

KIC 008612847

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})
008612847-01	OBS	1264.01	14.131740	142.260953	1031.2	4.120	33.0	36.7	0.82	5616	3.15	49.23

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008612847-01	OBS	PC	1.00	0	0	0	0	NO_COMMENT

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 008612847-01

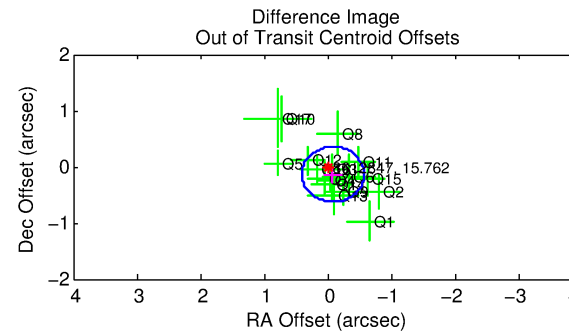
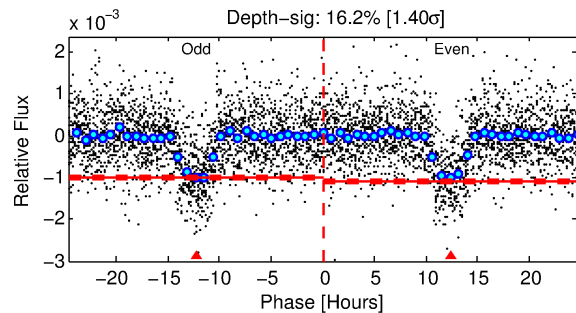
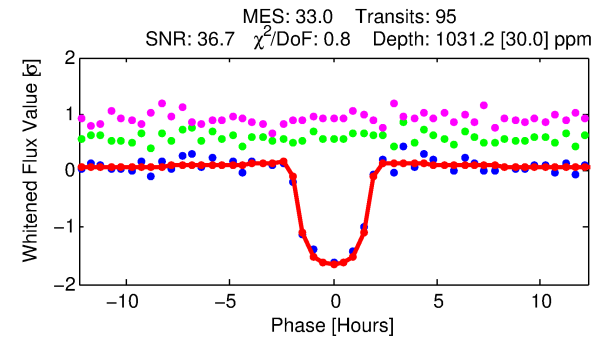
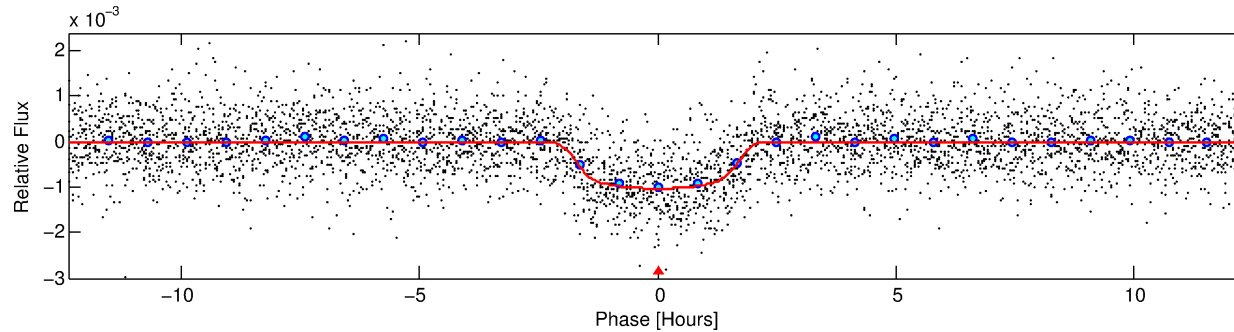
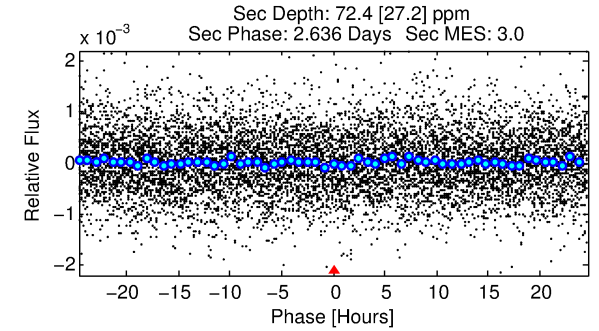
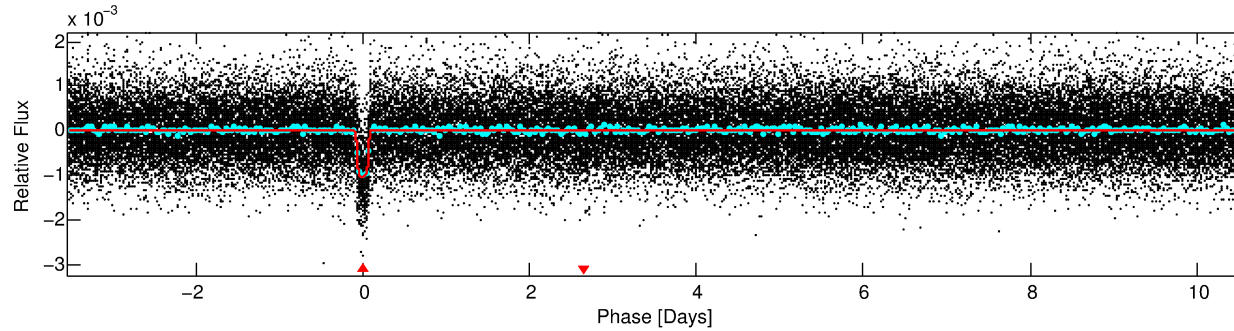
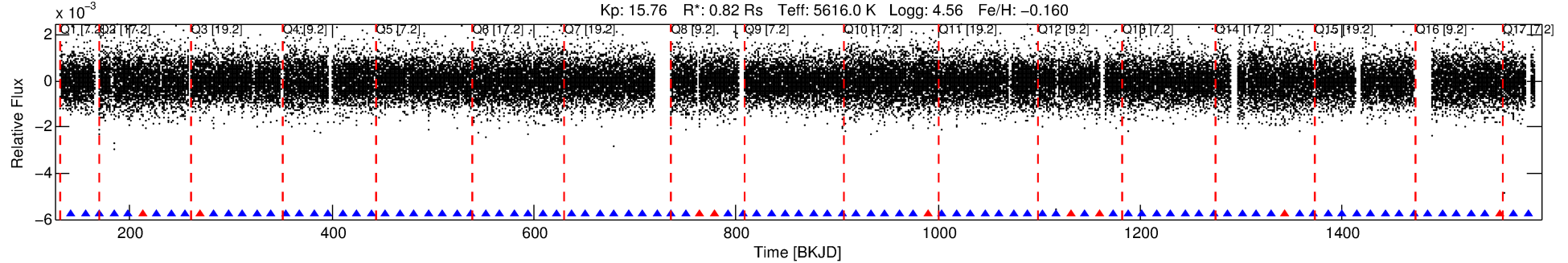
No Significant Match Found

