler magnitude: 15.86. Transit SNR 8.88

There are 0 quarters with good PRF difference image offsets

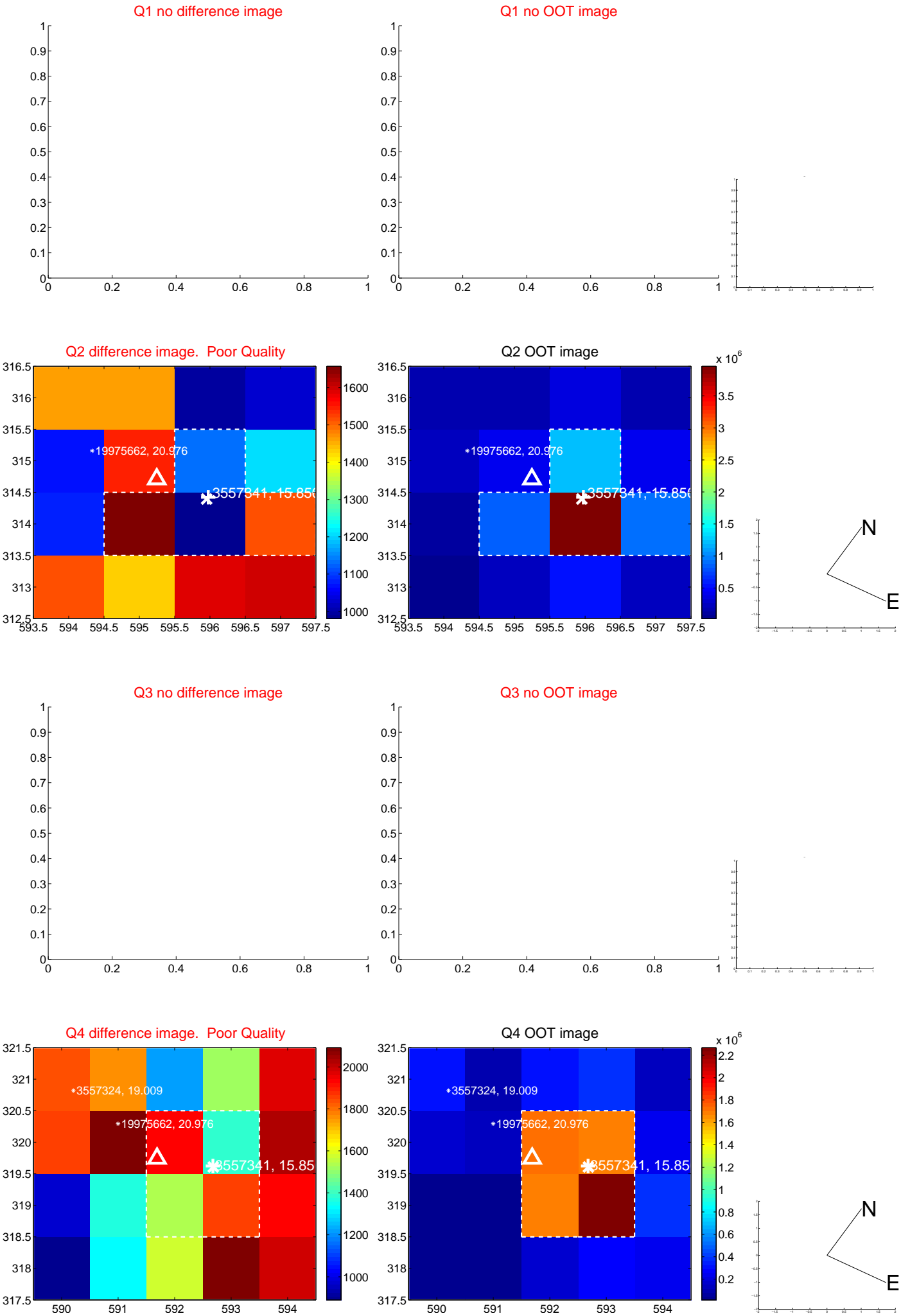
