

KIC 007362301

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})
007362301-01	OBS	No	0.566775	131.822854	24.3	3.212	11.1	9.3	0.97	5952	0.57	6063.23

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007362301-01	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.

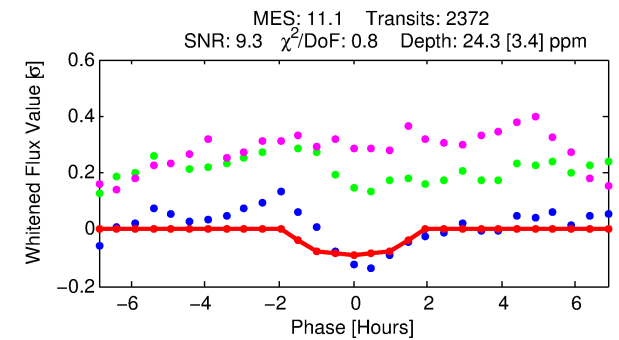
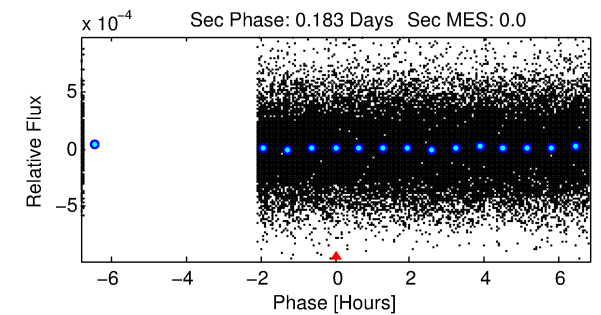
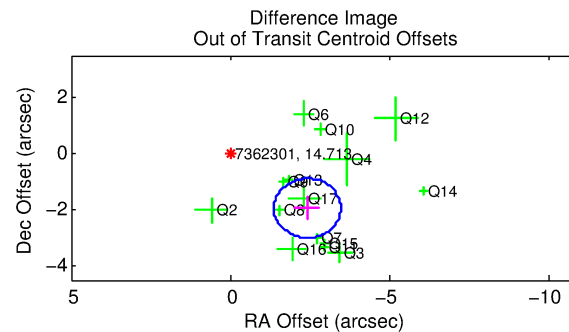
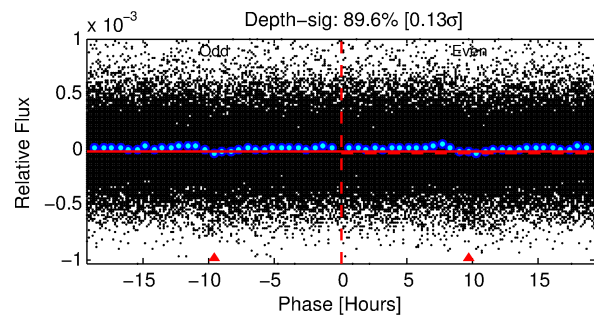
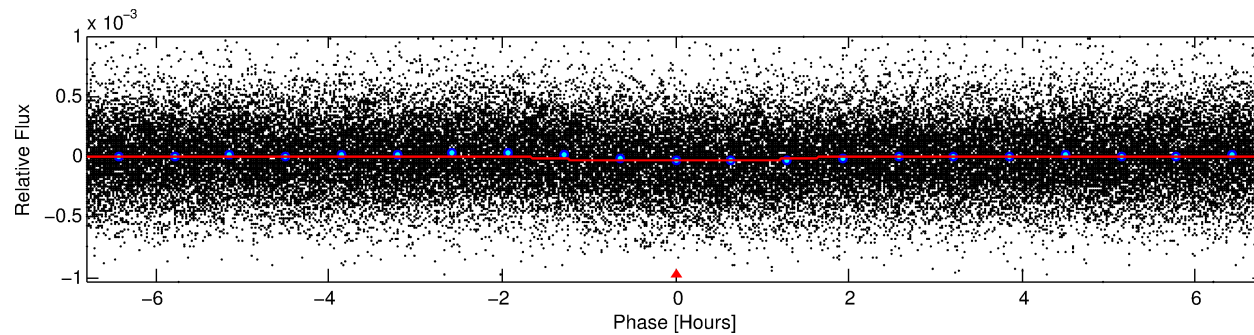
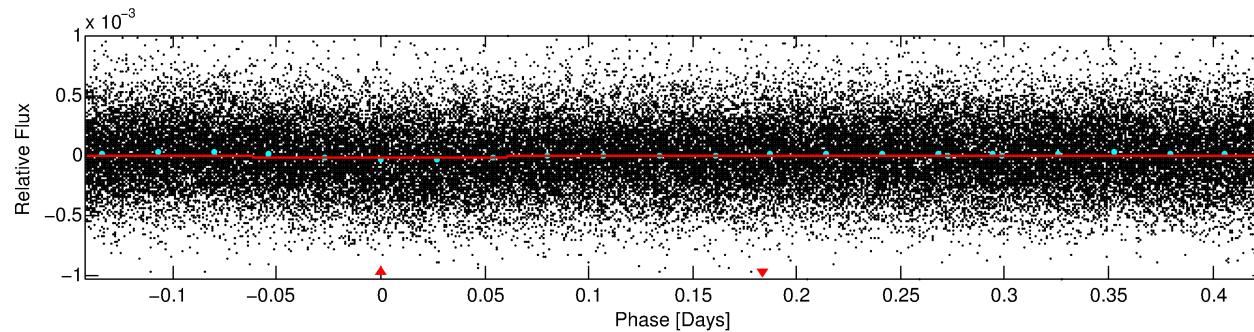
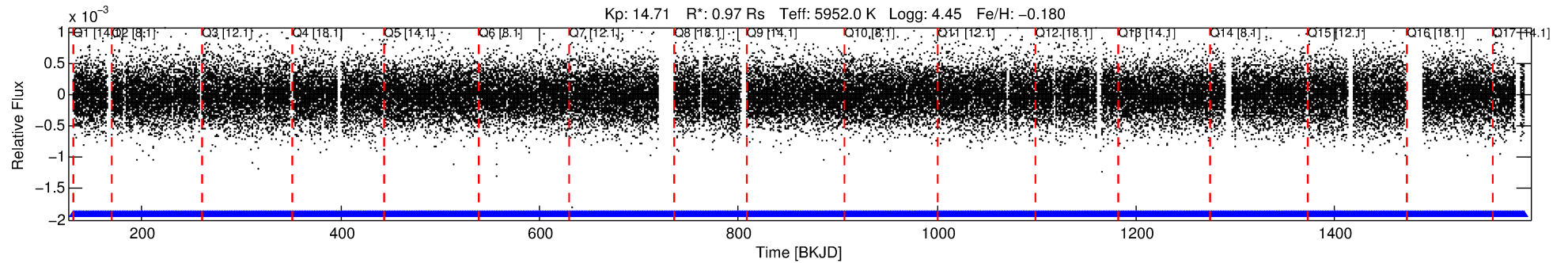
Ephemeris Match Information For 007362301-01

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
007362301-01	7362301	RR-Lyr-pri	7198959	1:1	848.7	-6	213	7.86	14.71	25971.00	Direct-PRF	0	4.51	19.09

Notes: P₁:P₂ 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. 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 $\sigma_P < 5.0$ 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: 7362301 Candidate: 1 of 1 Period: 0.567 d



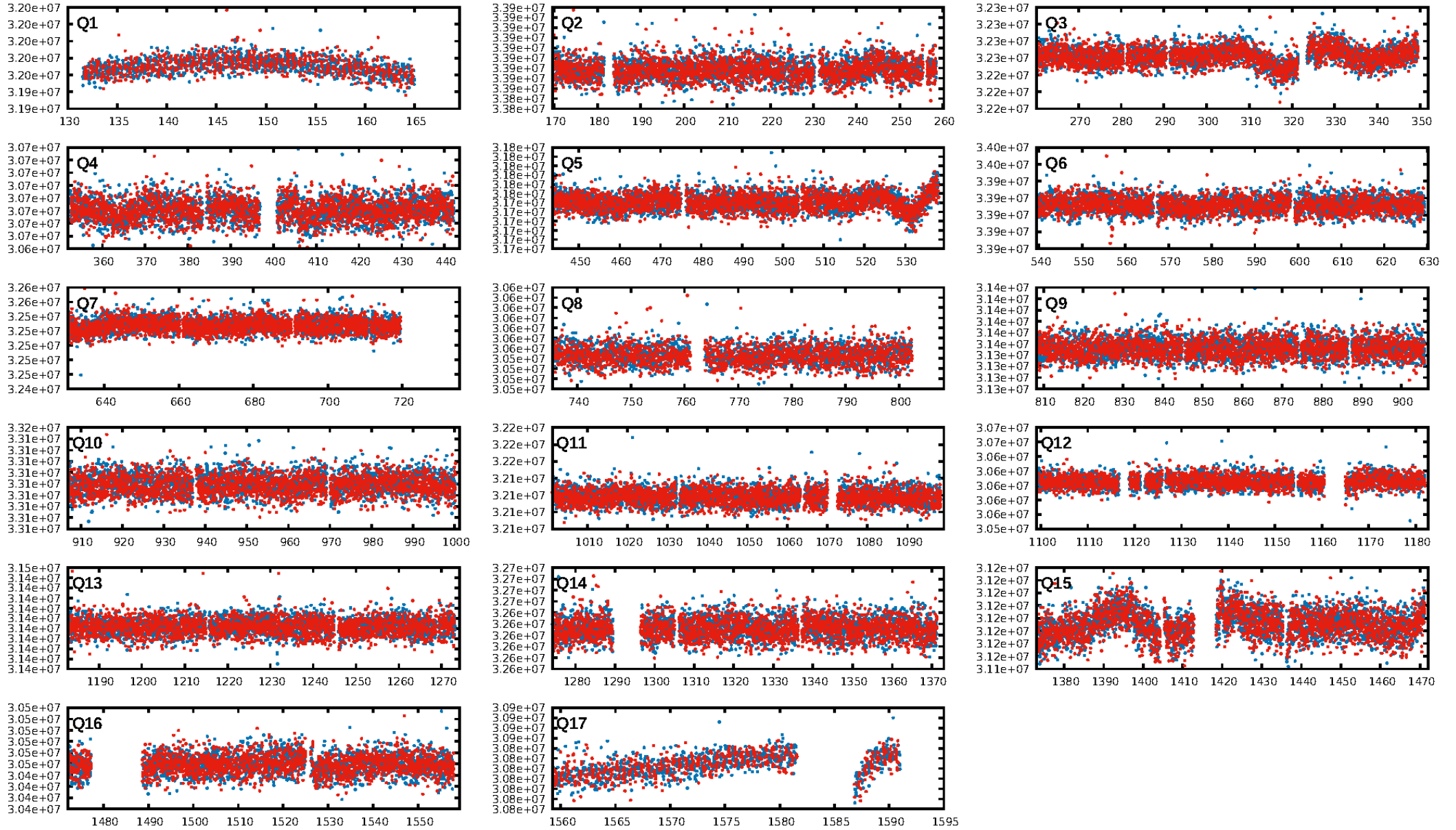
DV Fit Results:

Period = 0.56678 [0.00001] d
Epoch = 131.8229 [0.0042] BKJD
Rp/R* = 0.0054 [0.0046]
a/R* = 1.11 [0.96]
b = 0.91 [0.91]
Seff = 6063.23 [2321.83]
Teff = 2250 [215] K
Rp = 0.57 [0.52] Re
a = 0.0133 [0.0033] AU
Ag = N/A
Teffp = N/A

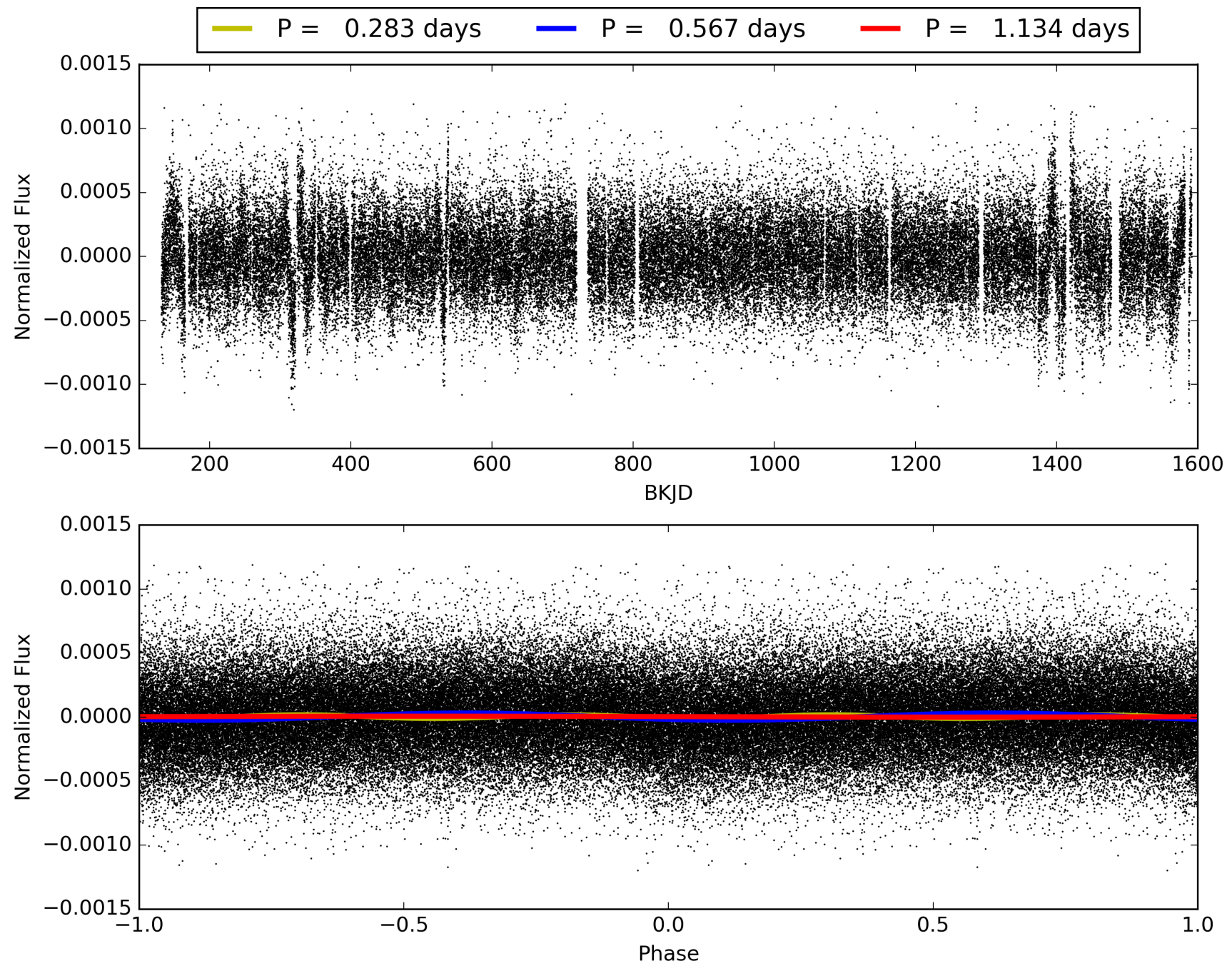
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 2.64e-19
RollingBand-fgt: 1.00 [2266/2266]
GhostDiagnostic-chr: 0.1138
Centroid-sig: 0.8%
Centroid-so: 2.881 arcsec [2.17σ]
OotOffset-rm: 3.108 arcsec [8.84σ]
KicOffset-rm: 3.221 arcsec [8.79σ]
OotOffset-st: 4/4/4/3 [15]
KicOffset-st: 4/4/4/3 [15]
DiffImageQuality-fgm: 0.00 [0/15]
DiffImageOverlap-fno: 1.00 [17/17]

