

KIC 007552701

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})
007552701-01	OBS	3994.01	1.324230	132.842225	71.2	1.778	22.2	23.9	1.41	6557	1.40	4970.73

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007552701-01	OBS	FP	0.00	0	0	1	0	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.

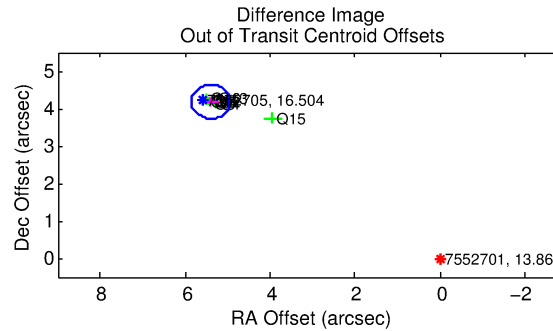
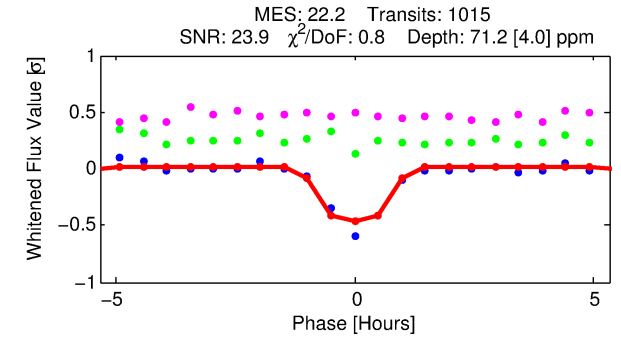
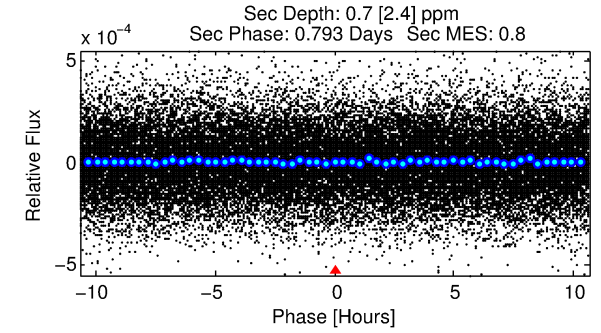
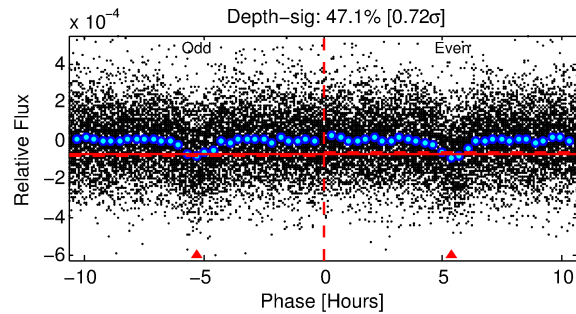
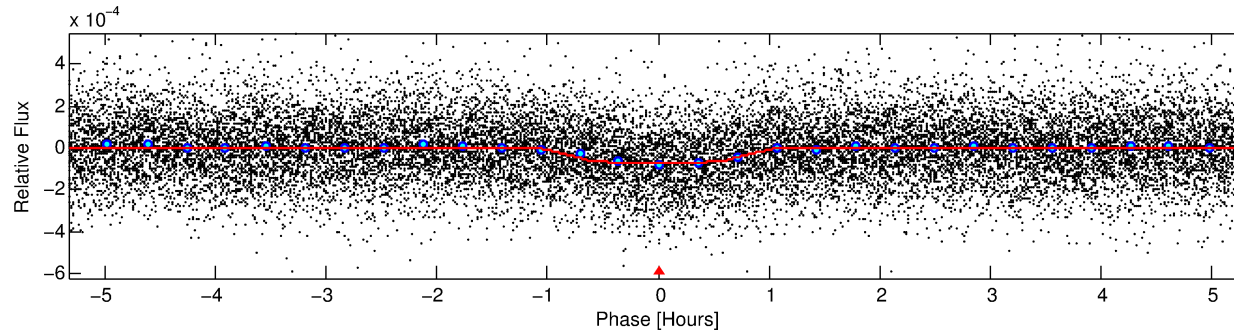
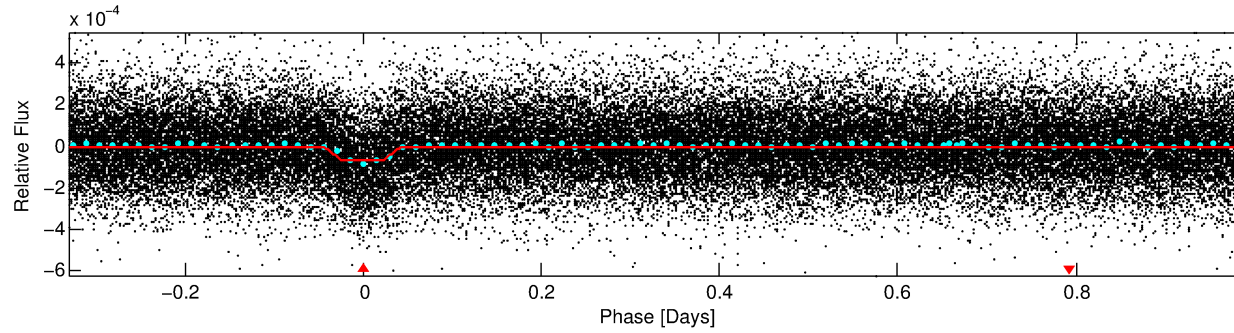
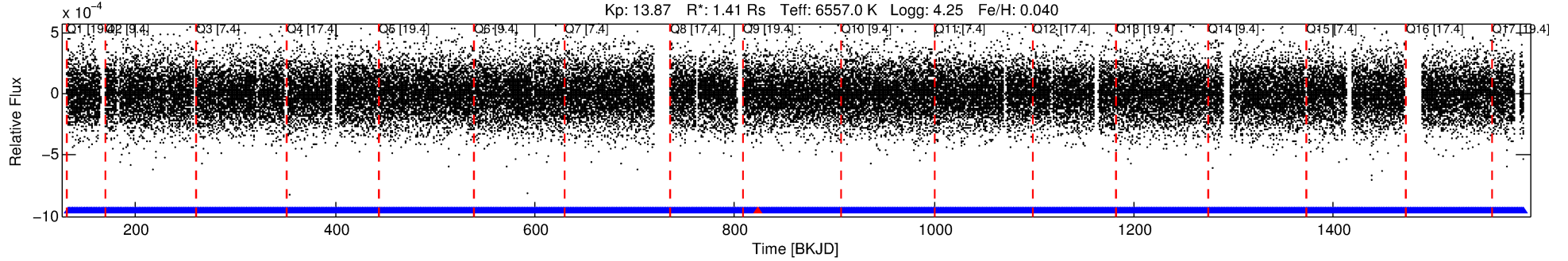
Ephemeris Match Information For 007552701-01

No Significant Match Found

DV One-Page Summary

KIC: 7552701 Candidate: 1 of 1 Period: 1.324 d
KOI: K03994.01 Corr: 0.881

Kp: 13.87 R*: 1.41 Rs Teff: 6557.0 K Logg: 4.25 Fe/H: 0.040



DV Fit Results:

Period = 1.32423 [0.00000] d
Epoch = 132.8422 [0.0011] BKJD
Rp/R* = 0.0091 [0.0018]
a/R* = 2.68 [2.62]
b = 0.91 [0.22]
Seff = 4970.73 [2008.47]
Teq = 2141 [216] K
Rp = 1.40 [0.53] Re
a = 0.0257 [0.0068] AU
Ag = 0.12 [0.45] [-1.93σ]
Teffp = 1964 [1787] K [-0.10σ]

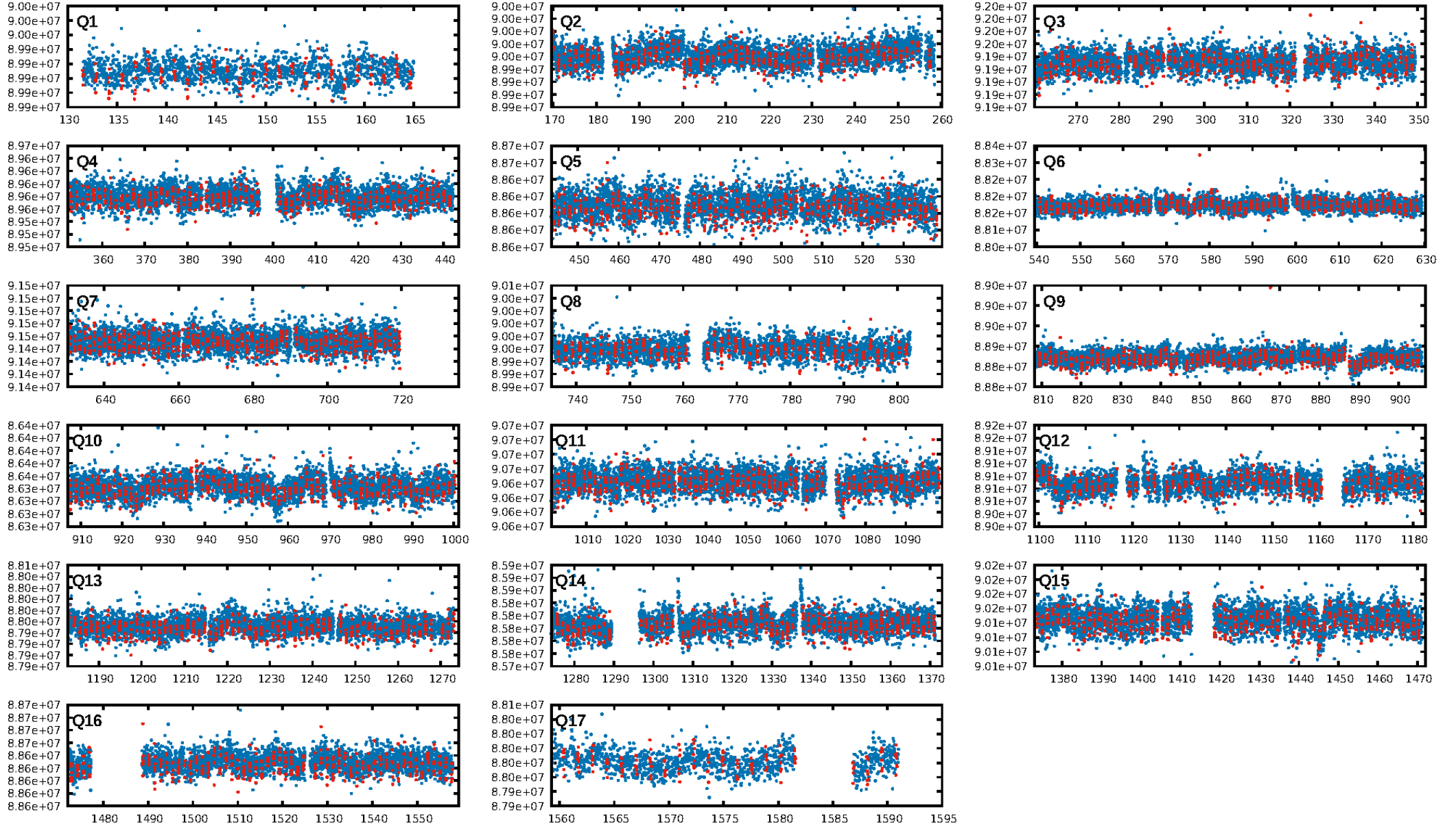
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 3.68e-104
RollingBand-fgt: 1.00 [967/968]
GhostDiagnostic-chr: -0.2165
Centroid-sig: 0.0%
Centroid-so: 11.783 arcsec [24.05σ]
OotOffset-rm: 6.829 arcsec [45.24σ]
KicOffset-rm: 6.825 arcsec [41.12σ]
OotOffset-st: 0/1/4/4 [9]
KicOffset-st: 0/1/4/4 [9]
DiffImageQuality-fgm: 1.00 [9/9]
DiffImageOverlap-fno: 1.00 [17/17]

