

KIC 005736801

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})
005736801-01	OBS	7739.01	6.675155	137.451840	220.3	2.218	7.8	8.2	0.82	5774	1.38	148.37

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005736801-01	OBS	FP	0.00	1	0	1	0	MOD_NONUNIQ_ALT—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.

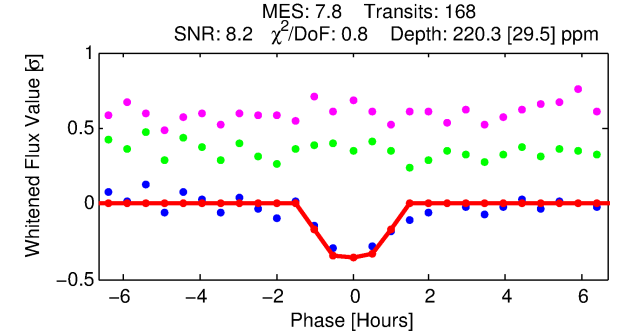
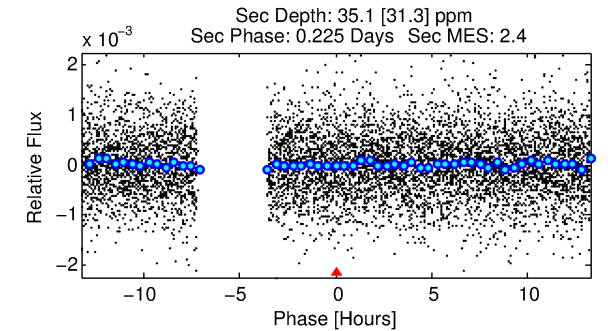
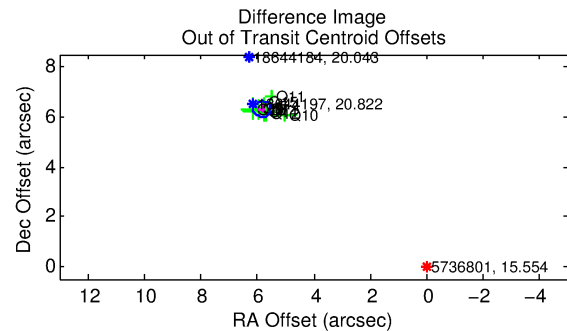
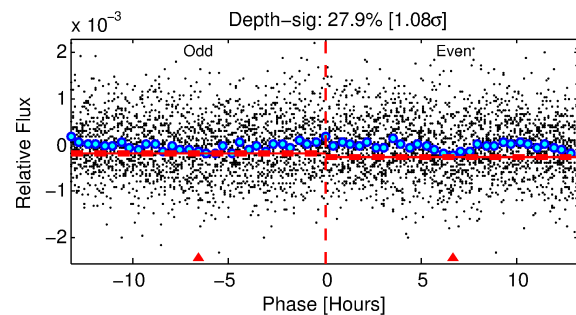
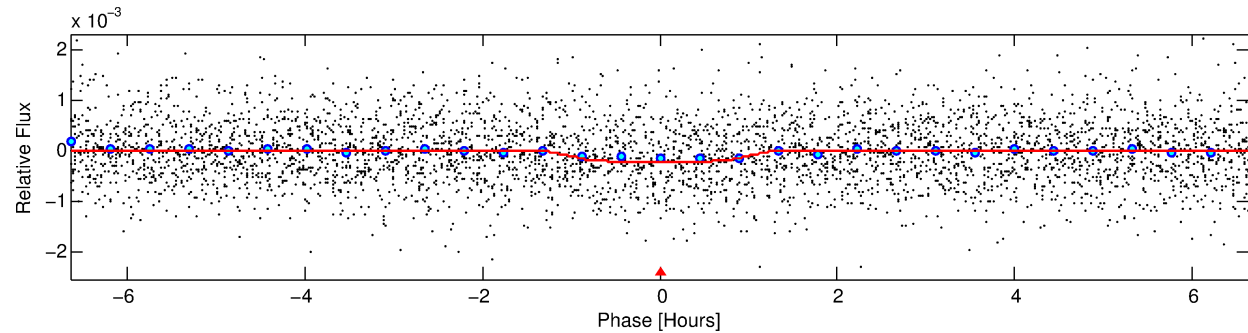
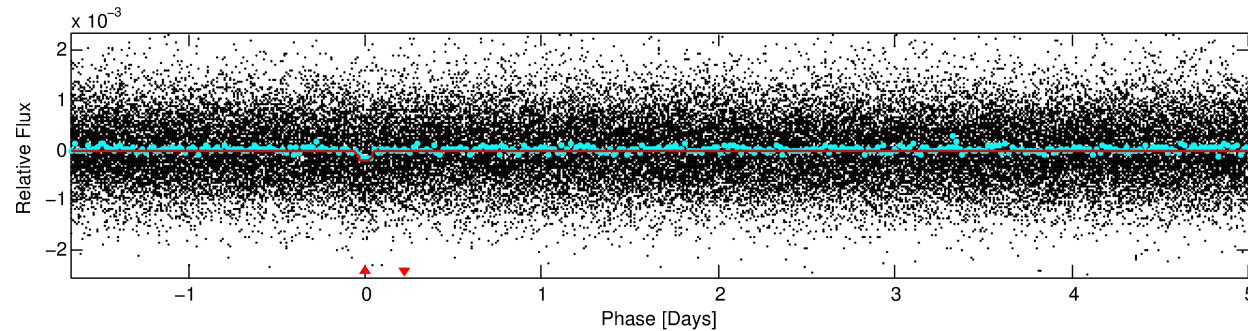
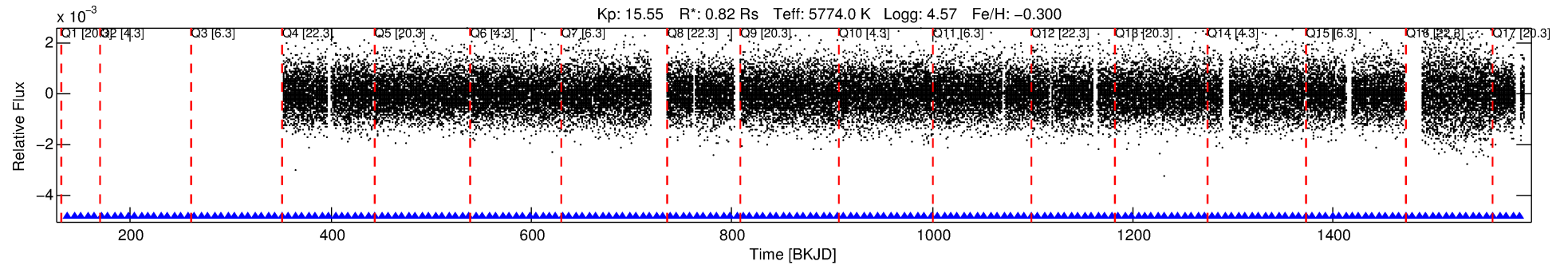
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005736801-01

No Significant Match Found

DV One-Page Summary

KIC: 5736801 Candidate: 1 of 1 Period: 6.675 d



DV Fit Results:

Period = 6.67515 [0.00006] d
Epoch = 137.4518 [0.0069] BKJD
Rp/R* = 0.0155 [0.0198]
a/R* = 13.00 [79.36]
b = 0.84 [2.12]
Seff = 148.37 [53.55]
Teq = 890 [80] K
Rp = 1.38 [1.81] Re
a = 0.0670 [0.0155] AU
Ag = 45.52 [124.32] [0.36 σ]
Teff = 3574 [2424] K [1.11 σ]

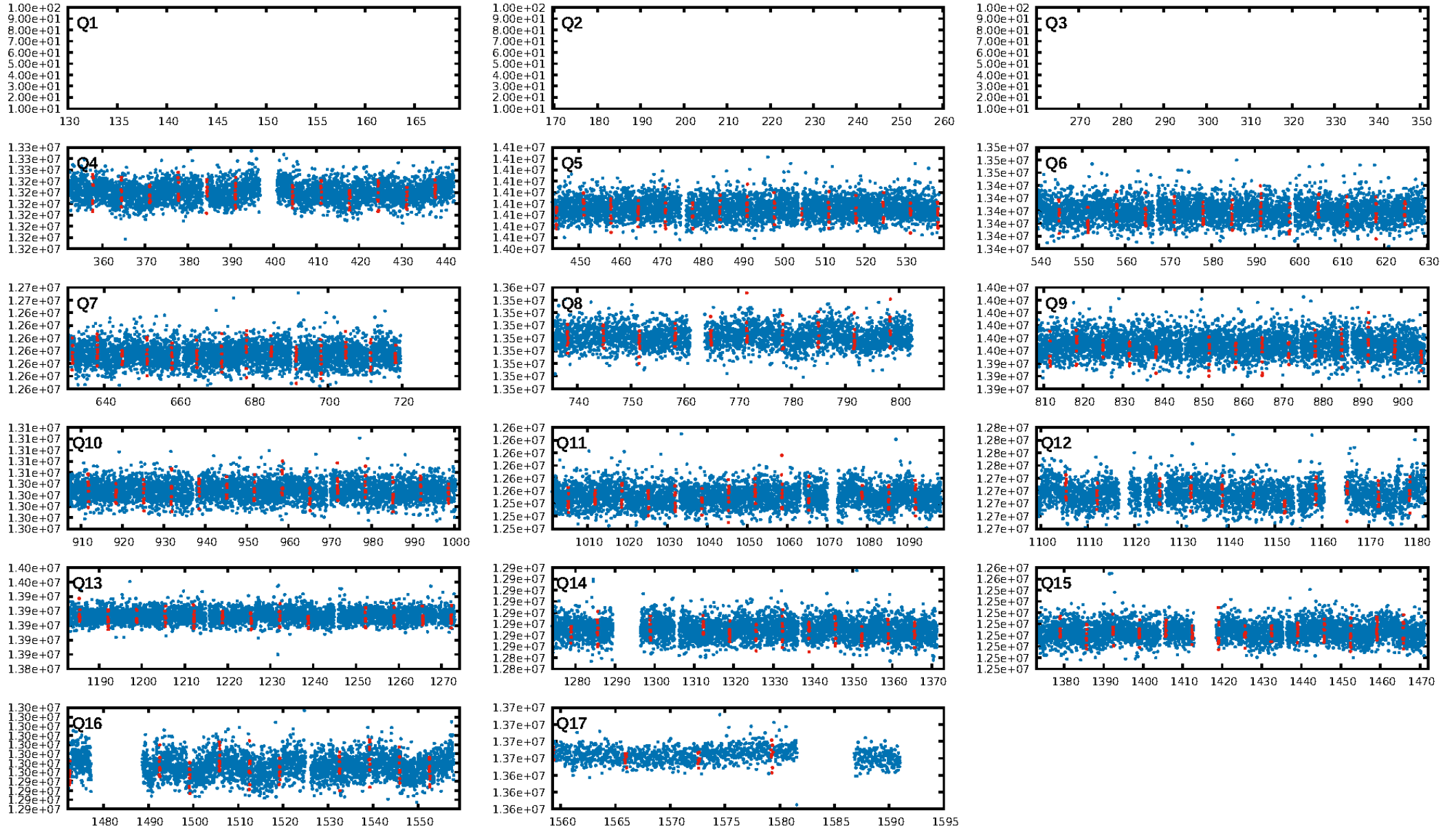
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 99.0%
ModelChiSquareGoF-sig: 100.0%
Bootstrap-pfa: 3.98e-15
RollingBand-fgt: 1.00 [164/164]
GhostDiagnostic-chr: -0.06266
Centroid-sig: 0.0%
Centroid-so: 18.858 arcsec [13.28 σ]
OotOffset-rm: 8.601 arcsec [81.66 σ]
KicOffset-rm: 8.839 arcsec [83.88 σ]
OotOffset-st: 2/3/3/4 [12]
KicOffset-st: 2/3/3/4 [12]
DiffImageQuality-fgm: 1.00 [12/12]
DiffImageOverlap-fno: 1.00 [14/14]

