

KIC 003337548

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})
003337548-01	OBS	6325.01	2.975977	132.978757	88.9	6.837	7.5	8.1	0.83	5481	0.94	392.60

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003337548-01	OBS	FP	0.00	1	0	0	1	LPP_DV—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 003337548-01

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
003337548-01	3337548	4980.01	3439031	1:1	164.1	41	1	11.29	15.67	5015.20	Direct-PRF	0	0.72	0.40

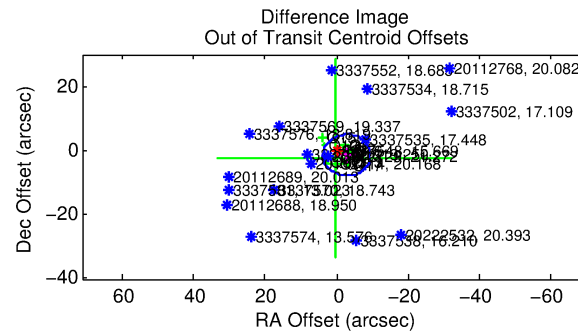
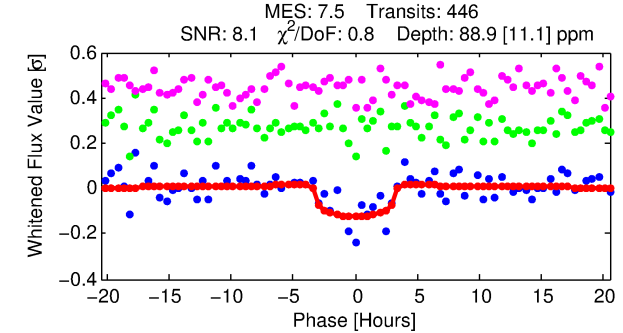
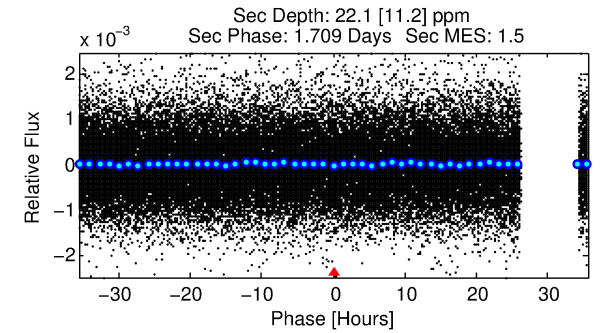
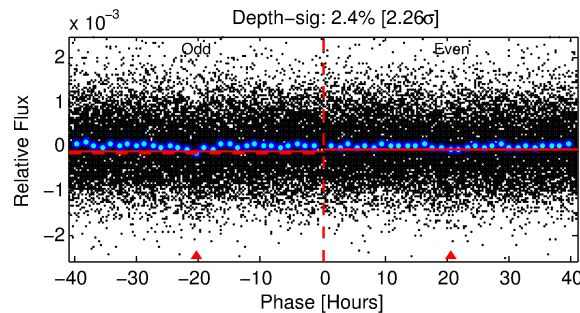
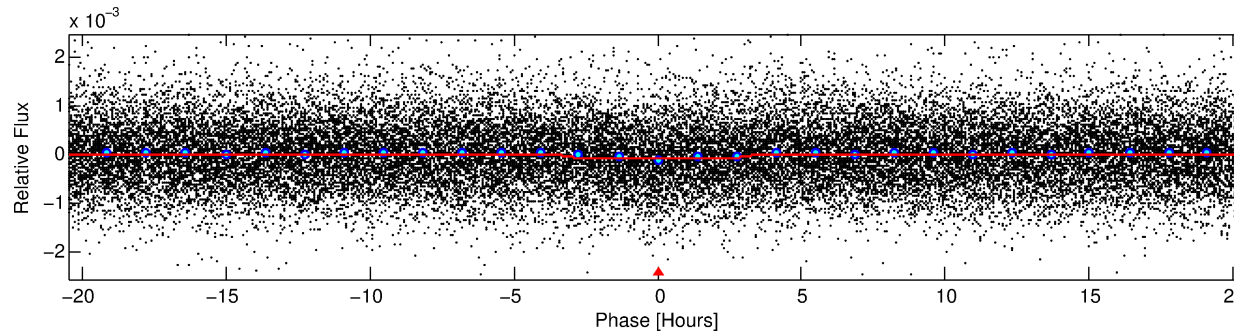
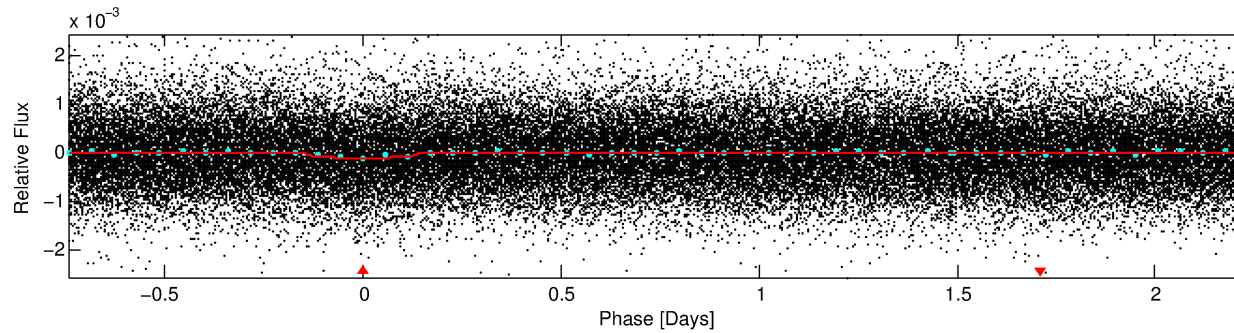
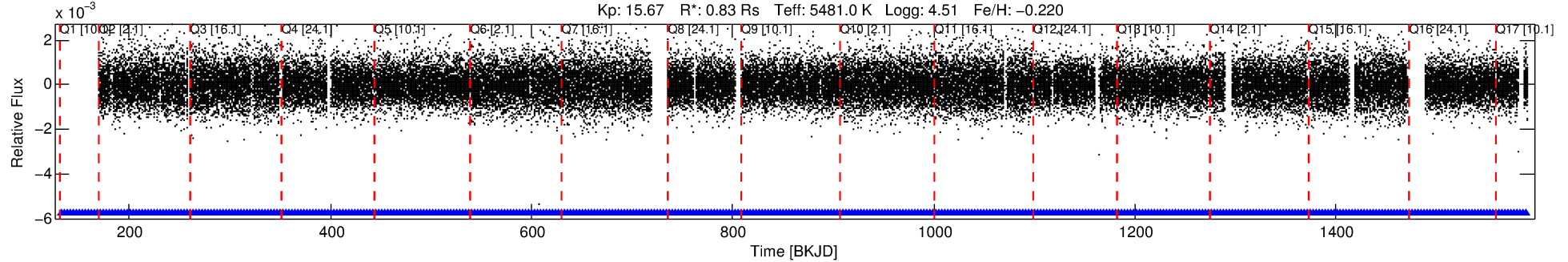
Notes: $P_1:P_2$ is the period ratio. Dist is the distance in arcseconds. Δ Row and Δ Col are the number of pixels apart in row and column. m_2 and m_1 are the magnitudes of the parent and child. D_2/D_1 is the parent's transit depth divided by the child's. σ_P and σ_T are the significance of the match 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: 3337548 Candidate: 1 of 1 Period: 2.976 d

KOI: K06325.01 Corr: 0.816

Kp: 15.67 R*: 0.83 Rs Teff: 5481.0 K Logg: 4.51 Fe/H: -0.220



DV Fit Results:

Period = 2.97598 [0.00004] d
Epoch = 132.9788 [0.0099] BKJD
Rp/R* = 0.0103 [0.0047]
a/R* = 1.80 [2.61]
b = 0.90 [0.46]
Seff = 392.60 [109.79]
Teq = 1135 [79] K
Rp = 0.94 [0.47] Re
a = 0.0379 [0.0066] AU
Ag = 19.79 [21.22] [0.89σ]
Teffp = 3701 [971] K [2.63σ]