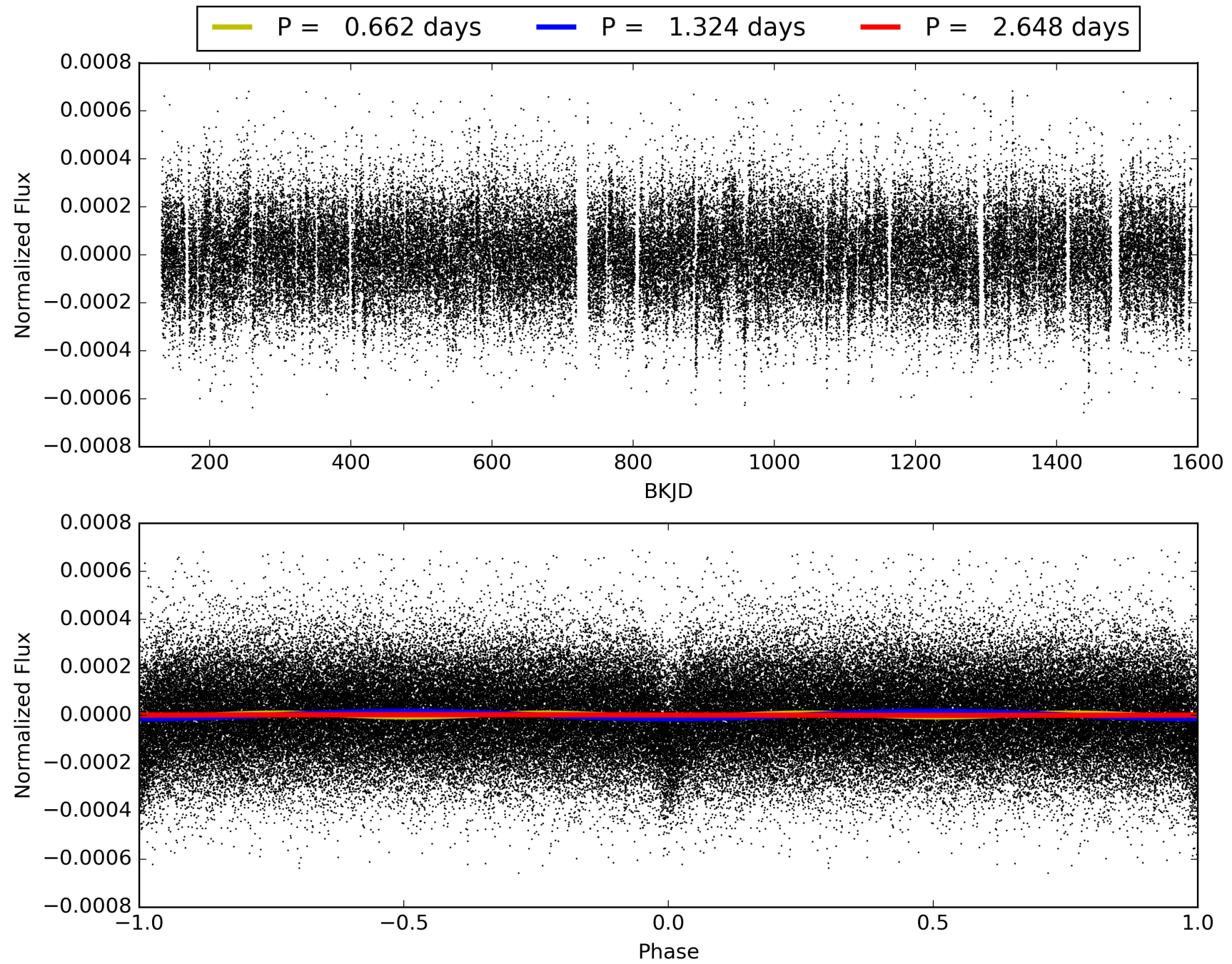
Software Revision: svn-ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 22:37:30 Z