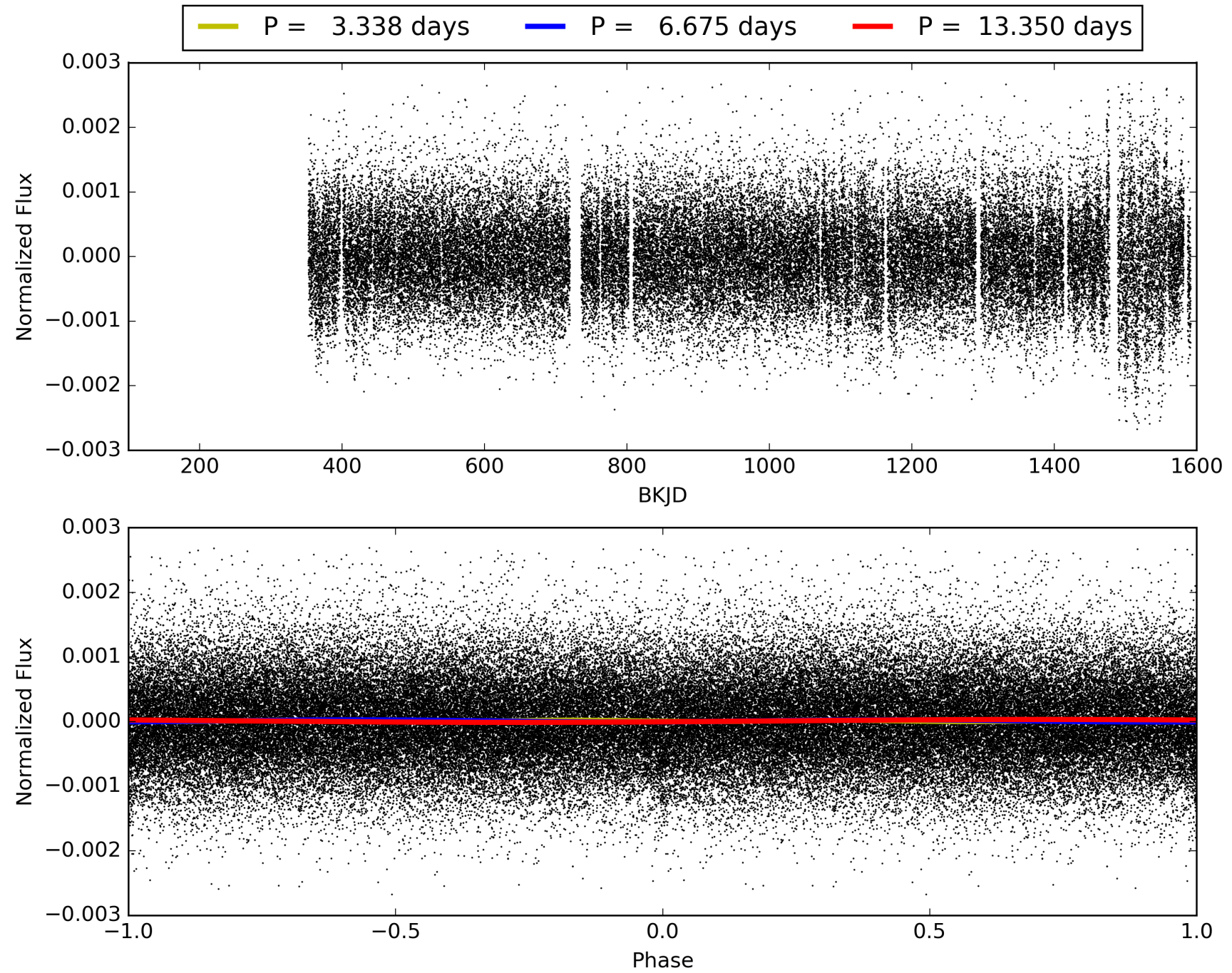
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 08:11:03 Z