DV One-Page Summary

KIC: 8612847 Candidate: 1 of 1 Period: 14.132 d

KOI: K01264.01 Corr: 0.967

Kp: 15.76 R*: 0.82 Rs Teff: 5616.0 K Logg: 4.56 Fe/H: -0.160



DV Fit Results:

Period = 14.13174 [0.00004] d
Epoch = 142.2610 [0.0024] BKJD
Rp/R* = 0.0351 [0.0015]
a/R* = 13.47 [2.30]
b = 0.90 [0.04]
Seff = 49.23 [16.27]
Teq = 675 [56] K
Rp = 3.15 [0.80] Re
a = 0.1106 [0.0234] AU
Ag = 49.17 [24.28] [1.98σ]
Teff = 2765 [280] K [7.33σ]

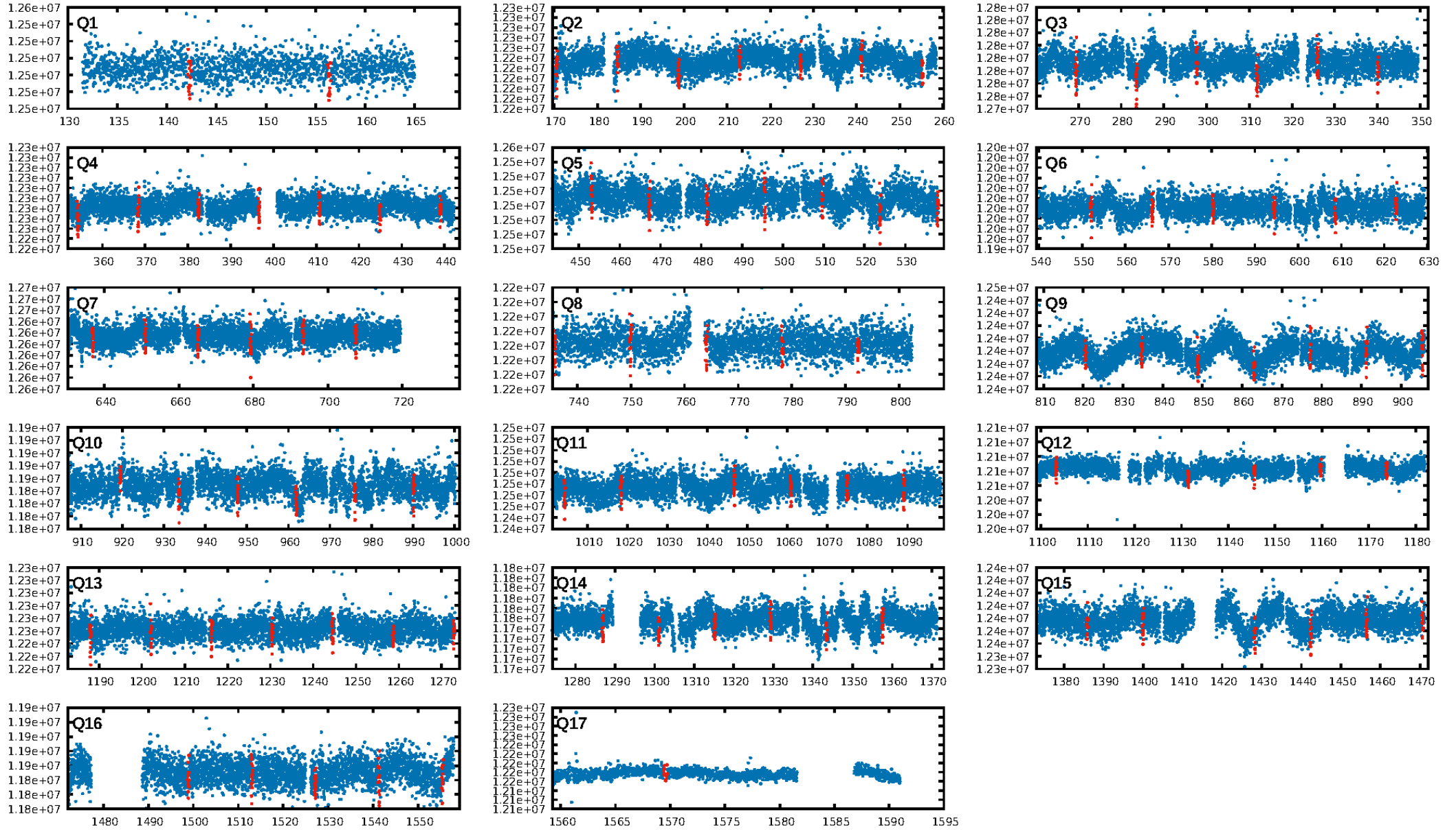
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 99.2%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 8.33e-231
RollingBand-fgt: 0.90 [83/92]
GhostDiagnostic-chr: 8.039
Centroid-sig: N/A
Centroid-so: 0.705 arcsec [1.56σ]
OotOffset-rm: 0.159 arcsec [0.97σ]
KicOffset-rm: 0.250 arcsec [1.45σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.94 [16/17]
DiffImageOverlap-fno: 1.00 [17/17]

