

KIC 007548035

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})
007548035-01	OBS	No	4.924587	136.549660	39.9	18.814	7.6	6.0	1.07	5988	0.68	399.75

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007548035-01	OBS	FP	0.00	1	0	1	0	SWEET_NTL—LPP_DV—MOD_NONUNIQ_DV—CENT_RESOLVED_OFFSET—HALO_GHOST

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

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

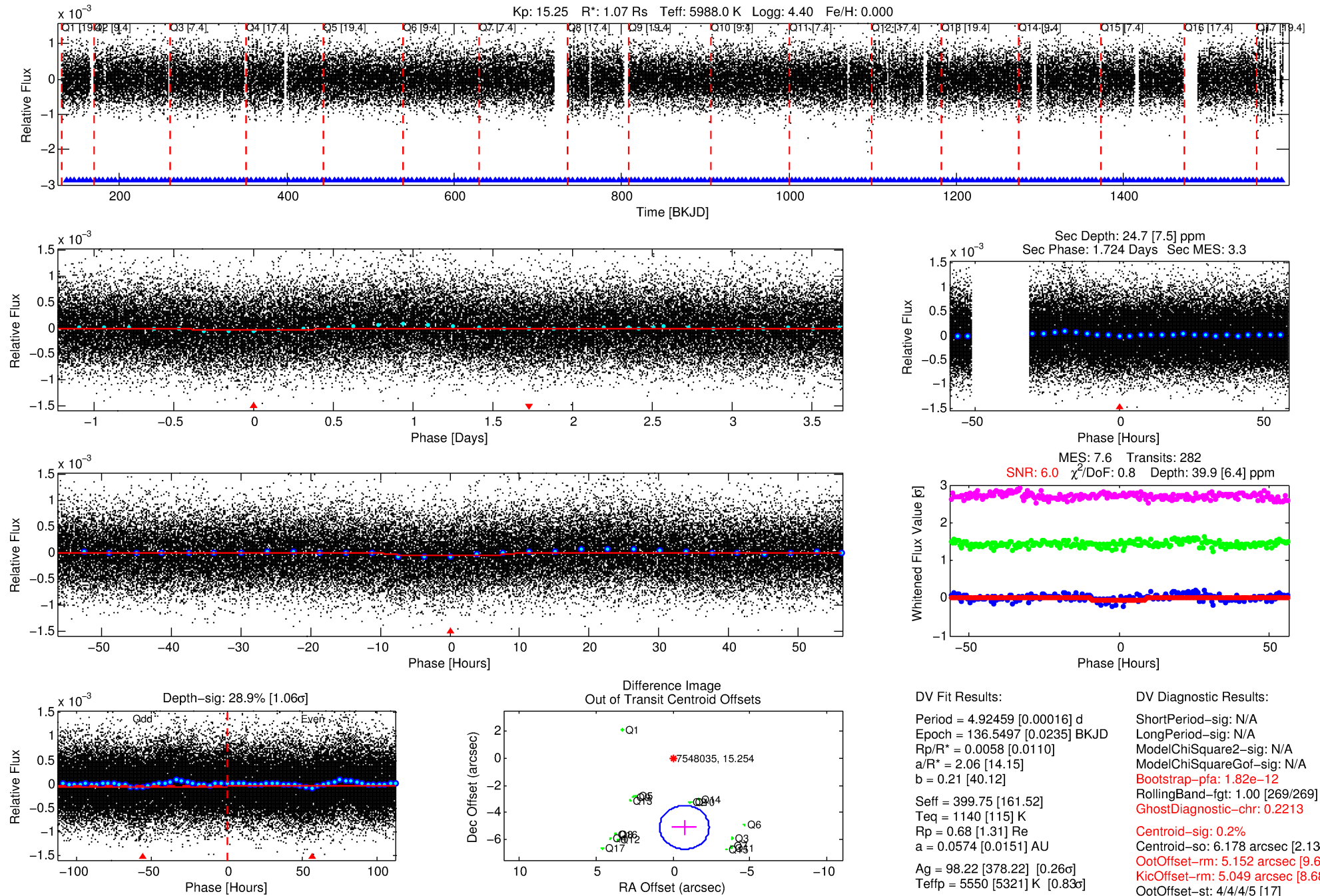
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007548035-01

No Significant Match Found

DV One-Page Summary

KIC: 7548035 Candidate: 1 of 1 Period: 4.925 d



DV Fit Results:

Period = 4.92459 [0.00016] d
Epoch = 136.5497 [0.0235] BKJD
Rp/R* = 0.0058 [0.0110]
a/R* = 2.06 [14.15]
b = 0.21 [40.12]
Seff = 399.75 [161.52]
Teff = 1140 [115] K
Rp = 0.68 [1.31] Re
a = 0.0574 [0.0151] AU
Ag = 98.22 [378.22] [0.26 σ]
Teffp = 5550 [5321] K [0.83 σ]

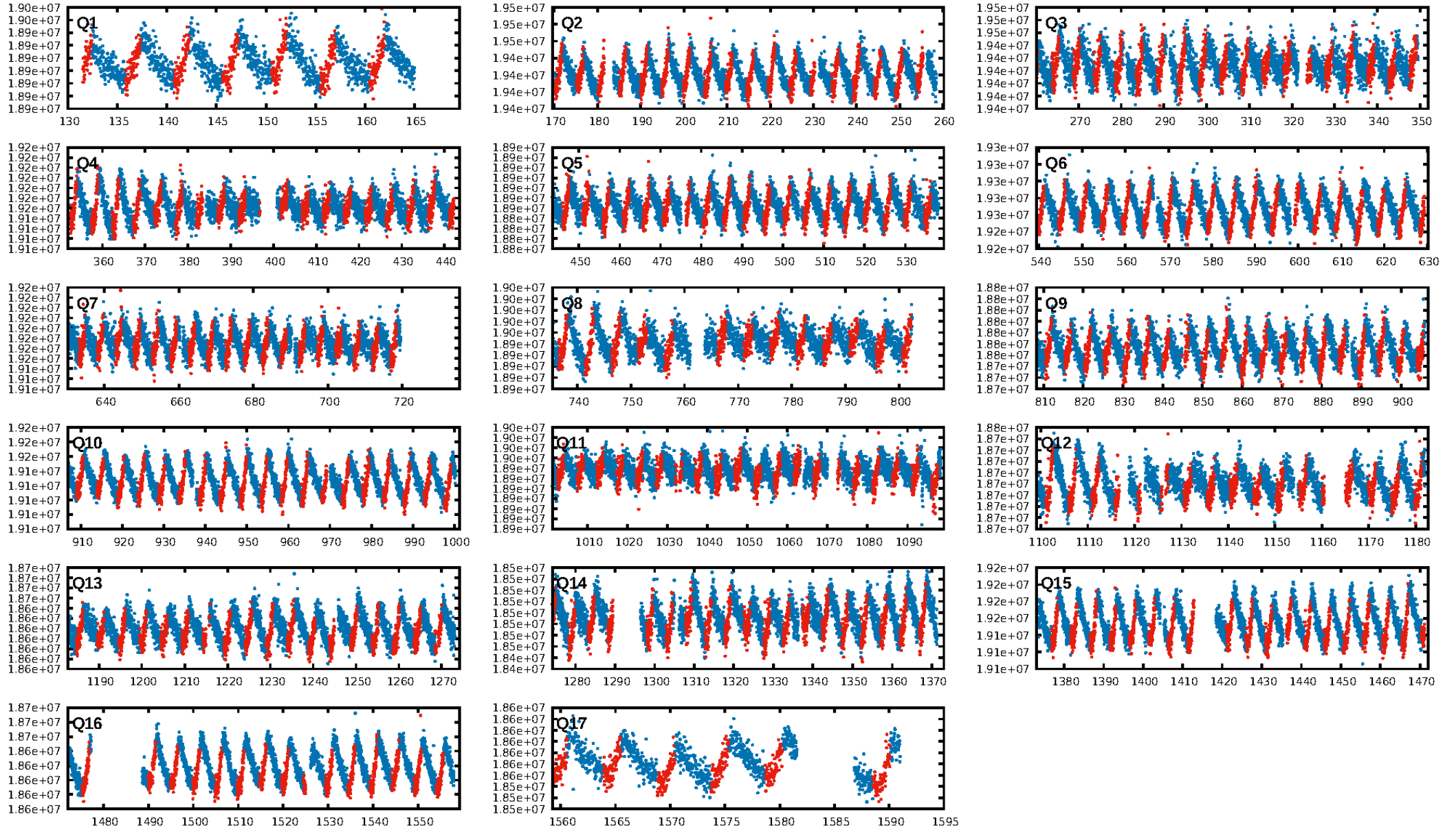
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.82e-12
RollingBand-fgt: 1.00 [269/269]
GhostDiagnostic-chr: 0.2213
Centroid-sig: 0.2%
Centroid-so: 6.178 arcsec [2.13 σ]
OotOffset-rm: 5.152 arcsec [9.63 σ]
KicOffset-rm: 5.049 arcsec [8.68 σ]
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]