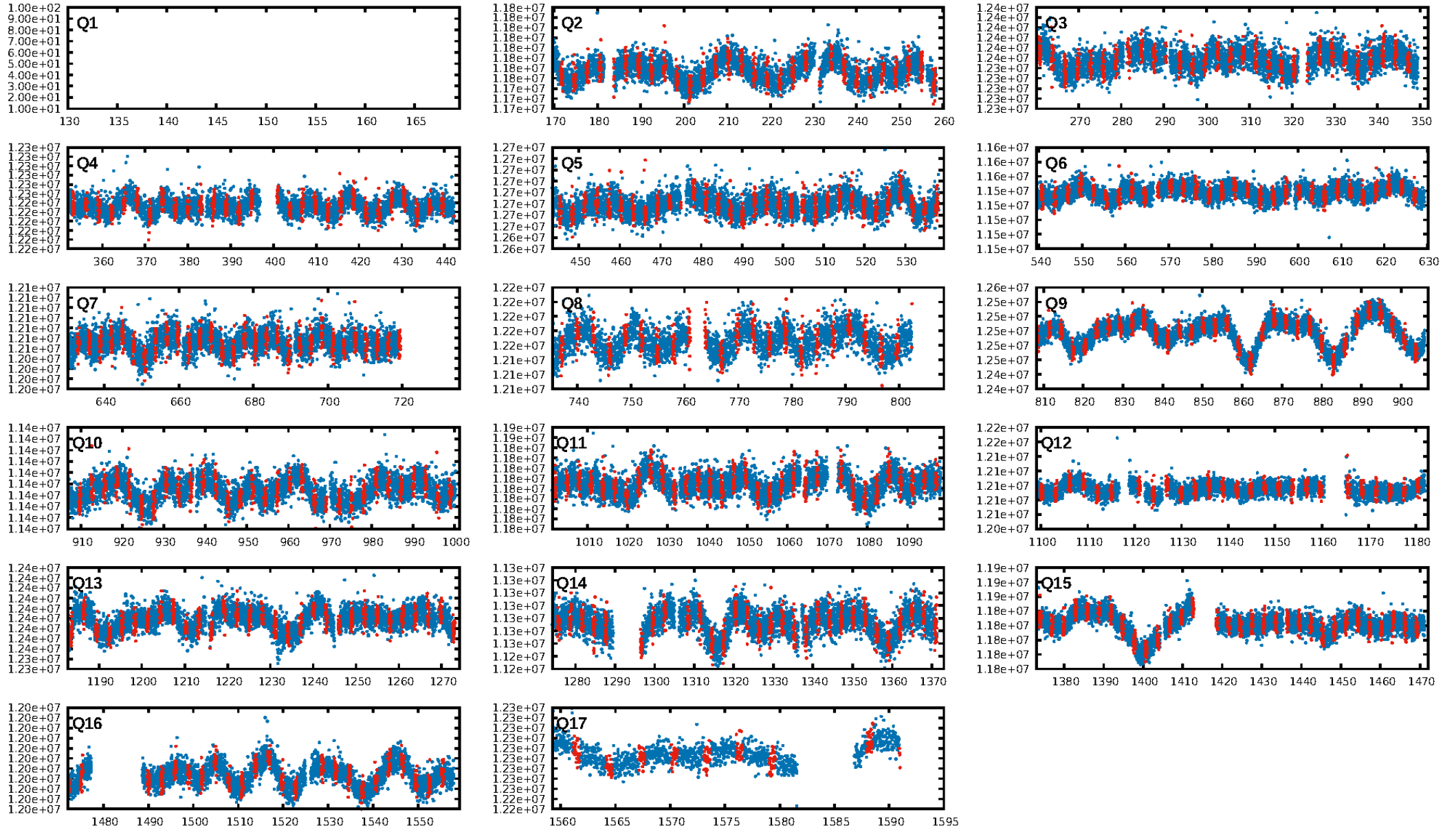
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 8.17e-13
RollingBand-fgt: 1.00 [438/438]
GhostDiagnostic-chr: 0.3017
Centroid-sig: 0.0%
Centroid-so: 4.918 arcsec [2.91σ]
OotOffset-rm: 3.162 arcsec [1.45σ]
KicOffset-rm: 3.136 arcsec [1.44σ]
OotOffset-st: 4/3/4/4 [15]
KicOffset-st: 4/3/4/4 [15]
DiffImageQuality-fgm: 0.07 [1/15]
DiffImageOverlap-fno: 1.00 [16/16]

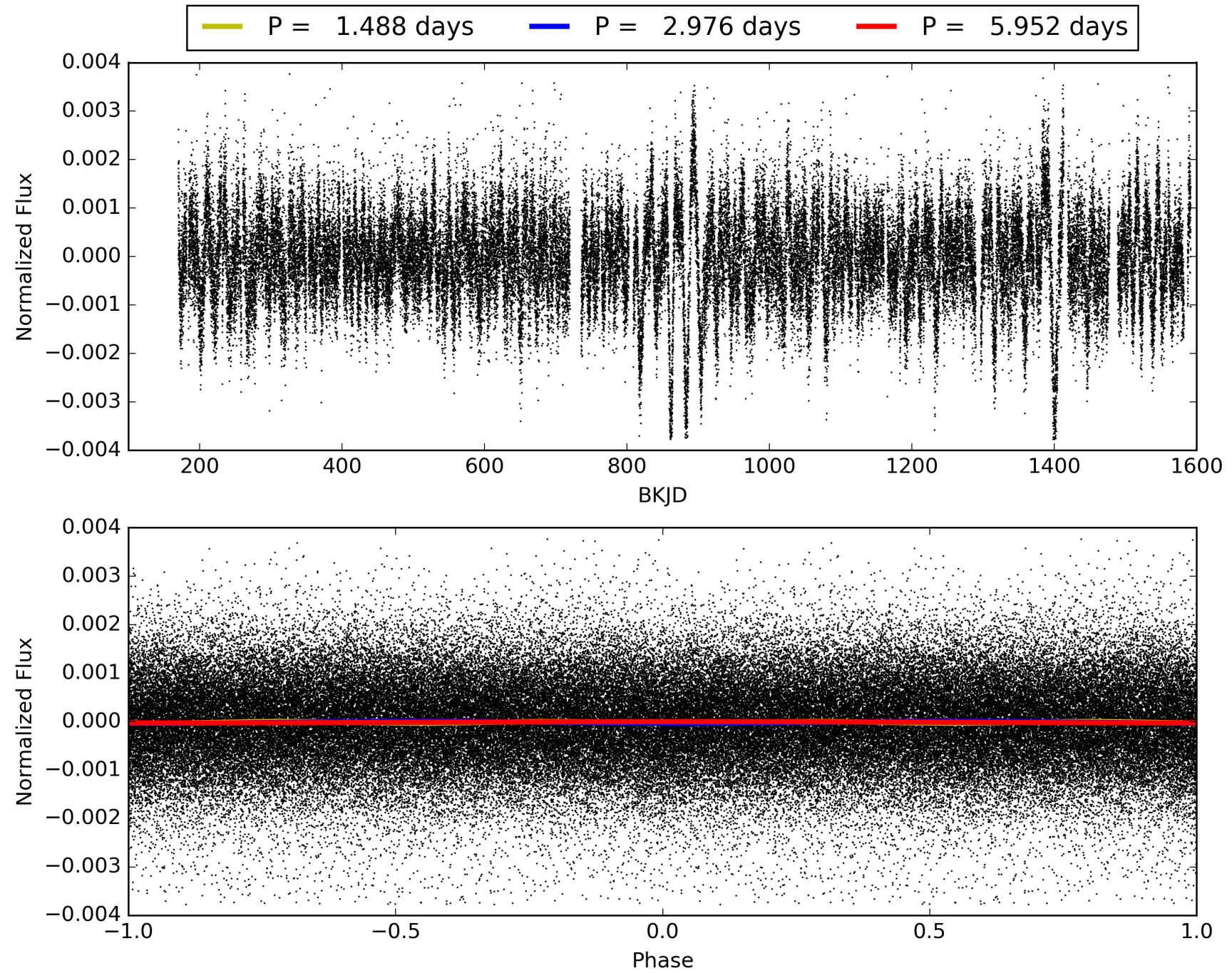
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 15:15:33 Z