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

TCE 007552701-01, PDC Light Curves

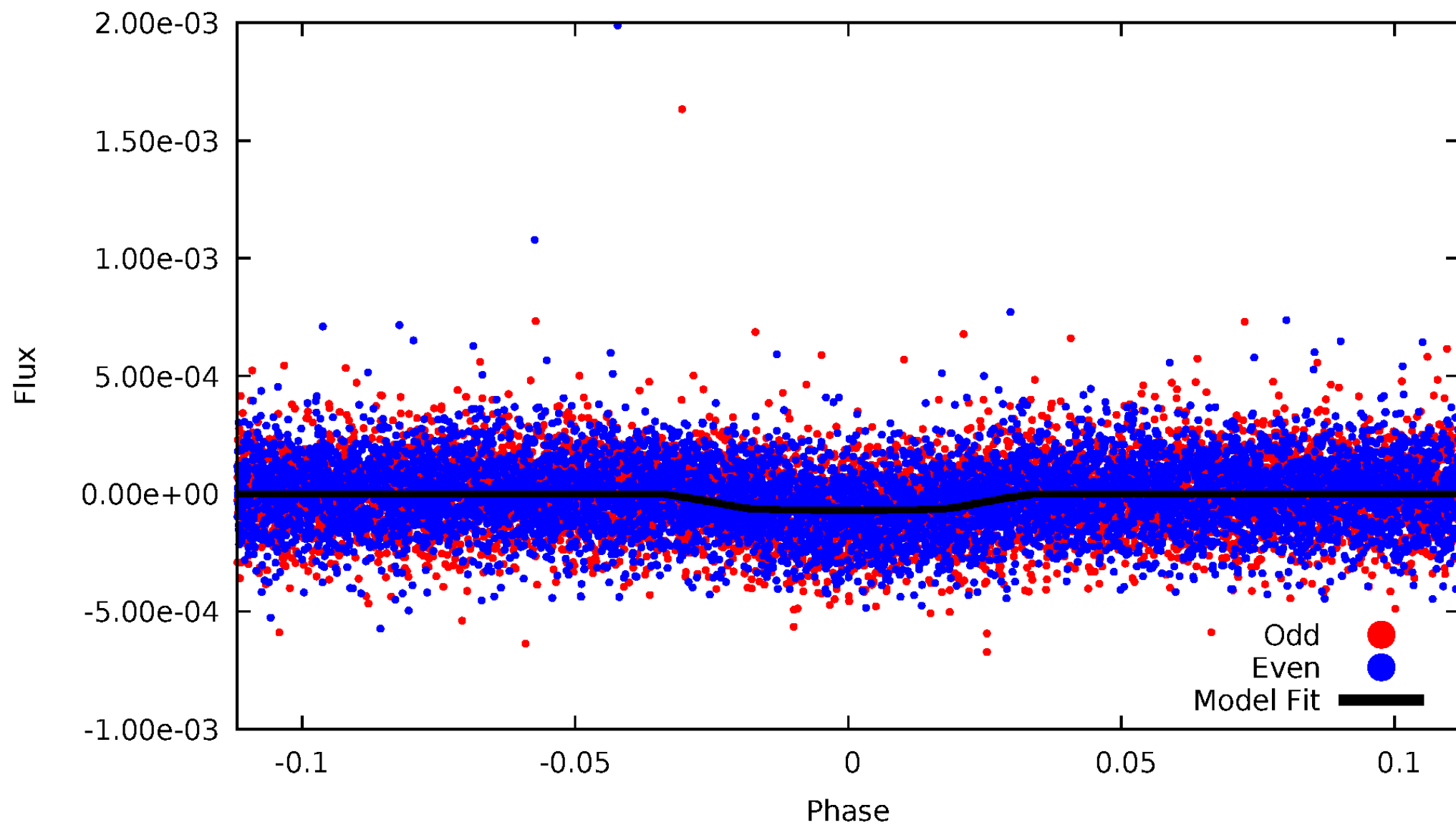


TCE 007552701-01



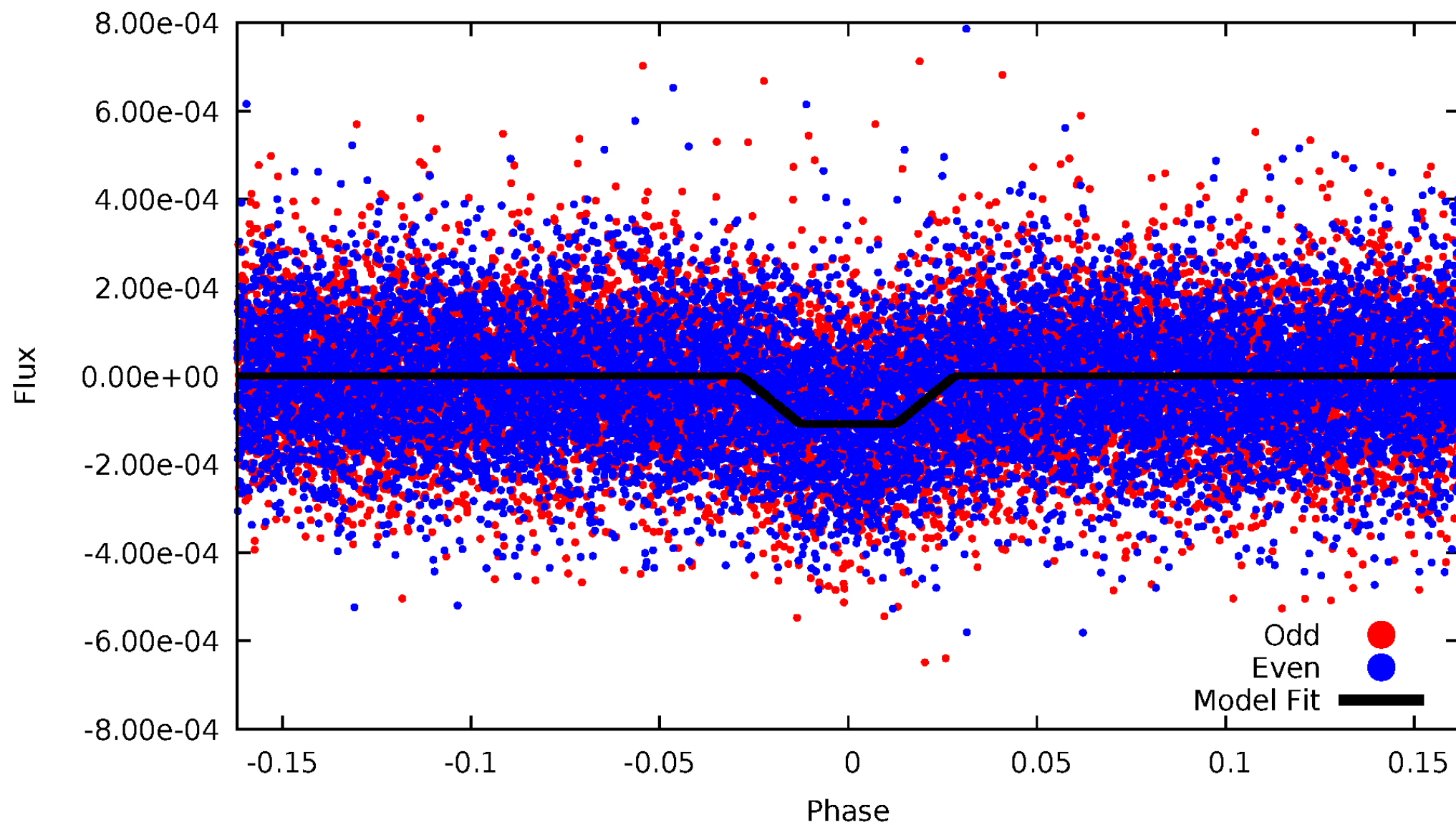
DV Odd/Even

TCE 007552701-01



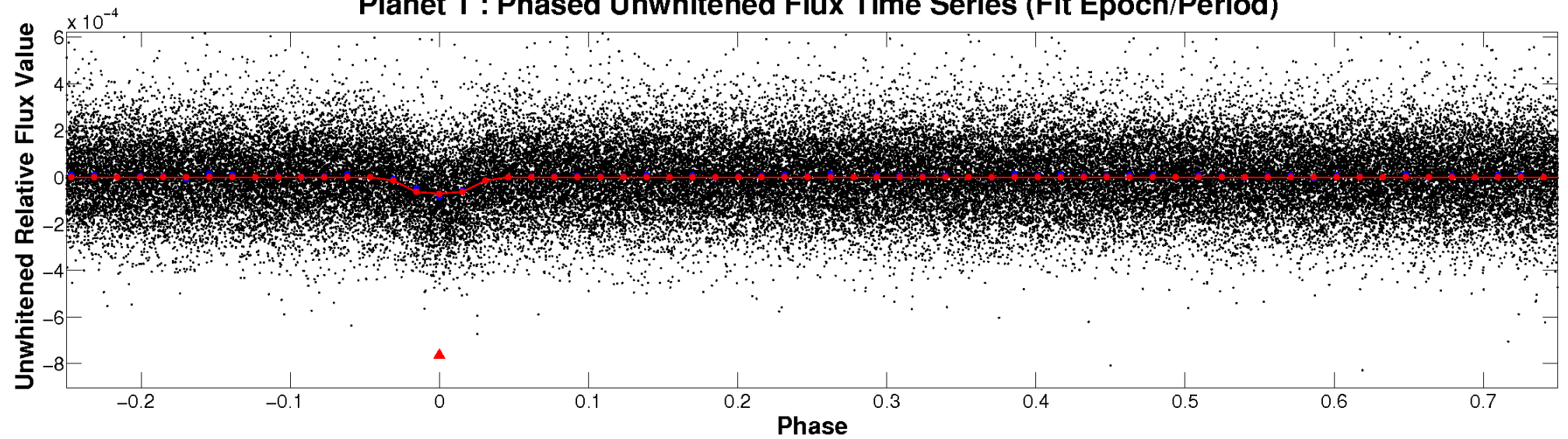
ALT Odd/Even

TCE 007552701-01

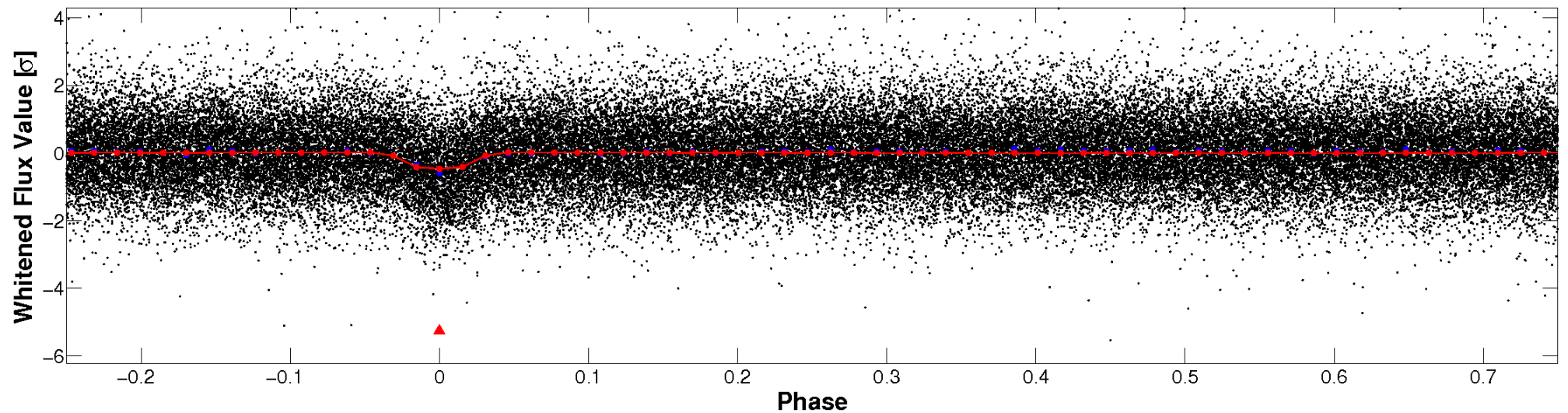


Non-Whitened Vs. Whitened Light Curve

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

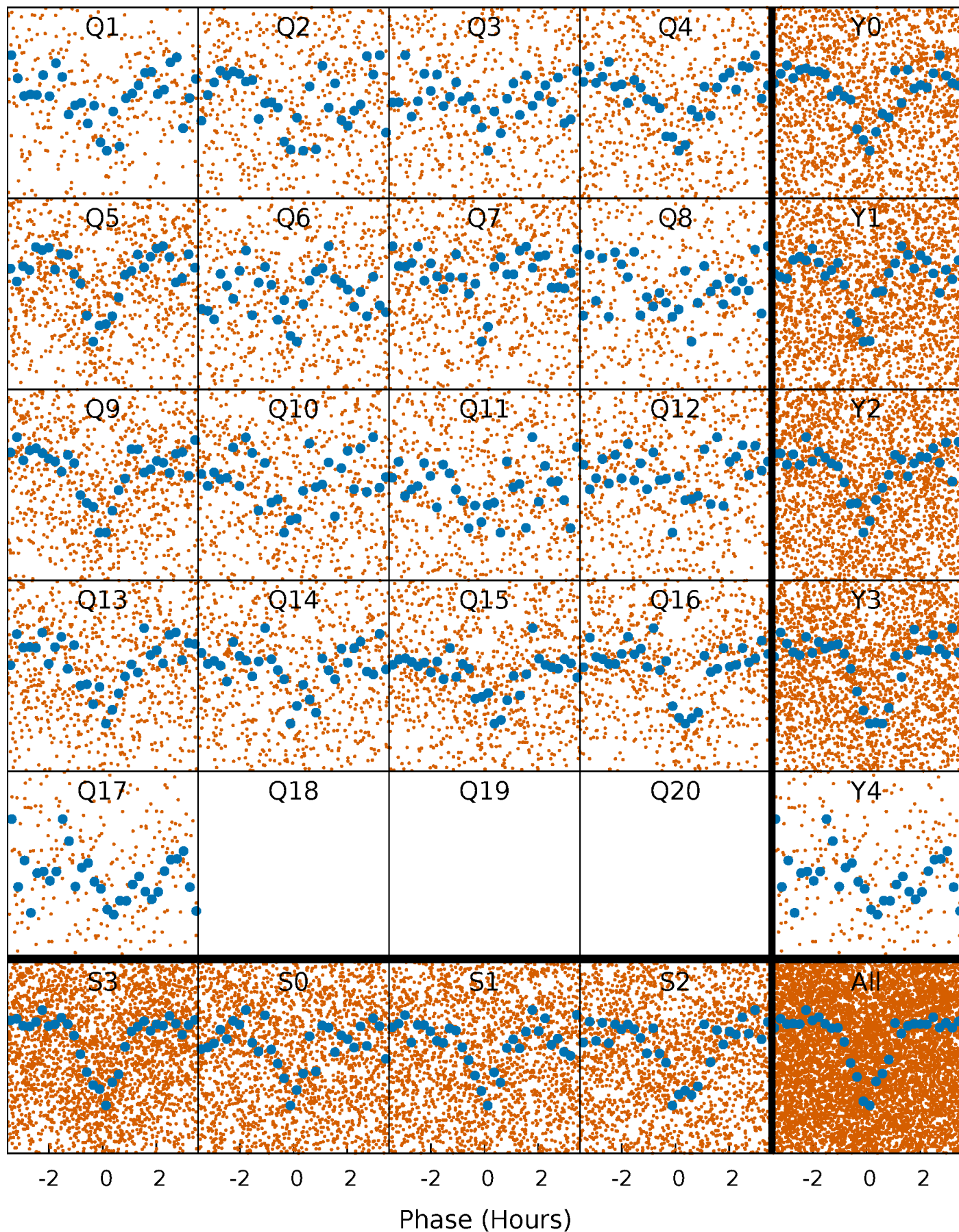


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



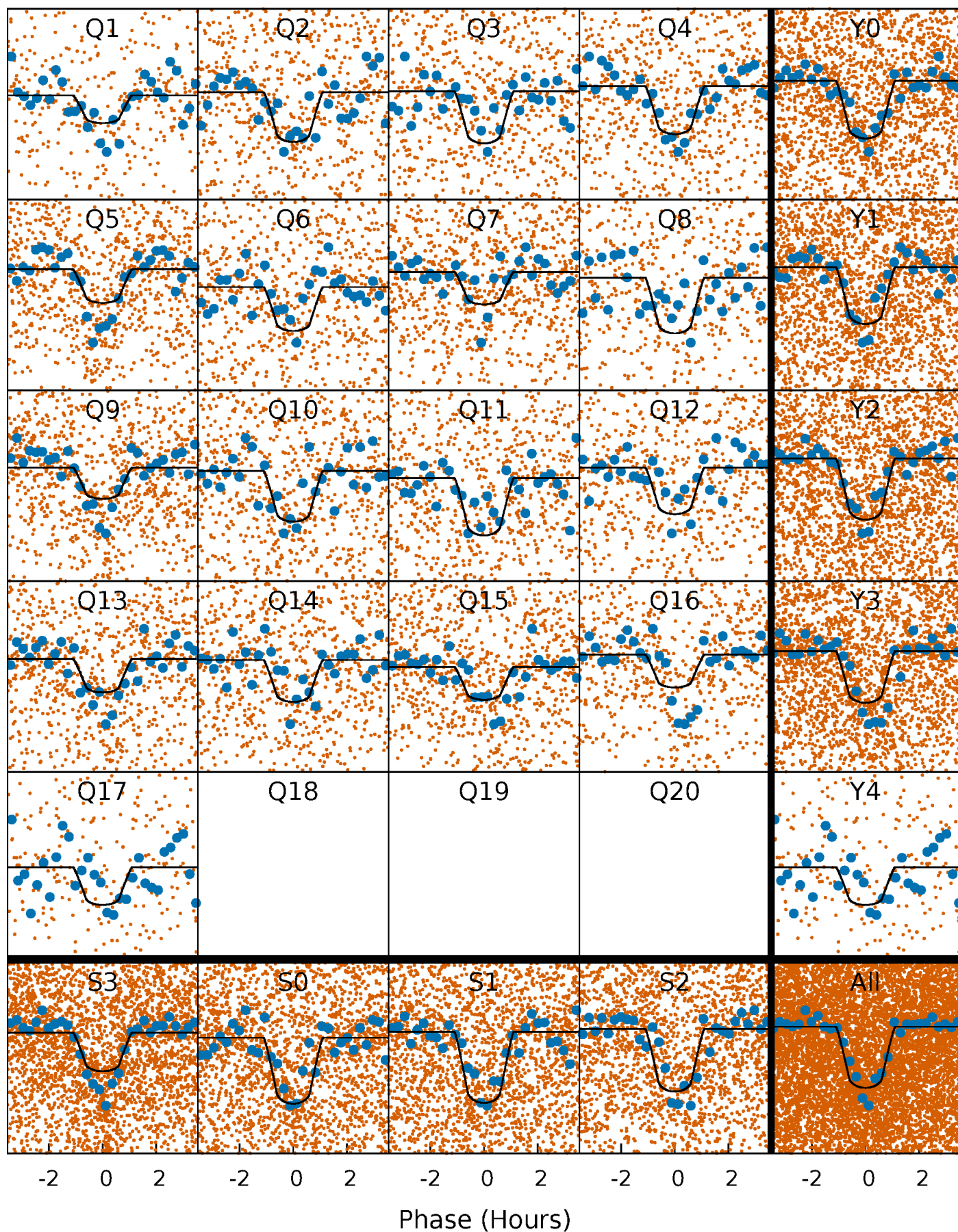
PDC Quarter-Phased Transit Curves

TCE 007552701-01 P= 1.324230 Days $T_0=132.842225$ (BKJD)