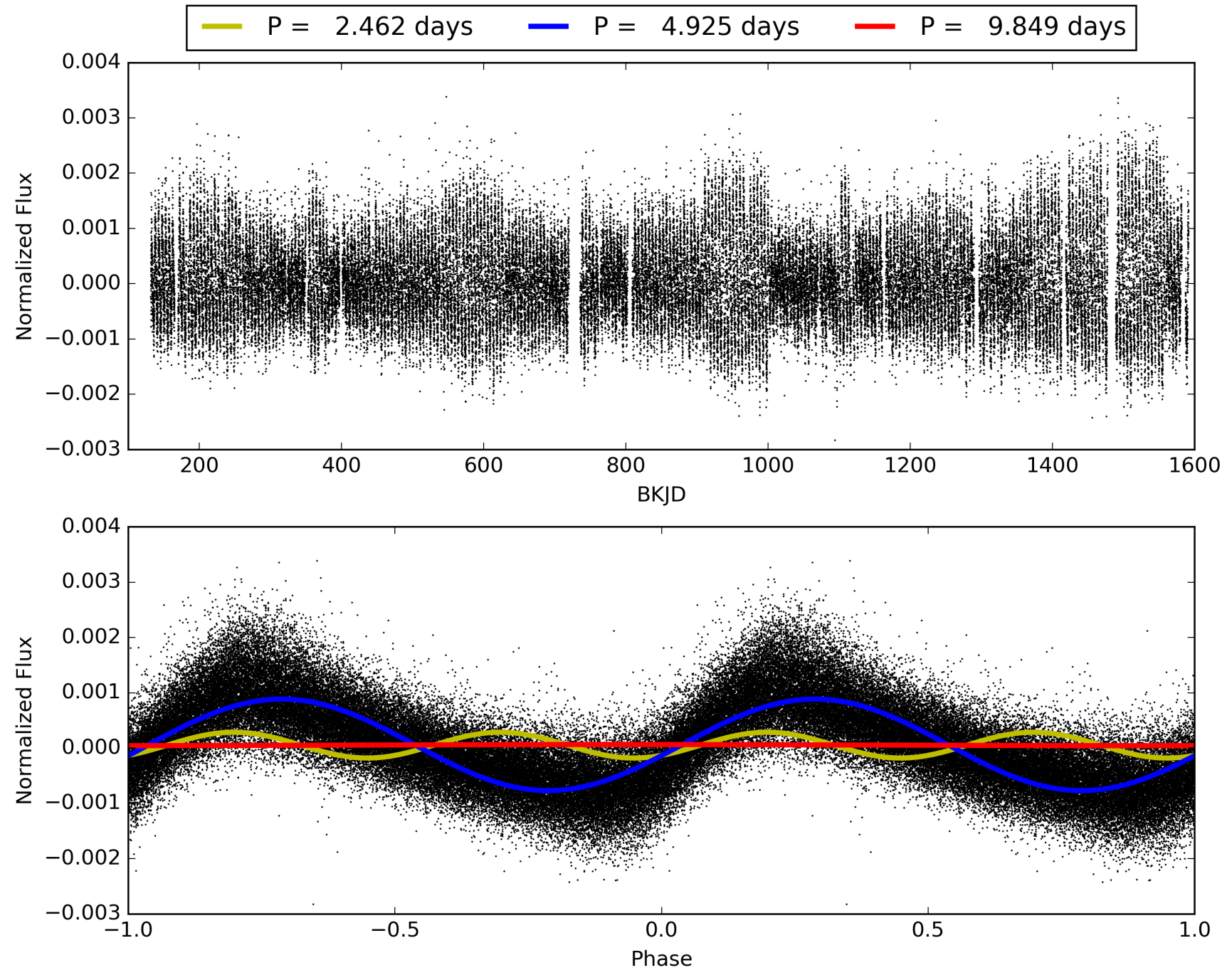
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 21:24:33 Z