TCE 007362301-01, PDC Light Curves

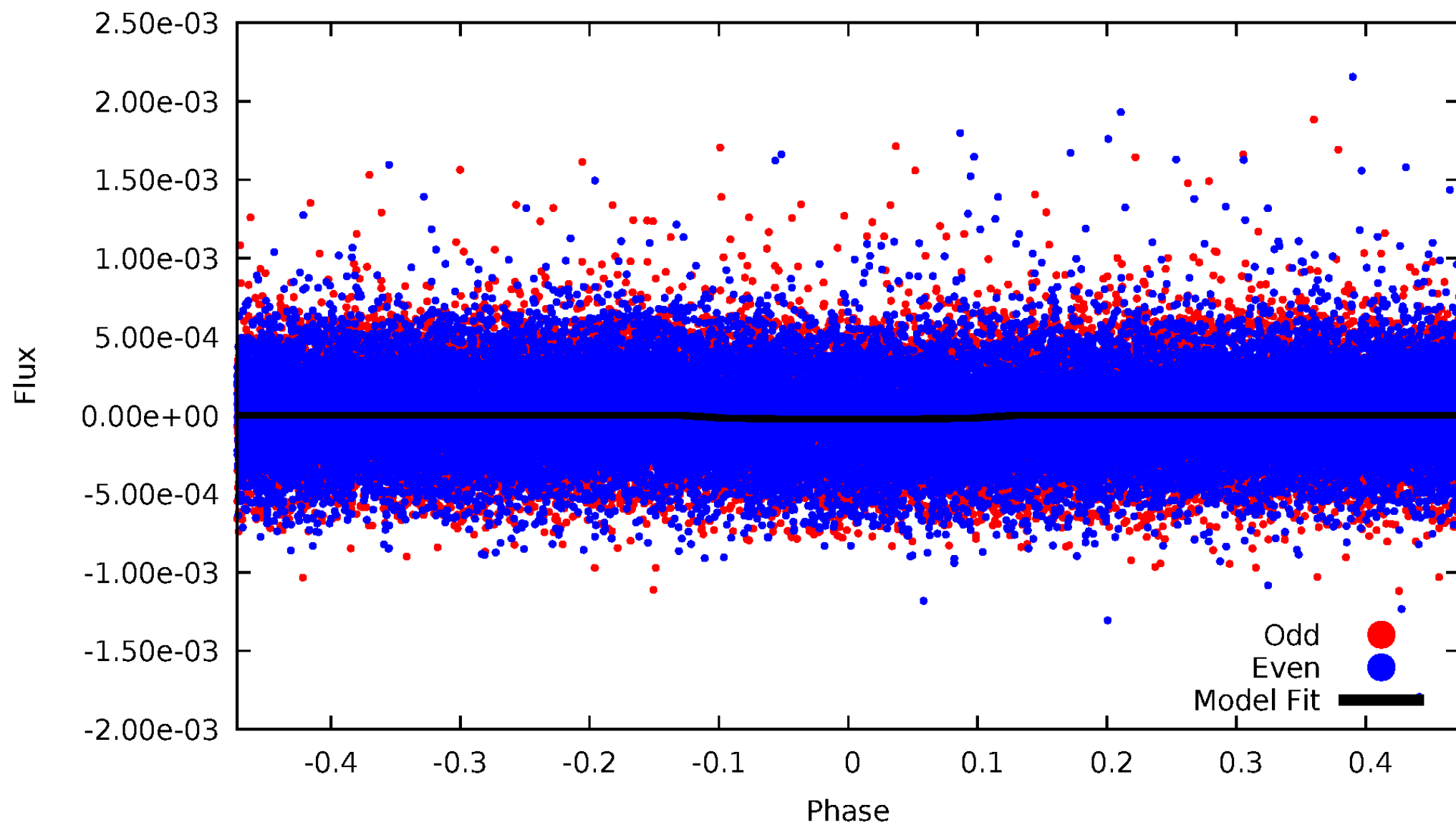


TCE 007362301-01



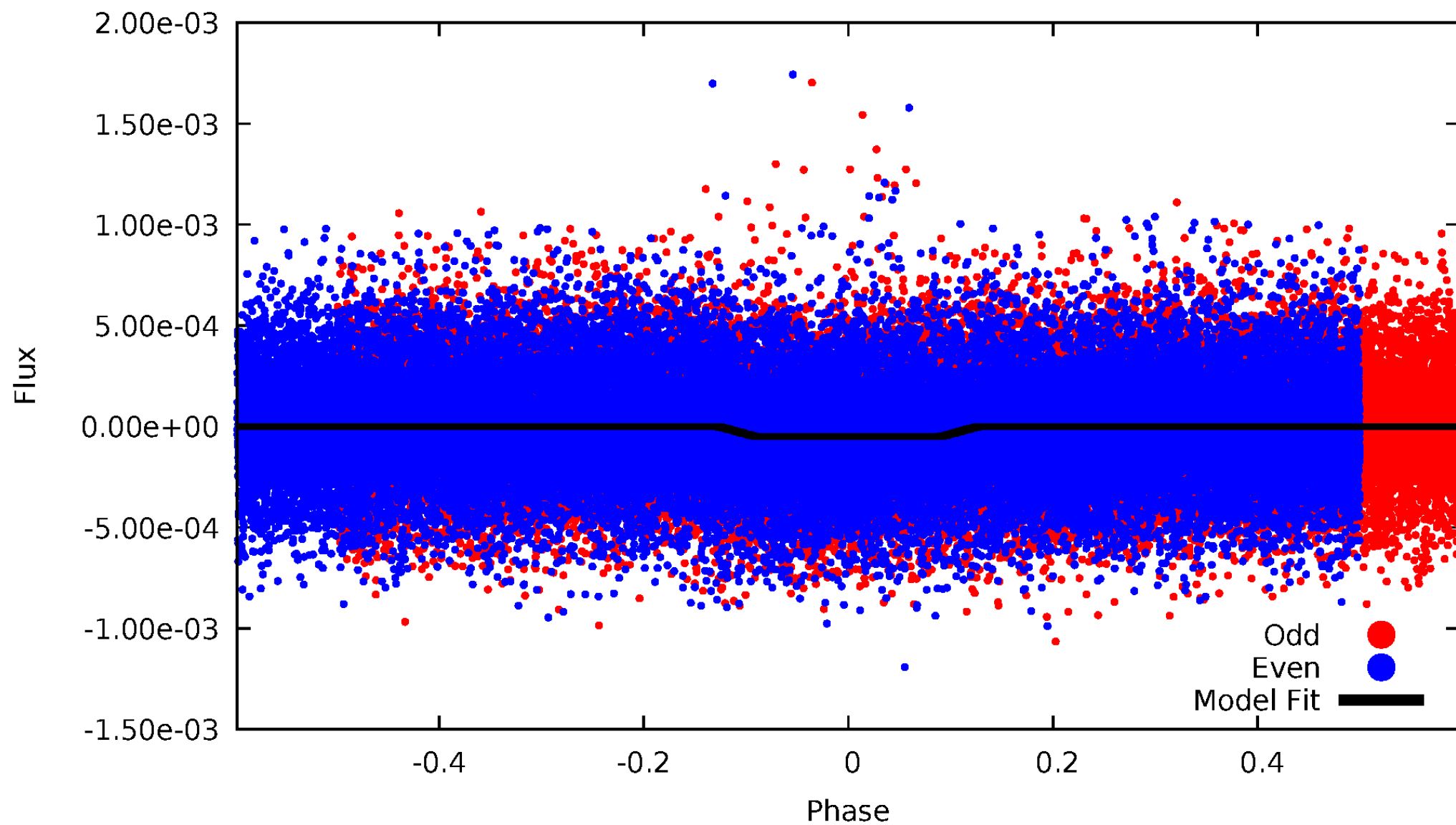
DV Odd/Even

TCE 007362301-01



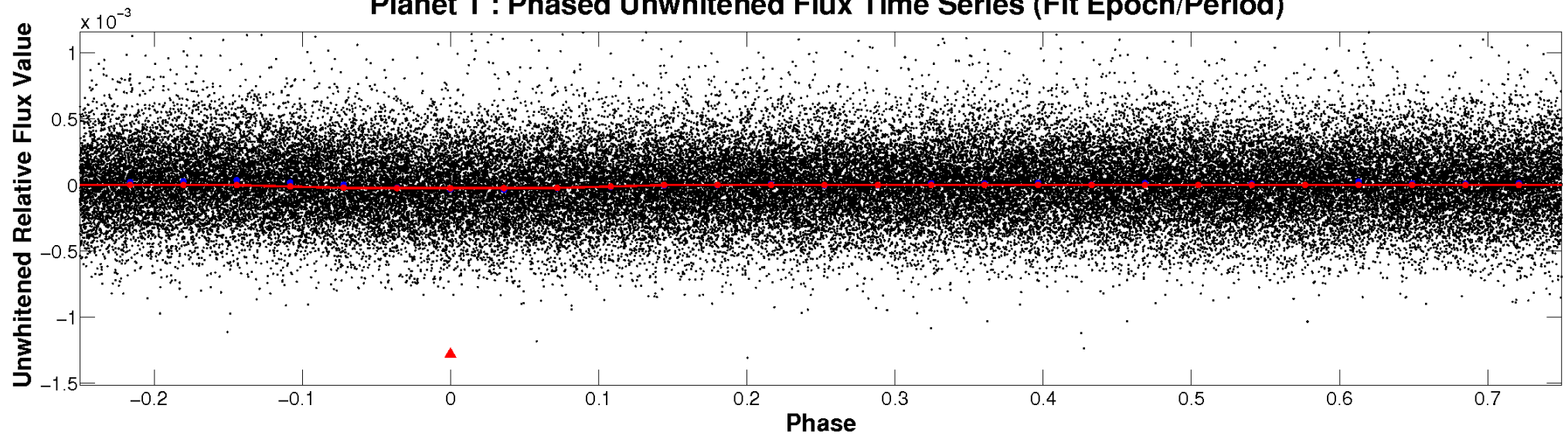
ALT Odd/Even

TCE 007362301-01

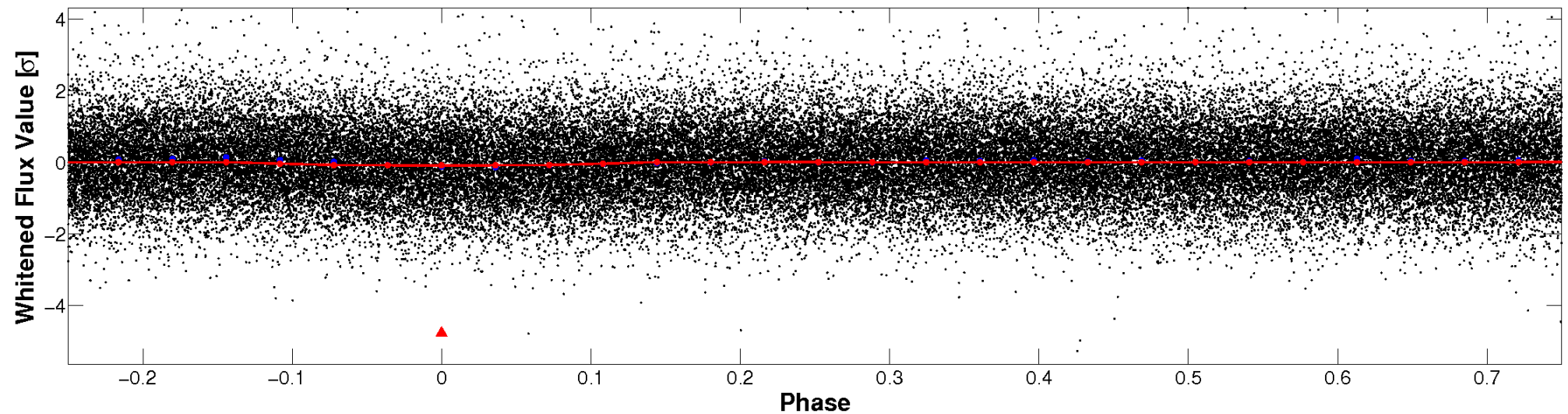


Non-Whitened Vs. Whitened Light Curve

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

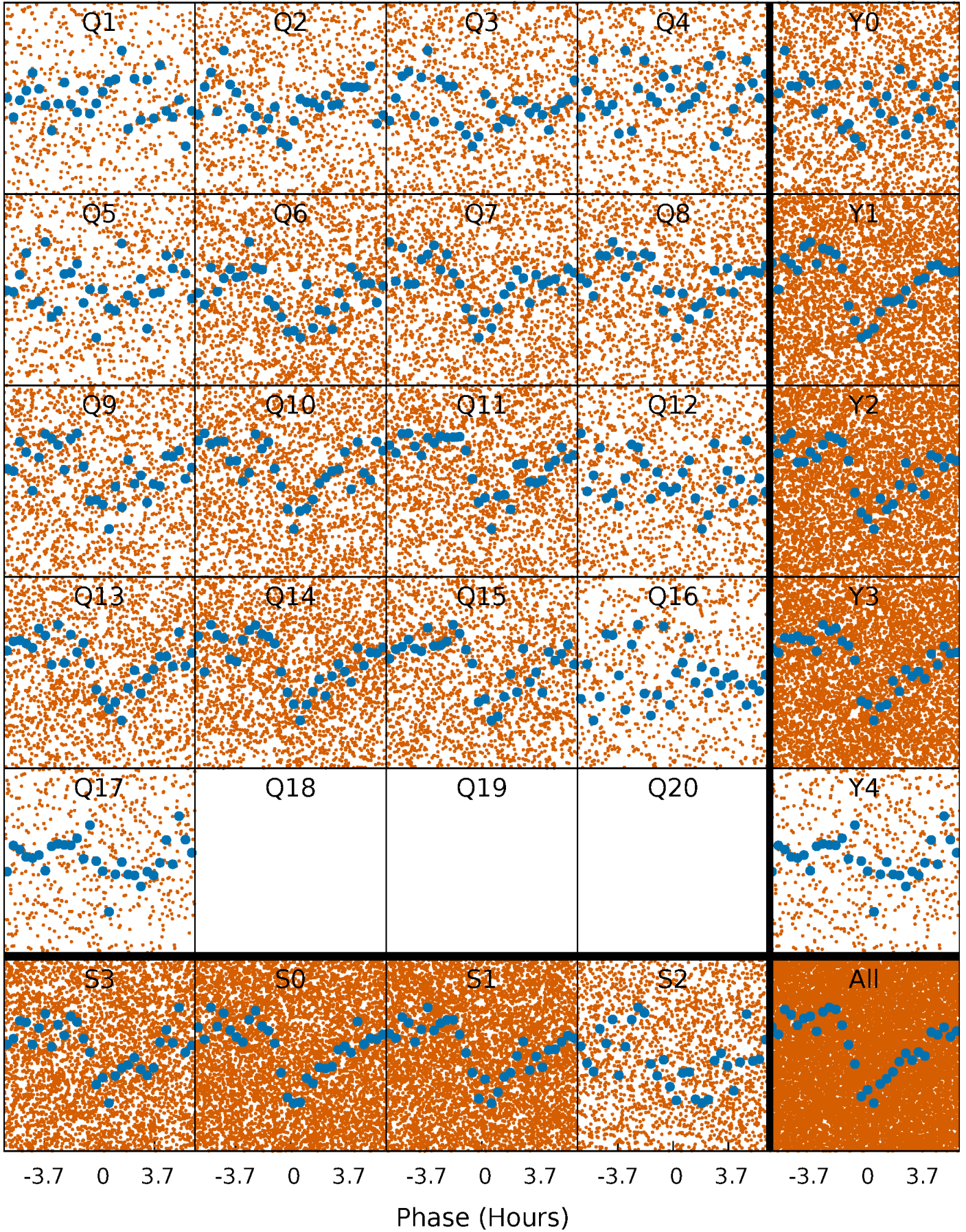