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

TCE 005736801-01, PDC Light Curves

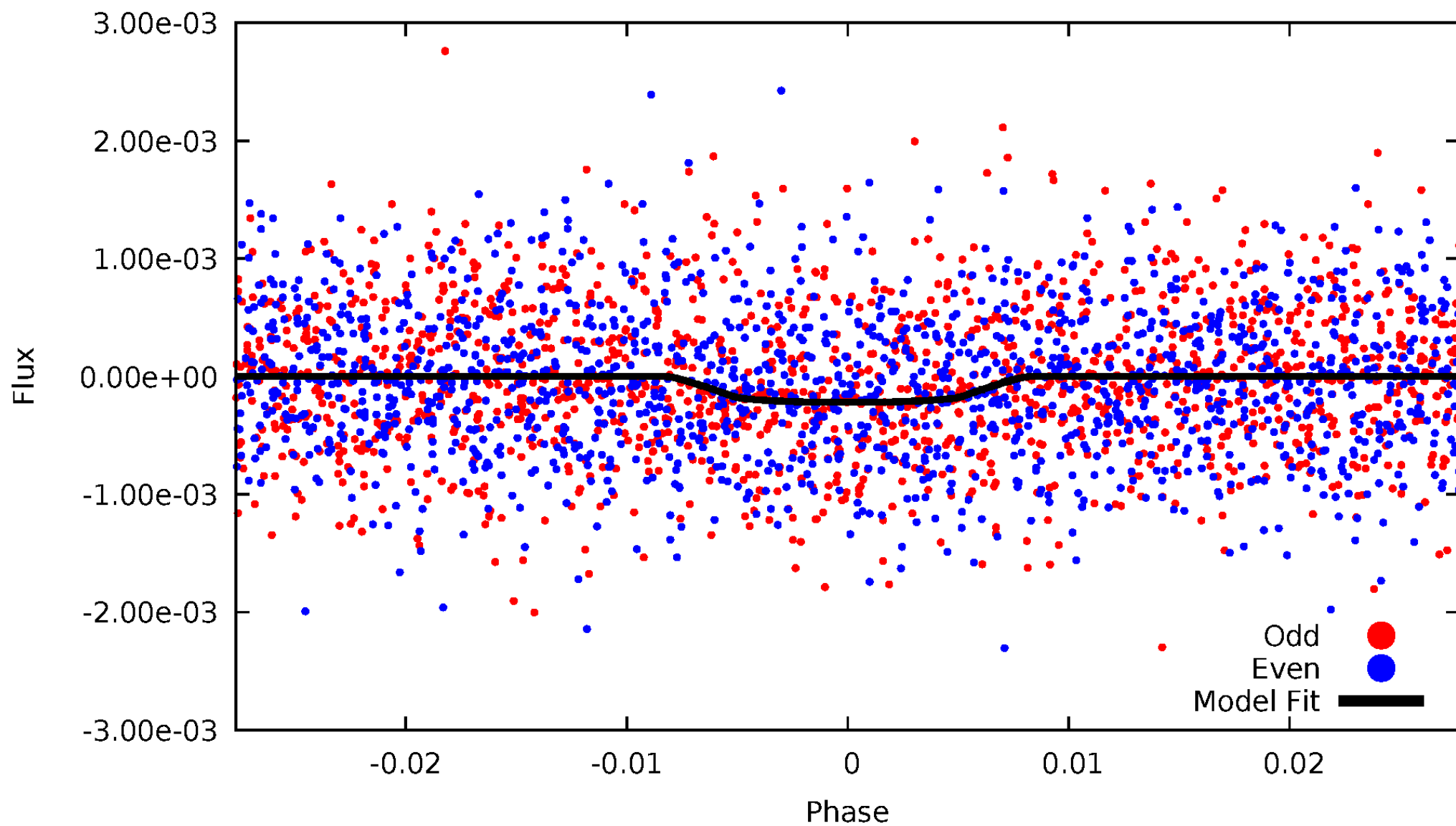


TCE 005736801-01



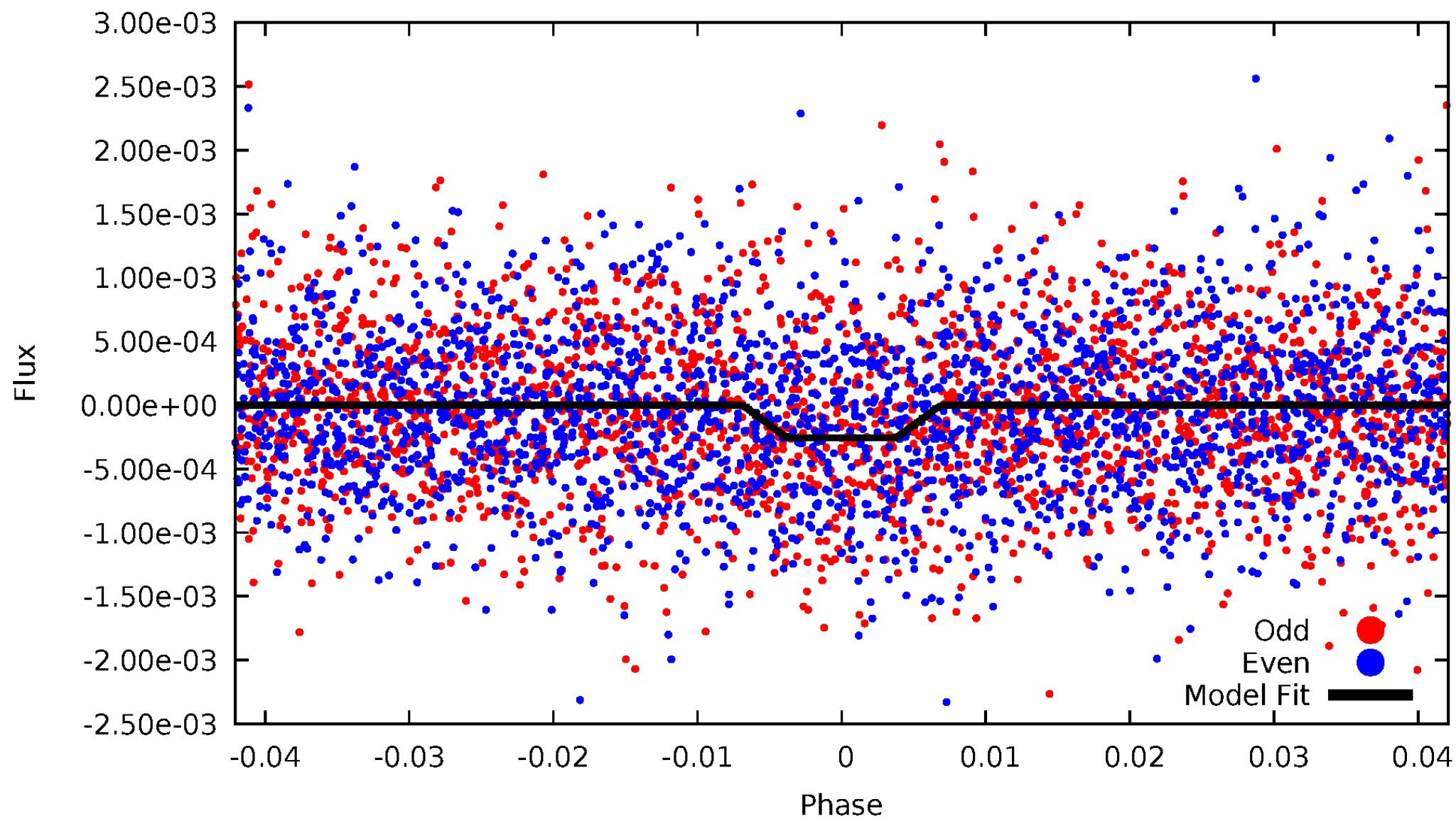
DV Odd/Even

TCE 005736801-01



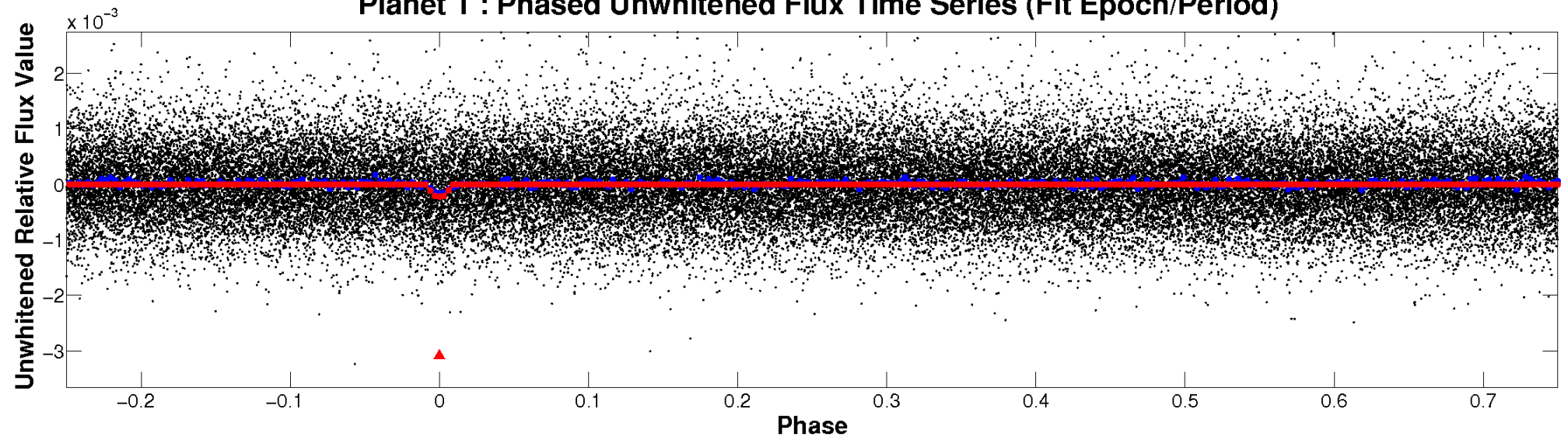
ALT Odd/Even

TCE 005736801-01

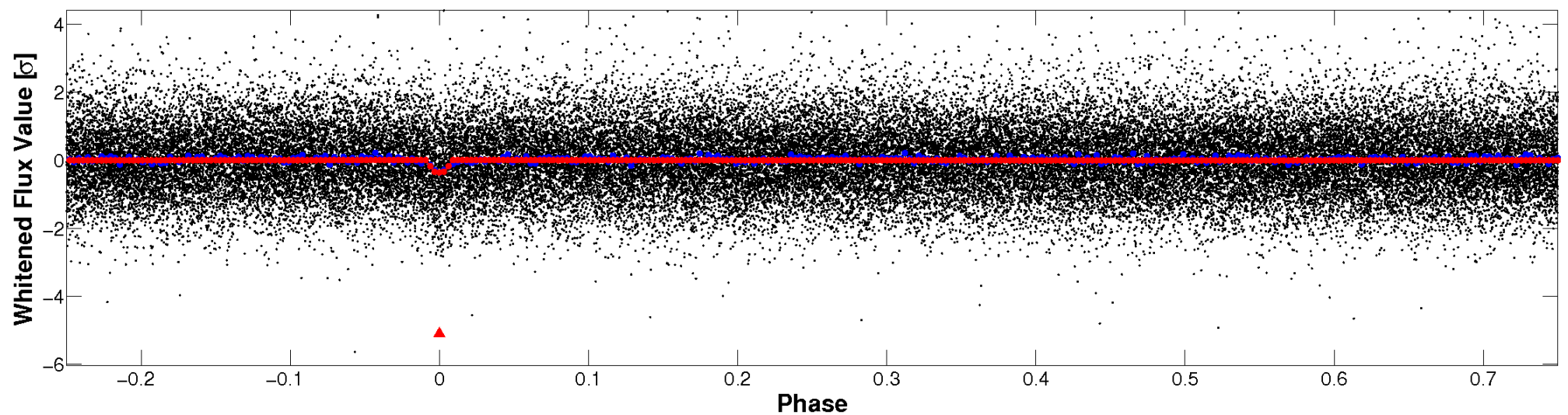


Non-Whitened Vs. Whitened Light Curve

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

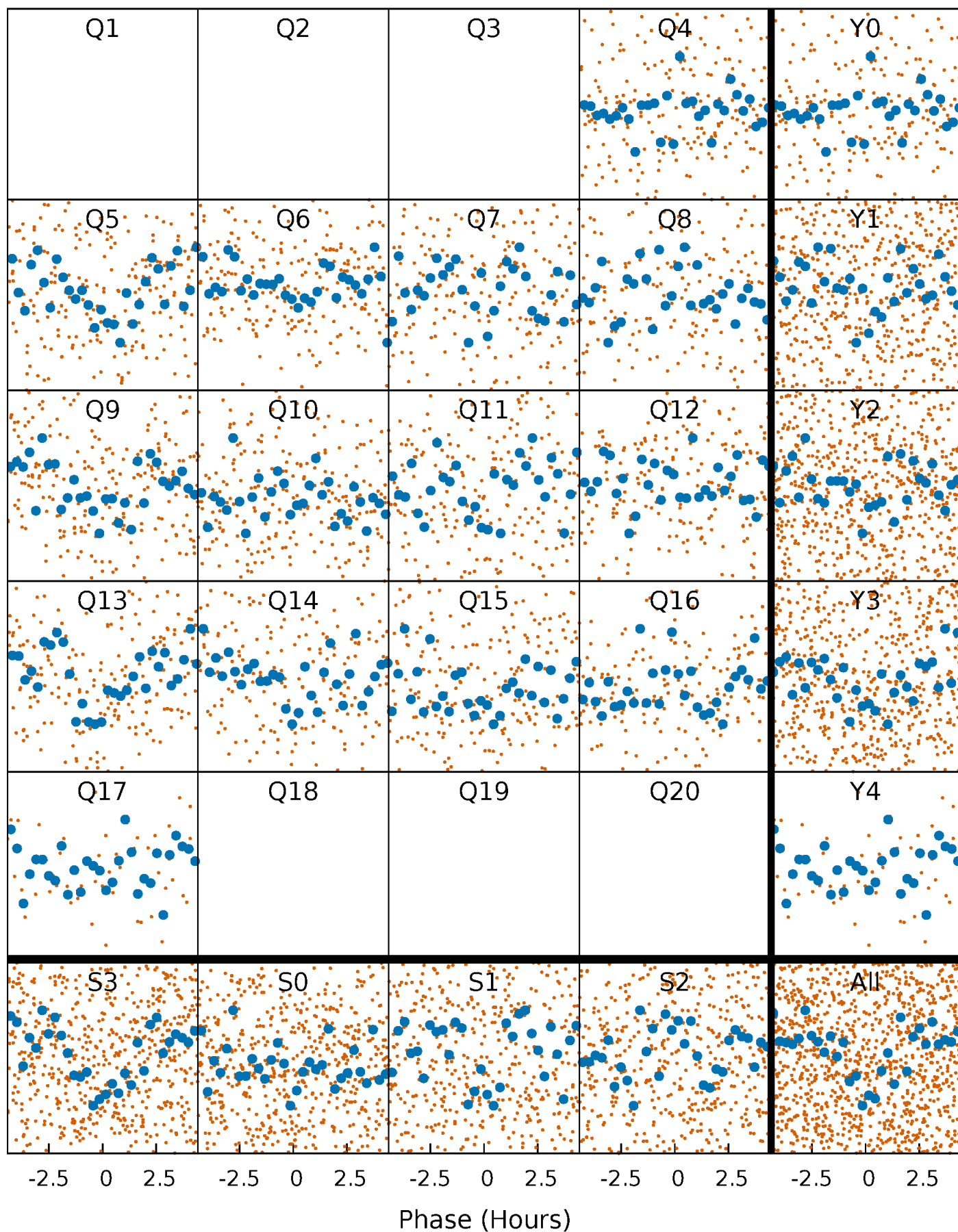