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

TCE 007548035-01, PDC Light Curves

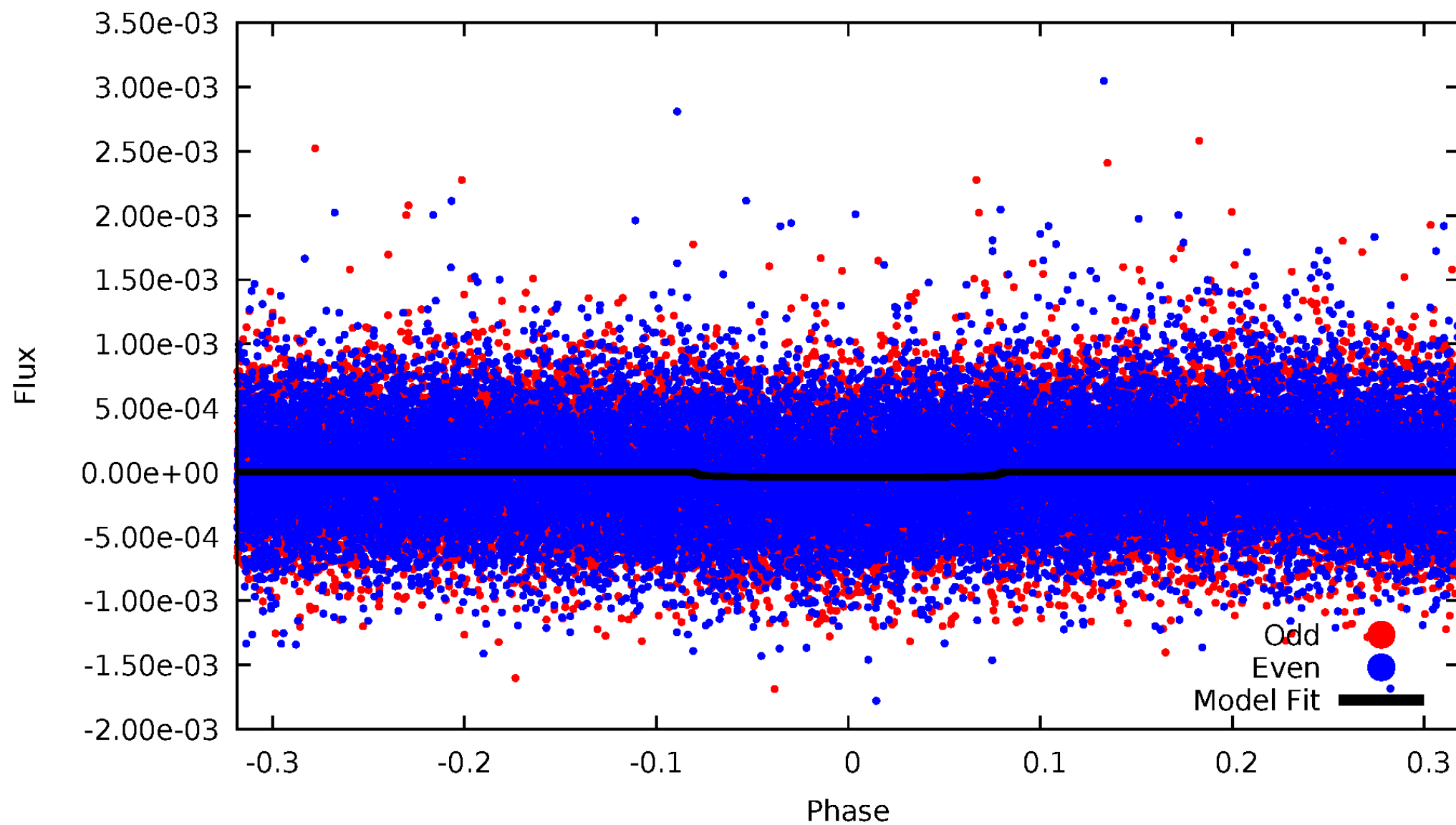


TCE 007548035-01



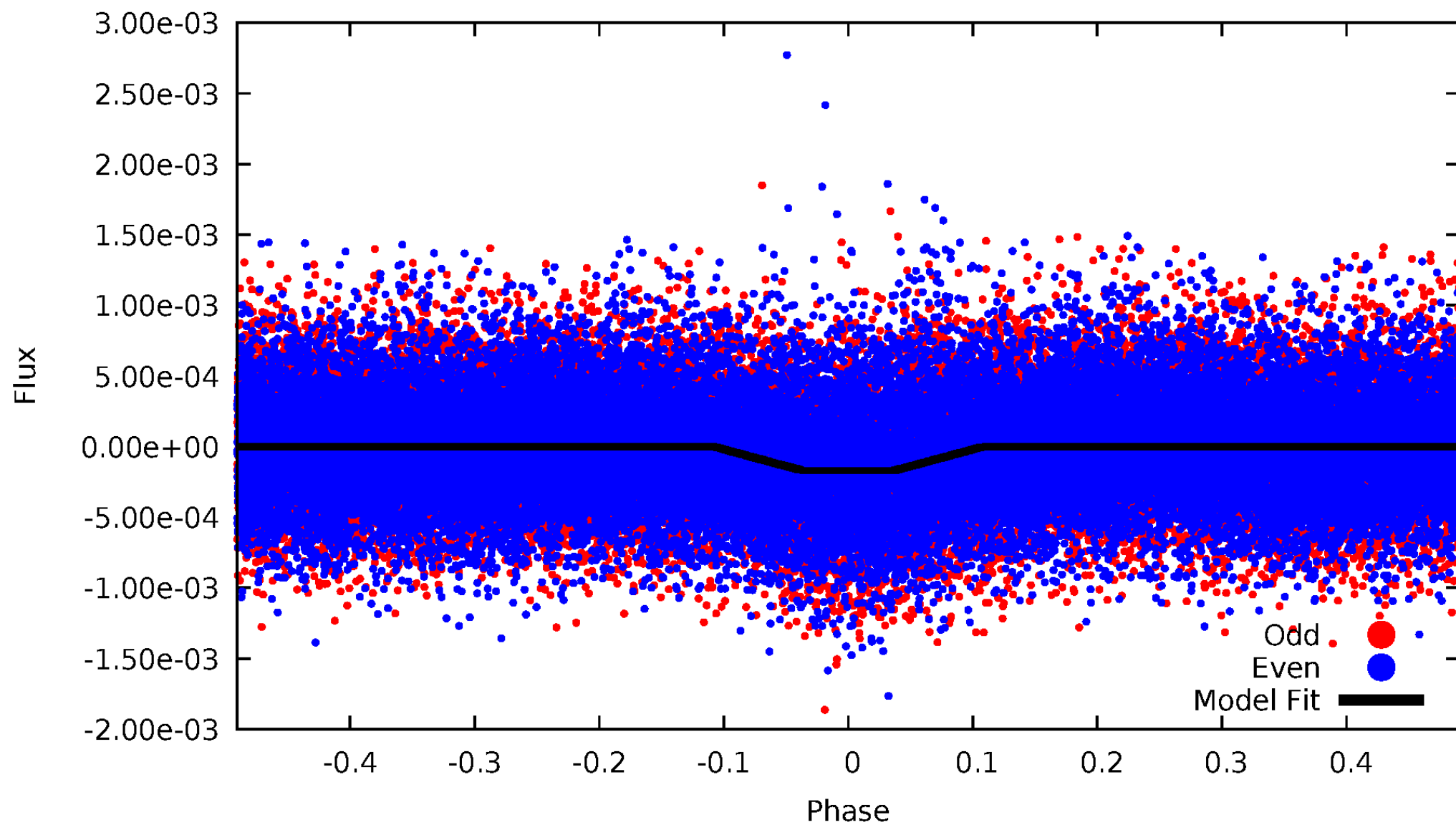
DV Odd/Even

TCE 007548035-01



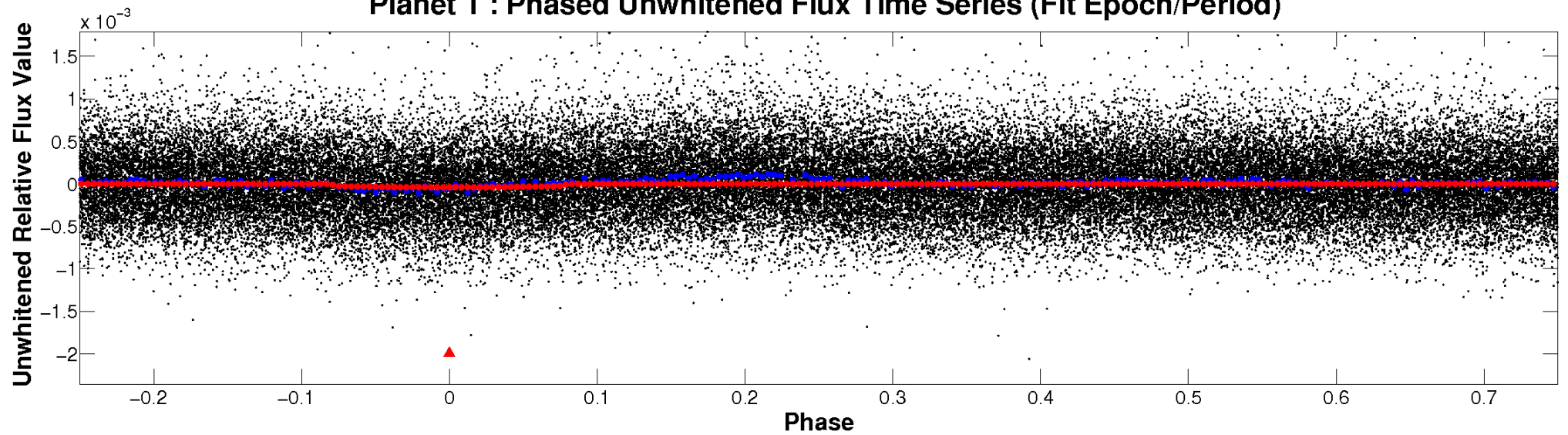
ALT Odd/Even

TCE 007548035-01

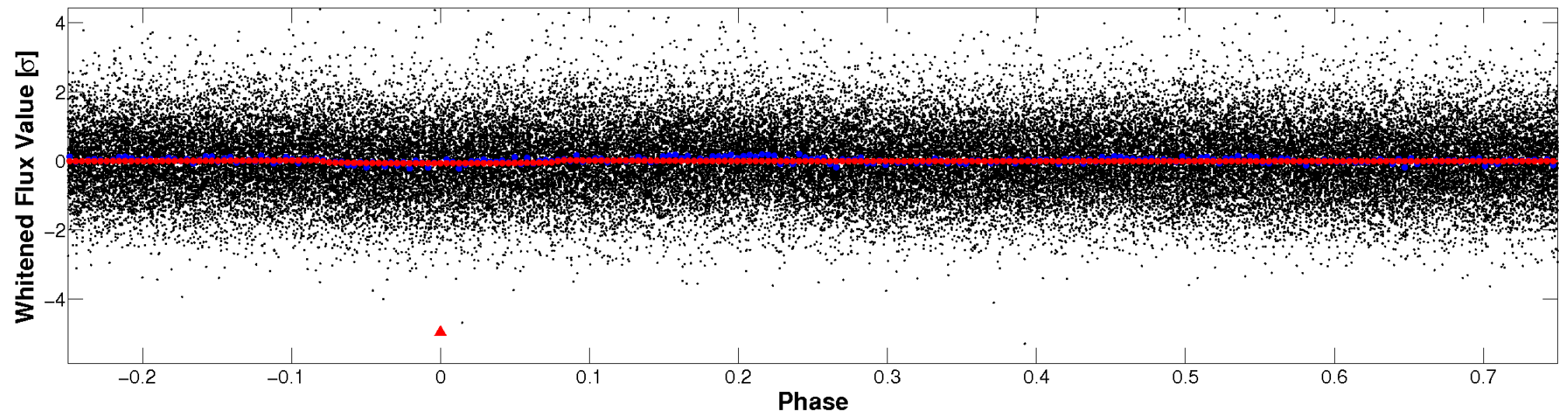


Non-Whitened Vs. Whitened Light Curve

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

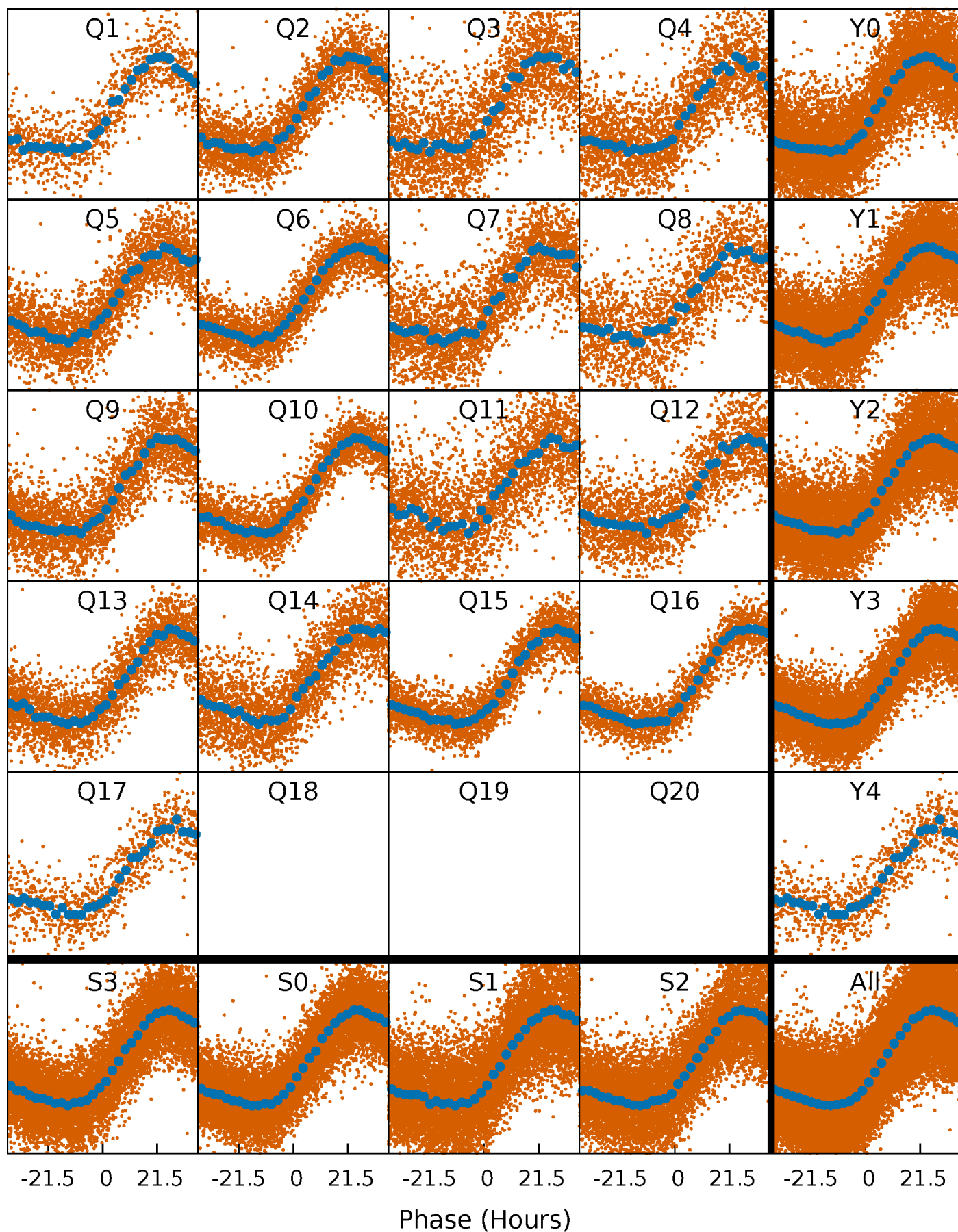