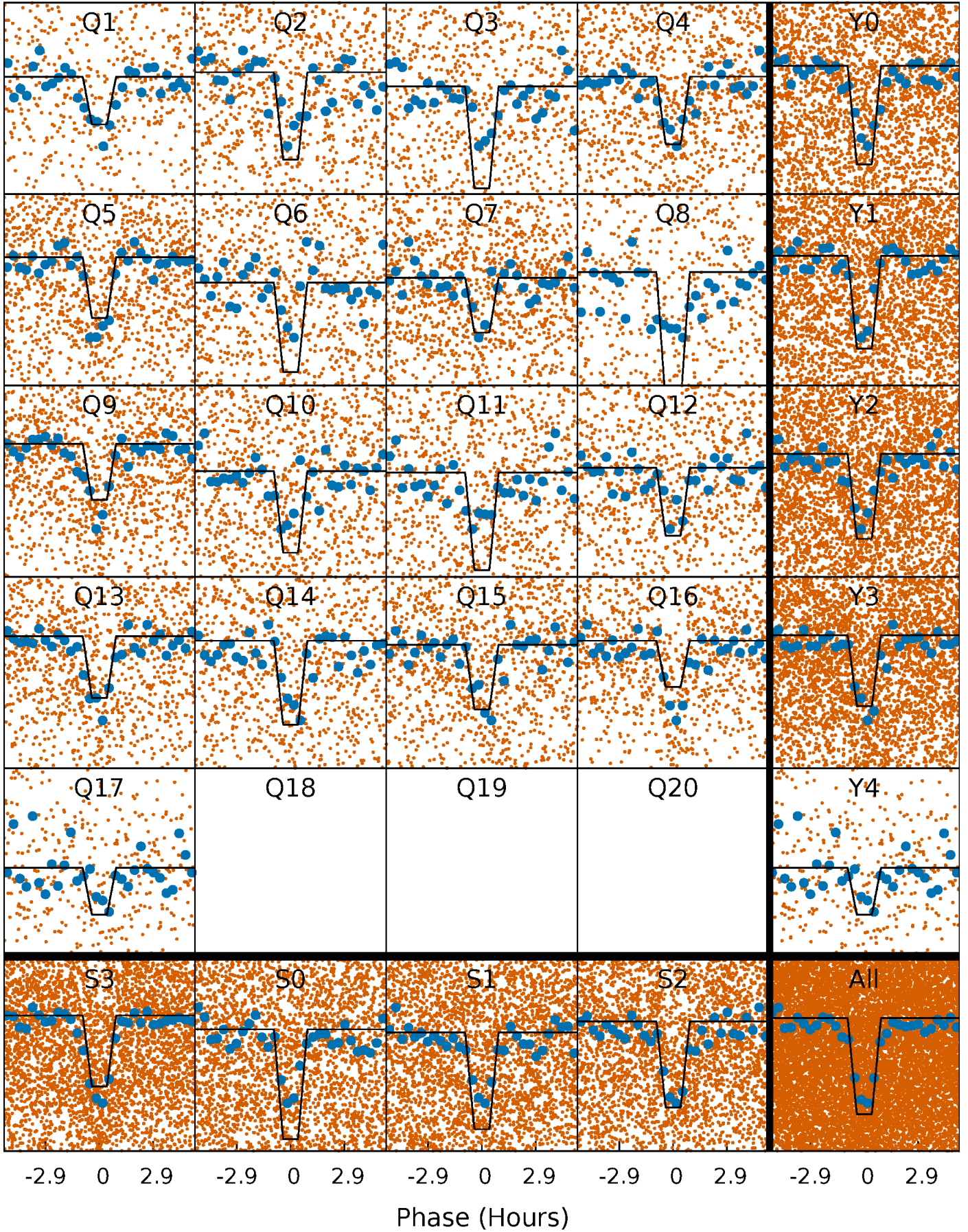
DV Quarter-Phased Transit Curves

TCE 007552701-01 P= 1.324230 Days $T_0=132.842225$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

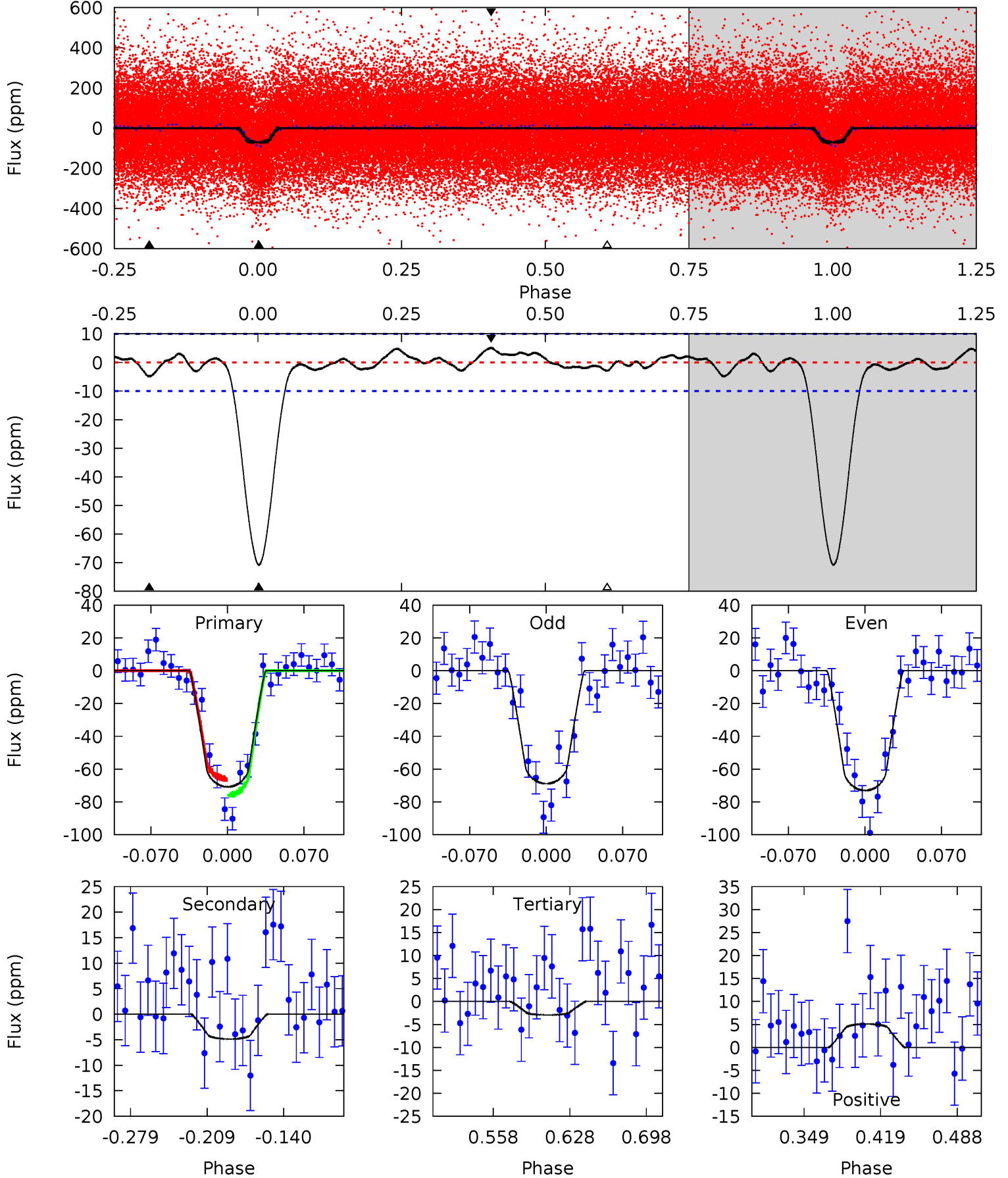
TCE 007552701-01 P= 1.324241 Days $T_0=132.838584$ (BKJD)



DV Model-Shift Uniqueness Test

007552701-01, P = 1.324230 Days, E = 130.193765 Days

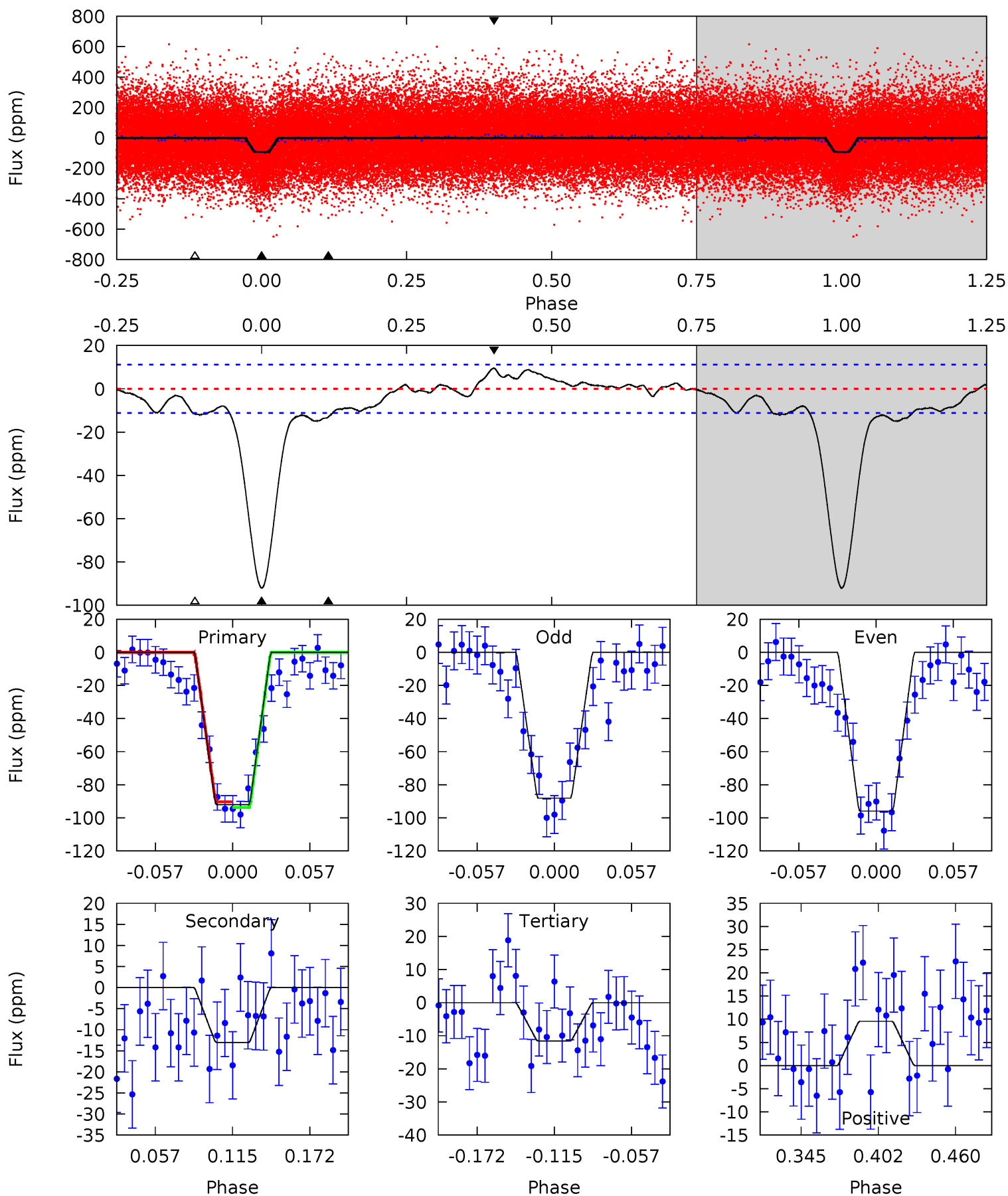
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
32.9	2.26	1.37	2.37	4.64	1.81	0.96	31.5	30.5	0.90	-0.11	0.97	1.02	0.07	2.32