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



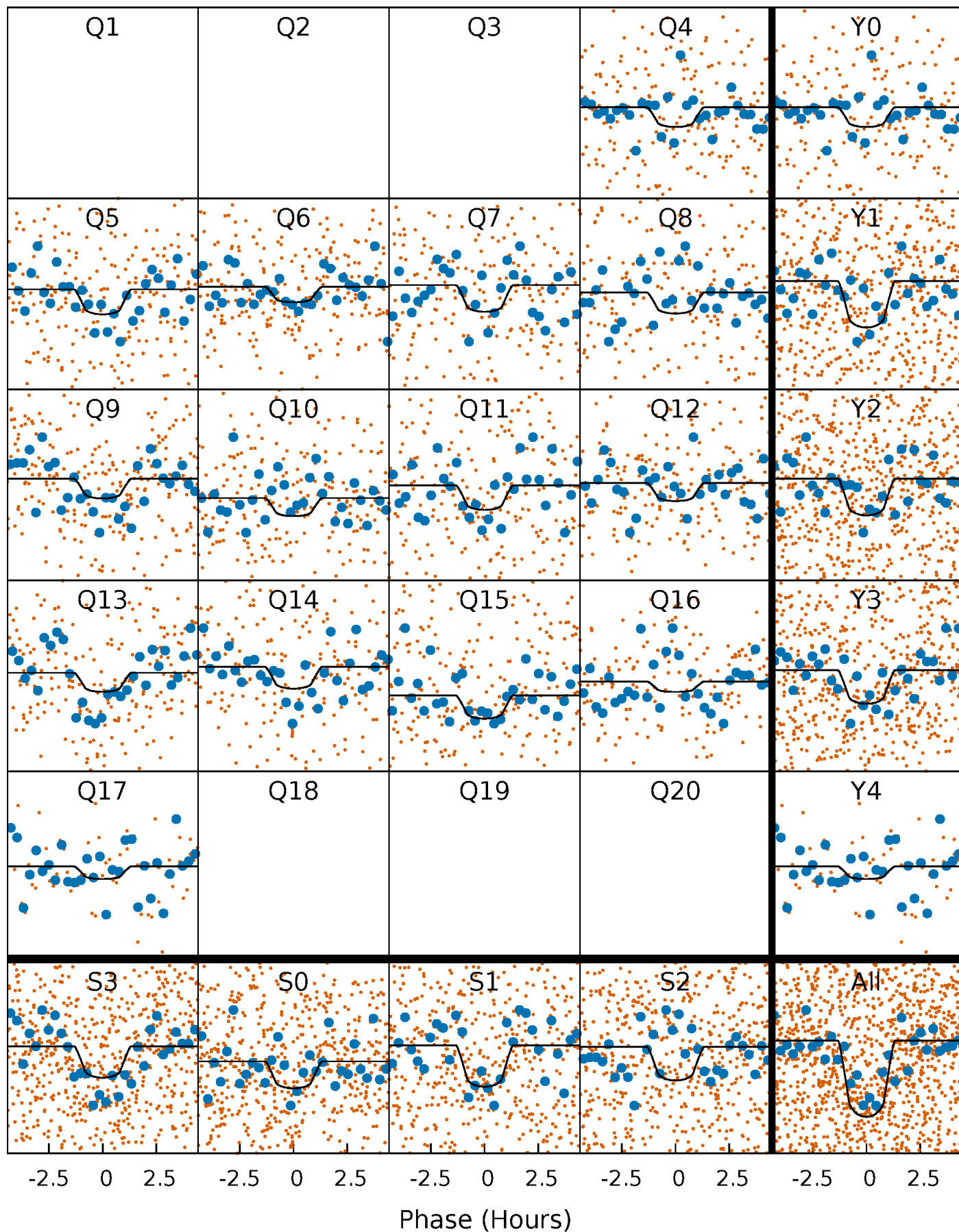
PDC Quarter-Phased Transit Curves

TCE 005736801-01 P= 6.675155 Days $T_0=137.451841$ (BKJD)



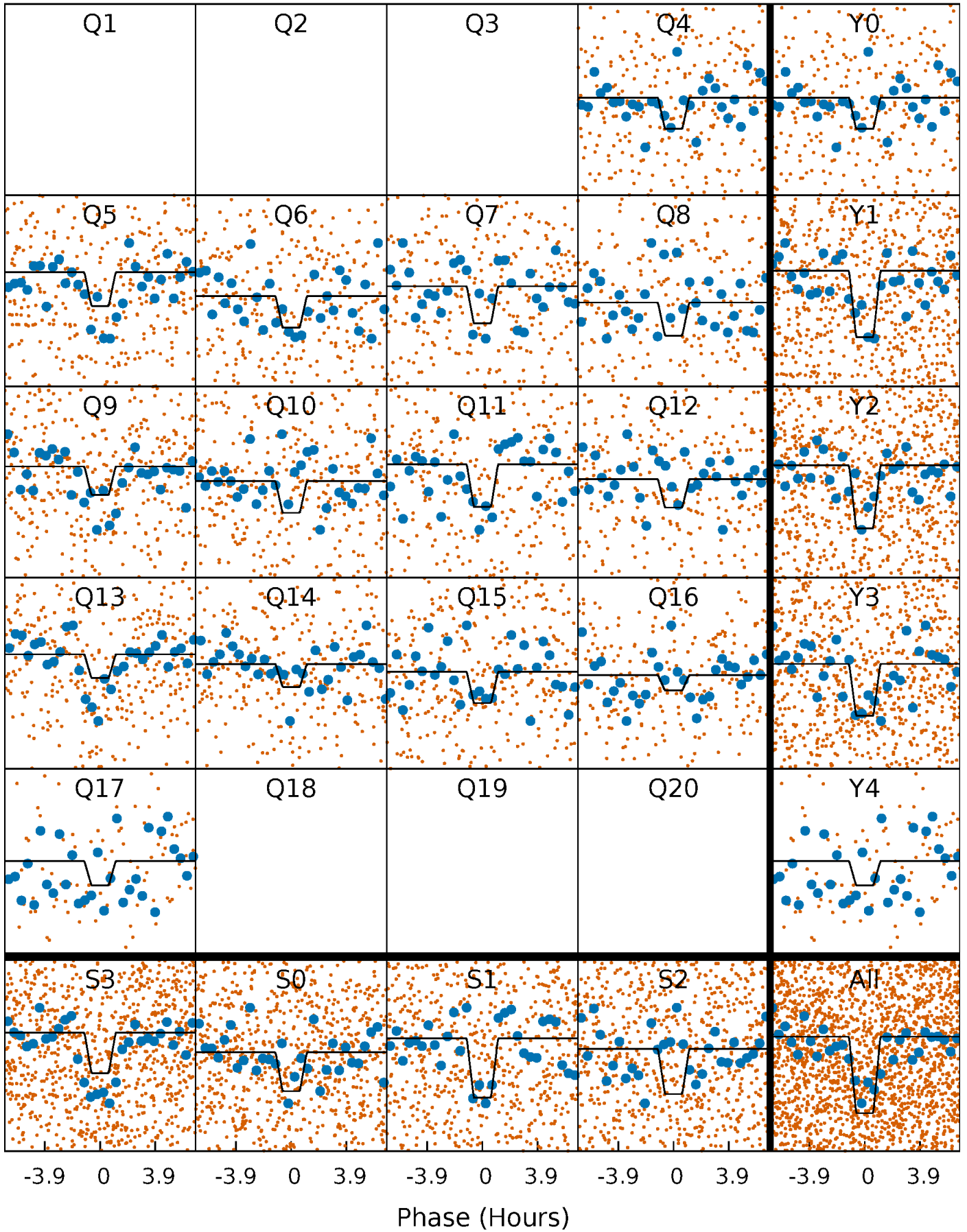
DV Quarter-Phased Transit Curves

TCE 005736801-01 P= 6.675155 Days $T_0=137.451841$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

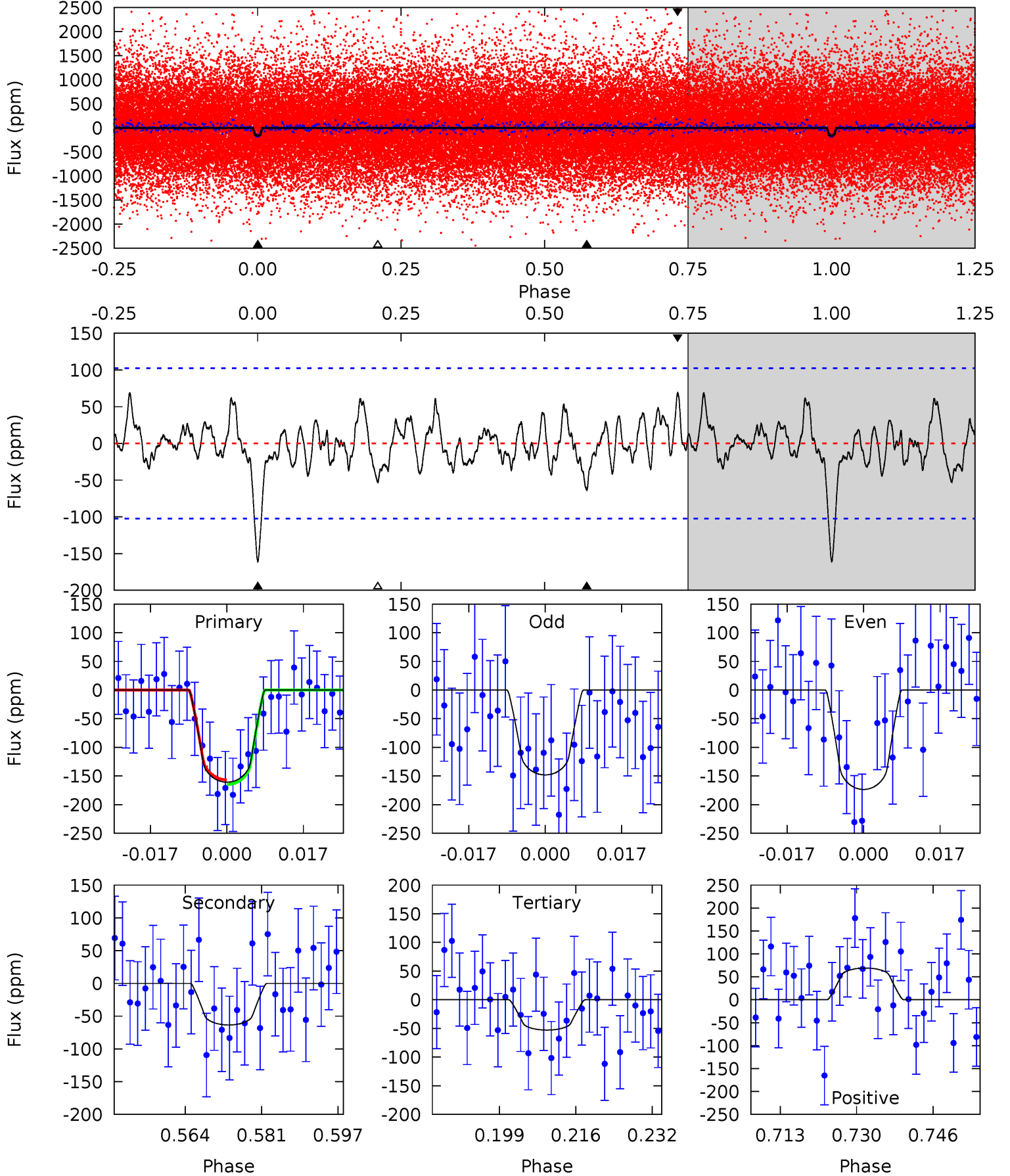
TCE 005736801-01 P= 6.675130 Days $T_0=137.455754$ (BKJD)