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



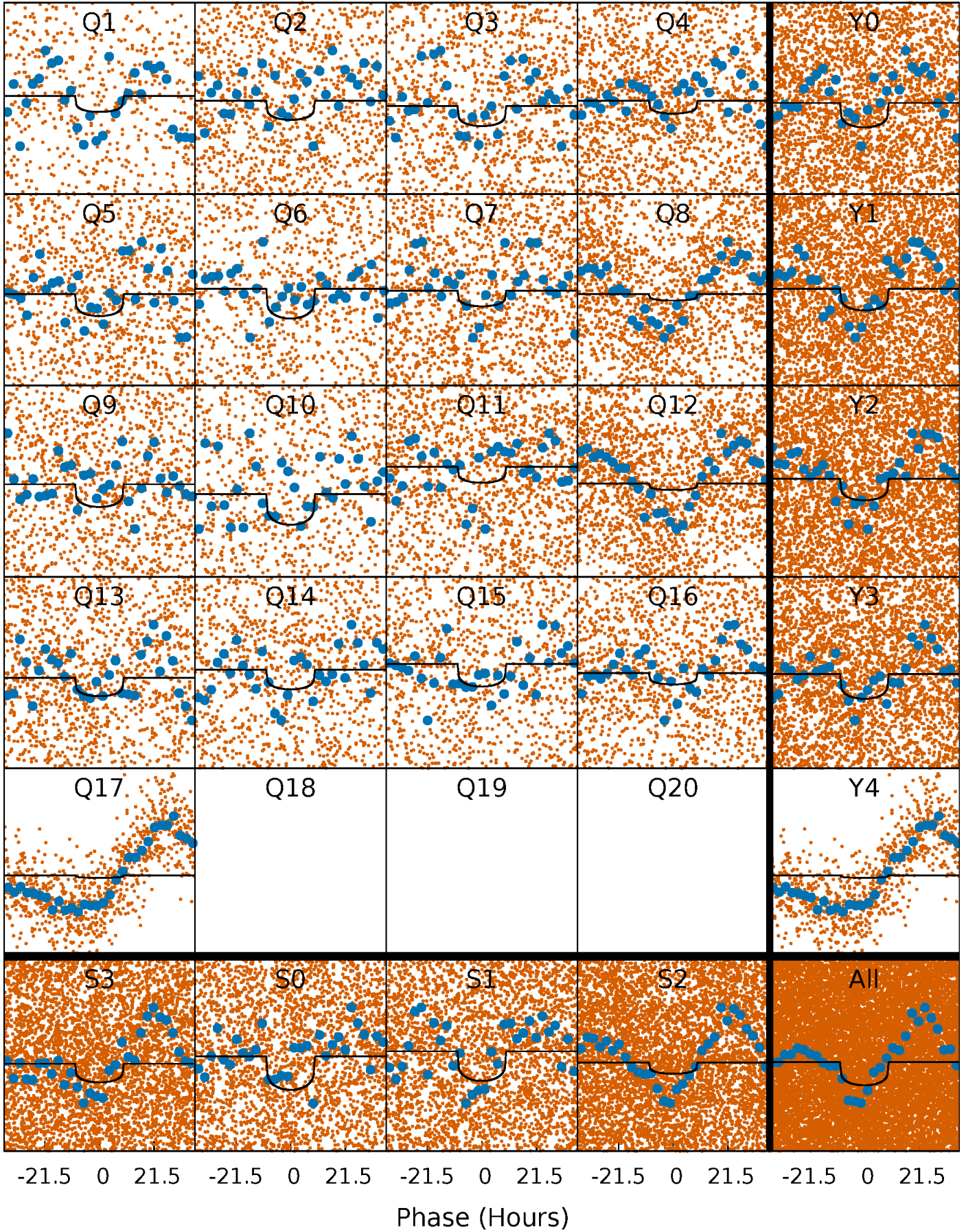
PDC Quarter-Phased Transit Curves

TCE 007548035-01 P= 4.924587 Days $T_0=136.549660$ (BKJD)



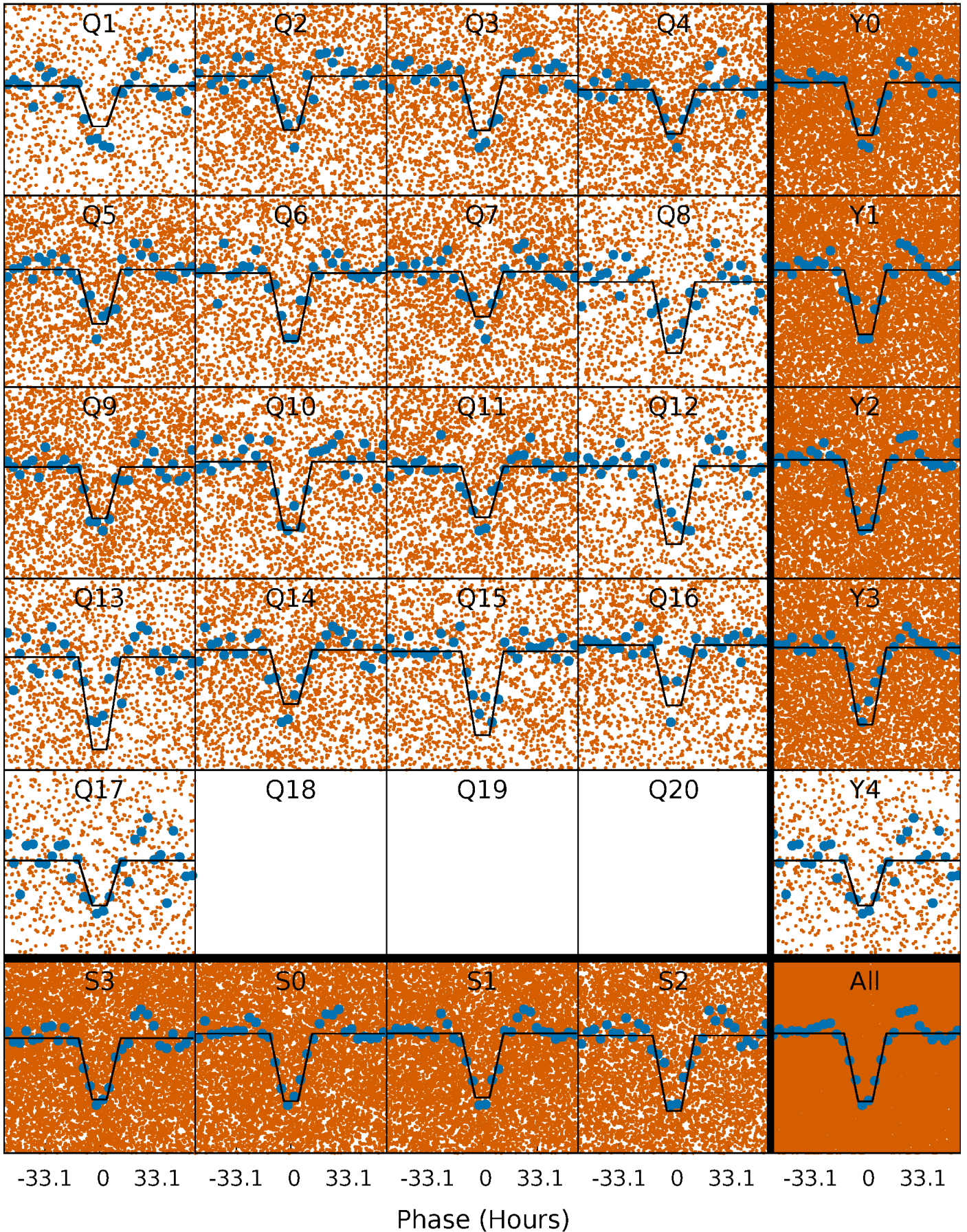
DV Quarter-Phased Transit Curves

TCE 007548035-01 P= 4.924587 Days $T_0=136.549660$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

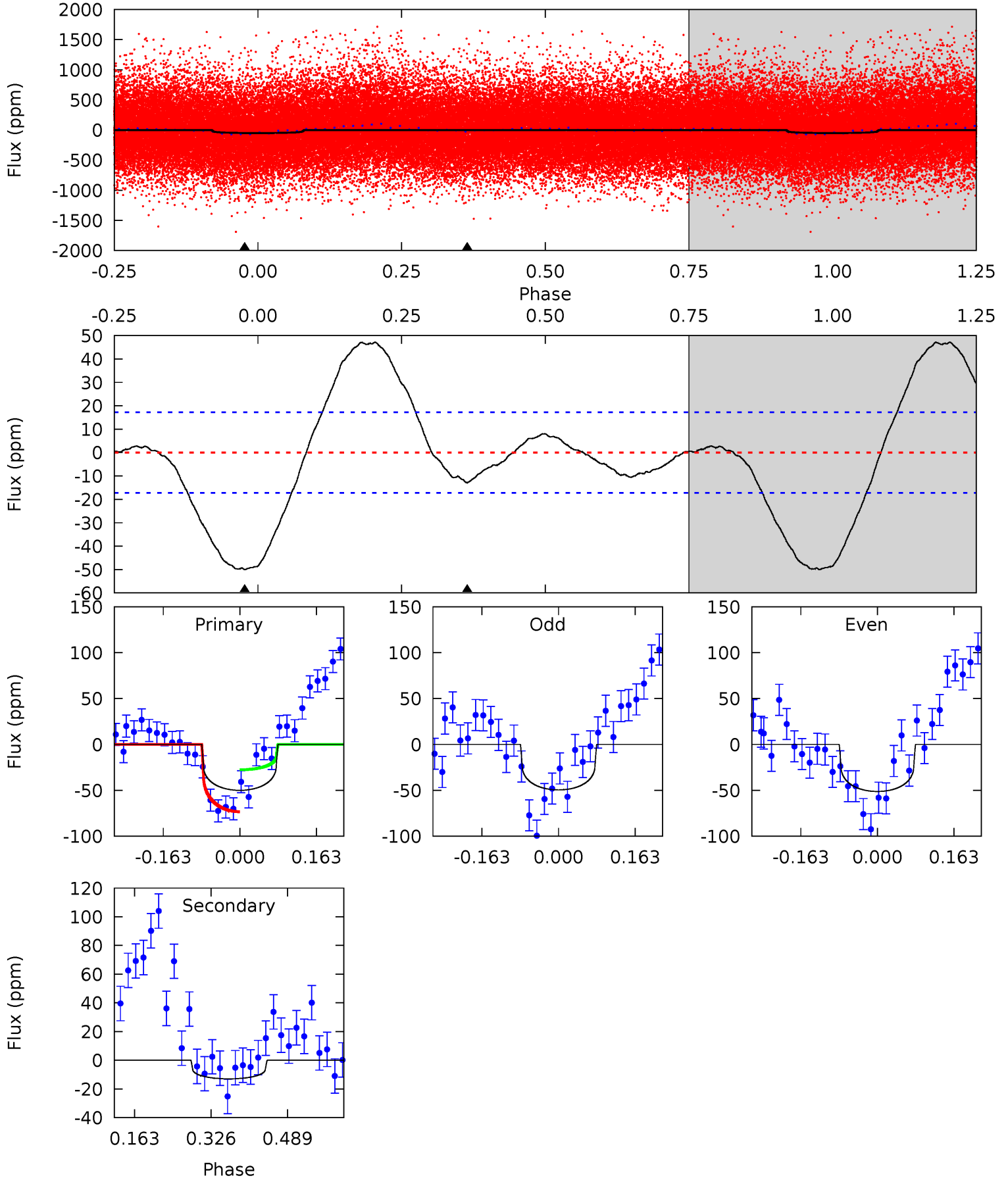
TCE 007548035-01 P= 4.925212 Days $T_0=136.341148$ (BKJD)