The direct PRF centroid is offset from the target star catalog position by about 0.10 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.157 ± 0.539	4.00	-1.945 ± 0.575	-0.932 ± 0.342
PRF-fit source offset from KIC position	2.175 ± 0.537	4.05	-1.989 ± 0.567	-0.880 ± 0.344
photometric centroid source offset	5.19 ± 1.66	3.13	2.62 ± 1.86	4.48 ± 1.59

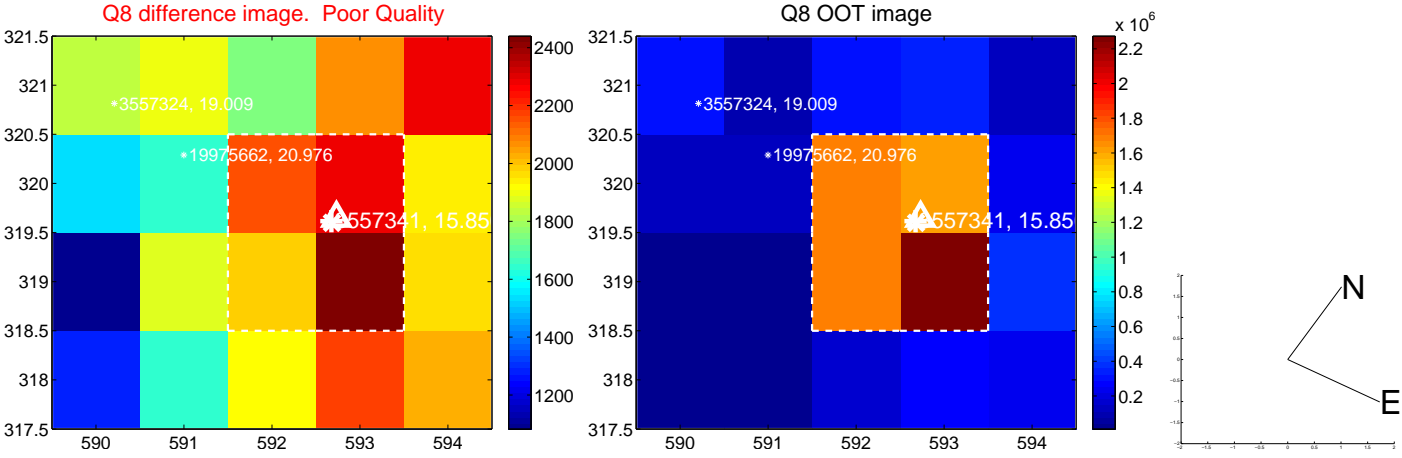
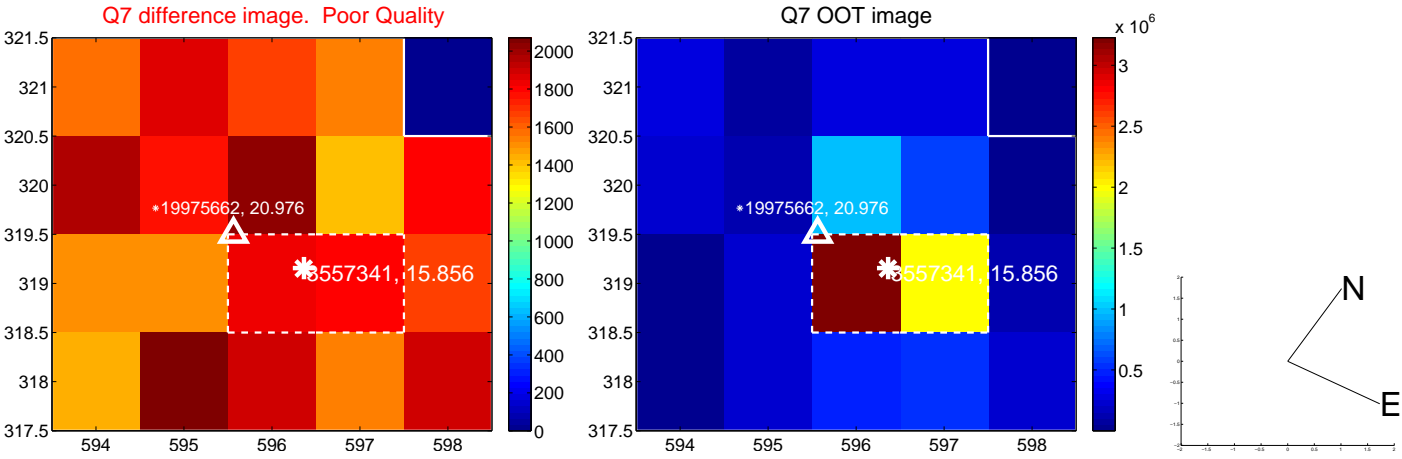
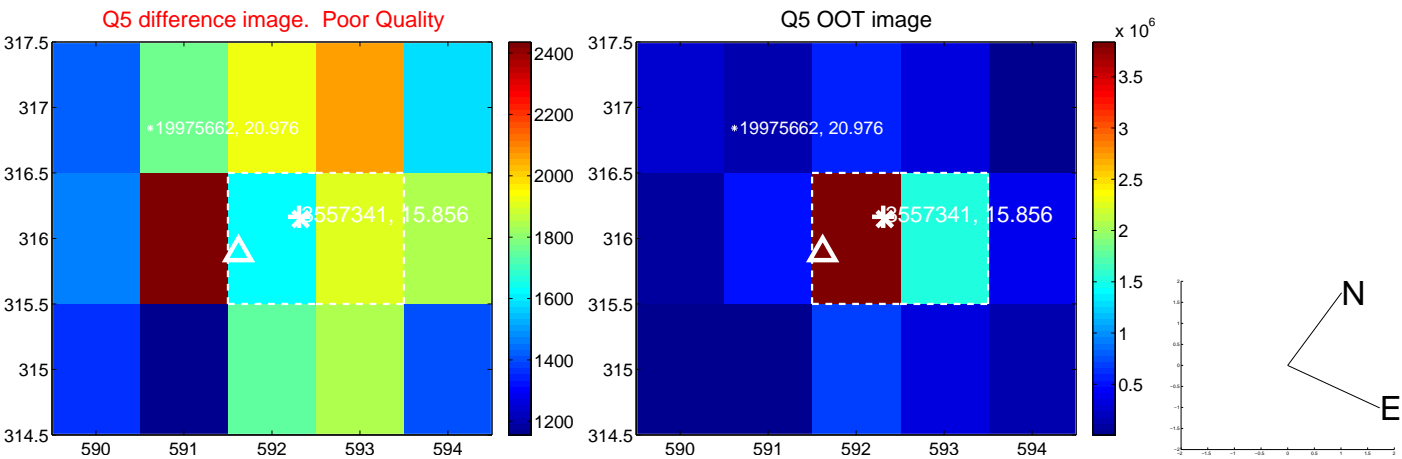