DV Model-Shift Uniqueness Test

005736801-01, P = 6.675155 Days, E = 137.451841 Days

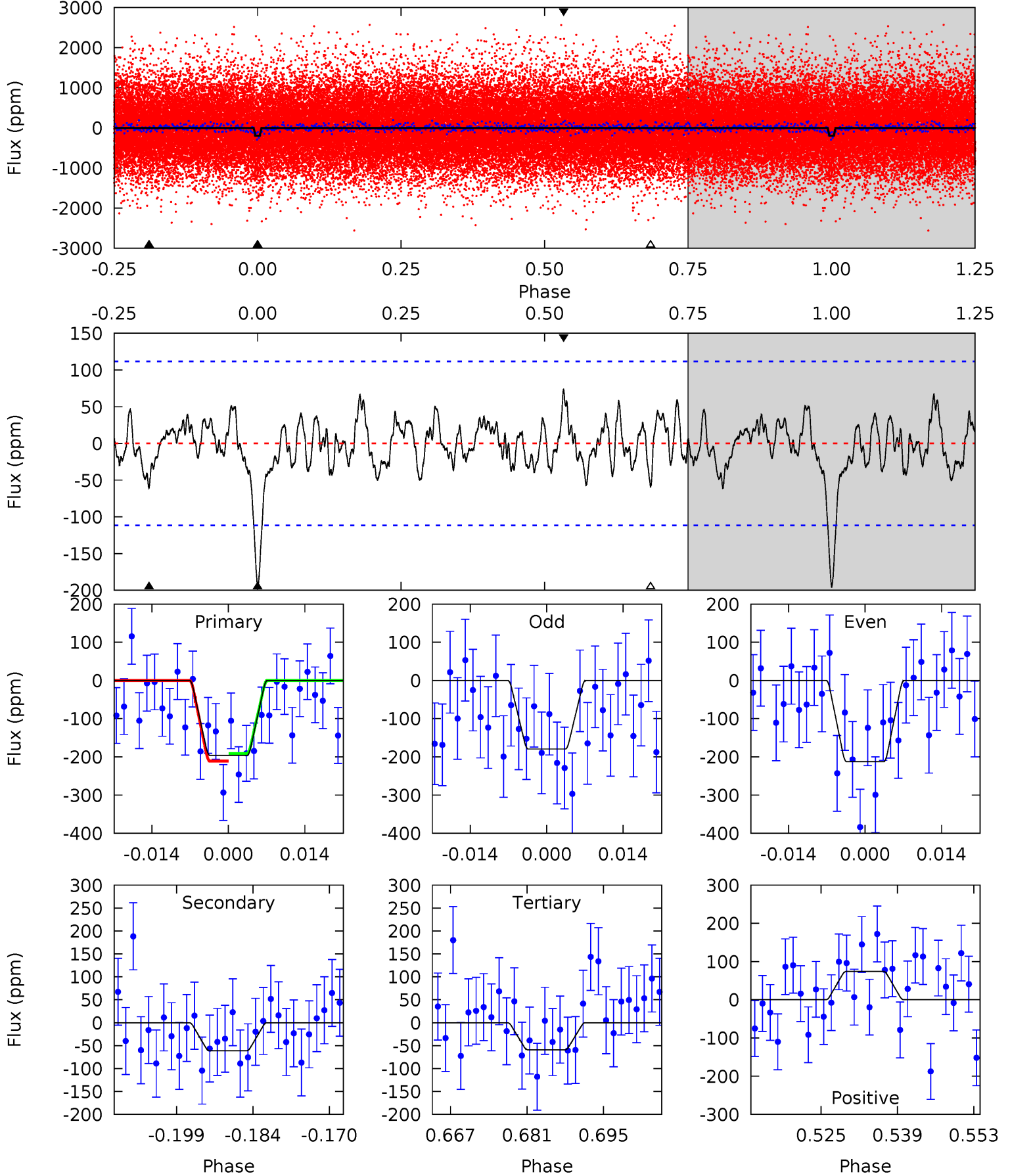
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.75	3.06	2.55	3.33	4.93	2.40	1.15	5.20	4.42	0.51	-0.27	0.61	1.05	0.30	0.20



Alt Model-Shift Uniqueness Test

005736801-01, P = 6.675130 Days, E = 137.455754 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.71	2.71	2.62	3.29	4.96	2.45	1.13	6.09	5.42	0.09	-0.58	0.74	1.05	0.27	0.45



Stellar Parameters For KIC 005736801

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5774^{+172}_{-189}	$4.567^{+0.046}_{-0.184}$	$-0.300^{+0.300}_{-0.300}$	$0.818^{+0.224}_{-0.075}$	$0.907^{+0.100}_{-0.110}$	$2.332^{+0.442}_{-1.112}$
	+3%/-3%	+1%/-4%	+100%/-100%	+27%/-9%	+11%/-12%	+19%/-48%
Source	KIC0	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 005736801-01 / KOI 7739.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-64 ± 21	$1.92^{+1.74}_{-1.24}$	1269^{+87}_{-60}	3871^{+2019}_{-722}	38^{+267}_{-28}
Alt.	-61 ± 23	$1.91^{+1.61}_{-1.20}$	1269^{+74}_{-60}	3865^{+1937}_{-743}	39^{+258}_{-28}

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 $A_{obs} \gg 1.0$

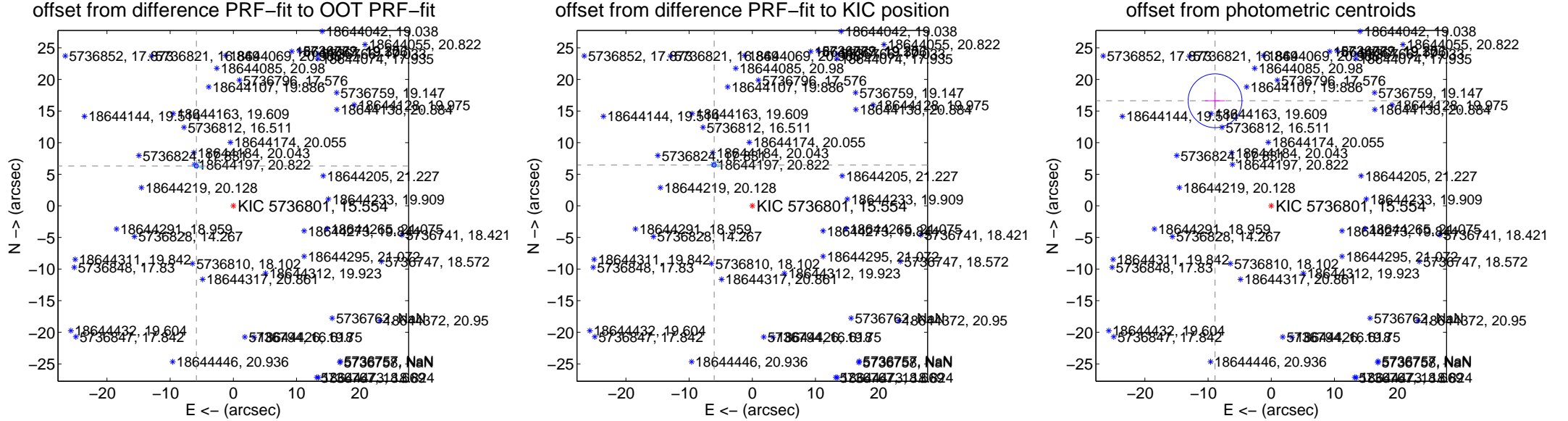
DV Centroid Data

Supplemental centroid analysis for 005736801-01. Kepler magnitude: 15.55. Transit SNR 8.19

There are 12 quarters with good PRF difference image offsets

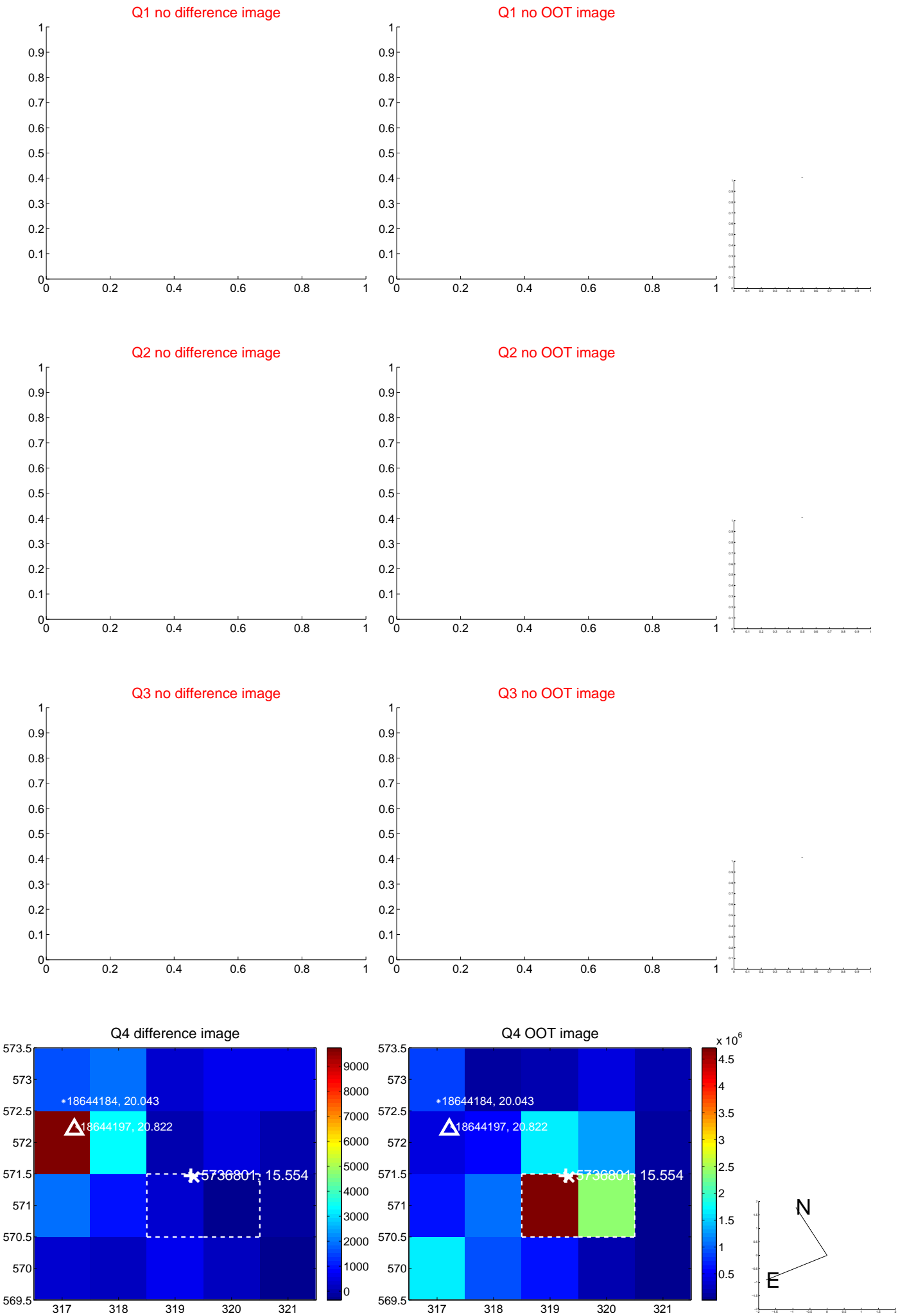
The direct PRF centroid is offset from the target star catalog position by about 0.23 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	8.601 \pm 0.105	81.66	5.845 \pm 0.111	6.310 \pm 0.100
PRF-fit source offset from KIC position	8.839 \pm 0.105	83.88	6.036 \pm 0.111	6.457 \pm 0.100
photometric centroid source offset	18.86 \pm 1.42	13.28	8.89 \pm 1.55	16.63 \pm 1.38