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

TCE 003337548-01, PDC Light Curves

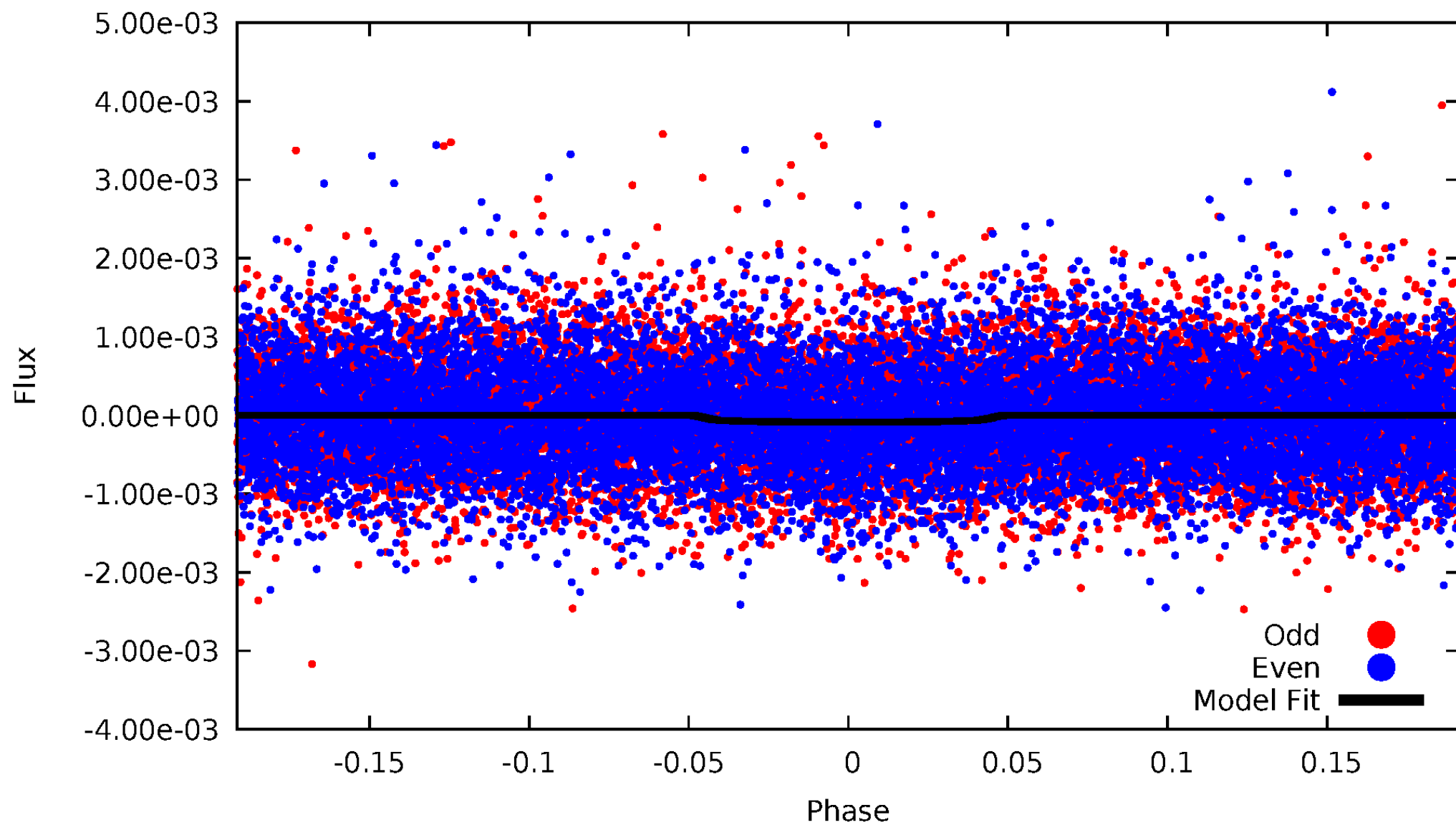


TCE 003337548-01



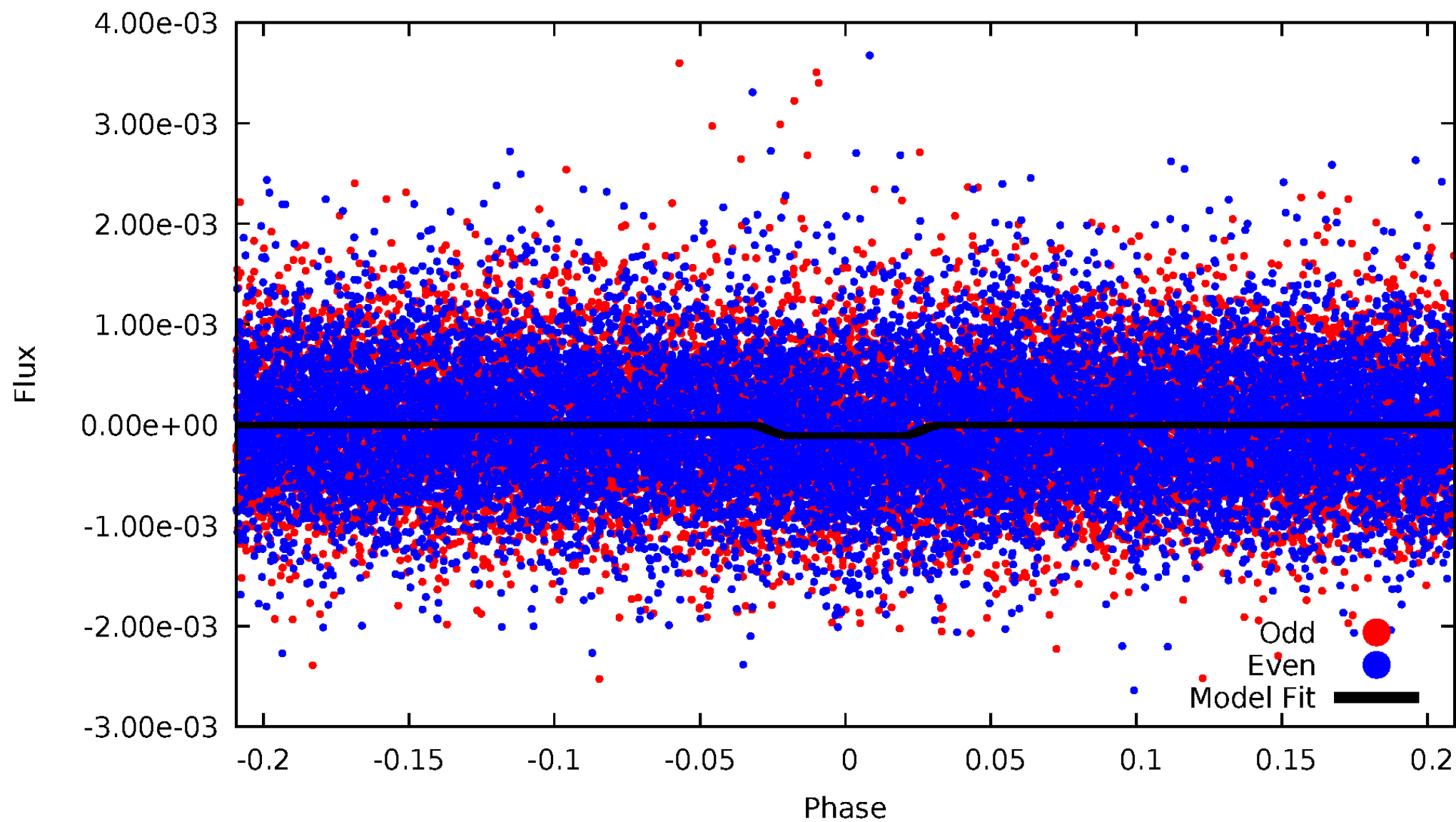
DV Odd/Even

TCE 003337548-01

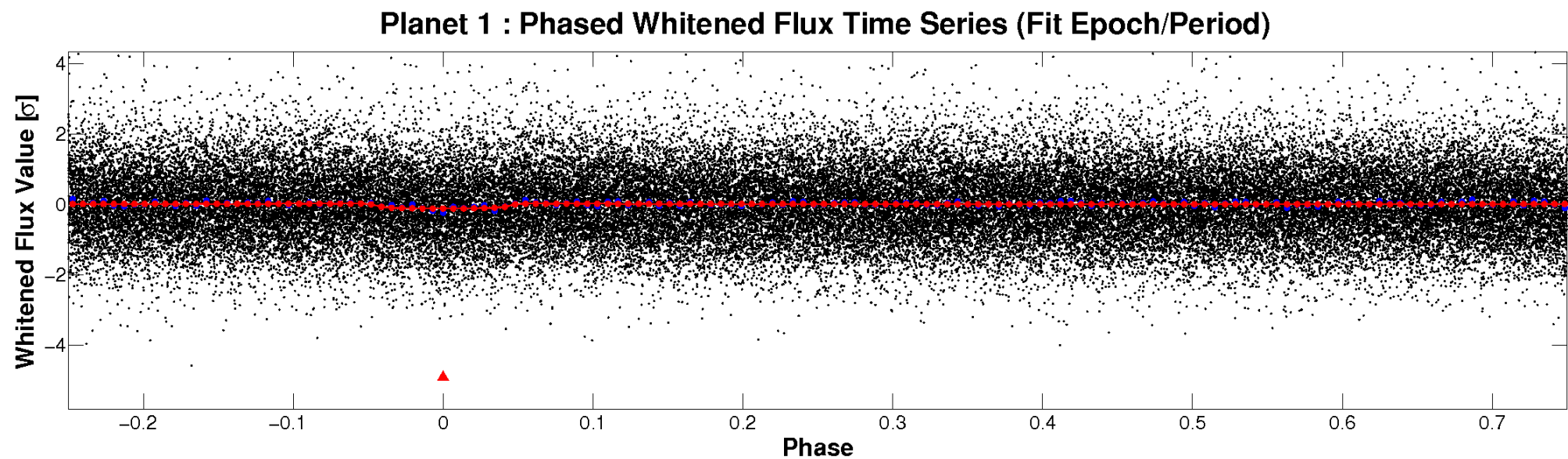
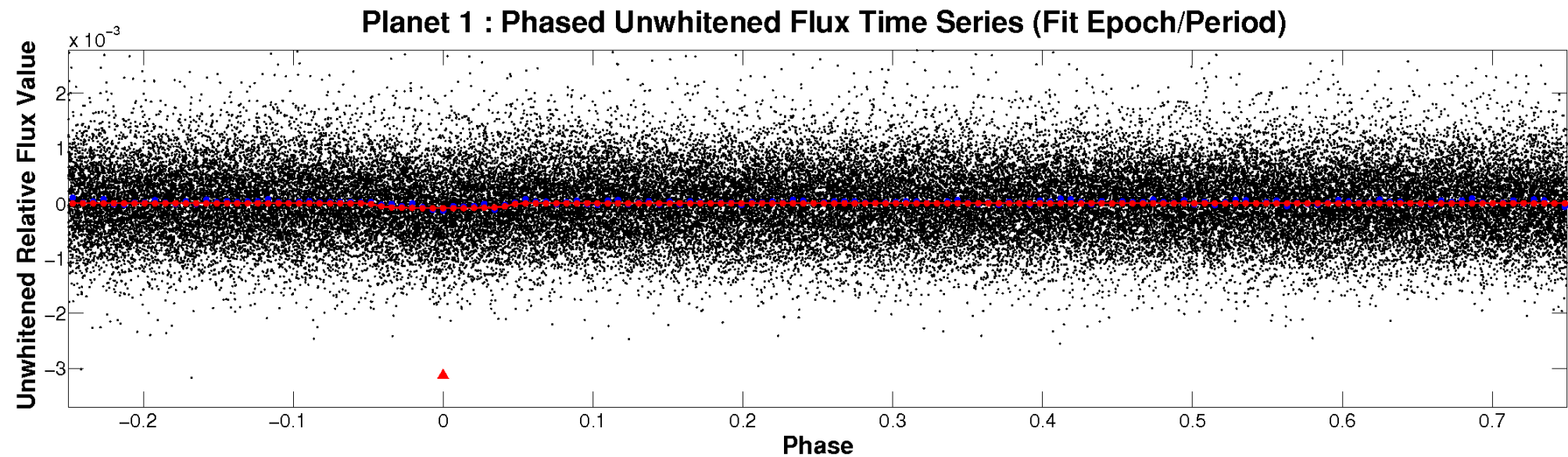