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



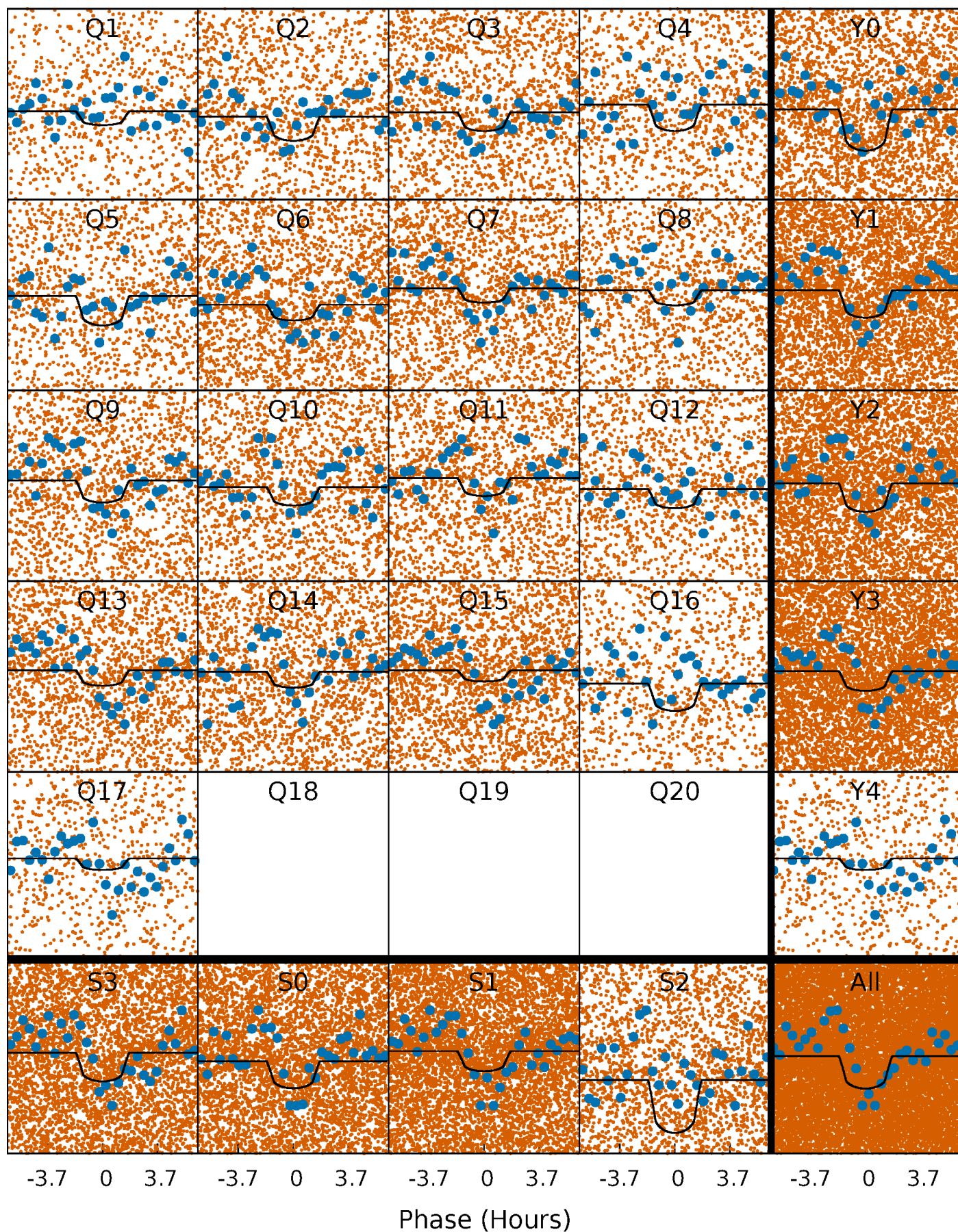
PDC Quarter-Phased Transit Curves

TCE 007362301-01 P= 0.566775 Days $T_0=131.822854$ (BKJD)



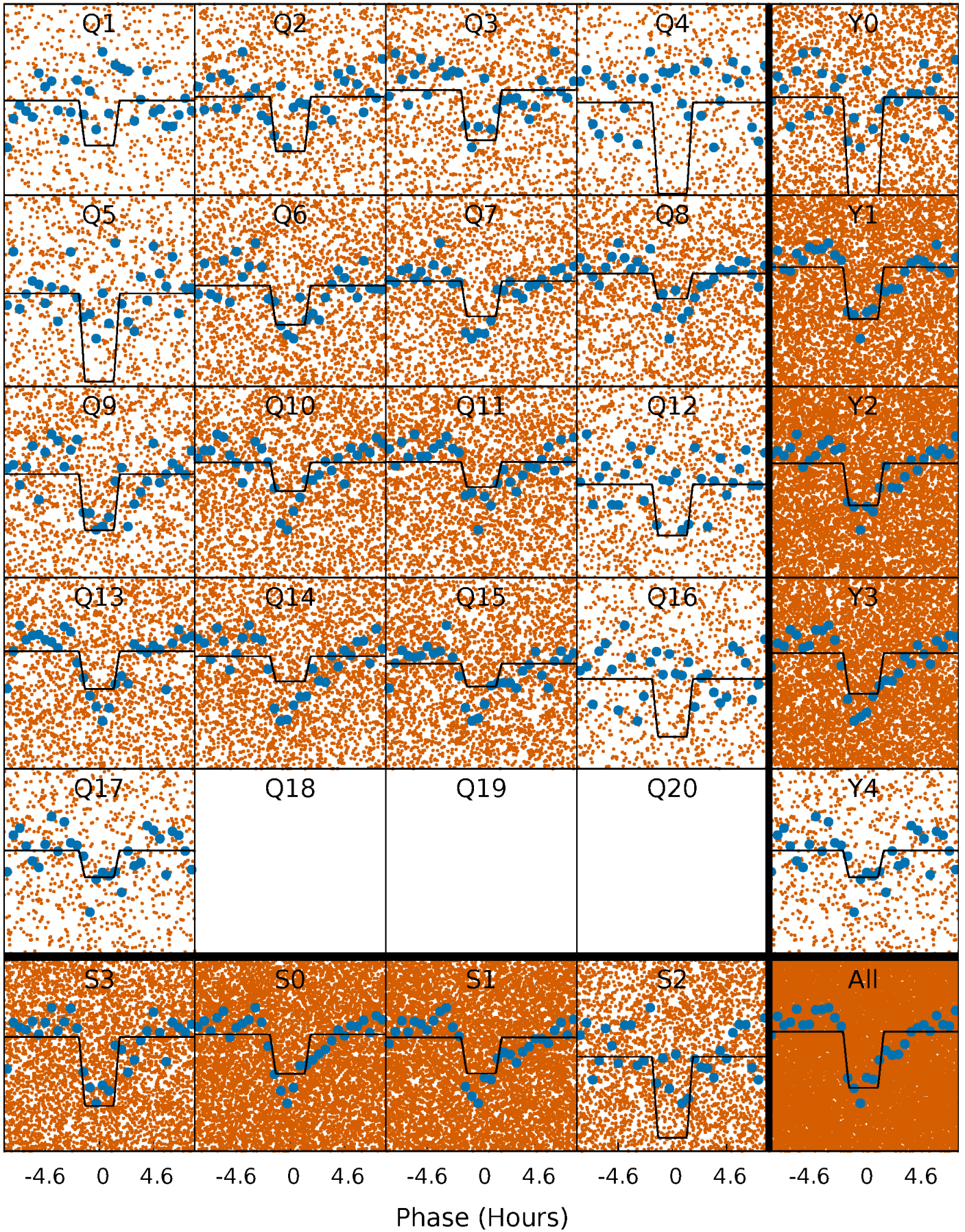
DV Quarter-Phased Transit Curves

TCE 007362301-01 P= 0.566775 Days $T_0=131.822854$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

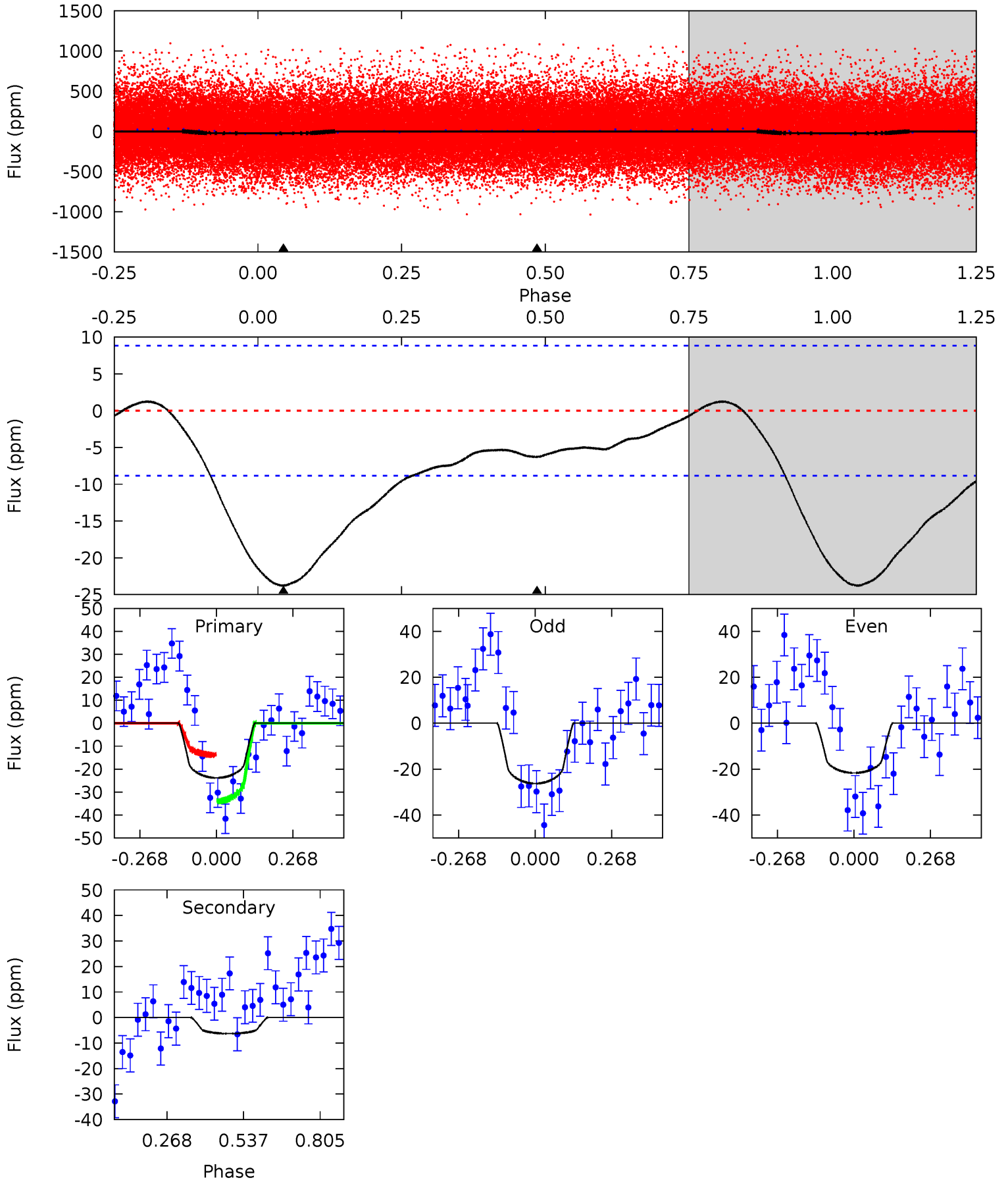
TCE 007362301-01 P= 0.566801 Days $T_0=131.816005$ (BKJD)