Alt Model-Shift Uniqueness Test

007552701-01, P = 1.324241 Days, E = 130.190102 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
38.5	5.45	4.84	3.99	4.68	1.90	2.16	33.7	34.5	0.61	1.46	1.62	1.00	0.09	0.72



Stellar Parameters For KIC 007552701

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6557^{+158}_{-237}	$4.251^{+0.108}_{-0.201}$	$0.040^{+0.250}_{-0.300}$	$1.406^{+0.458}_{-0.247}$	$1.287^{+0.195}_{-0.195}$	$0.652^{+0.382}_{-0.340}$
	+2%/-4%	+3%/-5%	+625%/-750%	+33%/-18%	+15%/-15%	+59%/-52%
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 007552701-01 / KOI 3994.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-5 ± 2	$1.45^{+0.35}_{-0.32}$	3021^{+249}_{-186}	3342^{+502}_{-753}	$0.764^{+0.747}_{-0.392}$
Alt.	-13 ± 2	$1.62^{+0.43}_{-0.30}$	3030^{+213}_{-180}	3988^{+350}_{-335}	$1.728^{+1.048}_{-0.633}$

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 $A_{obs} \gg 1.0$

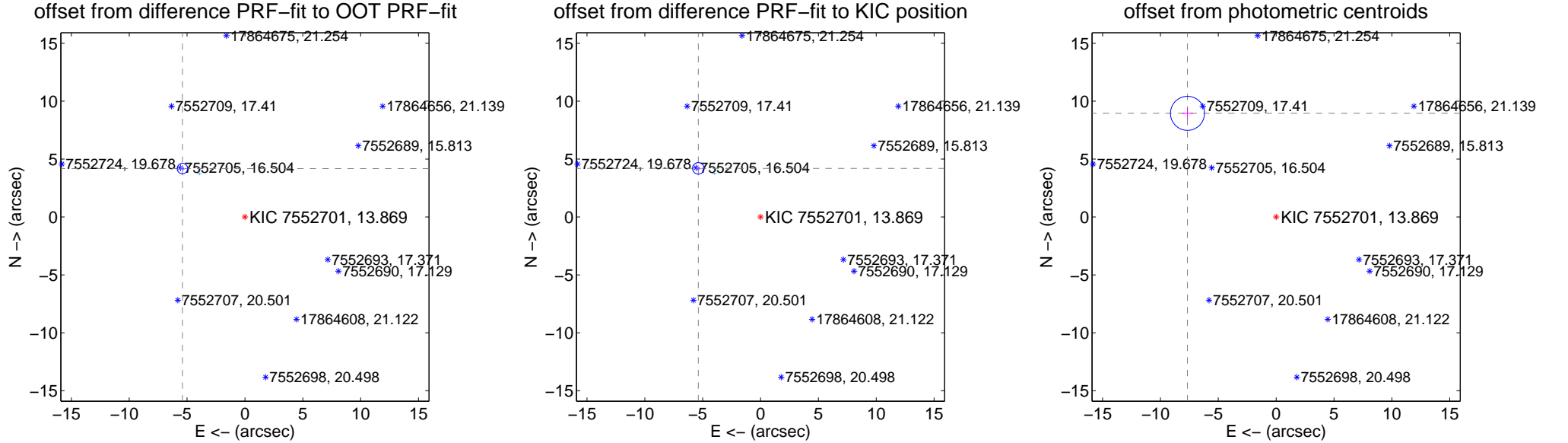
DV Centroid Data

Supplemental centroid analysis for 007552701-01. Kepler magnitude: 13.87. Transit SNR 23.86

There are 9 quarters with good PRF difference image offsets

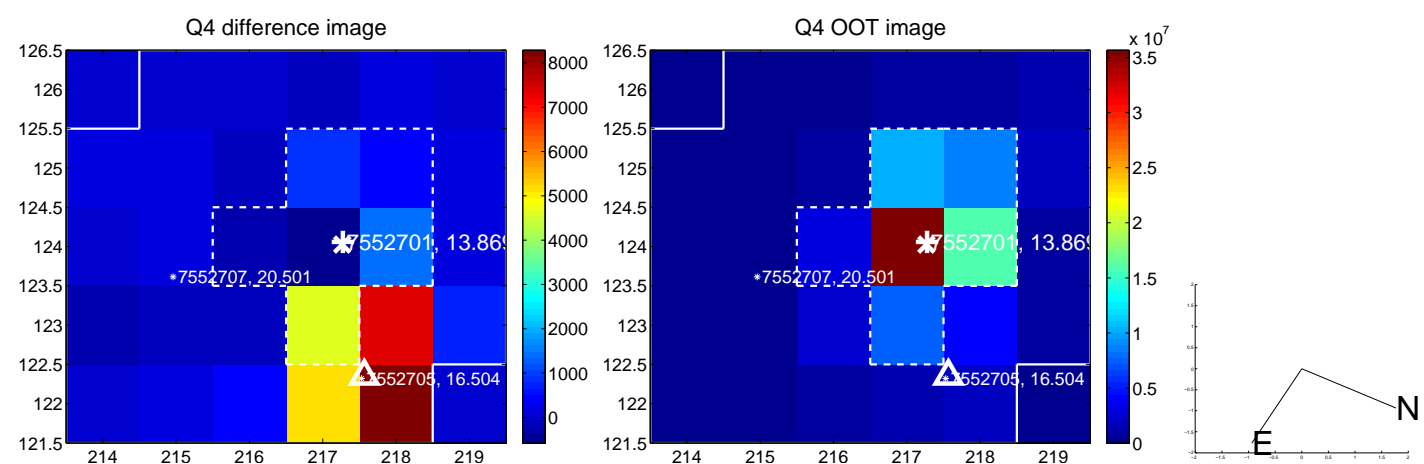
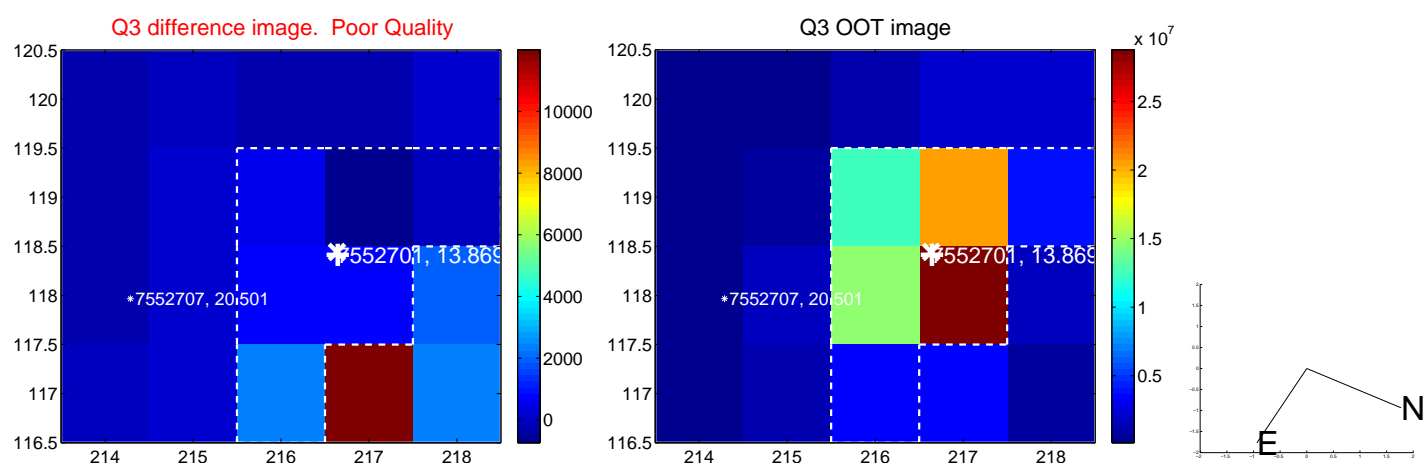
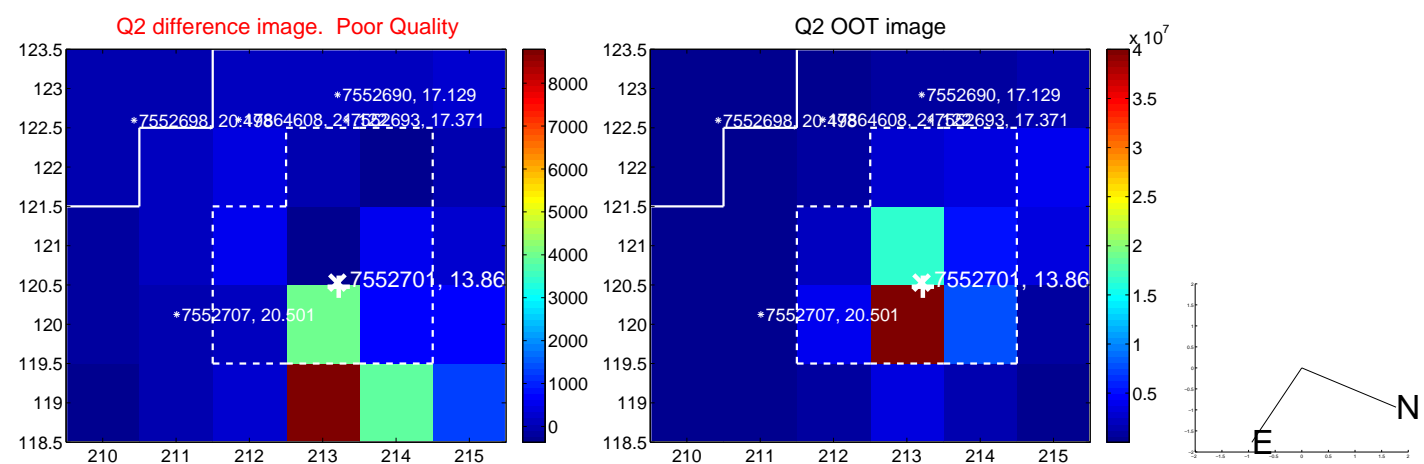
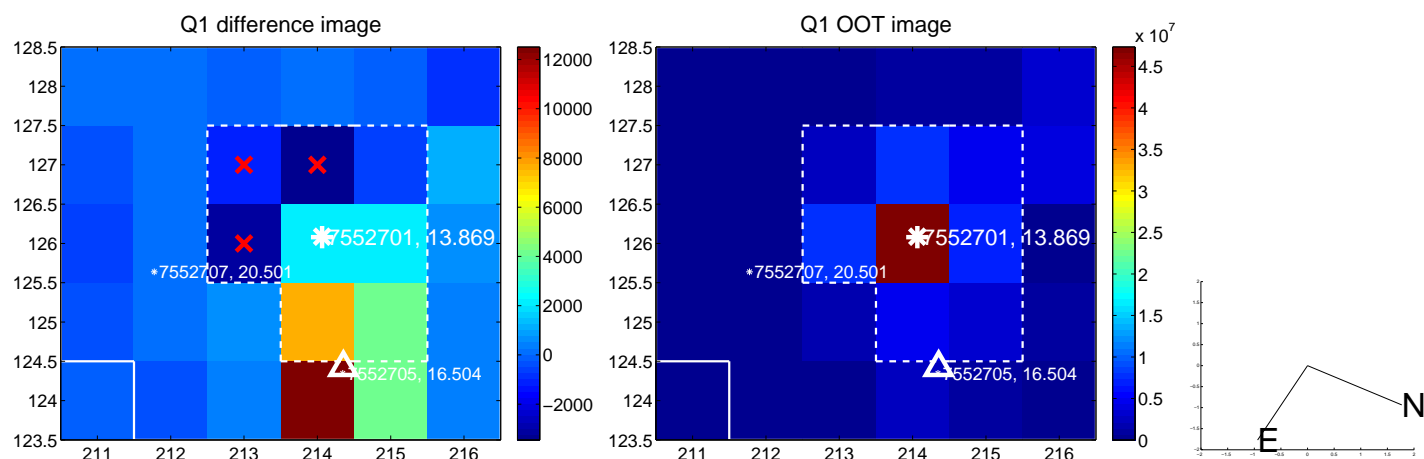
The direct PRF centroid is offset from the target star catalog position by about 0.05 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	6.829 \pm 0.151	45.24	5.400 \pm 0.153	4.181 \pm 0.082
PRF-fit source offset from KIC position	6.825 \pm 0.166	41.12	5.380 \pm 0.167	4.199 \pm 0.086
photometric centroid source offset	11.78 \pm 0.49	24.05	7.66 \pm 0.49	8.95 \pm 0.49