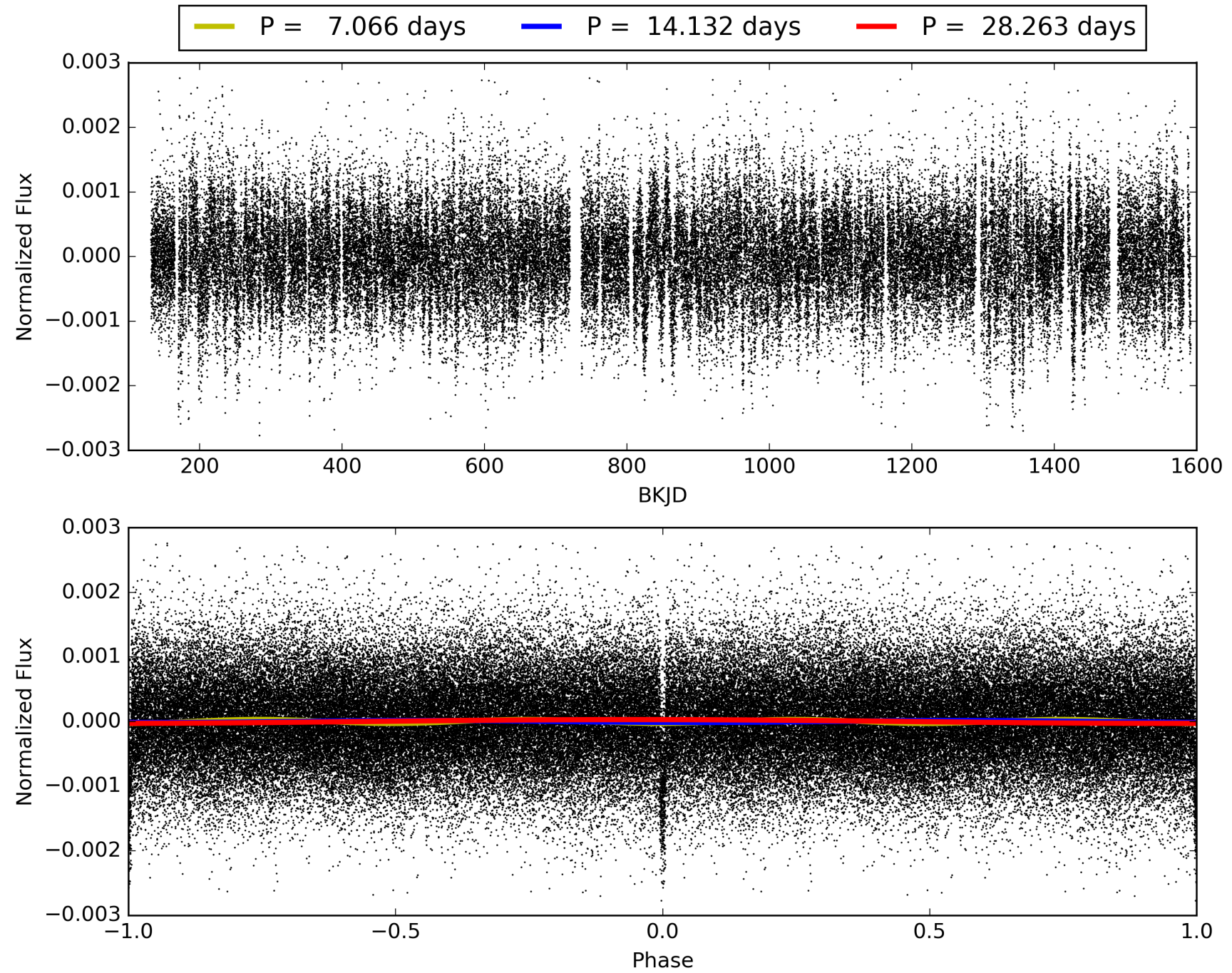
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 21:18:03 Z