ALT Odd/Even

TCE 003337548-01

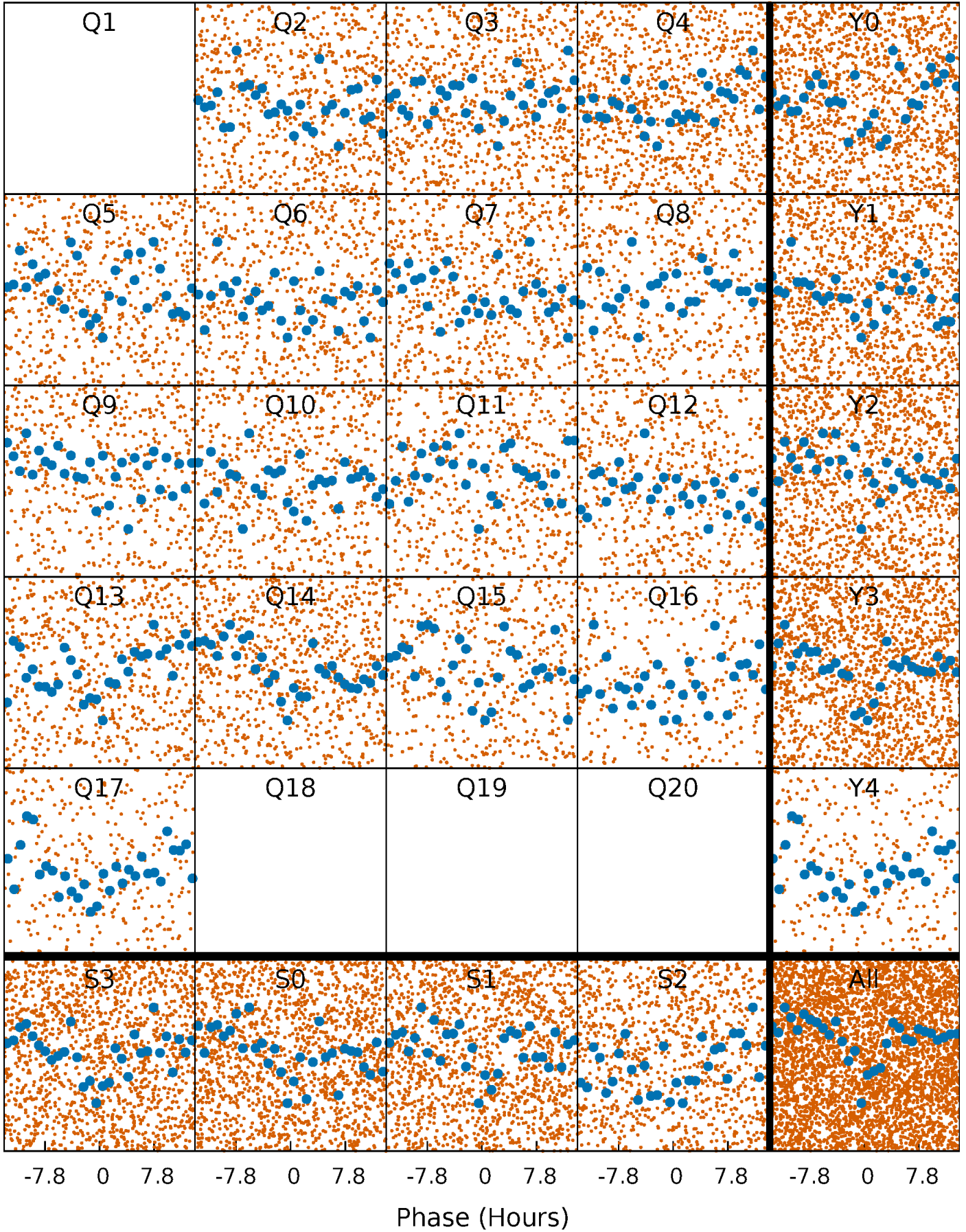


Non-Whitened Vs. Whitened Light Curve



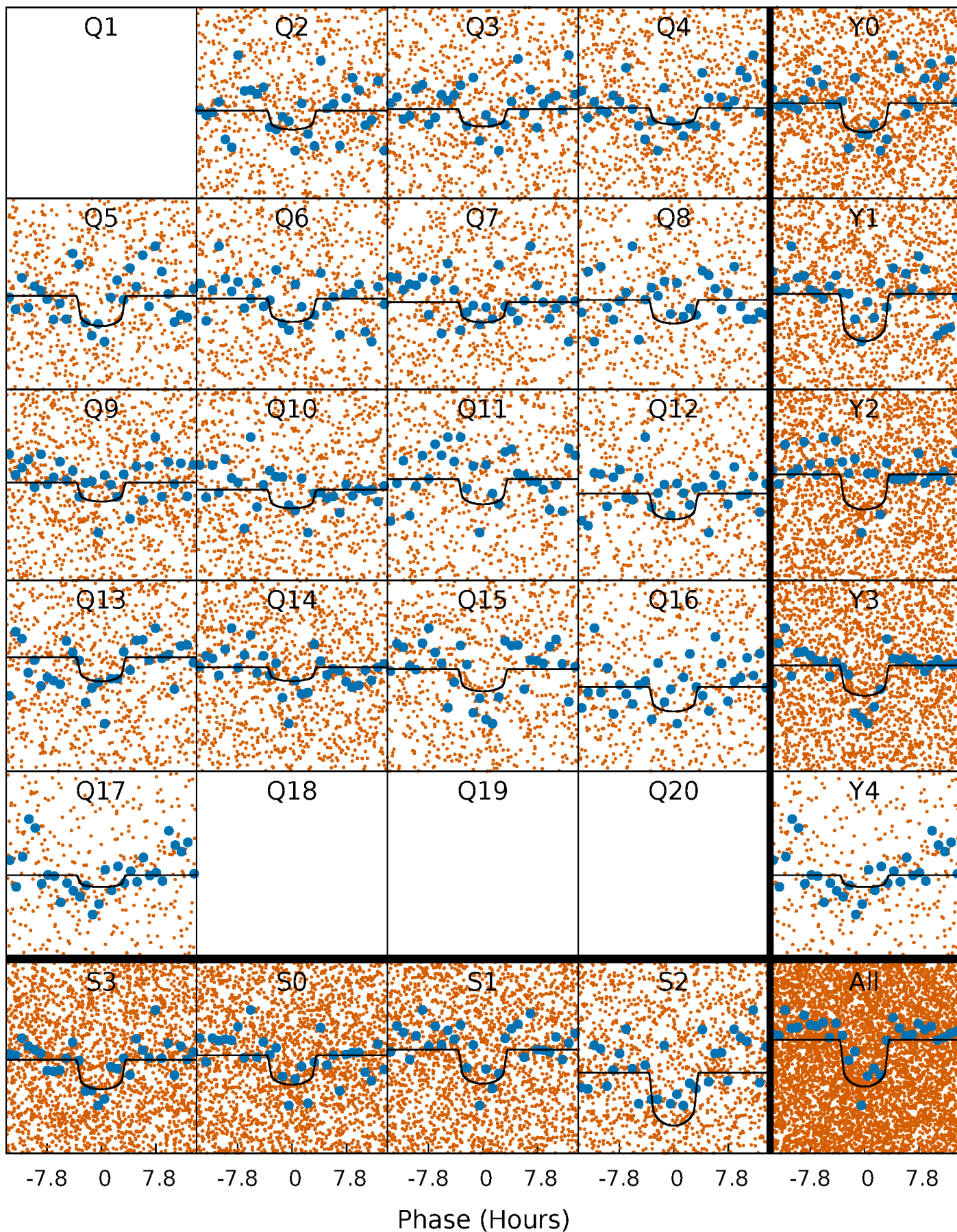
PDC Quarter-Phased Transit Curves

TCE 003337548-01 P= 2.975977 Days $T_0=132.978757$ (BKJD)



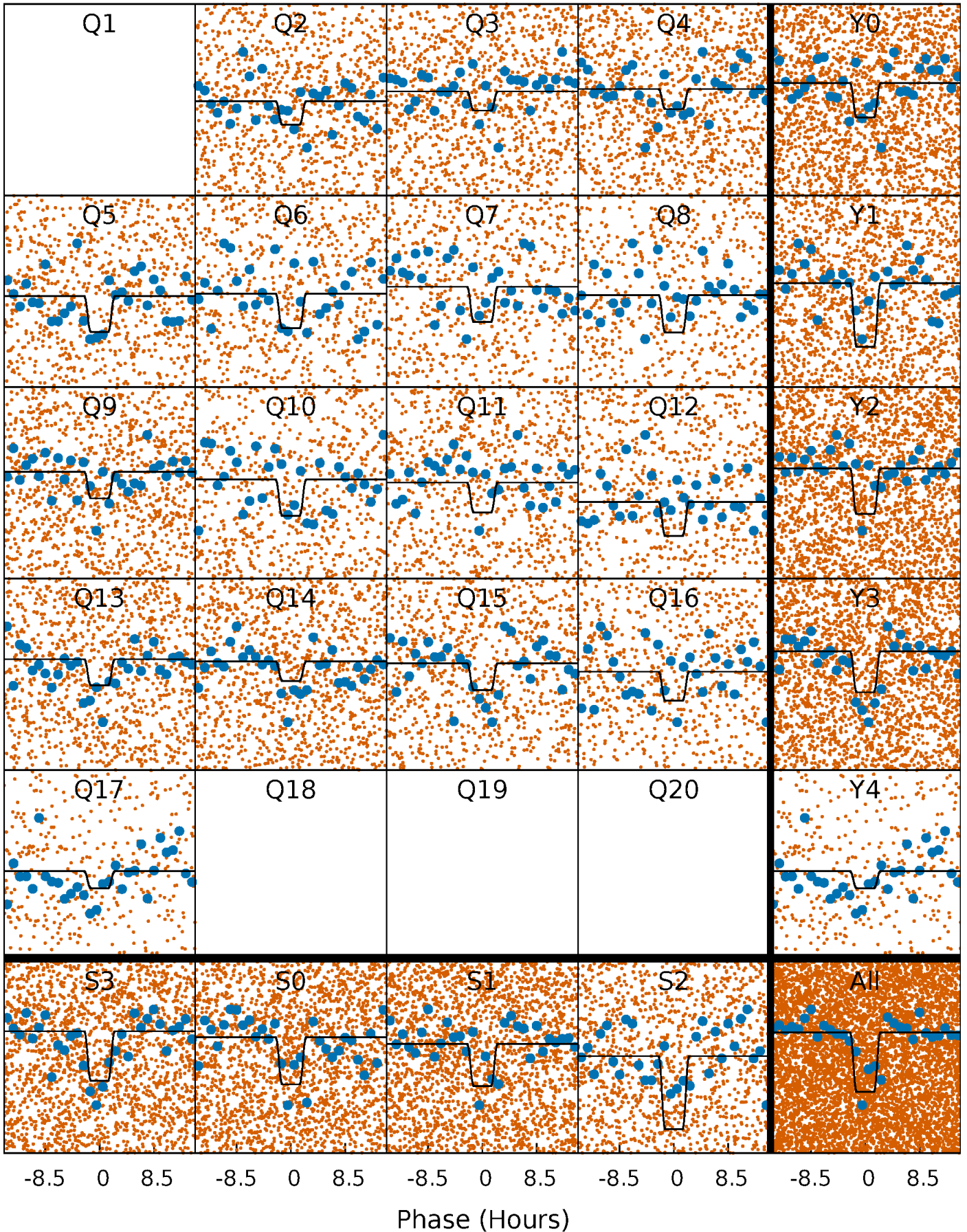
DV Quarter-Phased Transit Curves

TCE 003337548-01 P= 2.975977 Days $T_0=132.978757$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