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

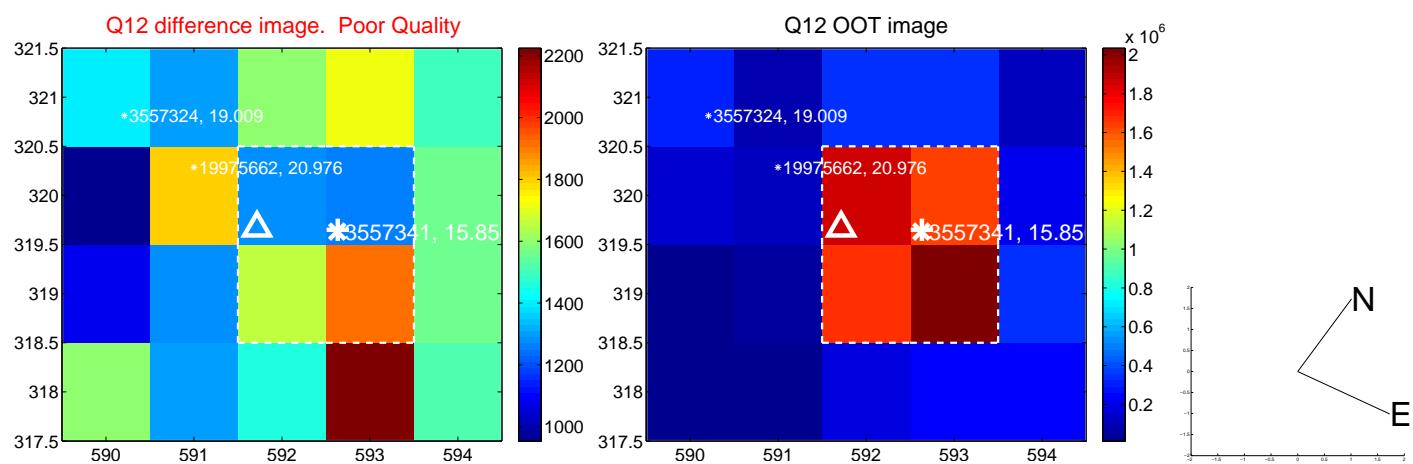
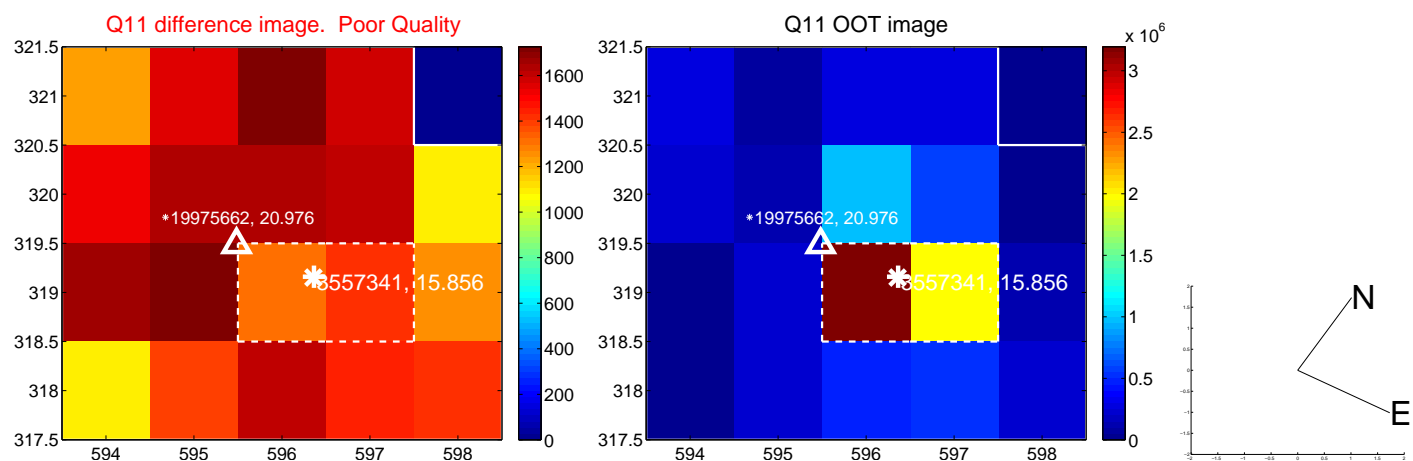
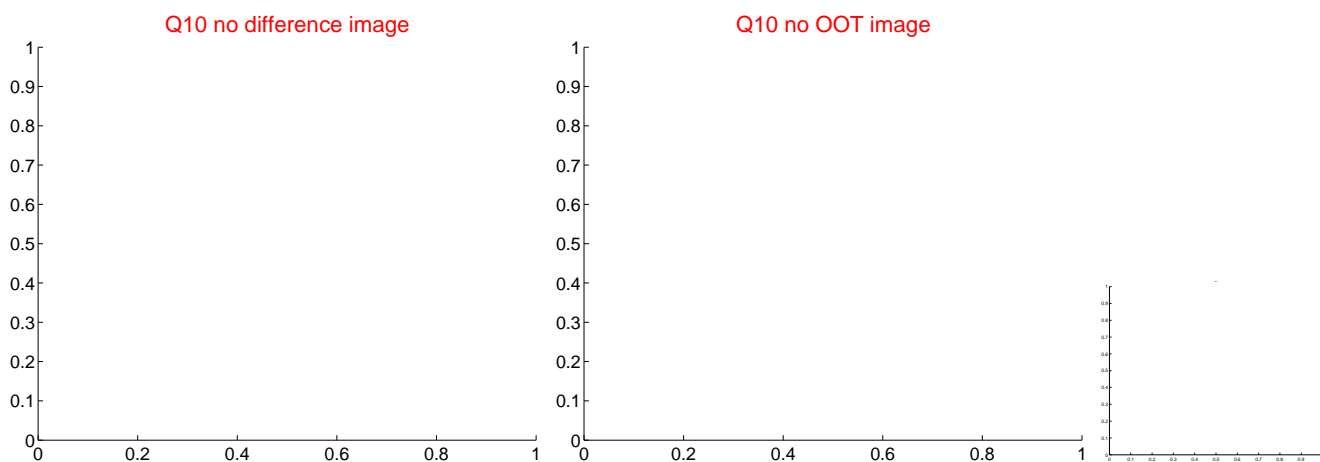