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

TCE 008612847-01, PDC Light Curves

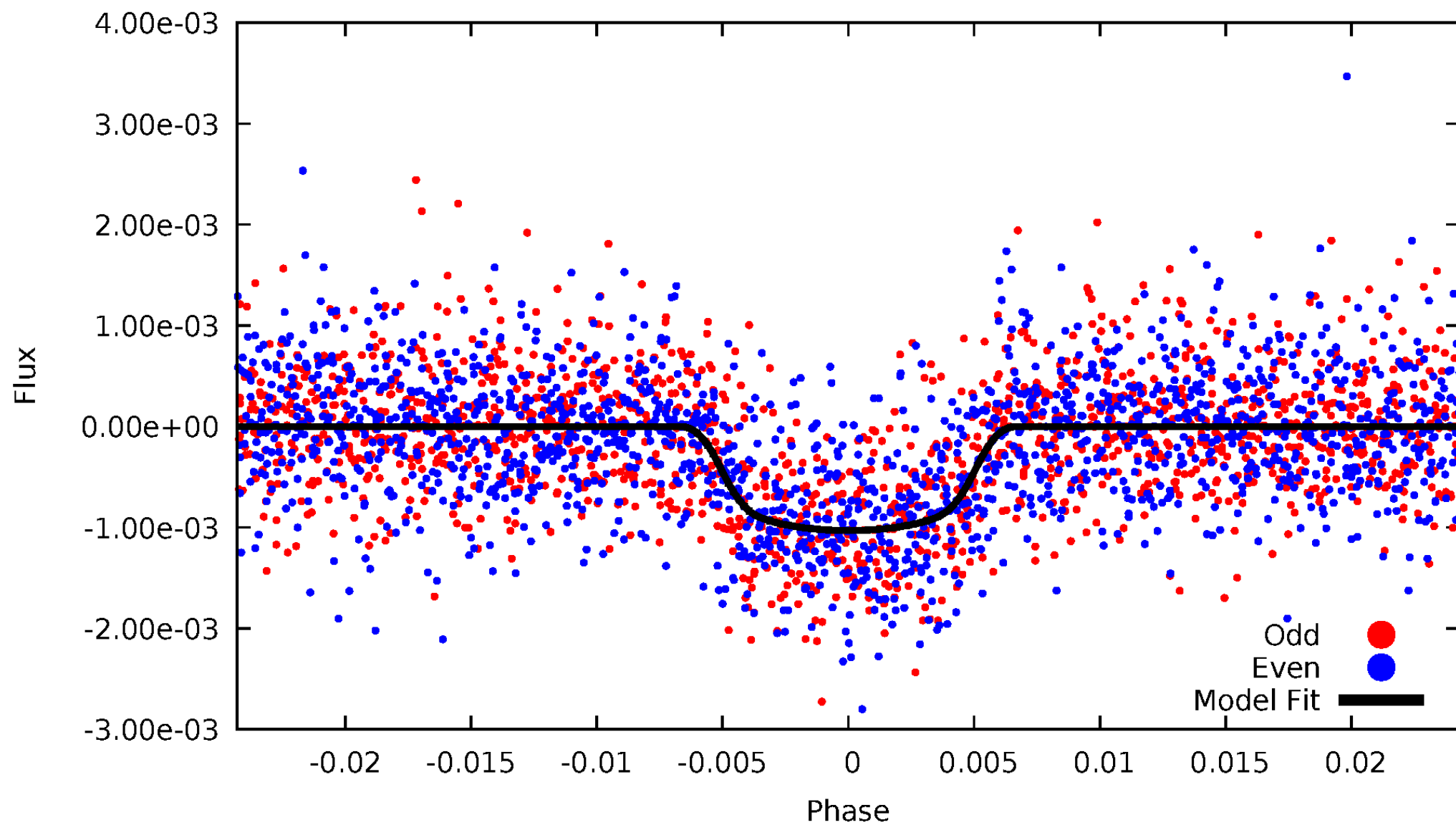