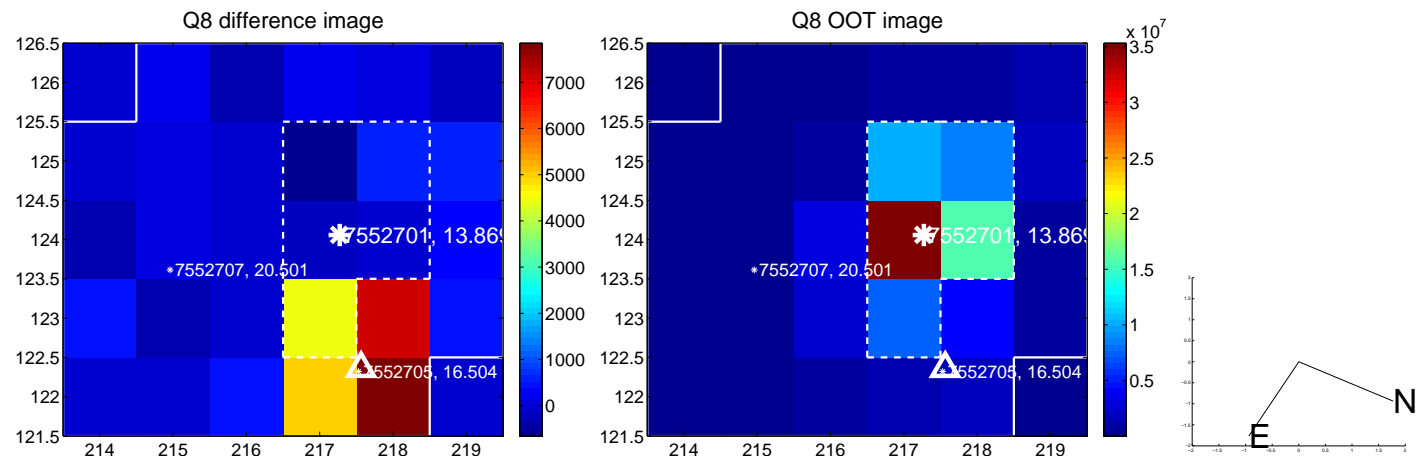
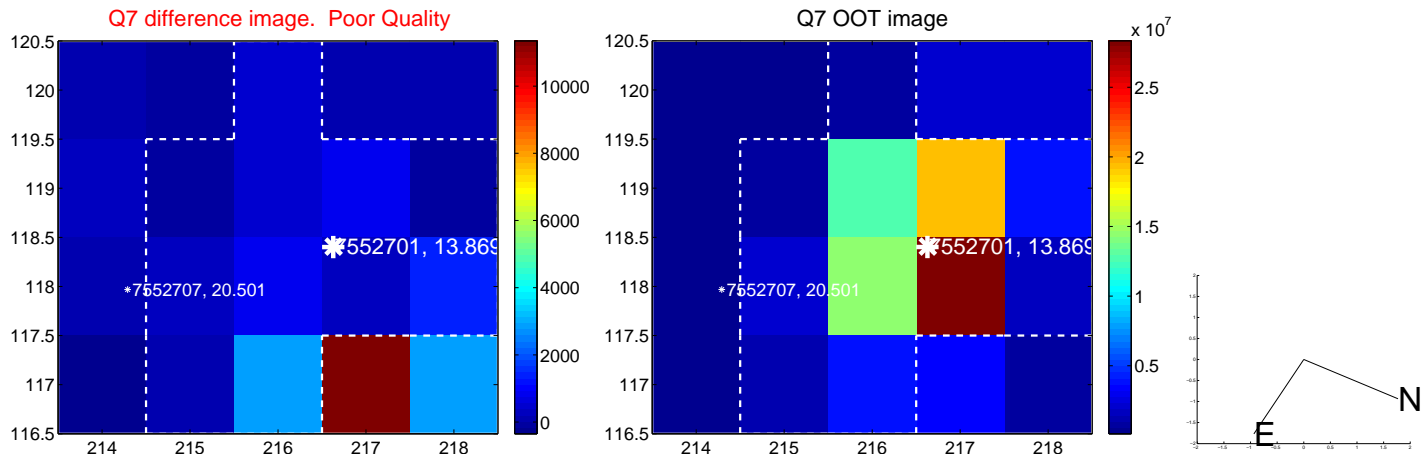
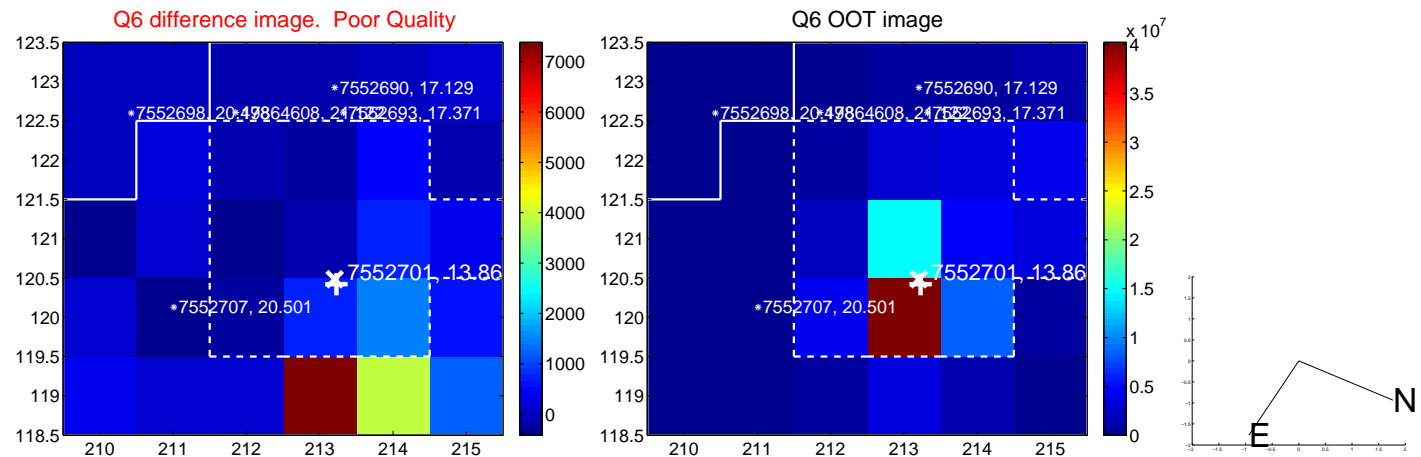
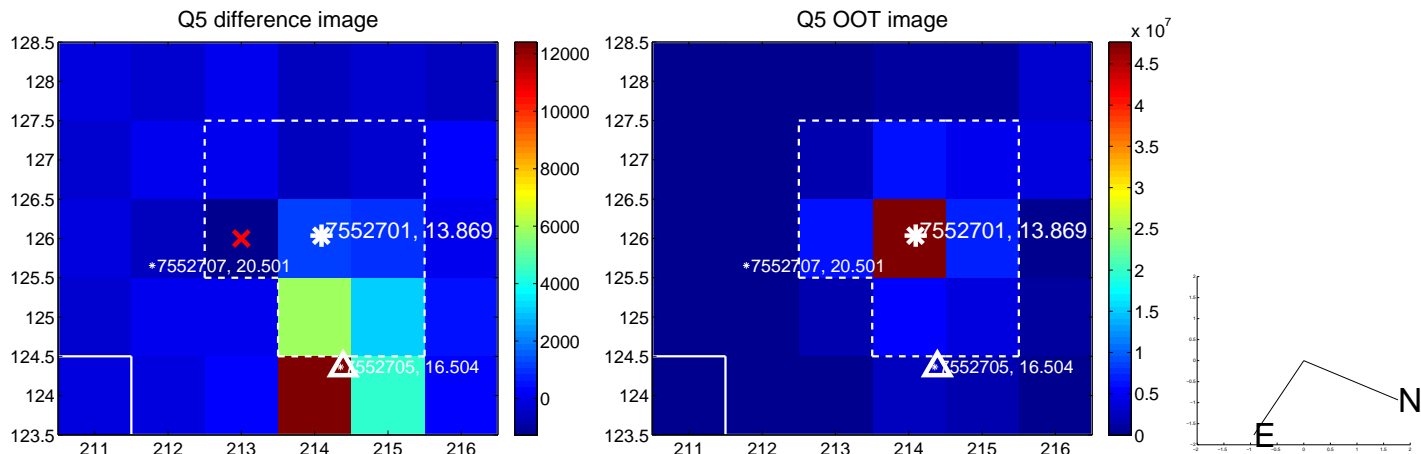