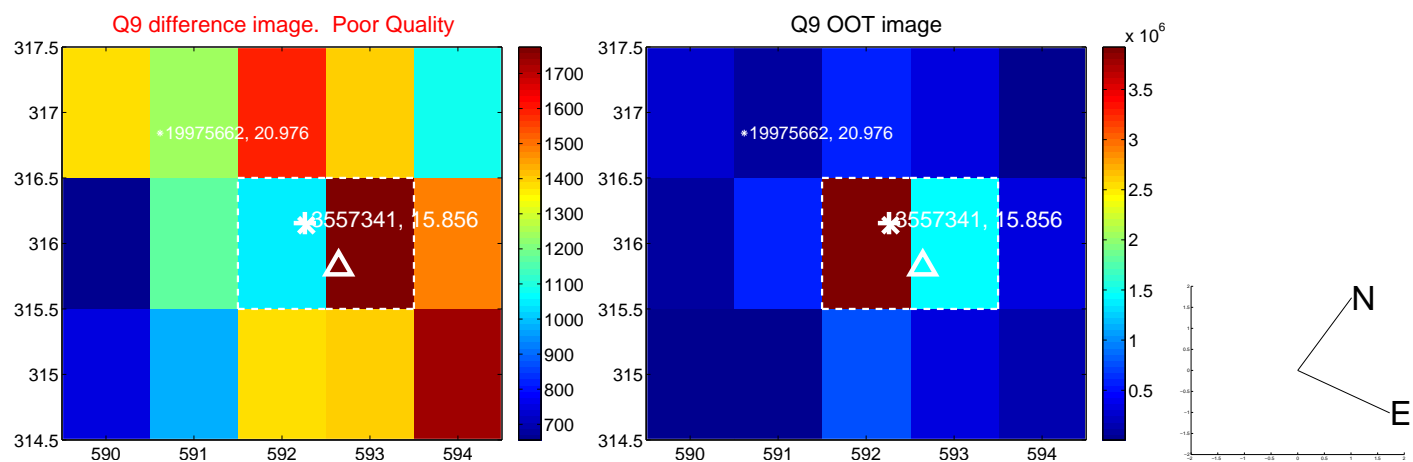
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



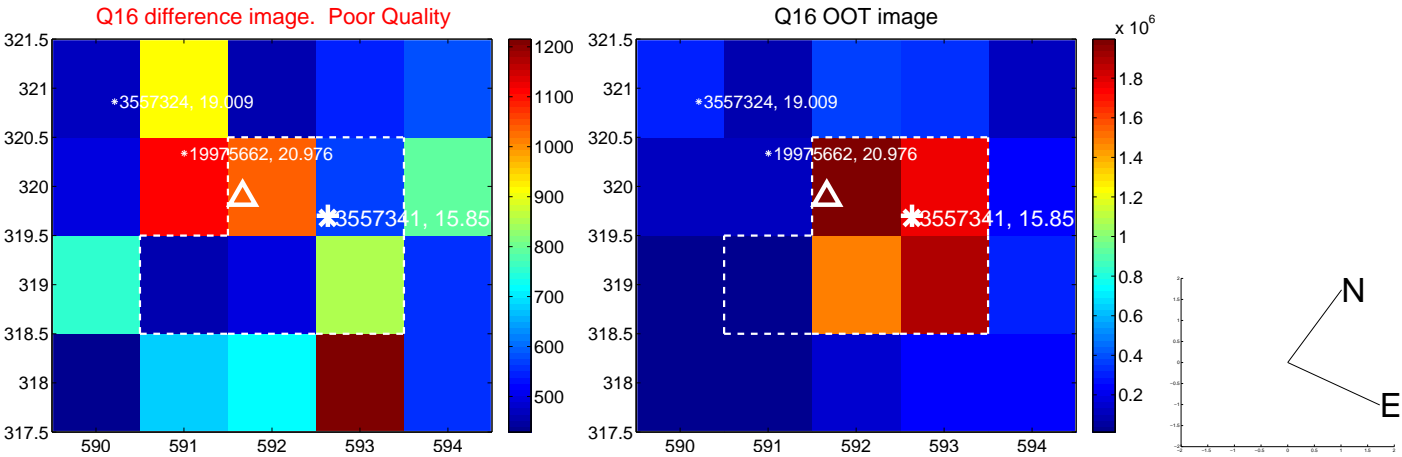