DV Model-Shift Uniqueness Test

007362301-01, P = 0.566775 Days, E = 131.256079 Days

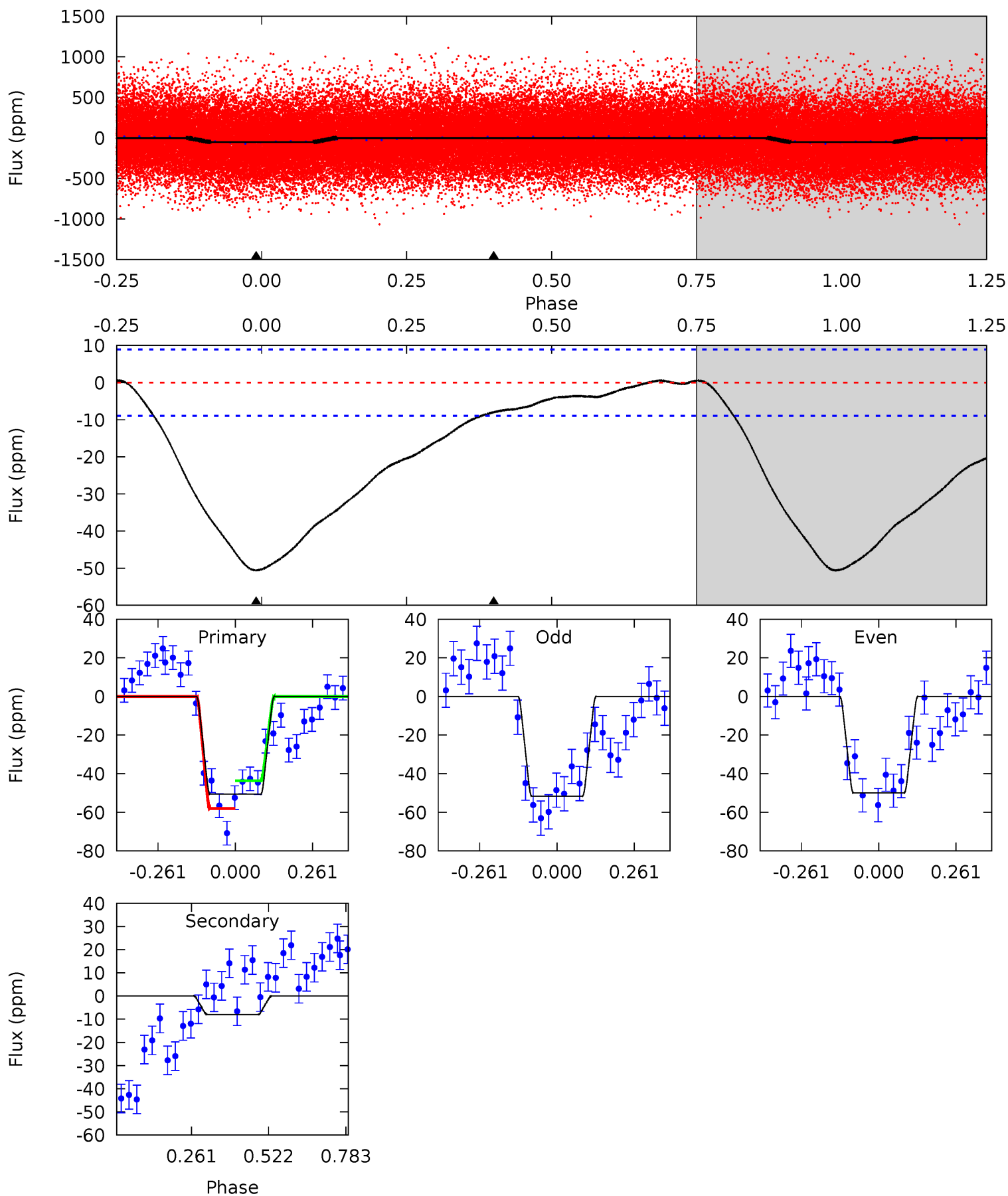
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.7	3.11	0	0	4.35	1.11	0.53	11.7	11.7	3.11	3.11	1.14	0.88	0.05	5.02



Alt Model-Shift Uniqueness Test

007362301-01, P = 0.566801 Days, E = 131.249204 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
24.7	3.90	0	0	4.36	1.12	0.18	24.7	24.7	3.90	3.90	0.40	0.95	0.01	3.52



Stellar Parameters For KIC 007362301

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5952^{+161}_{-197}	$4.447^{+0.084}_{-0.196}$	$-0.180^{+0.300}_{-0.300}$	$0.974^{+0.287}_{-0.123}$	$0.970^{+0.134}_{-0.122}$	$1.478^{+0.531}_{-0.760}$
	+3%/-3%	+2%/-4%	+167%/-167%	+29%/-13%	+14%/-13%	+36%/-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 007362301-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-6 ± 2	$0.65^{+0.52}_{-0.40}$	3179^{+232}_{-163}	3925^{+2187}_{-1116}	$1.371^{+7.710}_{-0.954}$
Alt.	-8 ± 2	$0.81^{+0.51}_{-0.45}$	3179^{+217}_{-156}	3784^{+1731}_{-937}	$1.180^{+5.024}_{-0.755}$

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 $A_{obs} \gg 1.0$

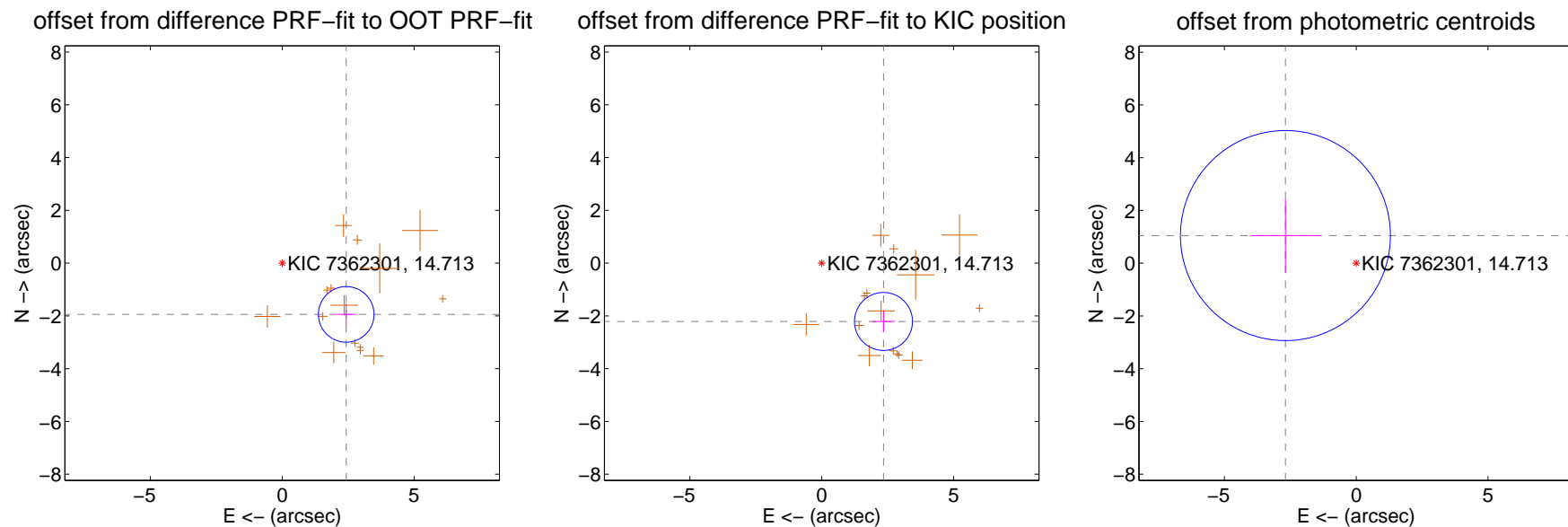
DV Centroid Data

Supplemental centroid analysis for 007362301-01. Kepler magnitude: 14.71. Transit SNR 9.26