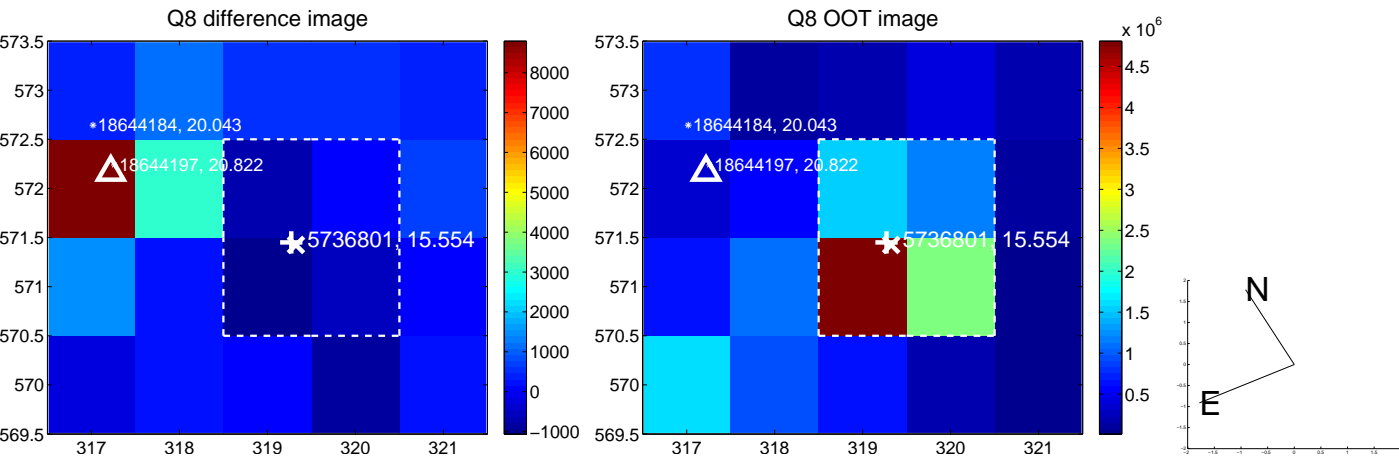
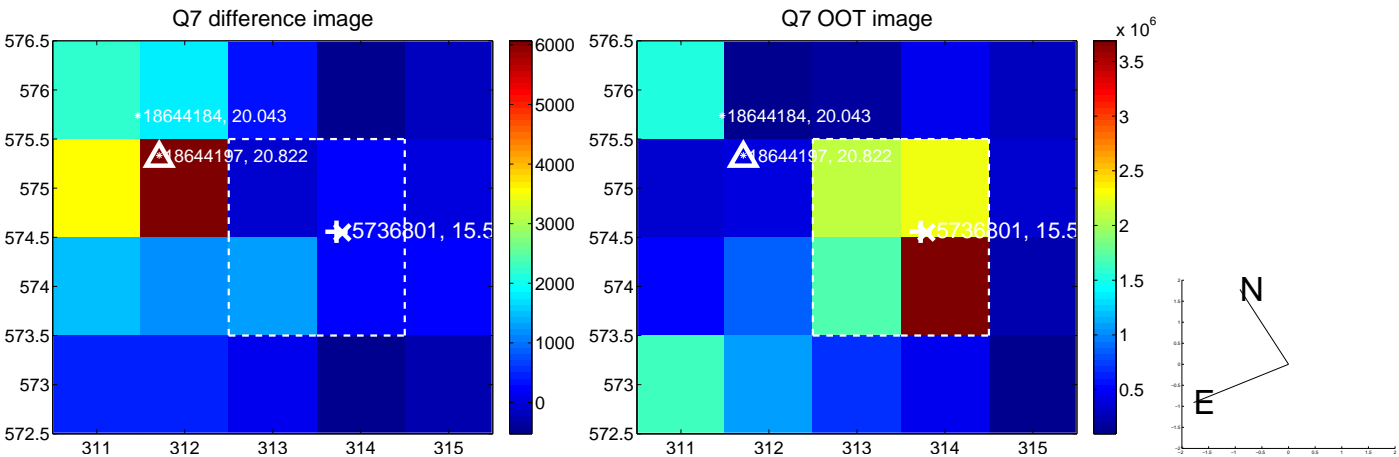
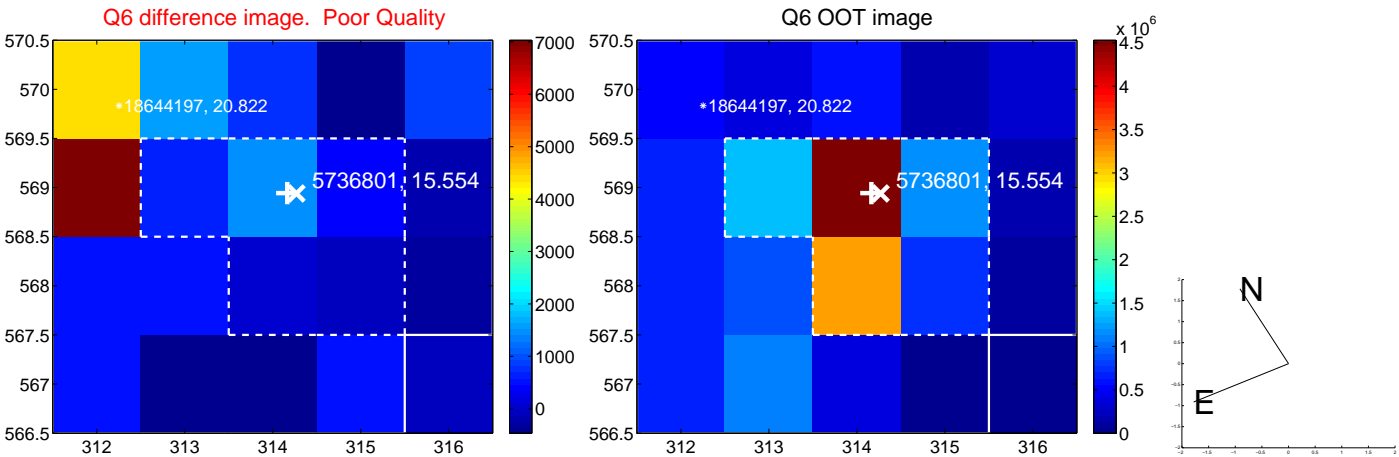
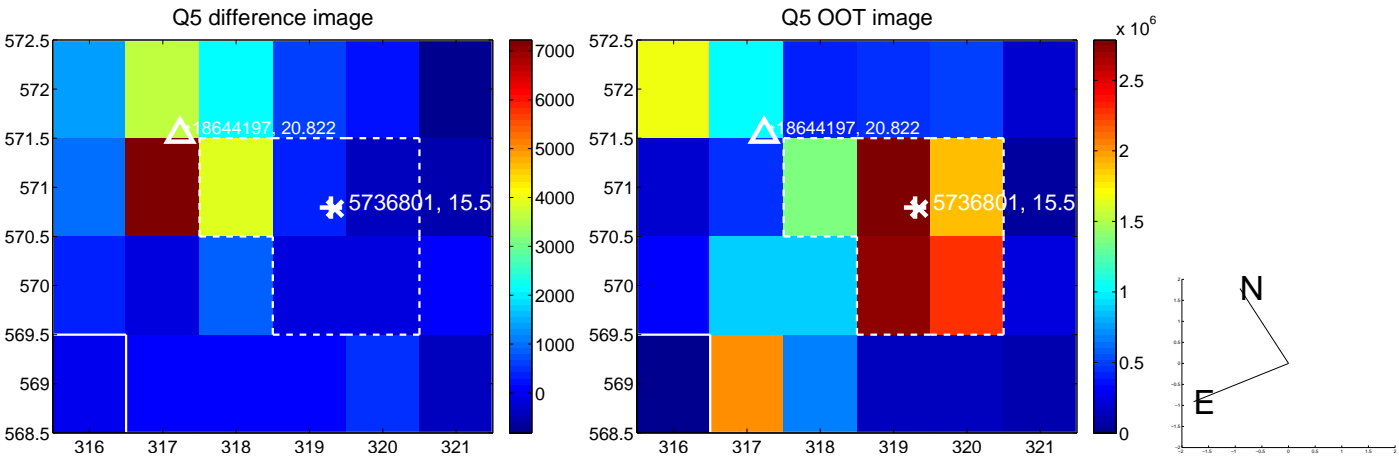