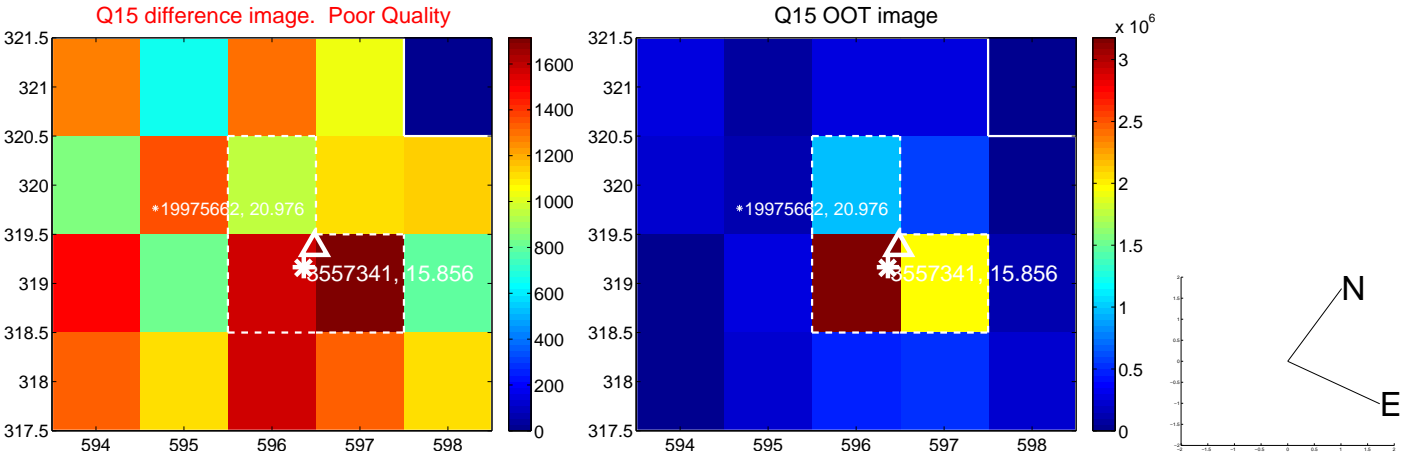
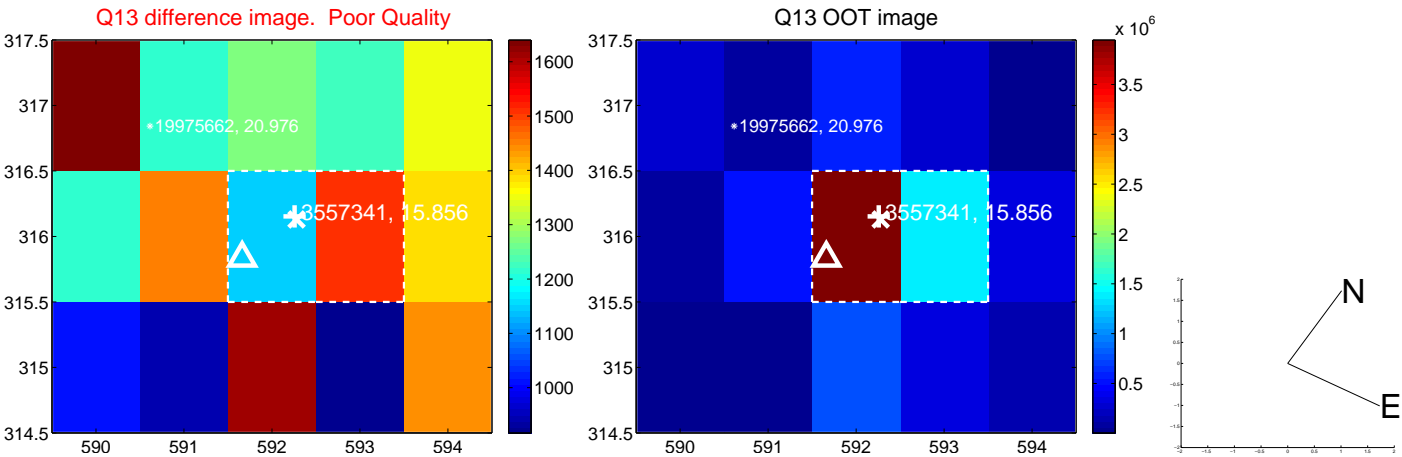
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



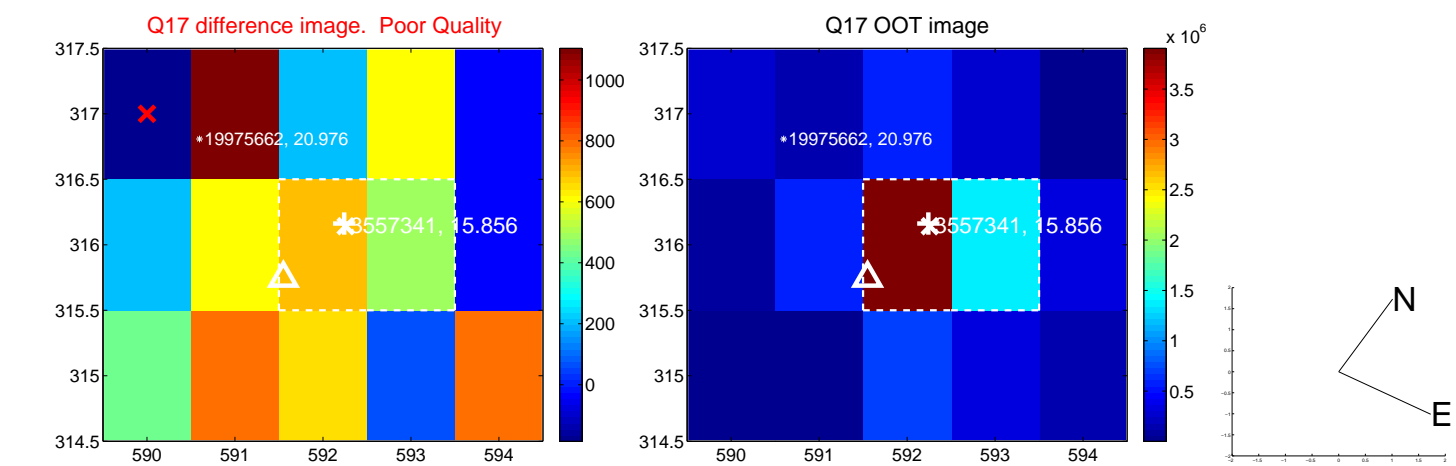