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

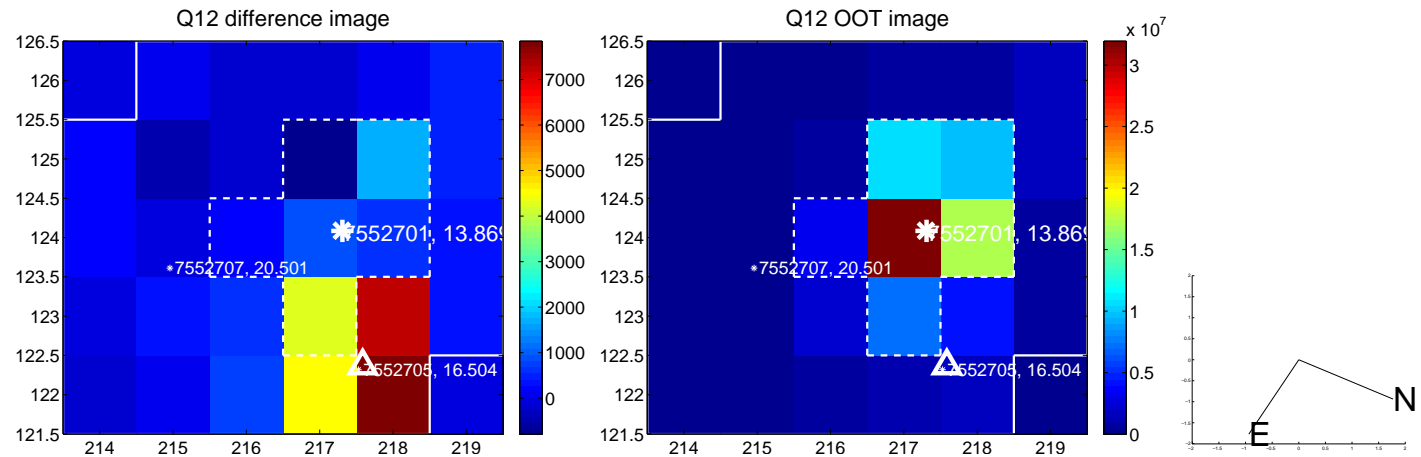
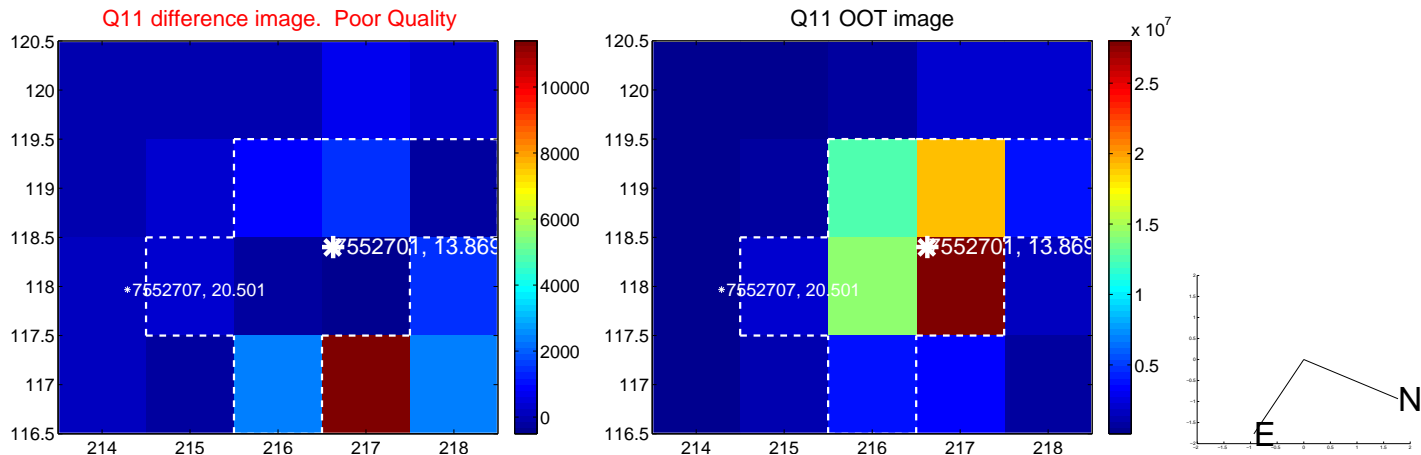
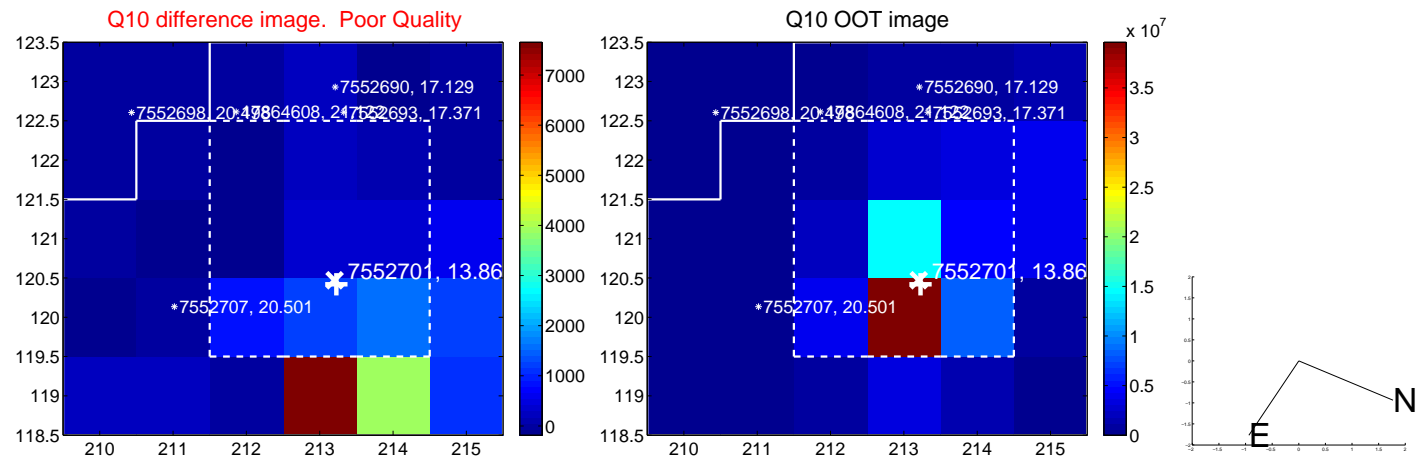
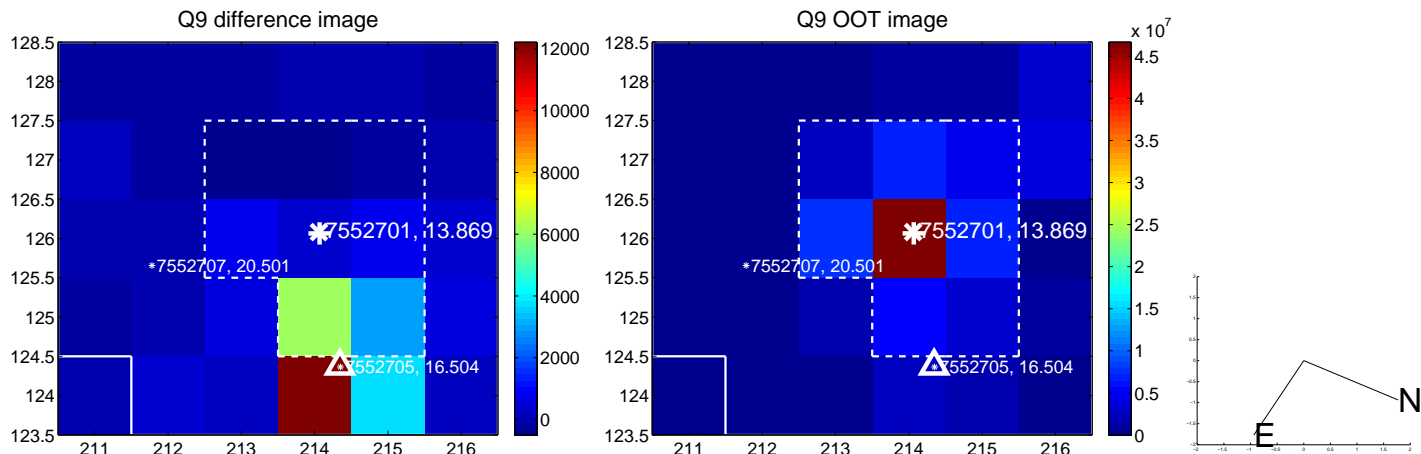
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