There are 0 quarters with good PRF difference image offsets

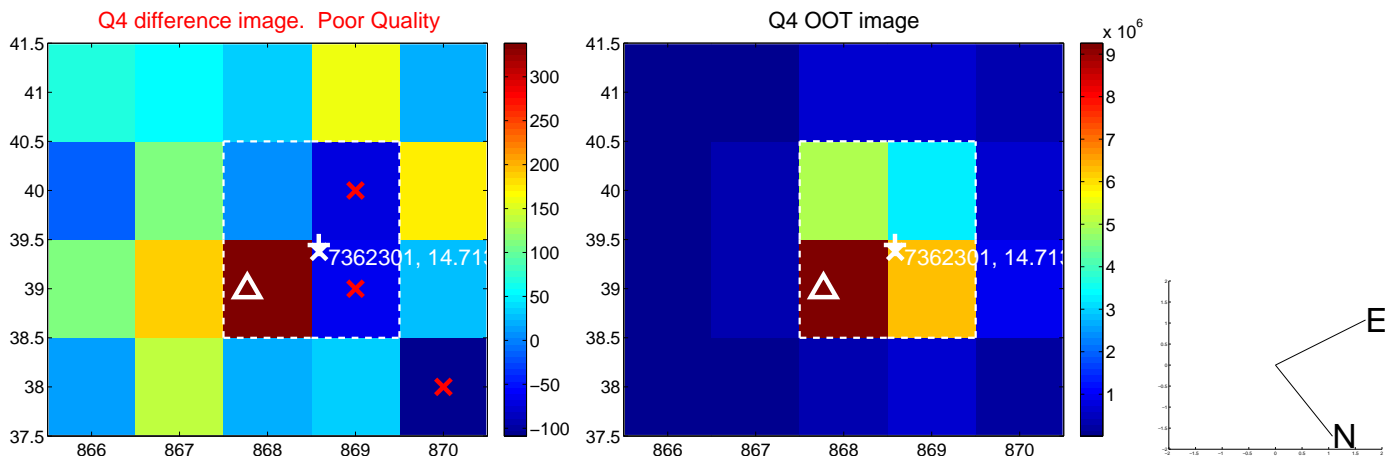
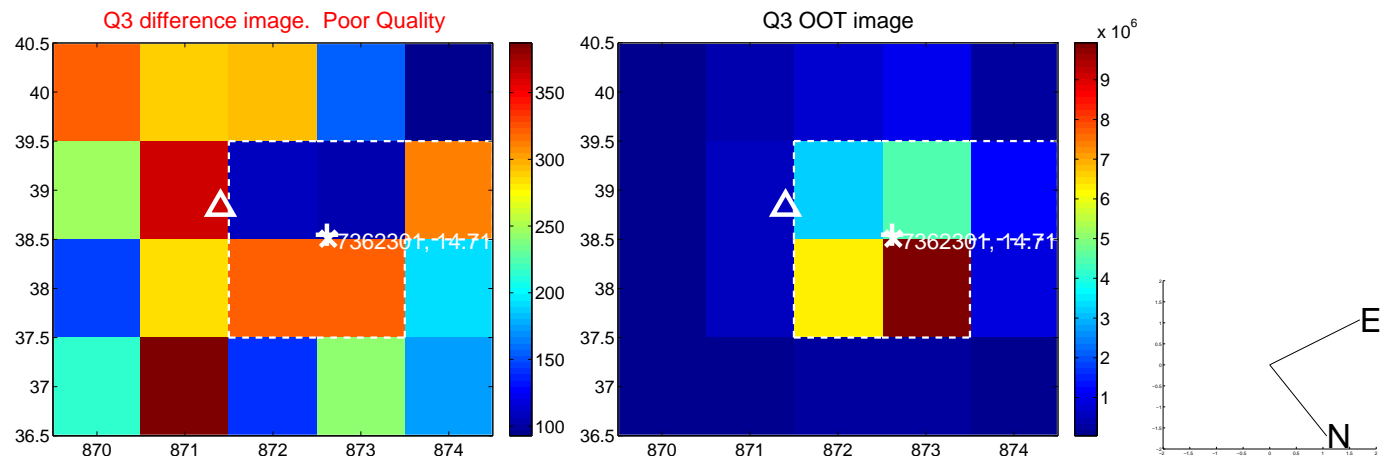
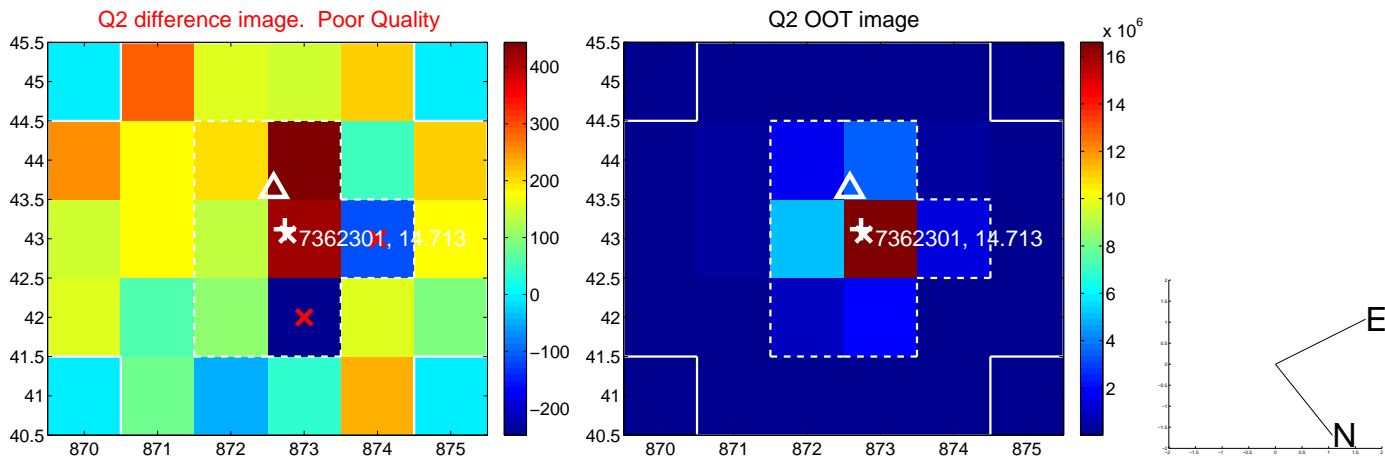
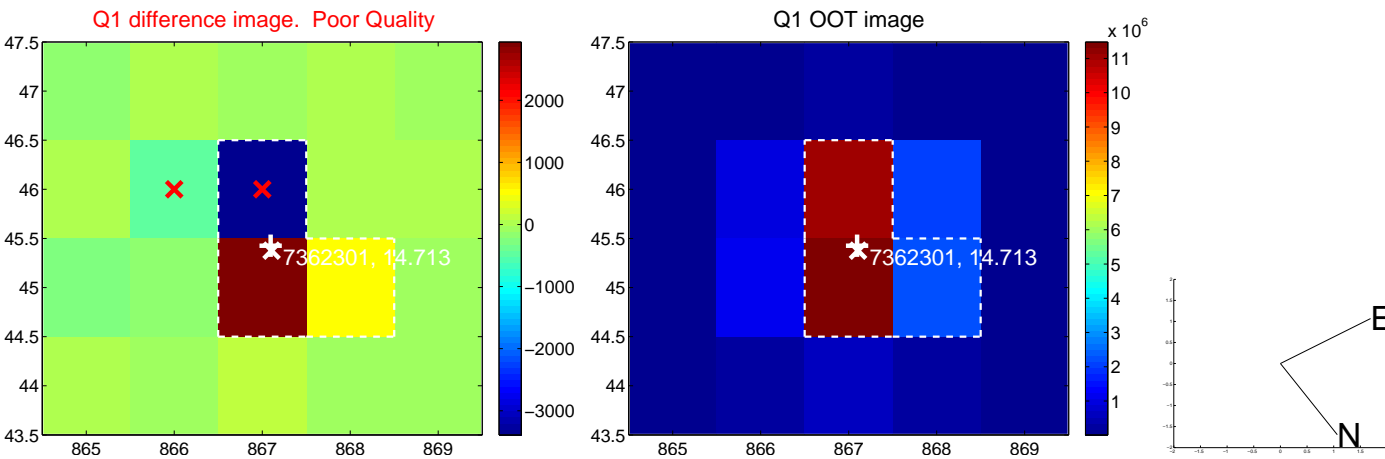
The direct PRF centroid is offset from the target star catalog position by about 0.24 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.108 ± 0.351	8.84	-2.426 ± 0.380	-1.942 ± 0.420
PRF-fit source offset from KIC position	3.221 ± 0.366	8.79	-2.342 ± 0.432	-2.210 ± 0.390
photometric centroid source offset	2.88 ± 1.33	2.17	2.68 ± 1.32	1.05 ± 1.39

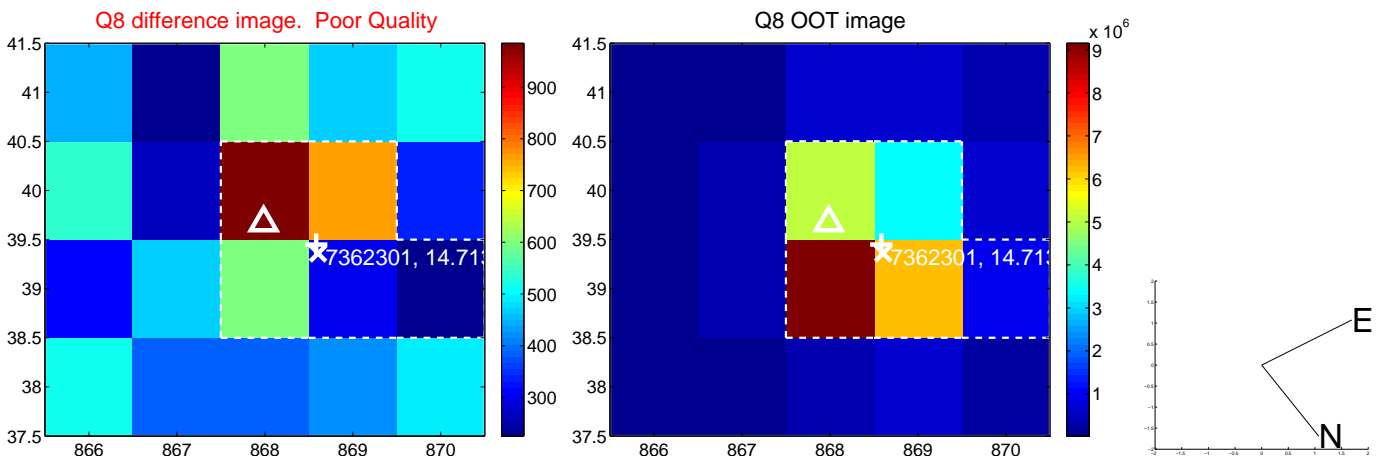
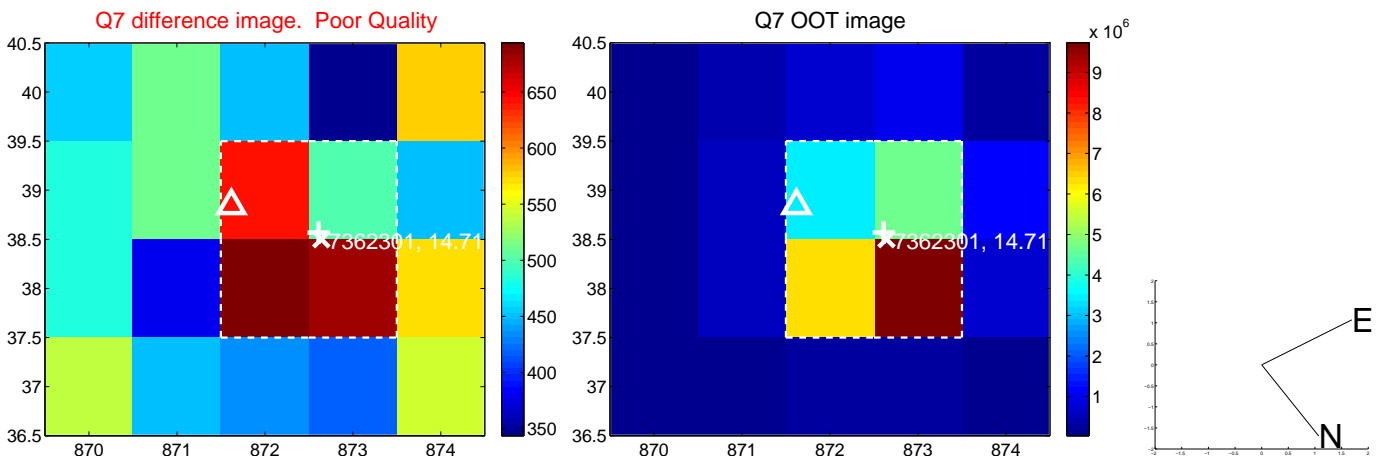
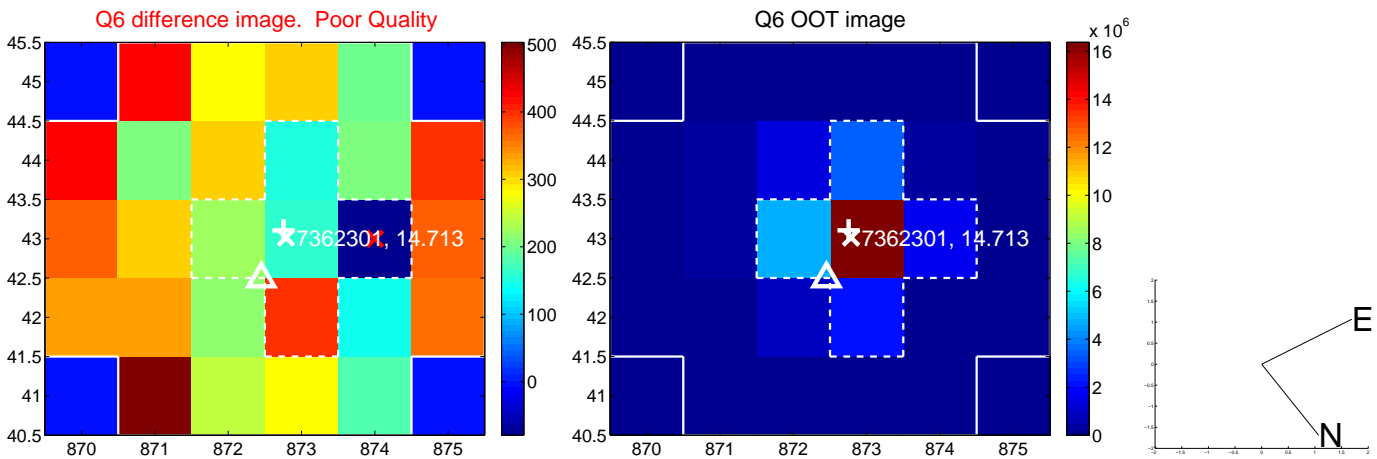
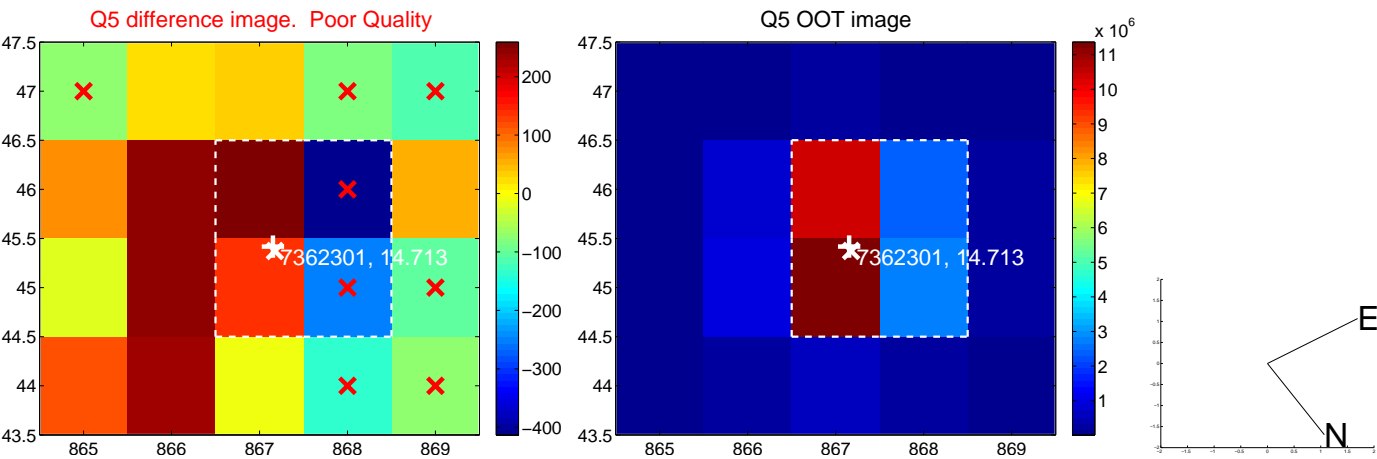