DV Model-Shift Uniqueness Test

007548035-01, P = 4.924587 Days, E = 126.700486 Days

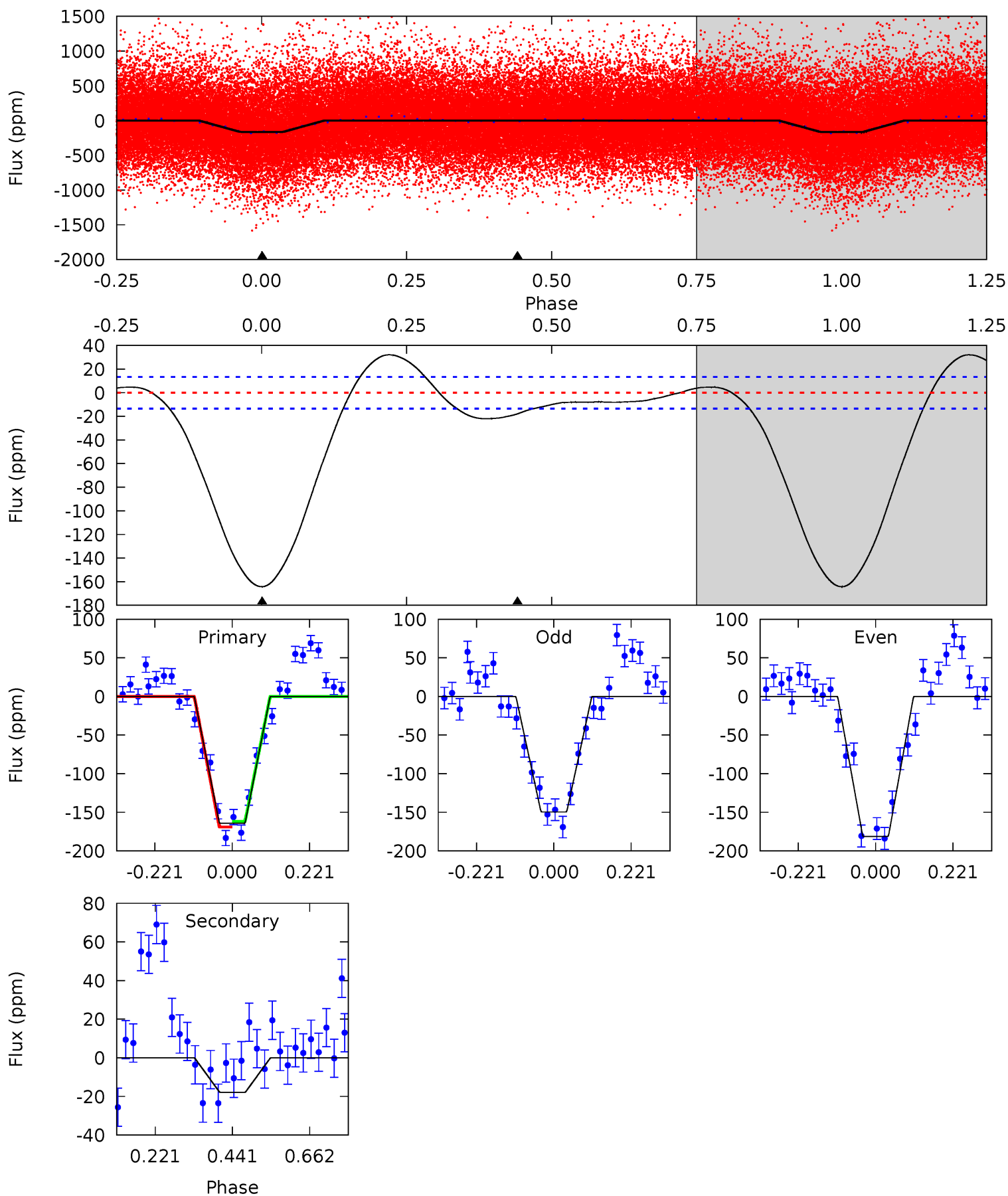
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.0	3.35	0	0	4.46	1.40	4.72	13.0	13.0	3.35	3.35	0.22	1.33	0.49	5.85



Alt Model-Shift Uniqueness Test

007548035-01, P = 4.925212 Days, E = 131.415936 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
53.7	5.84	0	0	4.40	1.23	1.25	53.7	53.7	5.84	5.84	5.17	1.00	0.16	1.16



Stellar Parameters For KIC 007548035

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5988^{+181}_{-217}	$4.397^{+0.087}_{-0.203}$	$0.000^{+0.250}_{-0.300}$	$1.070^{+0.341}_{-0.146}$	$1.043^{+0.145}_{-0.130}$	$1.199^{+0.553}_{-0.600}$
	+3%/-4%	+2%/-5%	+inf%/-inf%	+32%/-14%	+14%/-12%	+46%/-50%
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 007548035-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-13 ± 4	$1.19^{+1.16}_{-0.78}$	1616^{+125}_{-91}	3912^{+2293}_{-819}	16^{+121}_{-12}
Alt.	-18 ± 3	$1.78^{+1.39}_{-1.07}$	1614^{+125}_{-90}	3594^{+1497}_{-580}	10^{+54}_{-7}

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 $A_{obs} \gg 1.0$

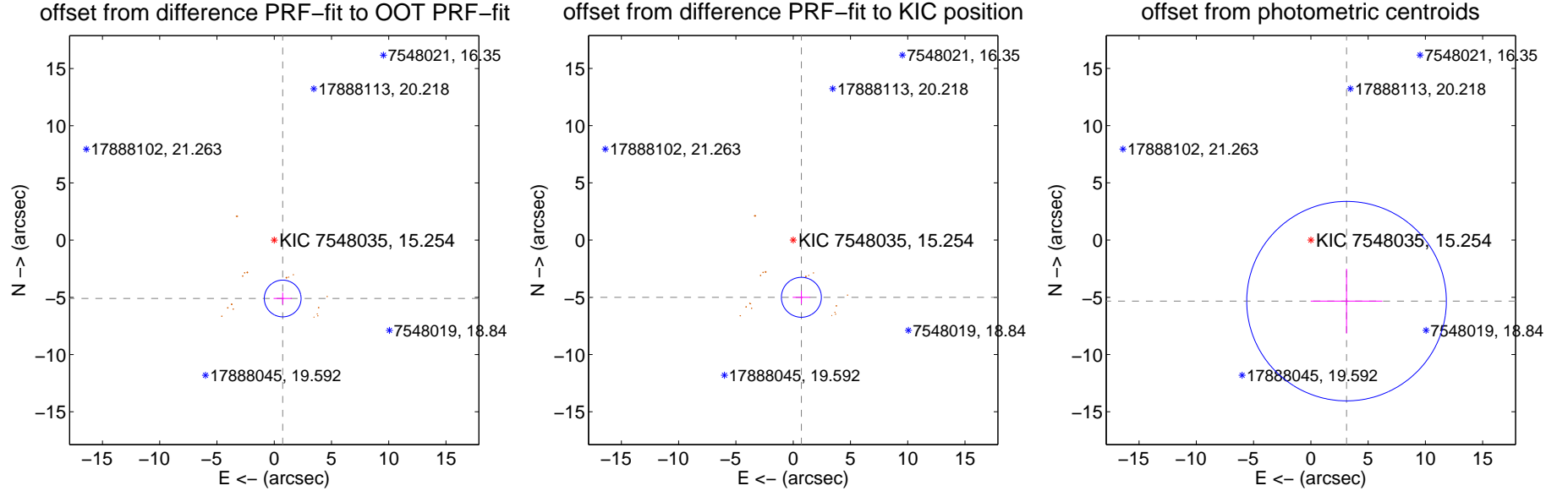
DV Centroid Data

Supplemental centroid analysis for 007548035-01. Kepler magnitude: 15.25. Transit SNR 5.99