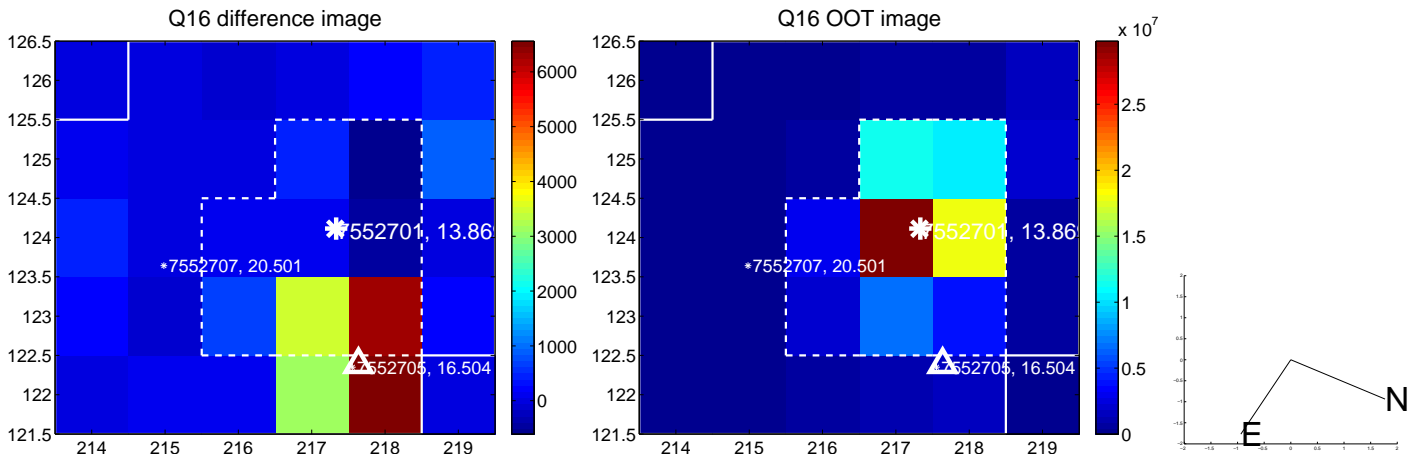
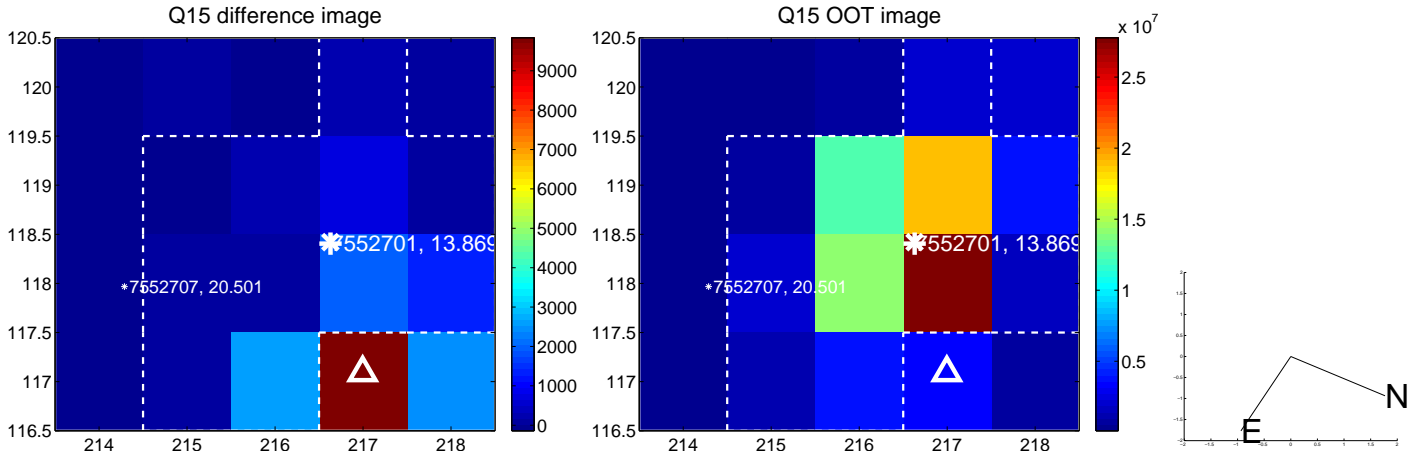
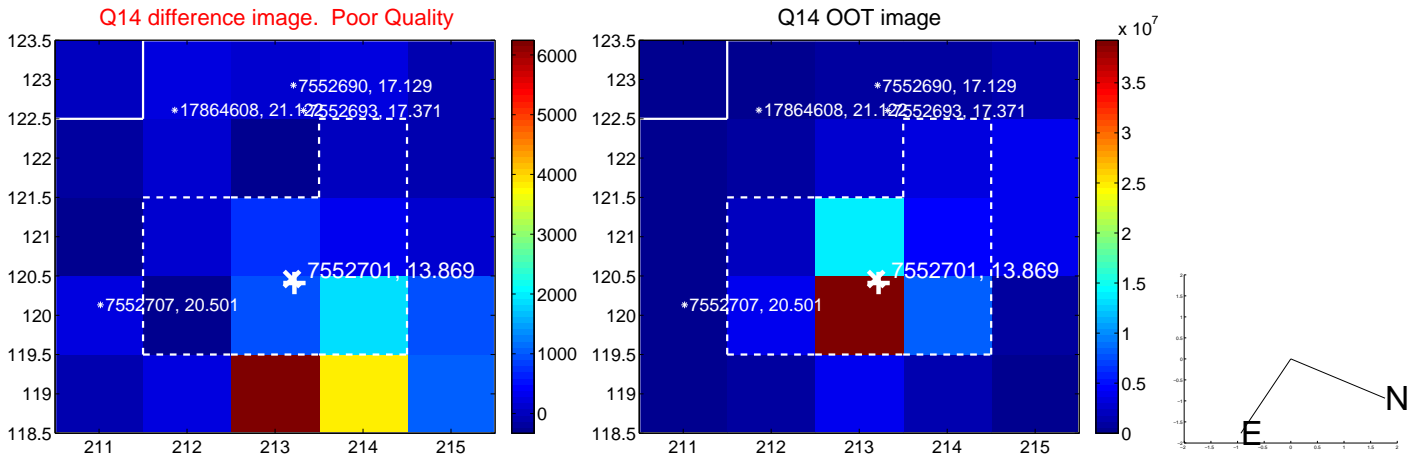
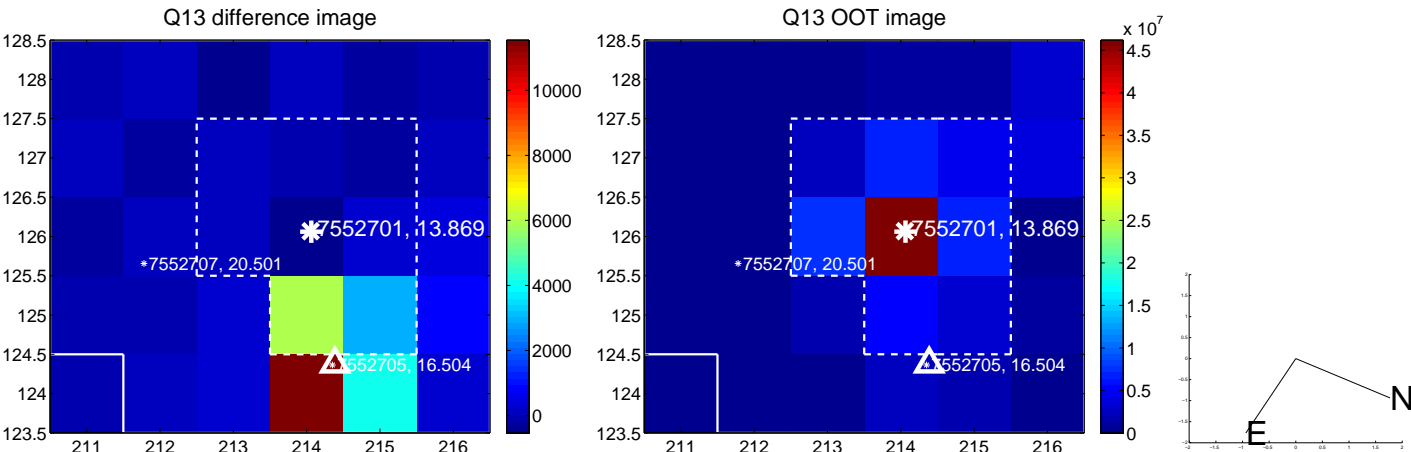
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



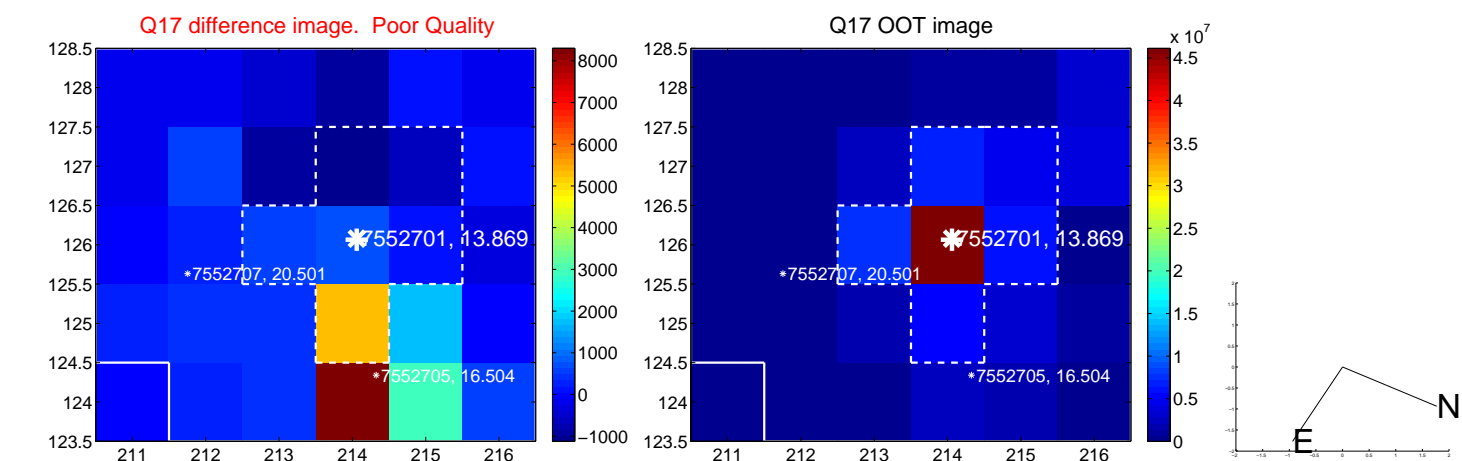
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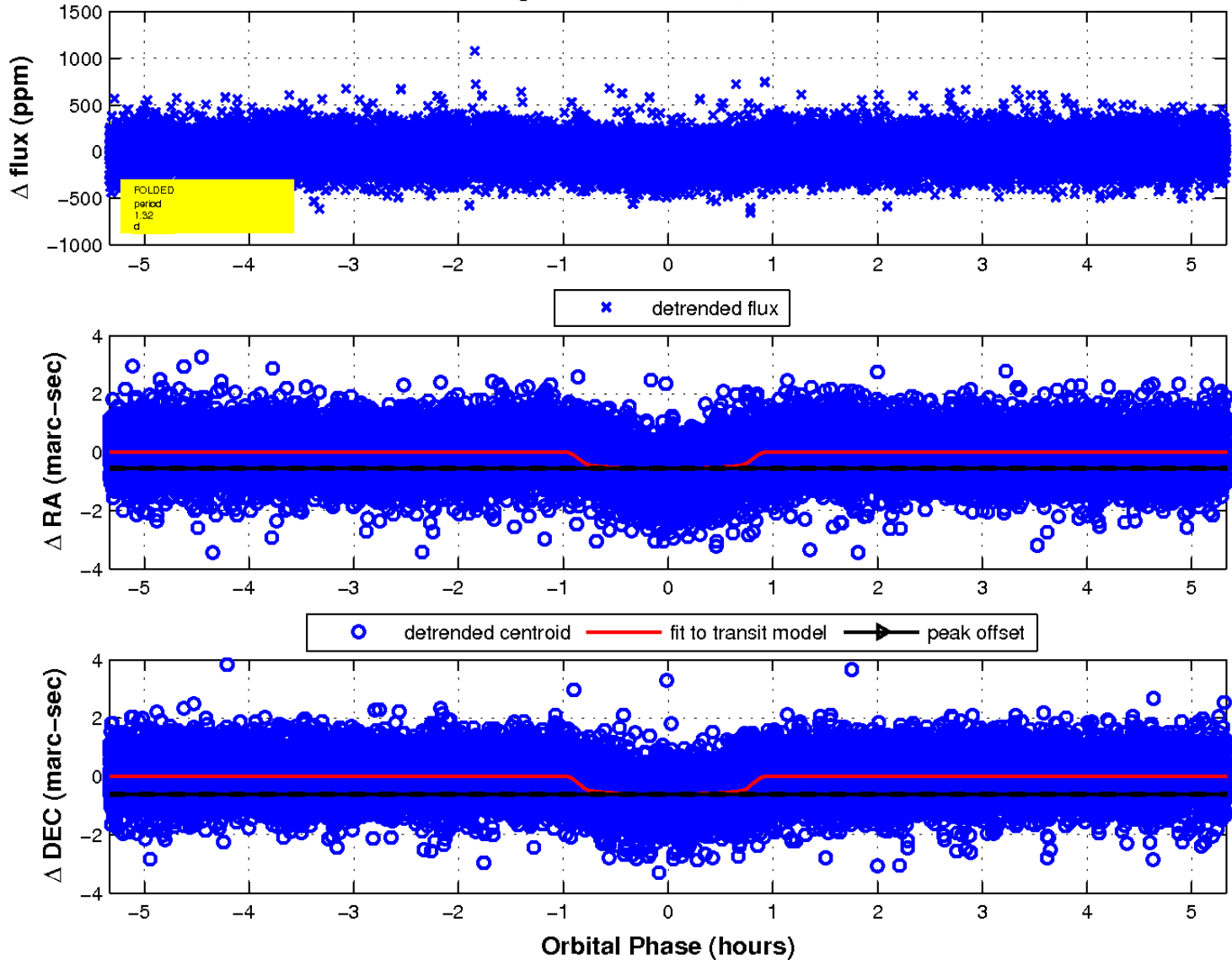
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