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

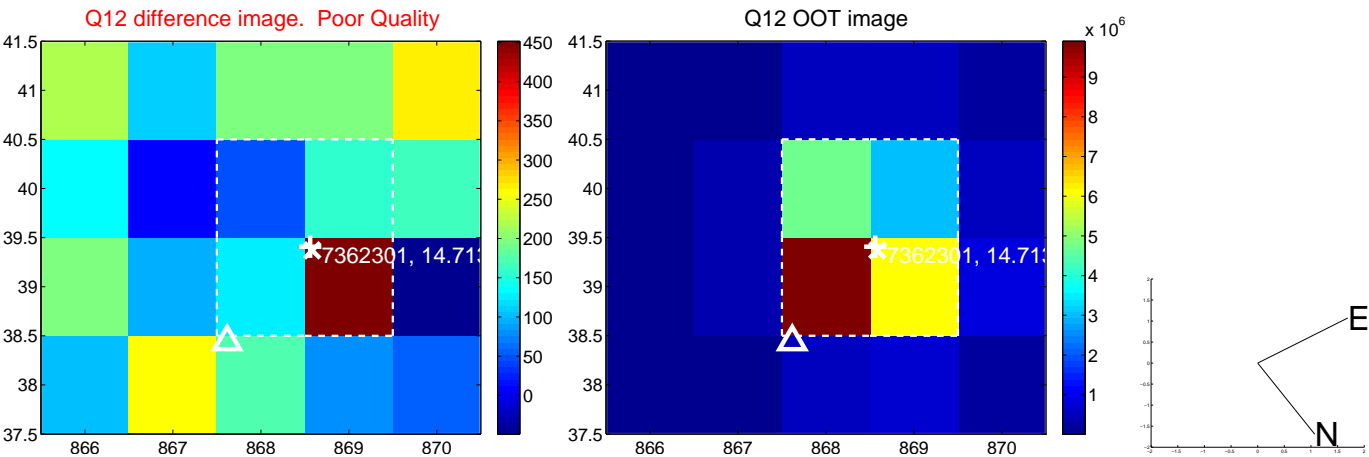
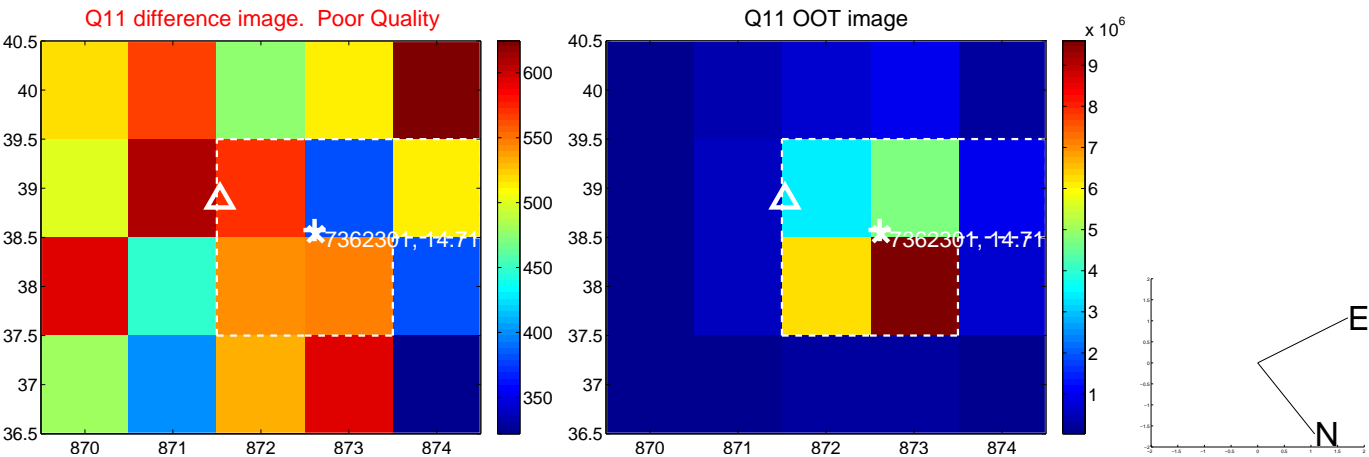
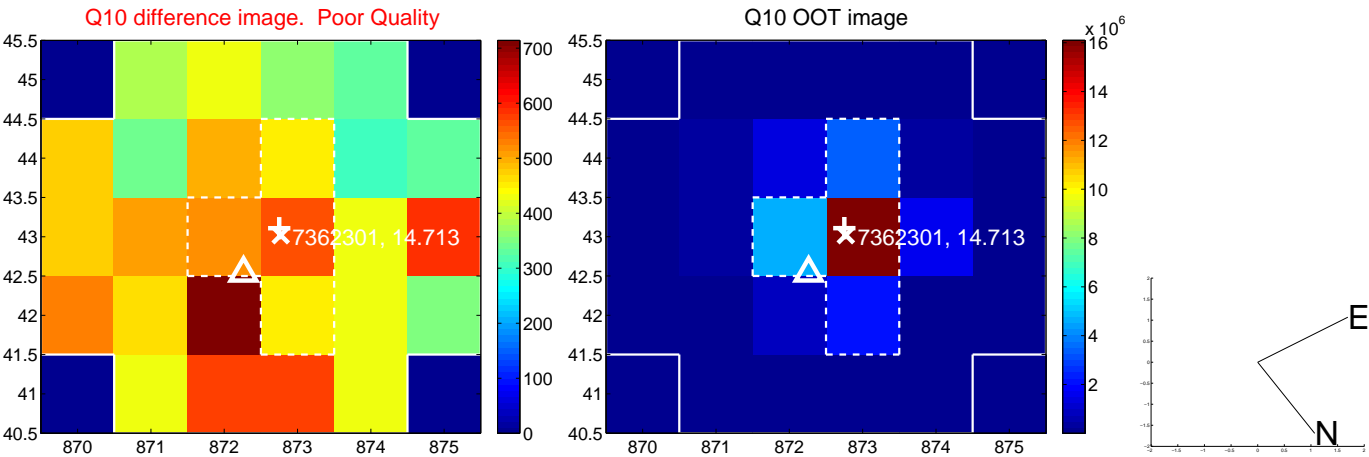
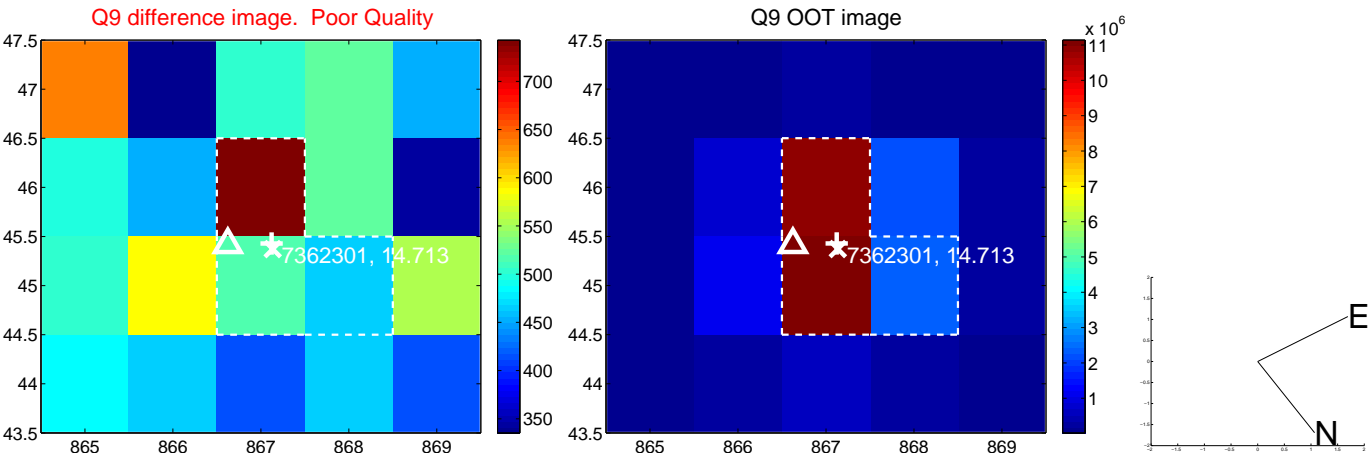
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