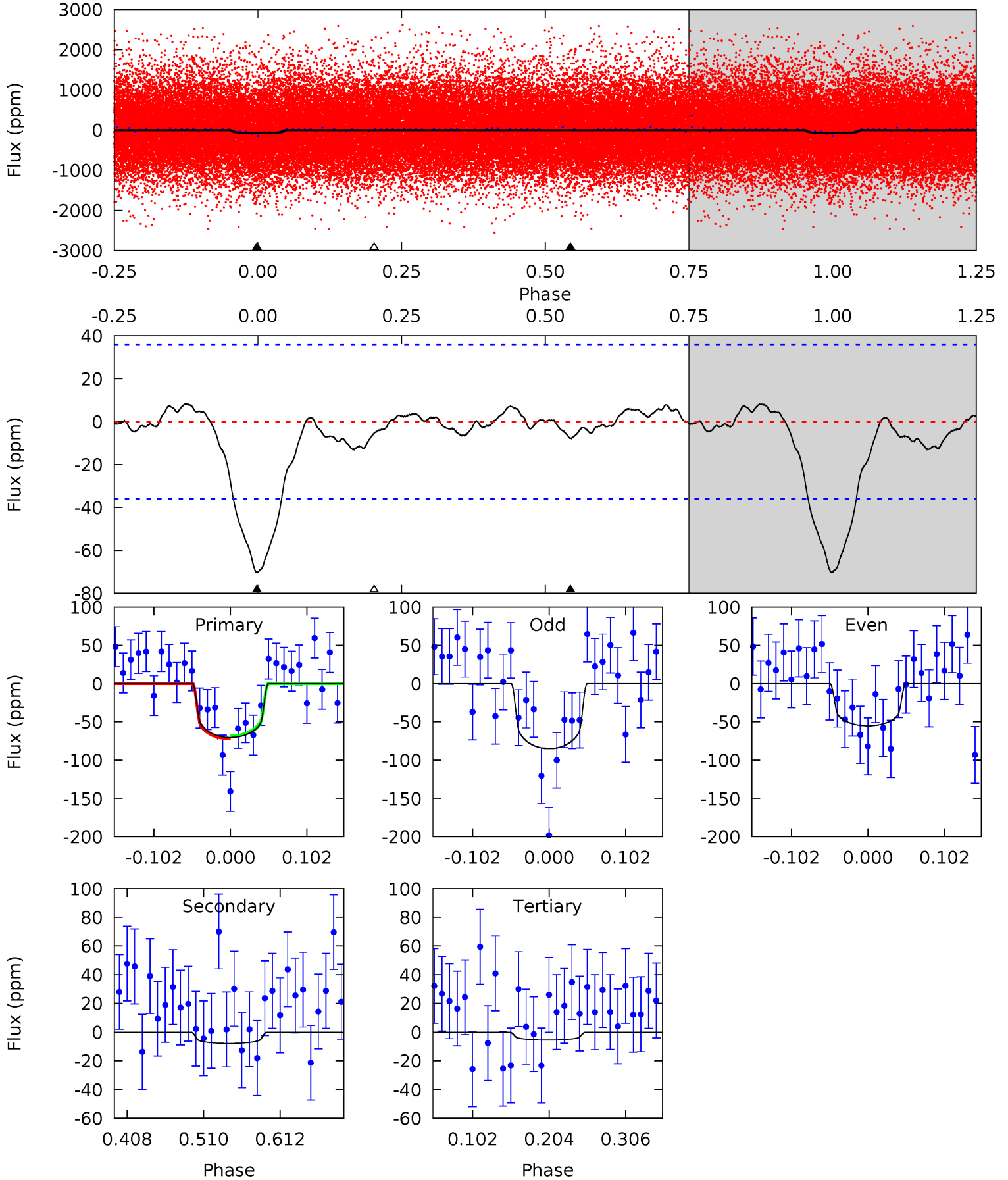
TCE 003337548-01 P= 2.975953 Days $T_0=132.983774$ (BKJD)



DV Model-Shift Uniqueness Test

003337548-01, P = 2.975977 Days, E = 132.978757 Days

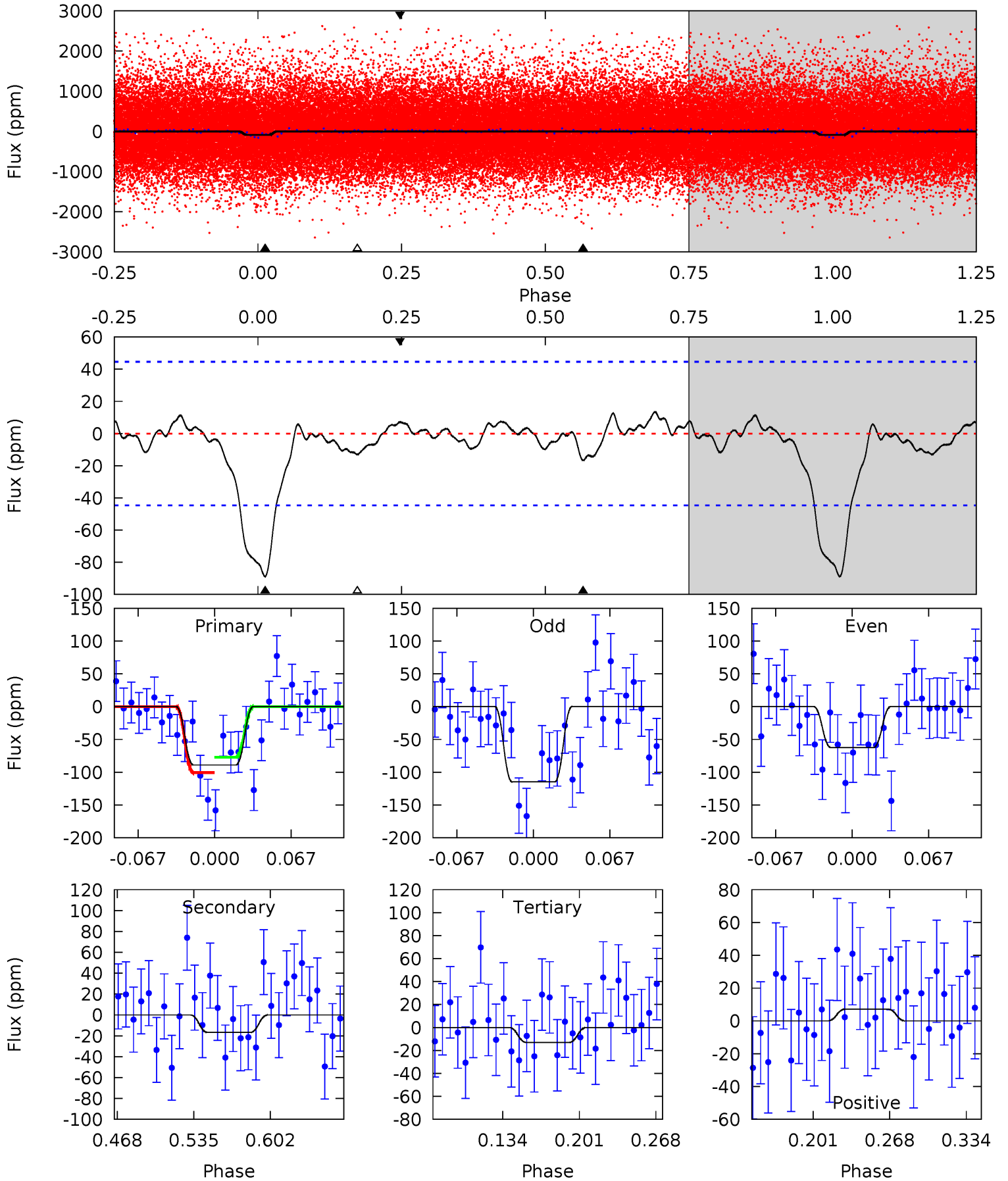
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.90	0.99	0.69	0	4.56	1.64	0.67	8.21	8.90	0.31	0.99	1.90	1.03	0.10	0.22



Alt Model-Shift Uniqueness Test

003337548-01, P = 2.975953 Days, E = 132.983774 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.27	1.75	1.36	0.75	4.65	1.83	0.61	7.91	8.52	0.39	1.00	2.73	1.07	0.13	1.21



Stellar Parameters For KIC 003337548

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5481^{+166}_{-166}	$4.508^{+0.074}_{-0.137}$	$-0.220^{+0.300}_{-0.300}$	$0.835^{+0.174}_{-0.094}$	$0.821^{+0.102}_{-0.074}$	$1.983^{+0.712}_{-0.781}$
	+3%/-3%	+2%/-3%	+136%/-136%	+21%/-11%	+12%/-9%	+36%/-39%
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 003337548-01 / KOI 6325.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-8 ± 8	$0.95^{+0.48}_{-0.46}$	1600^{+95}_{-78}	3288^{+970}_{-5766}	$5.862^{+20.115}_{-6.260}$
Alt.	-17 ± 10	$1.01^{+0.43}_{-0.44}$	1606^{+87}_{-71}	3711^{+948}_{-565}	13^{+29}_{-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 $A_{obs} \gg 1.0$