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

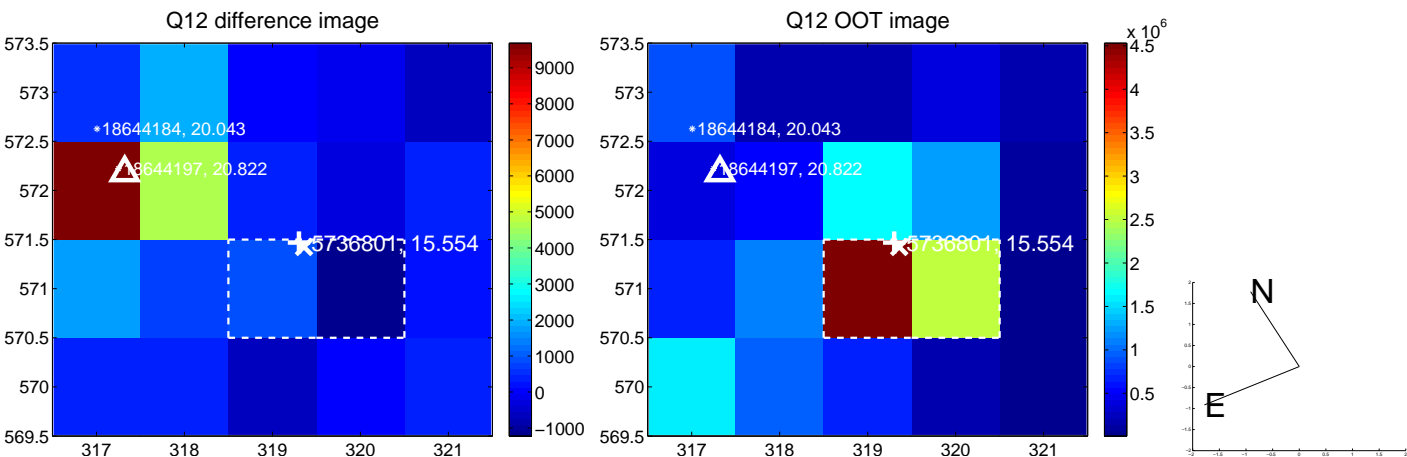
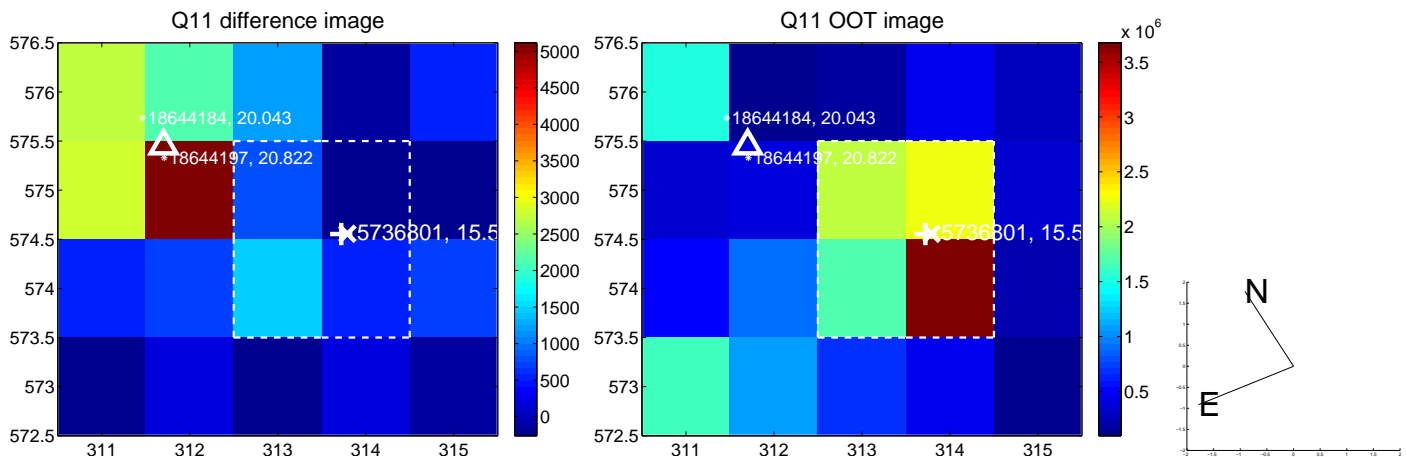
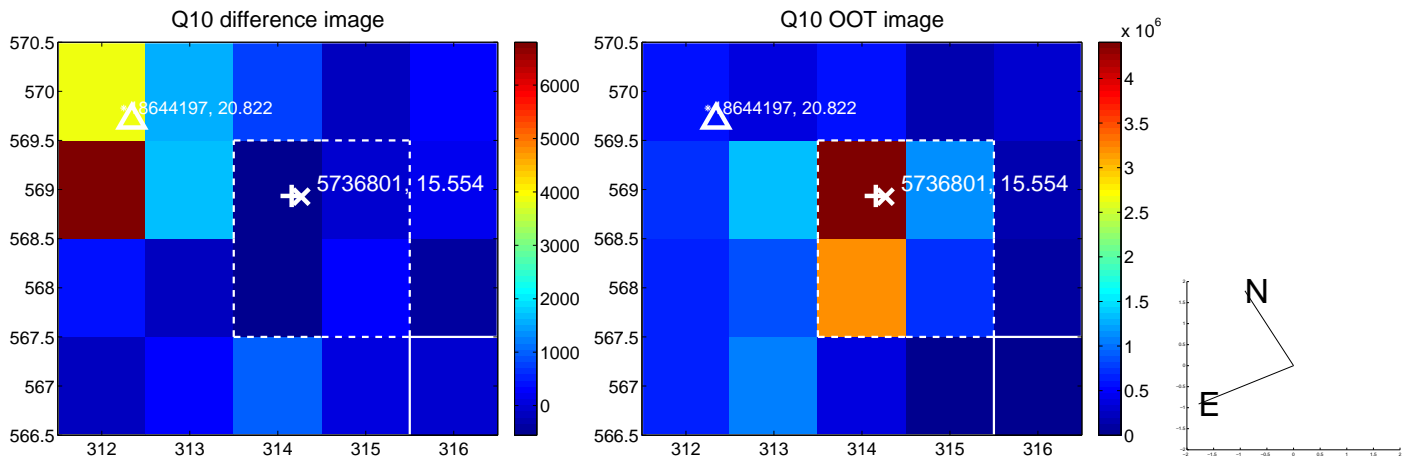
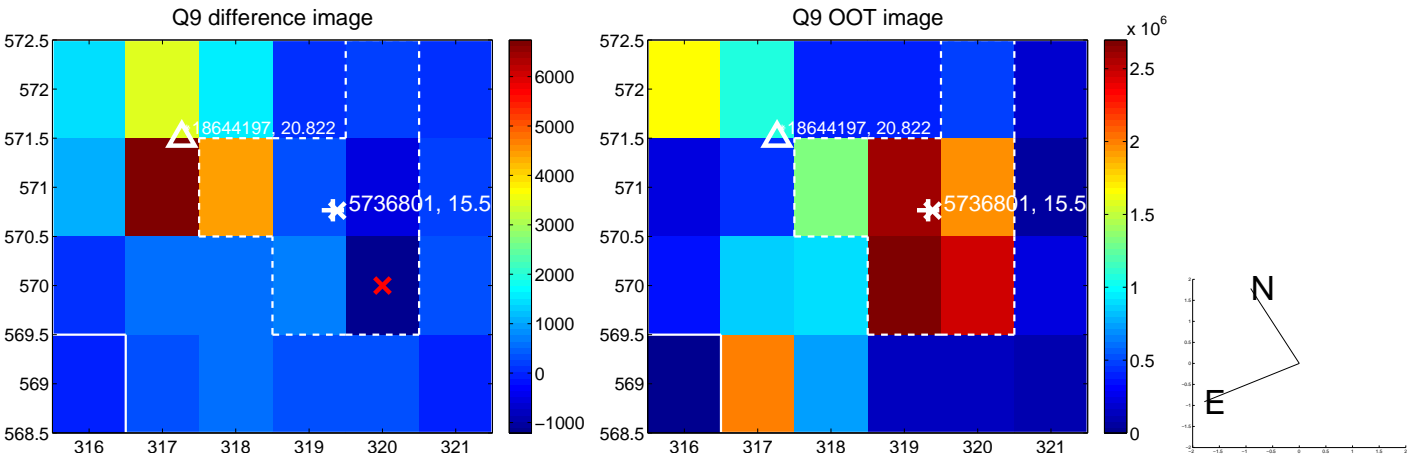
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