There are 0 quarters with good PRF difference image offsets

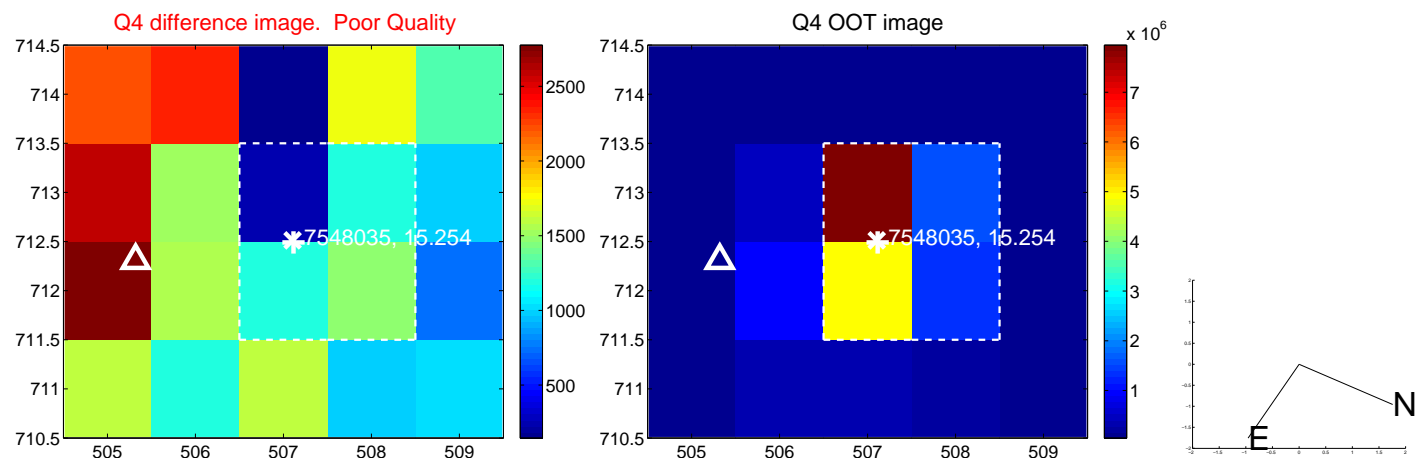
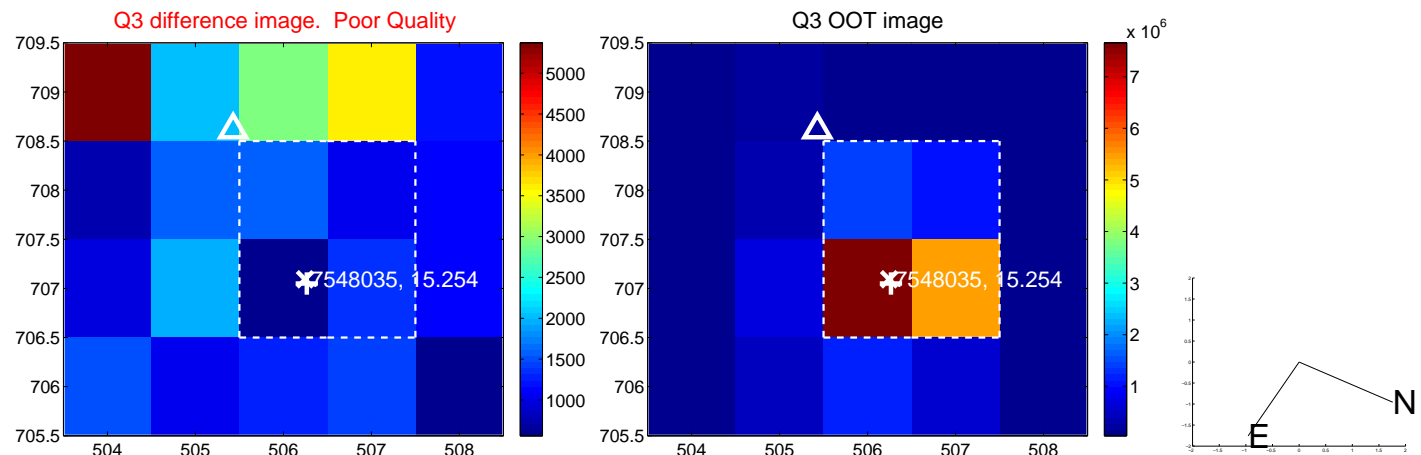
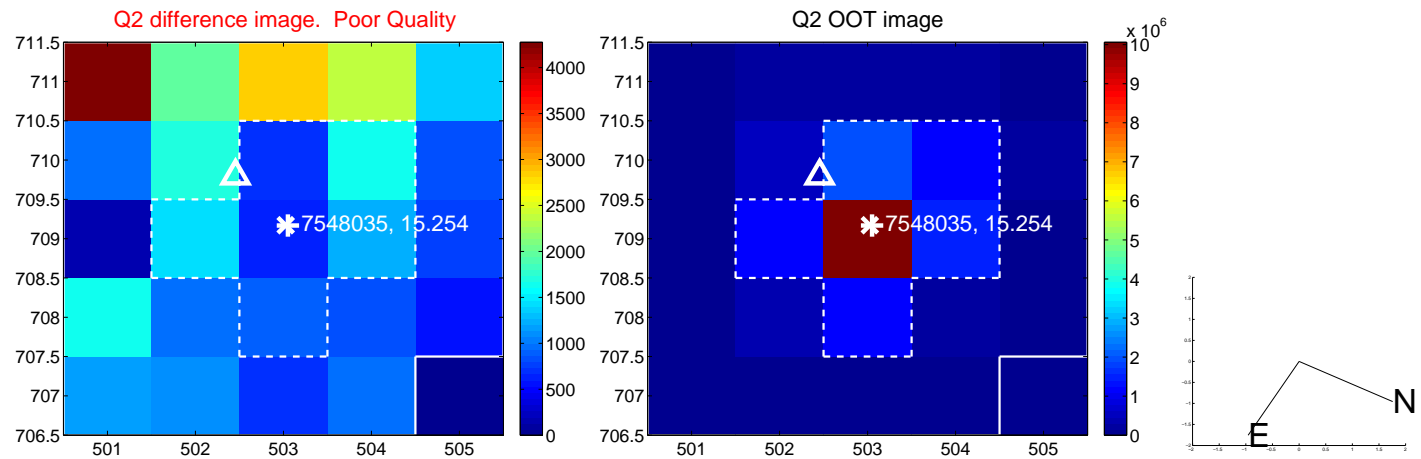
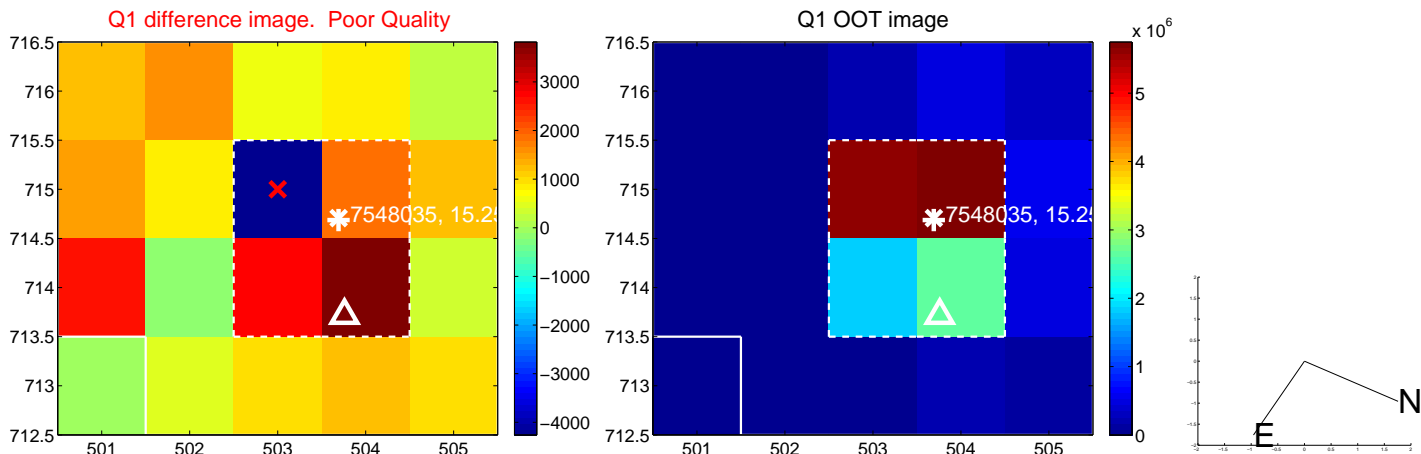
The direct PRF centroid is offset from the target star catalog position by about 0.06 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	5.152 ± 0.535	9.63	-0.740 ± 0.795	-5.098 ± 0.510
PRF-fit source offset from KIC position	5.049 ± 0.581	8.68	-0.714 ± 0.759	-4.998 ± 0.561
photometric centroid source offset	6.18 ± 2.90	2.13	-3.12 ± 3.13	-5.33 ± 2.83