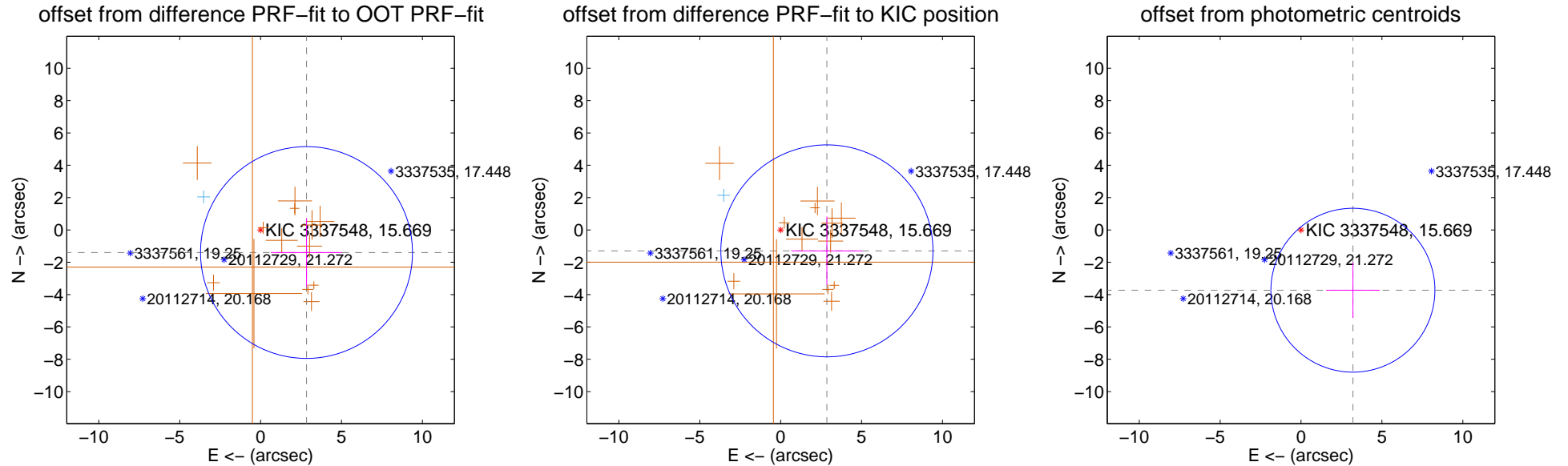
DV Centroid Data

Supplemental centroid analysis for 003337548-01. Kepler magnitude: 15.67. Transit SNR 8.13

There are 1 quarters with good PRF difference image offsets

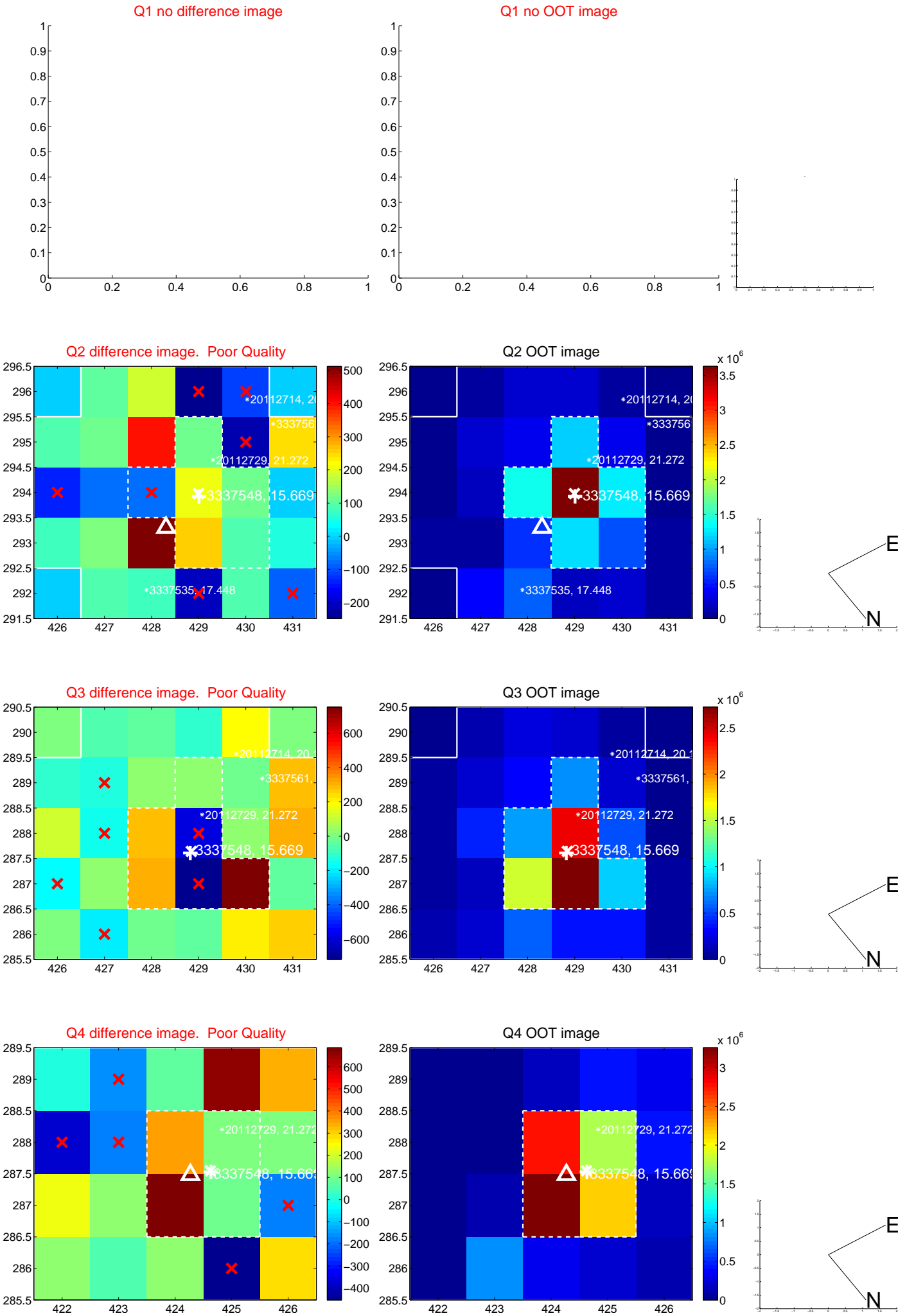
The direct PRF centroid is offset from the target star catalog position by about 0.02 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.162 ± 2.184	1.45	-2.836 ± 2.198	-1.397 ± 2.124
PRF-fit source offset from KIC position	3.136 ± 2.185	1.44	-2.857 ± 2.198	-1.294 ± 2.124
photometric centroid source offset	4.92 ± 1.69	2.91	-3.21 ± 1.66	-3.73 ± 1.71