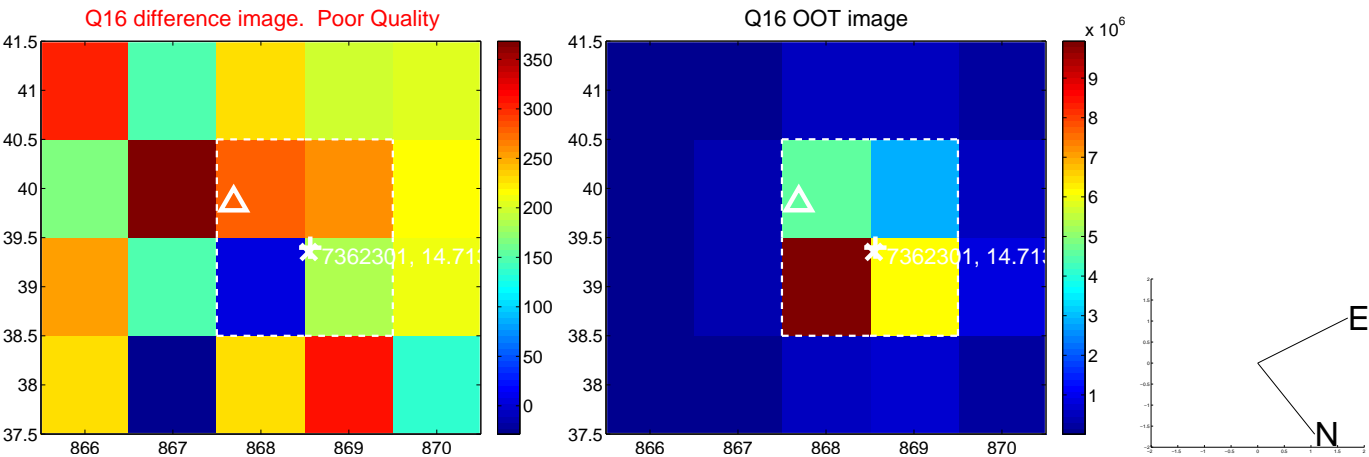
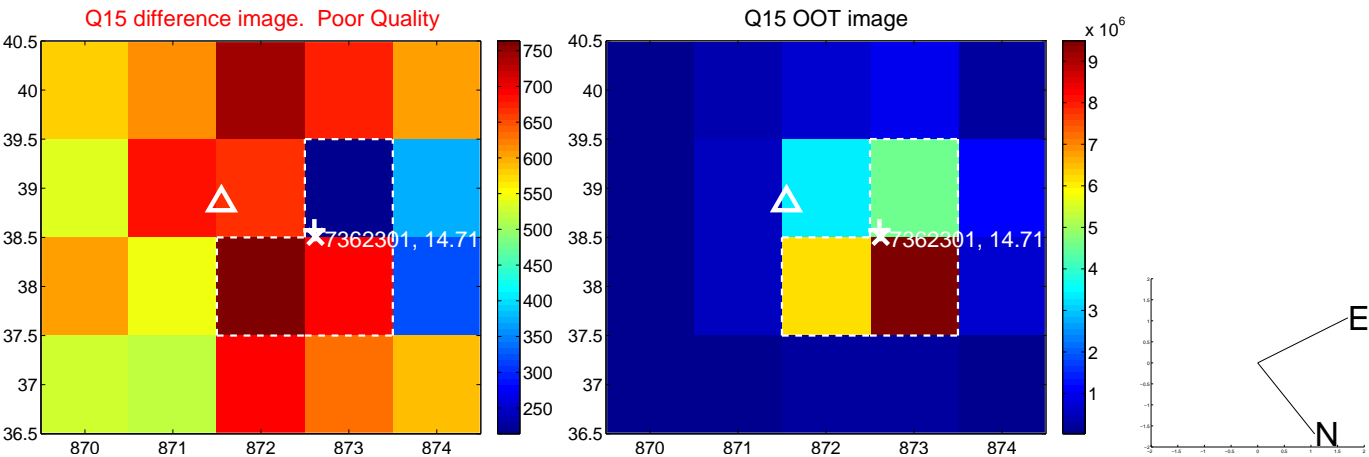
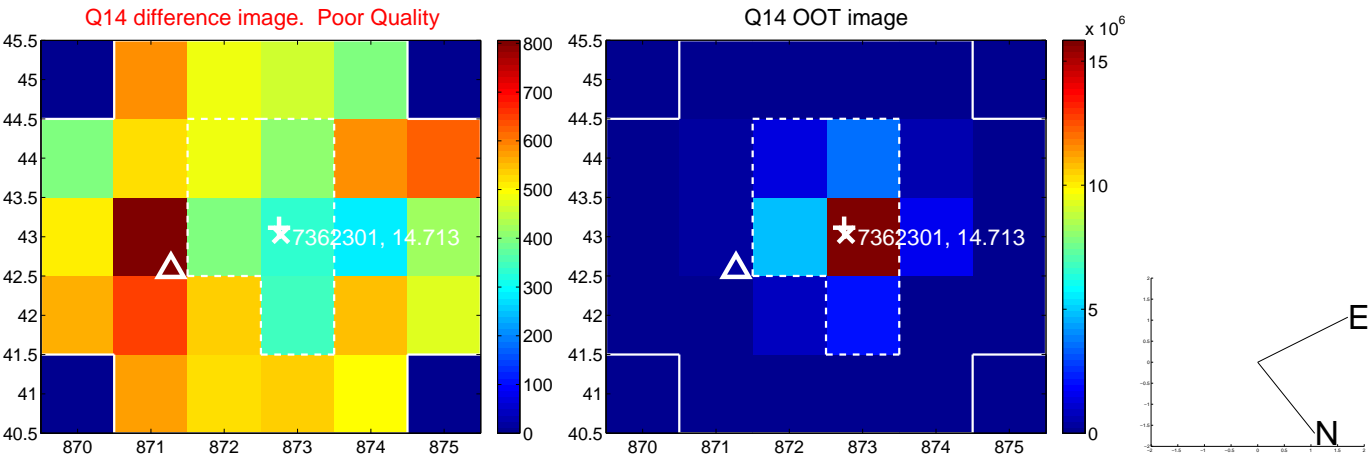
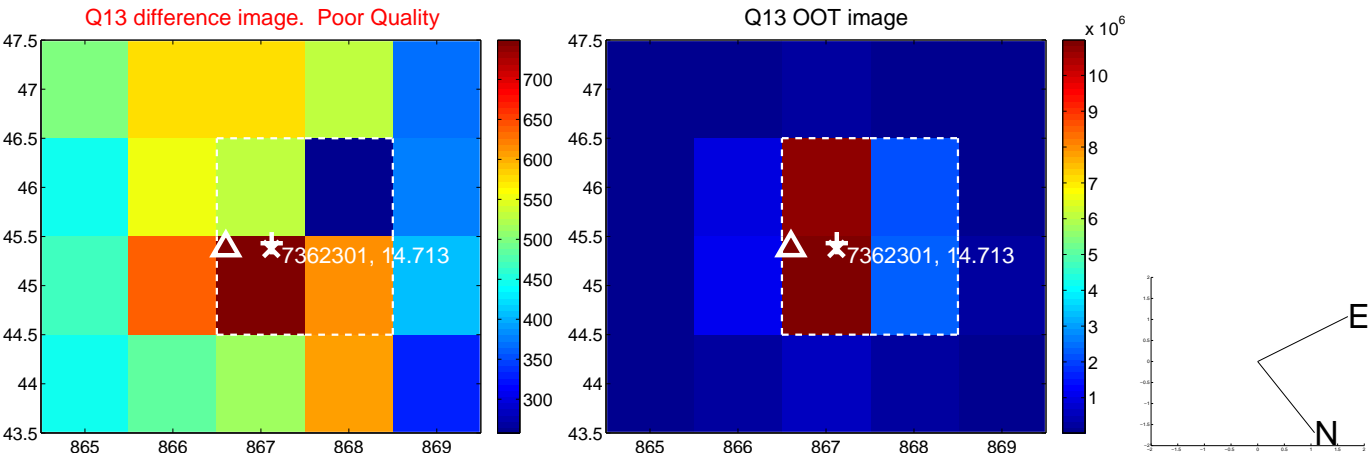
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



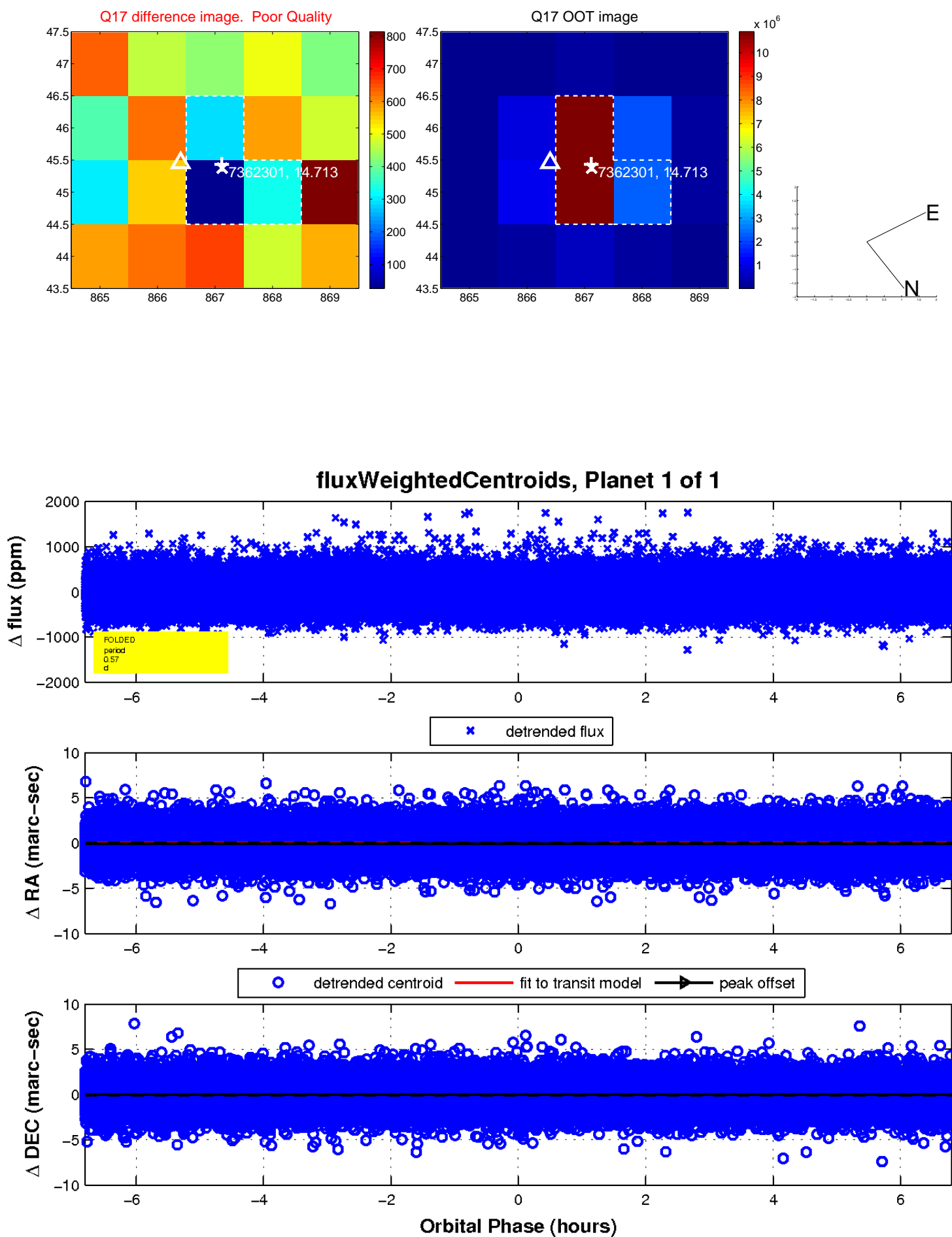
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UKIRT Image

Declination