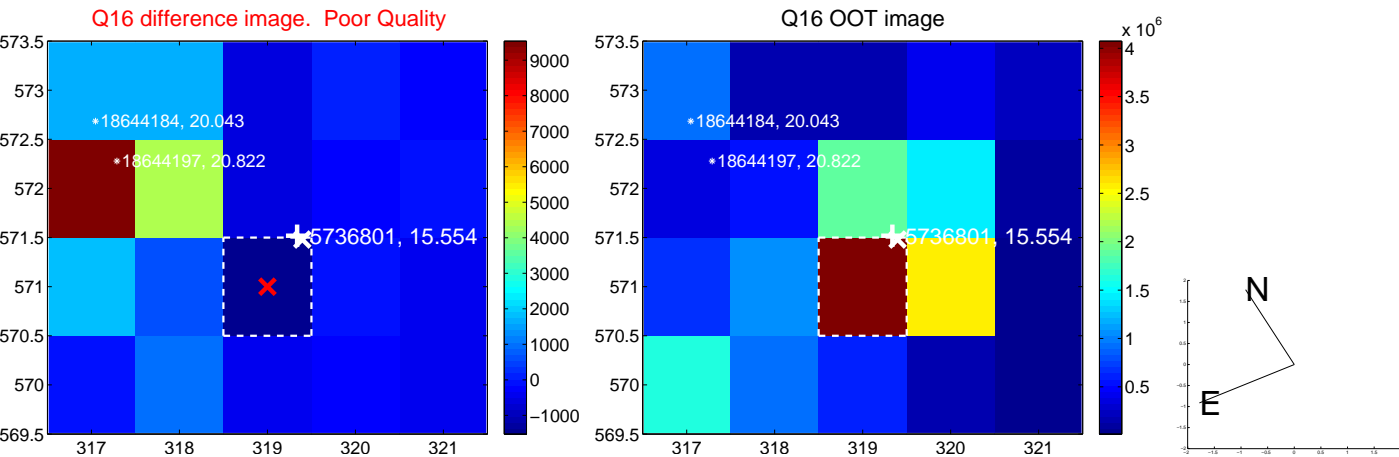
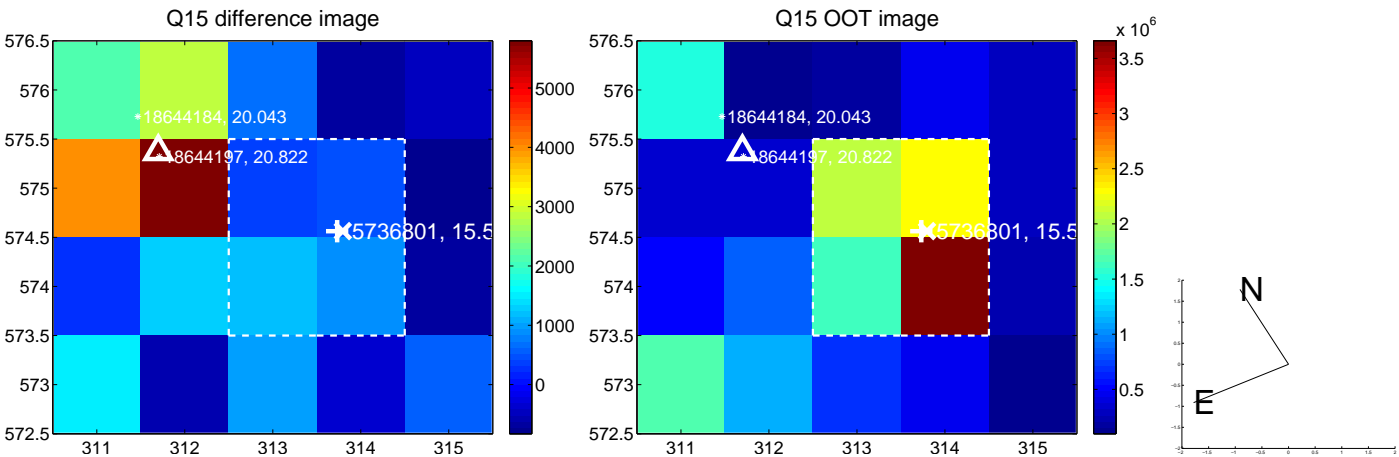
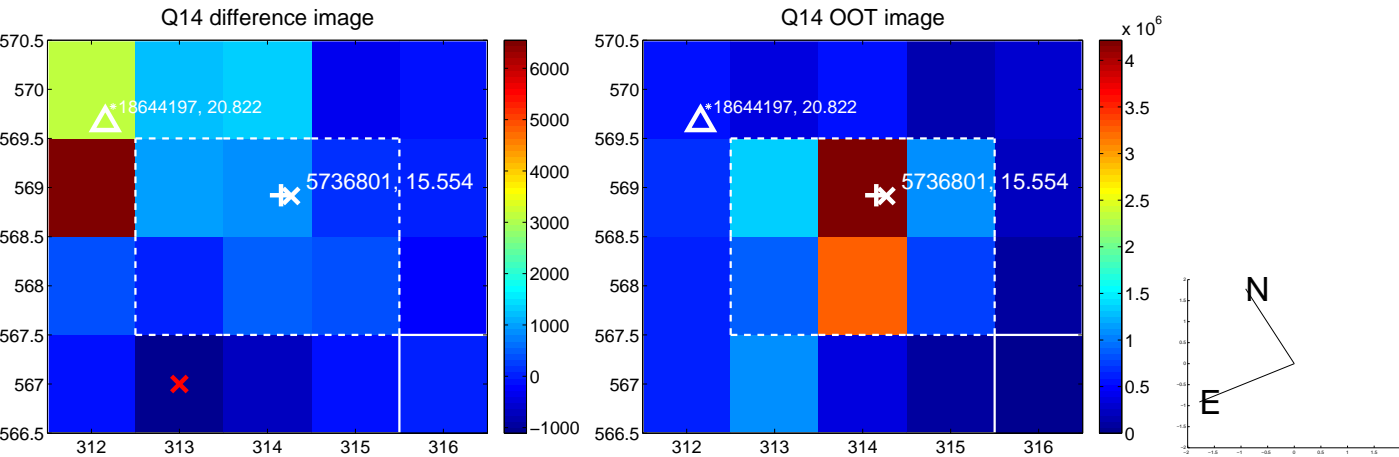
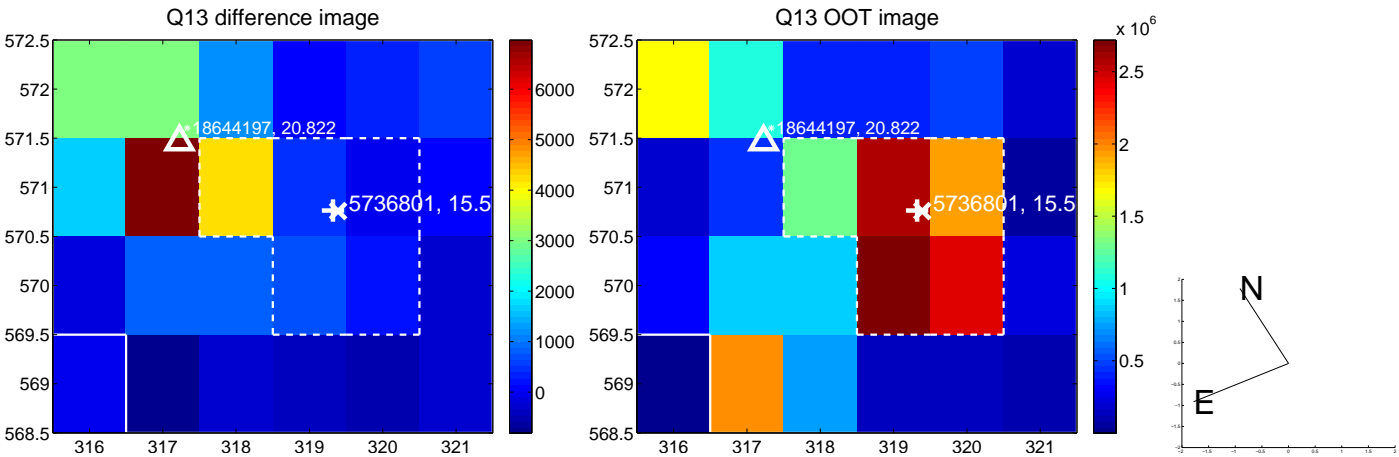
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



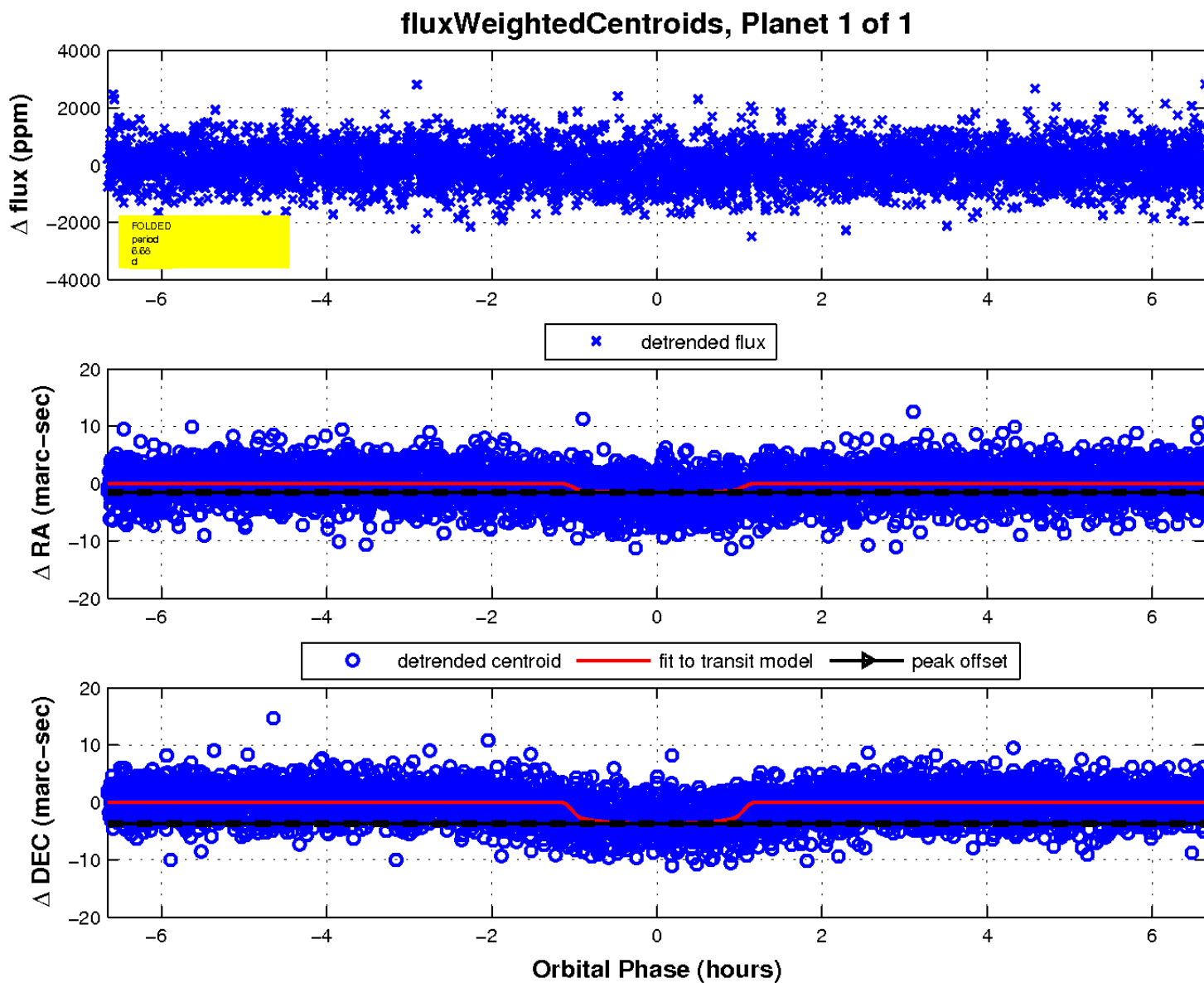
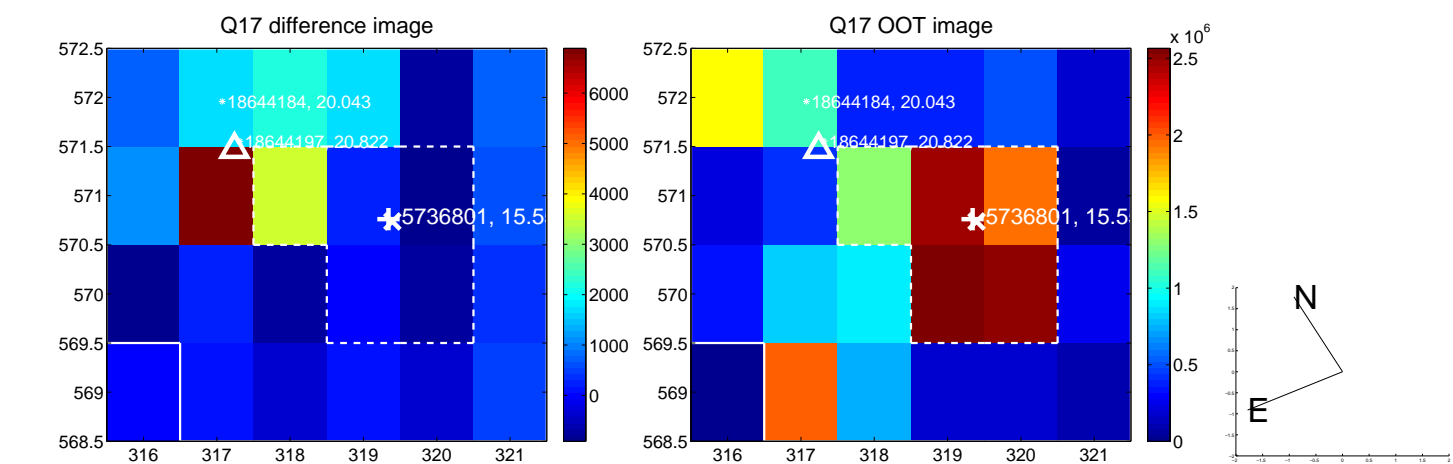
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