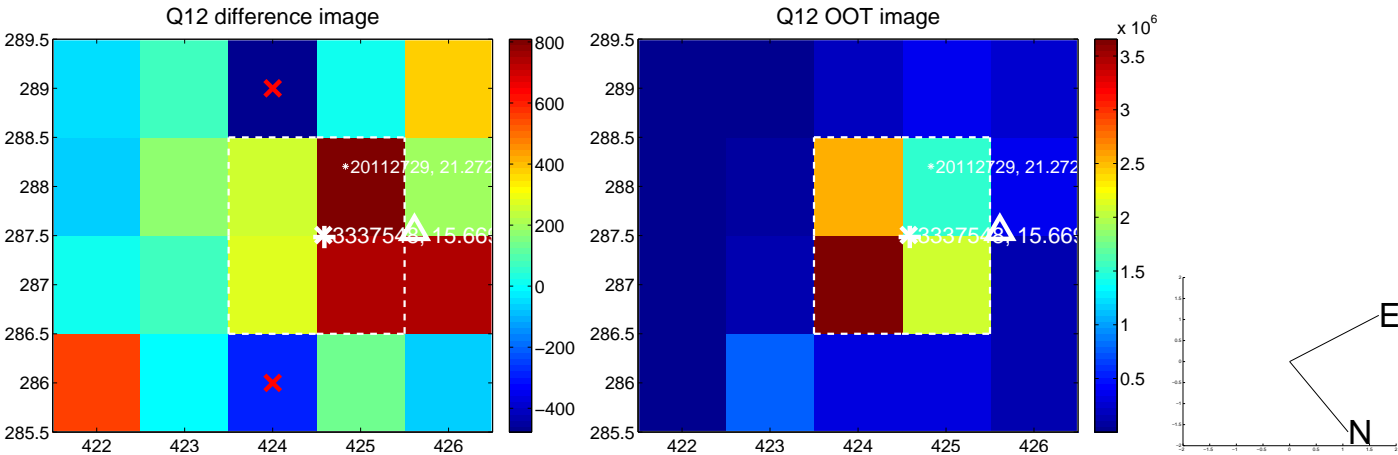
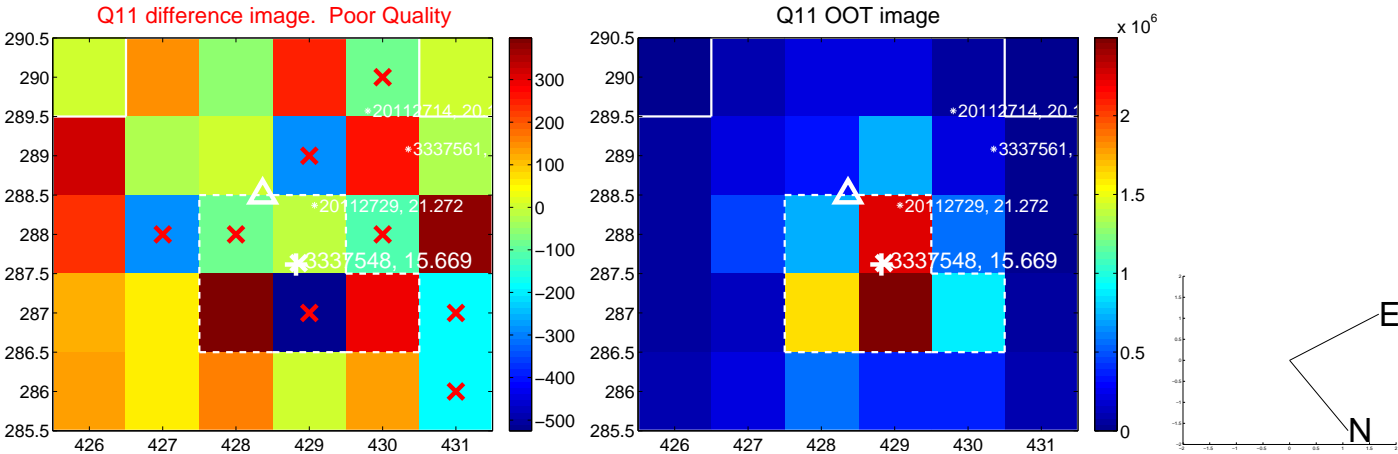
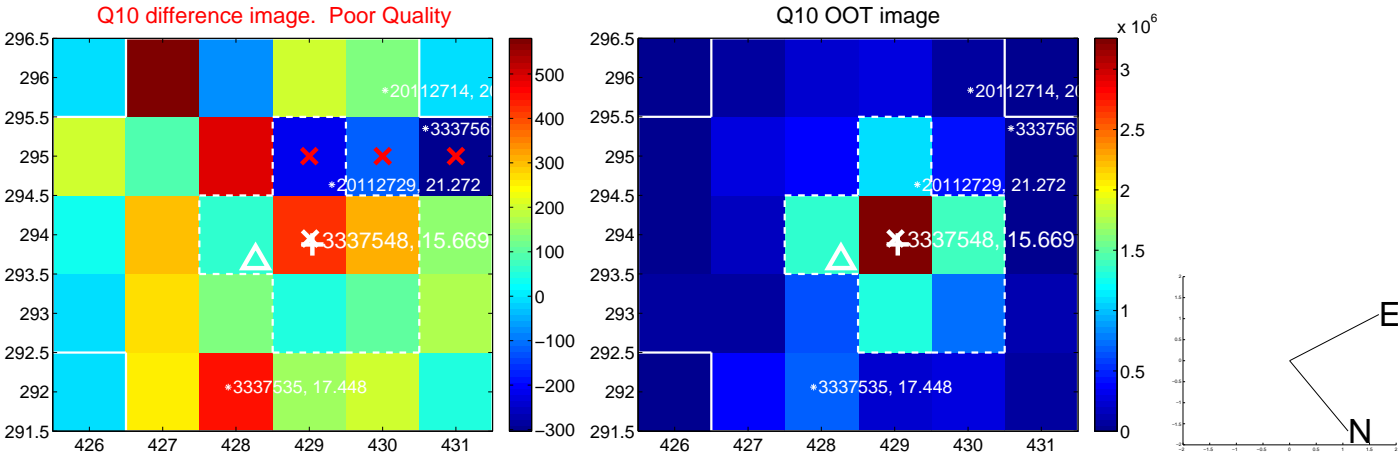
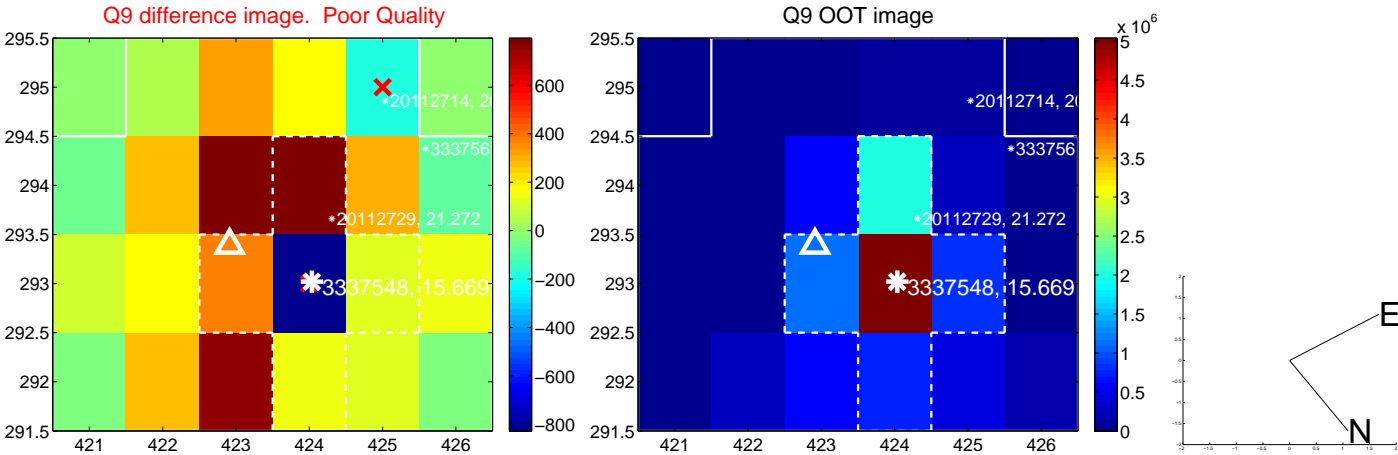


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

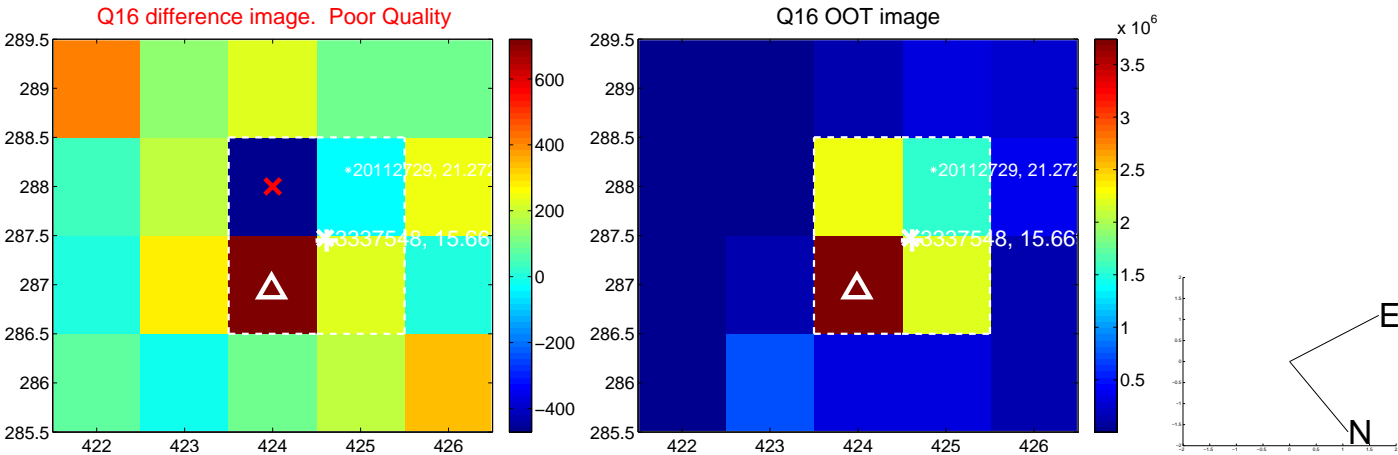
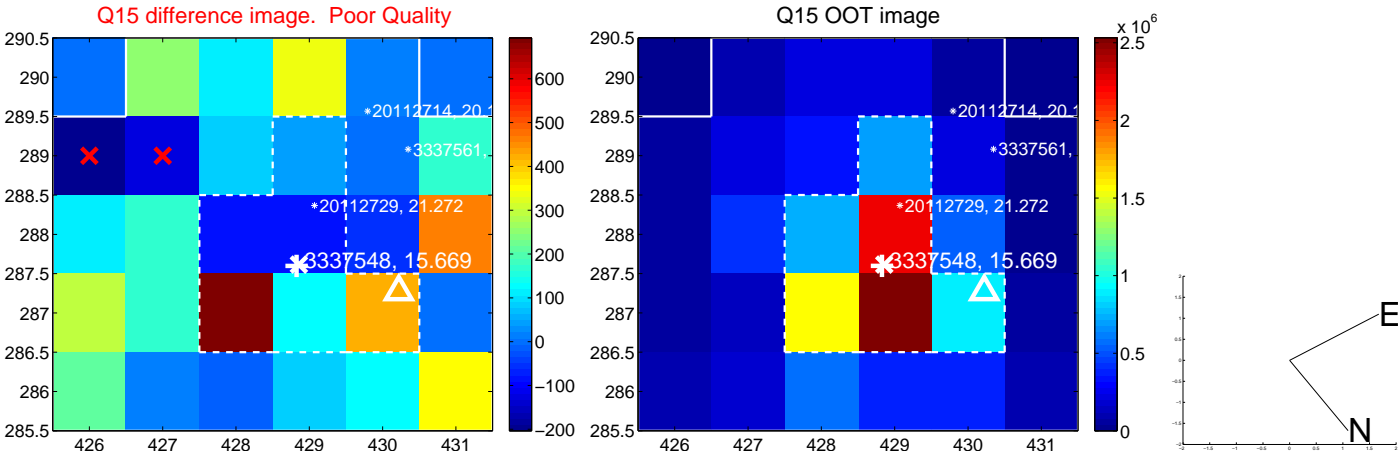
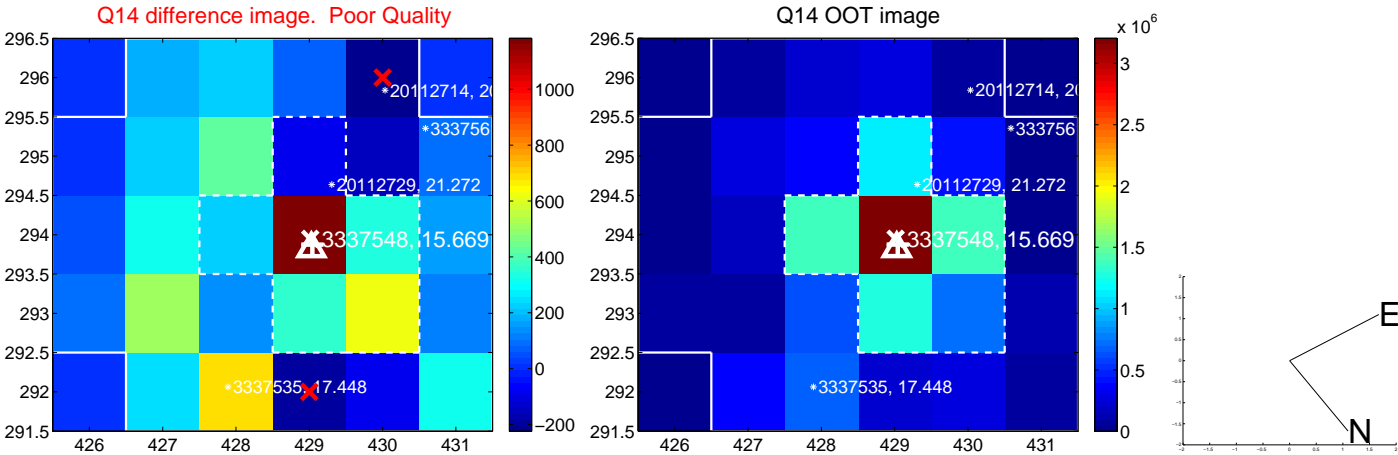
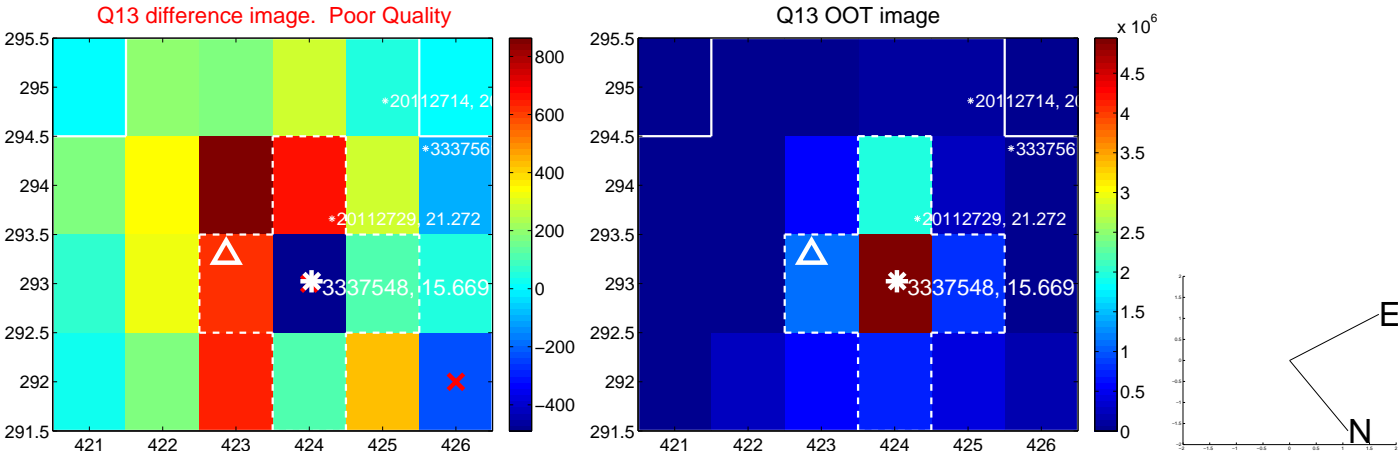
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