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



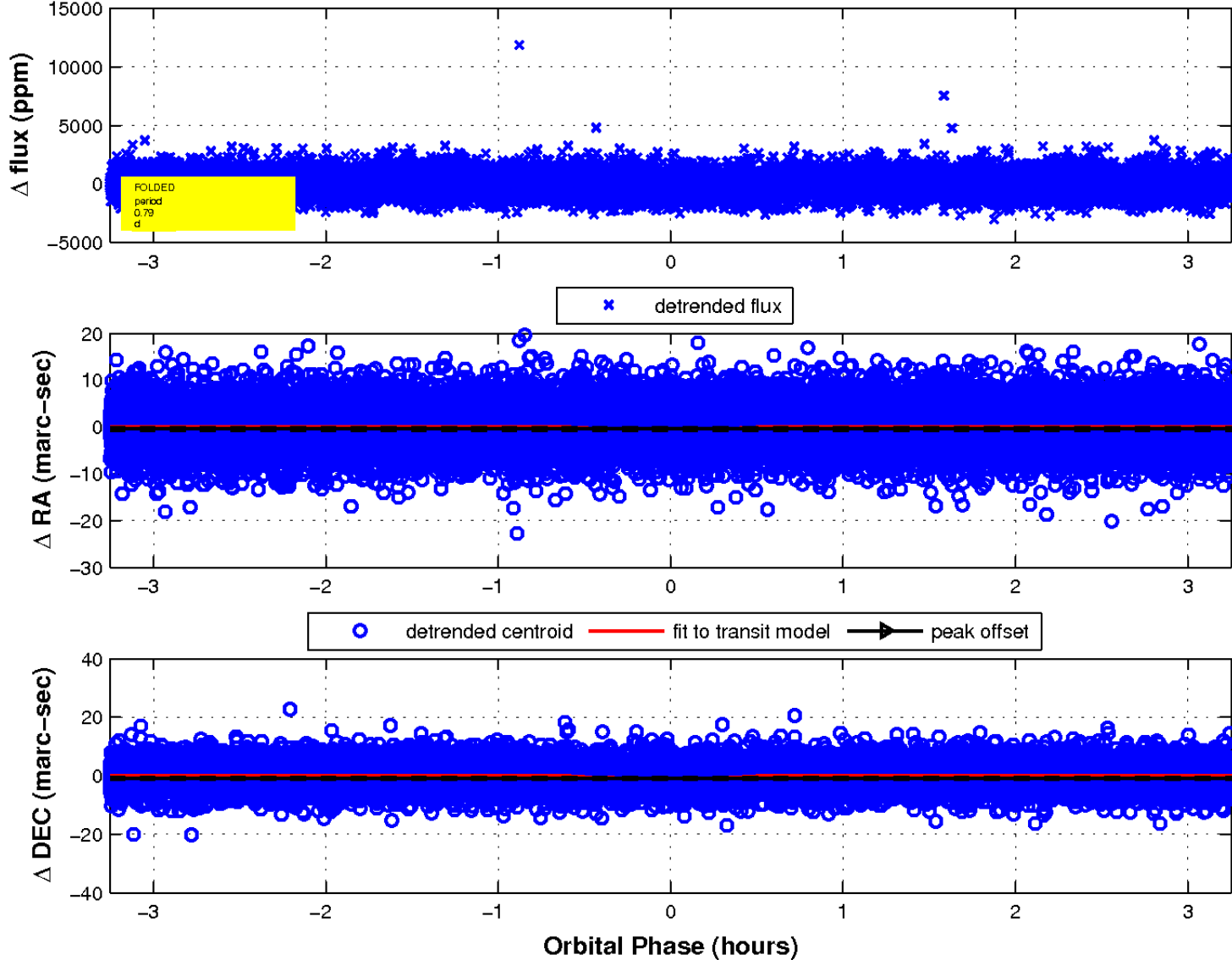
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