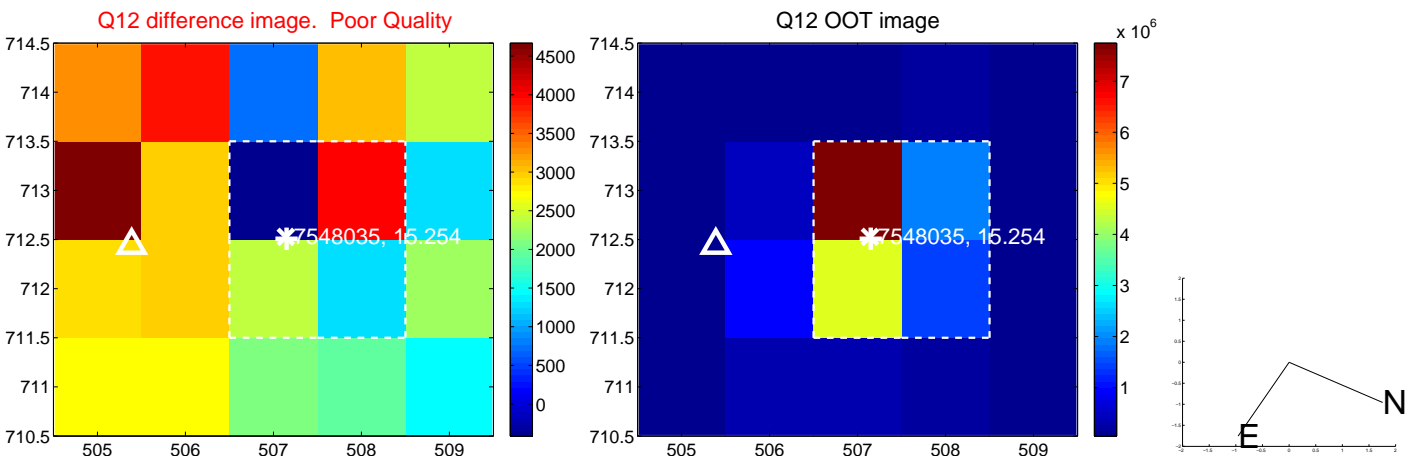
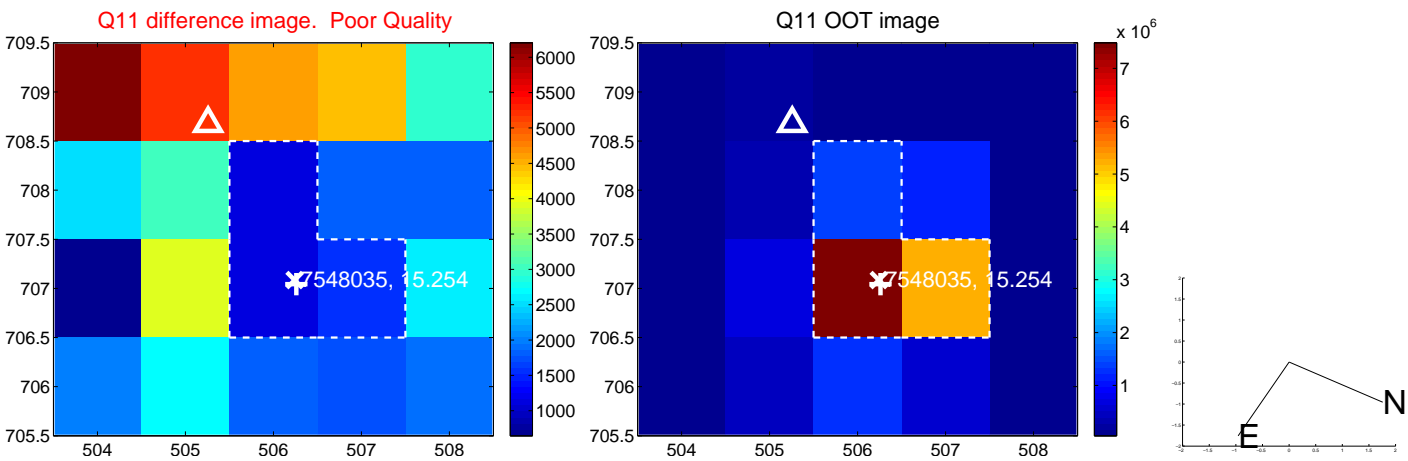
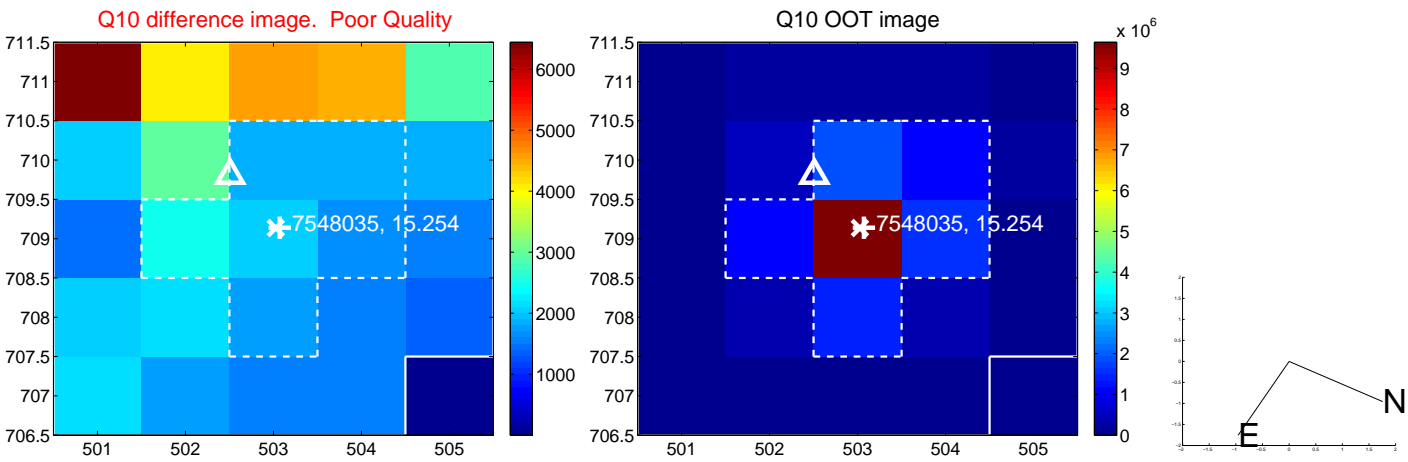
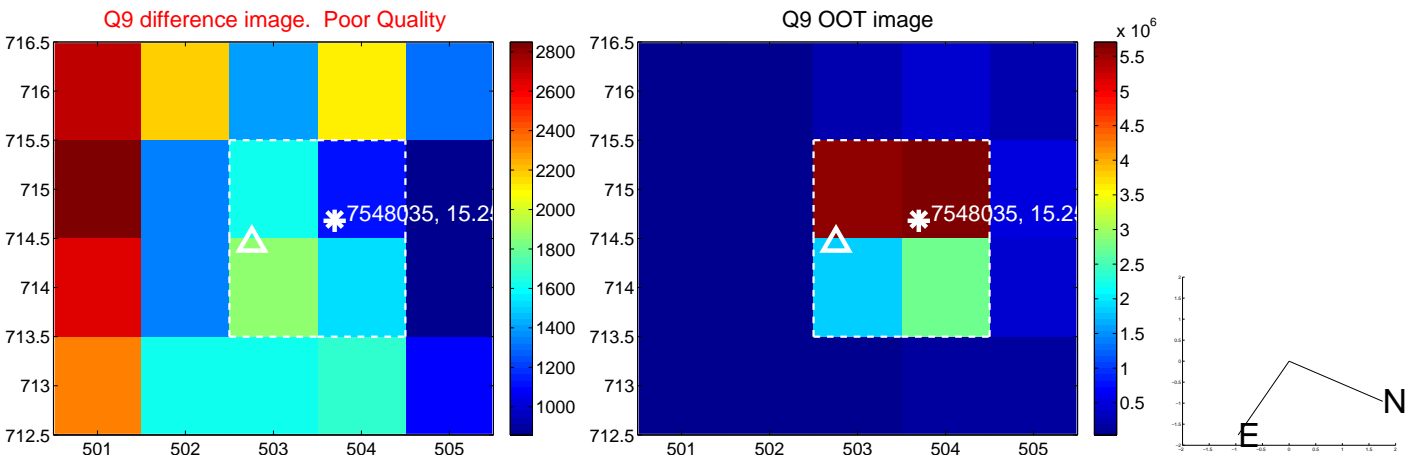


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

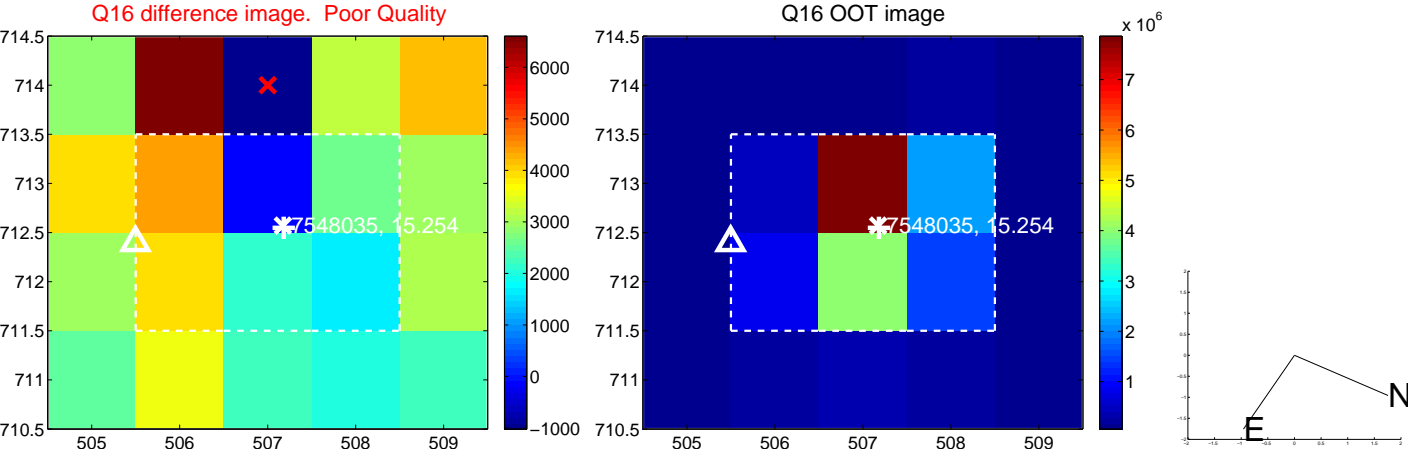
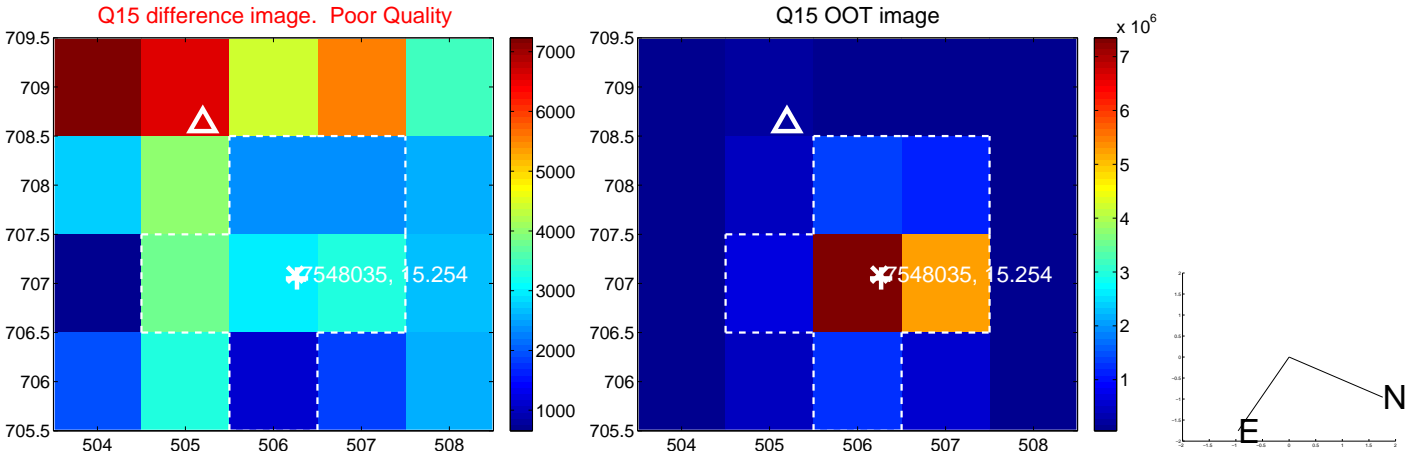
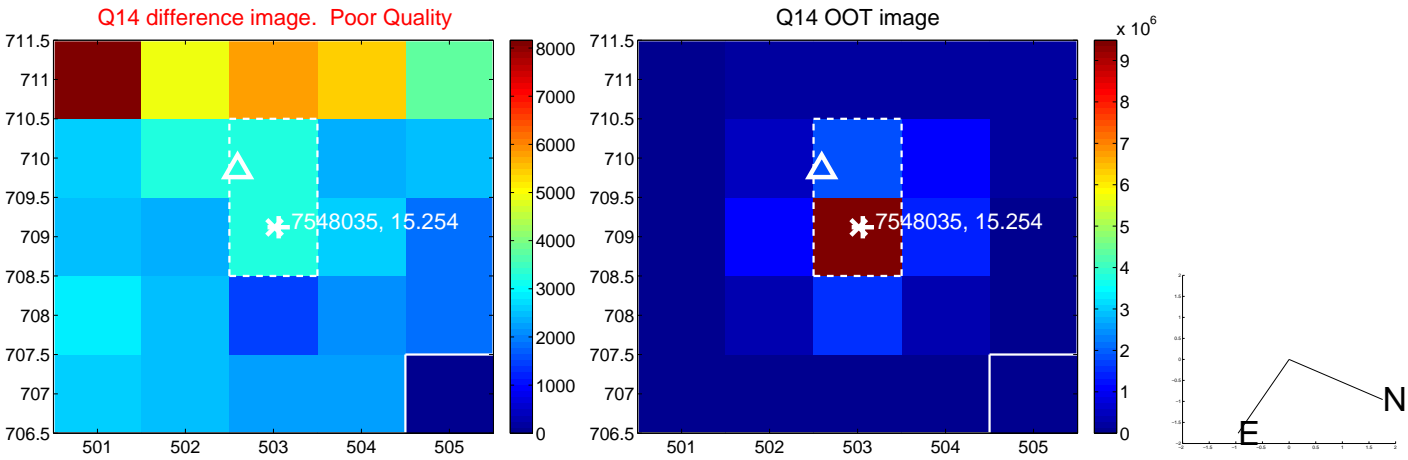
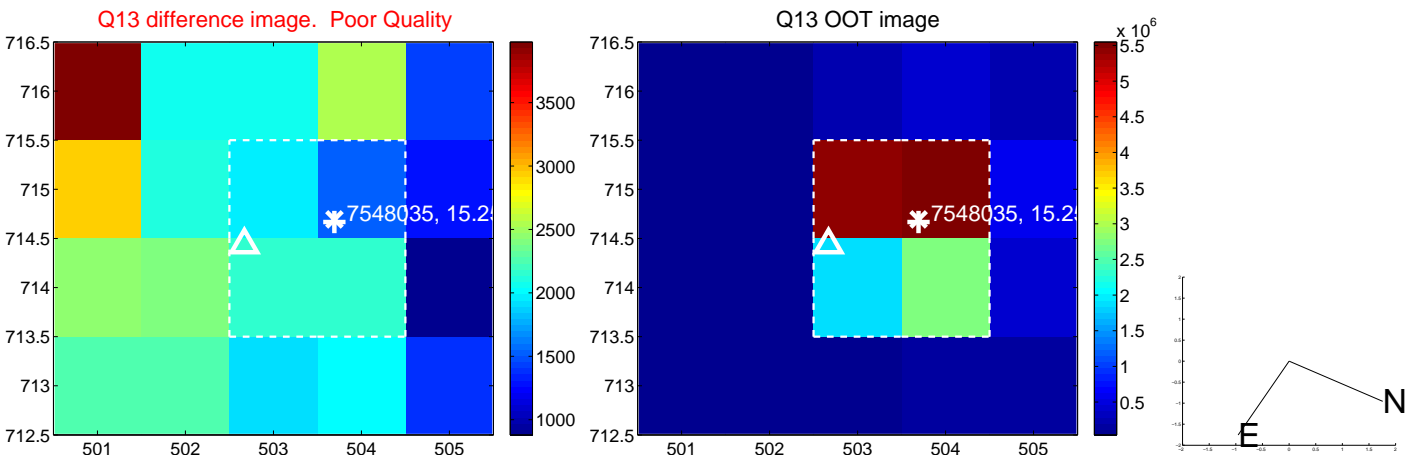
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