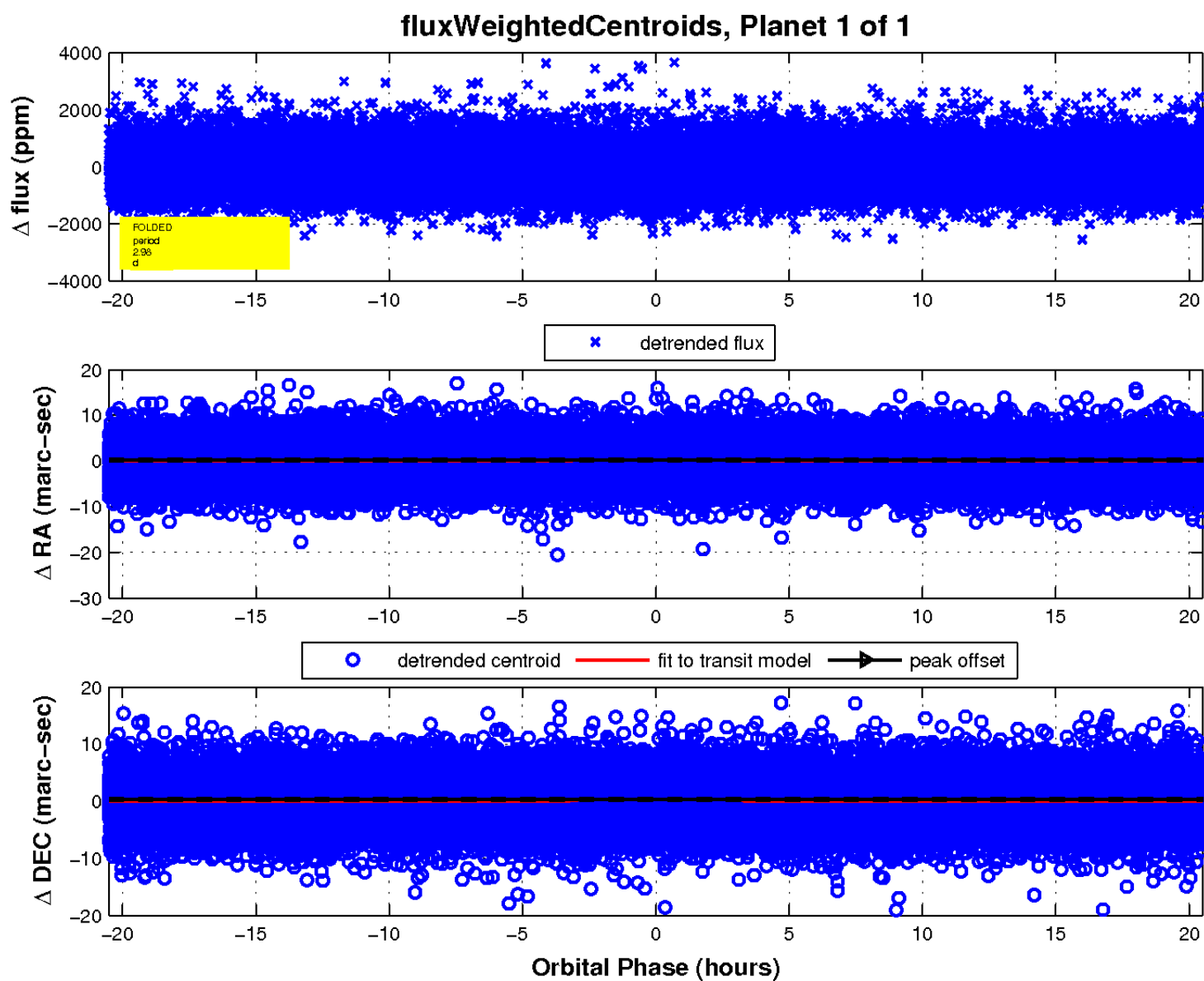
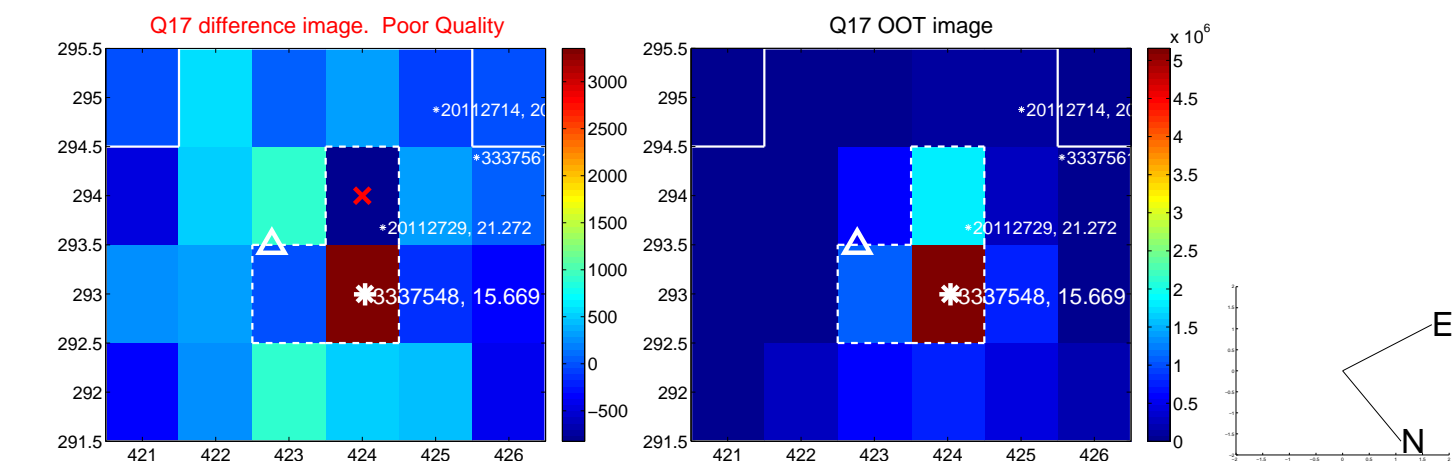
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