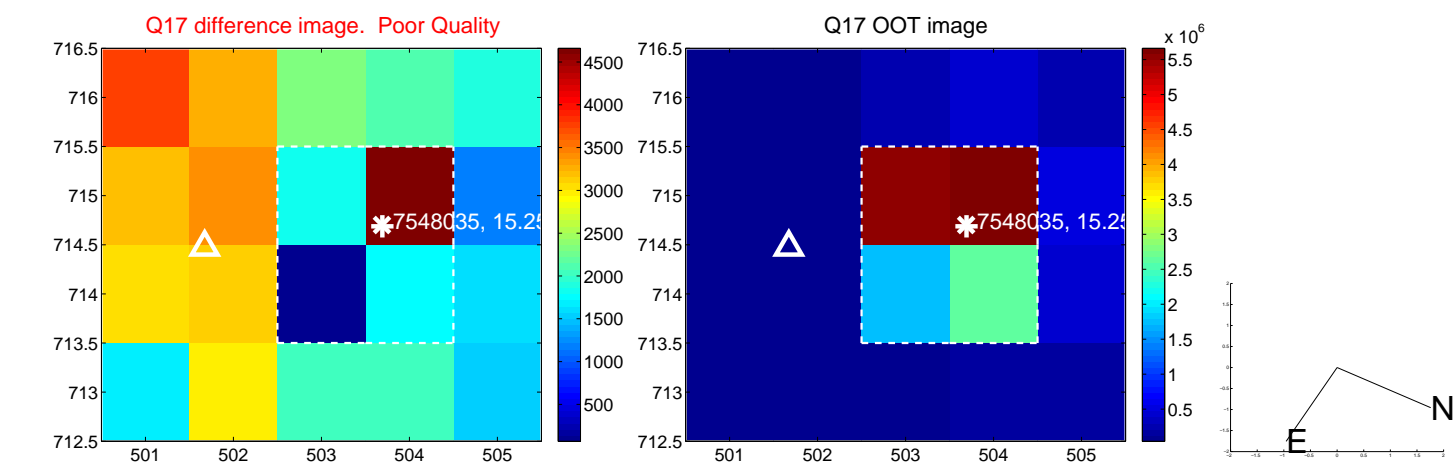
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



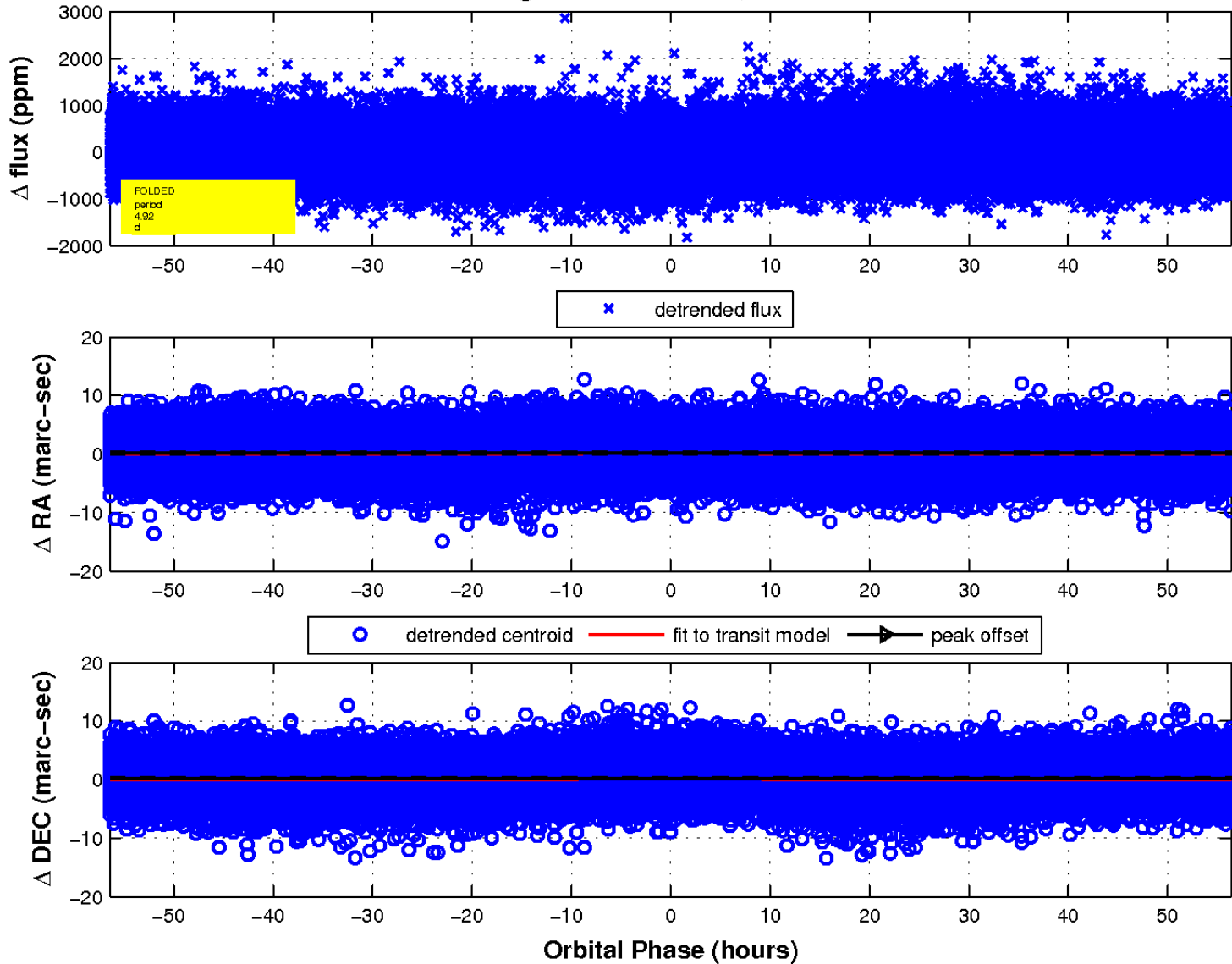
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