TCE 008612847-01



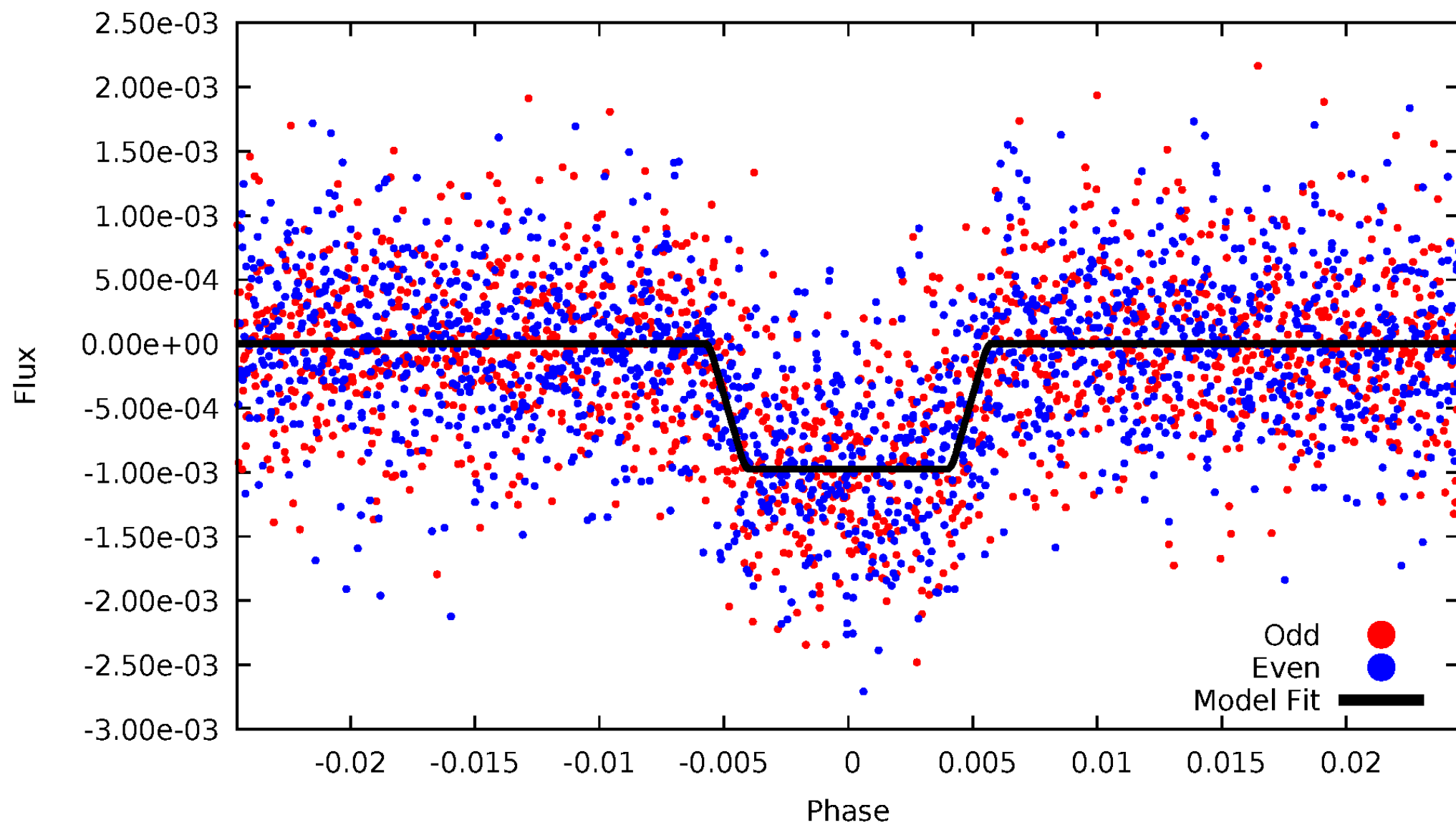
DV Odd/Even

TCE 008612847-01

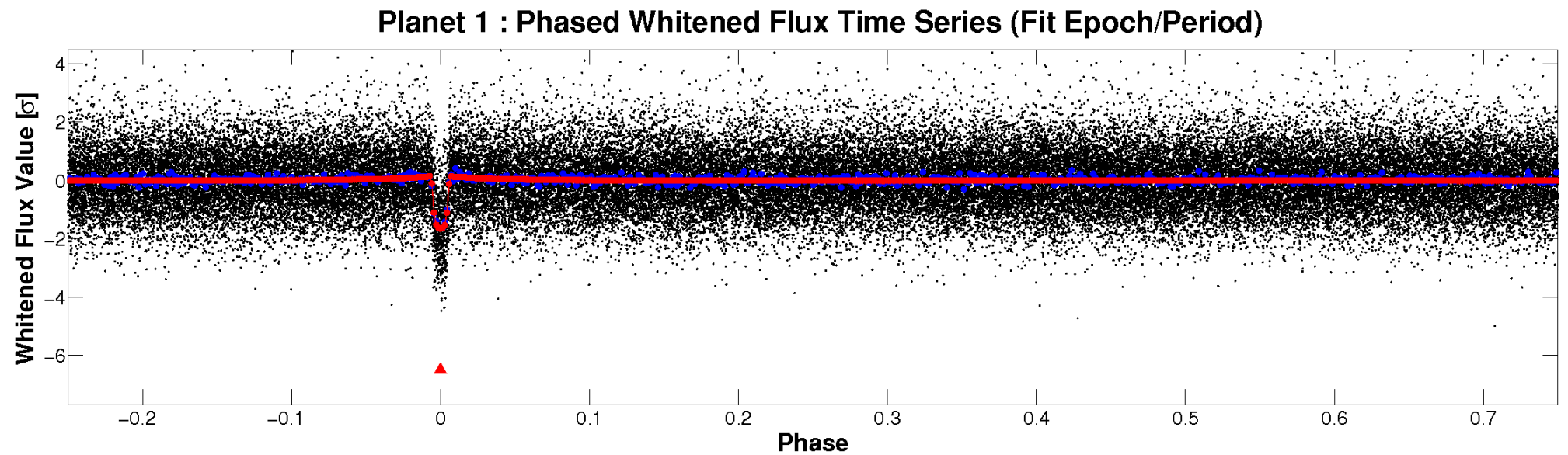
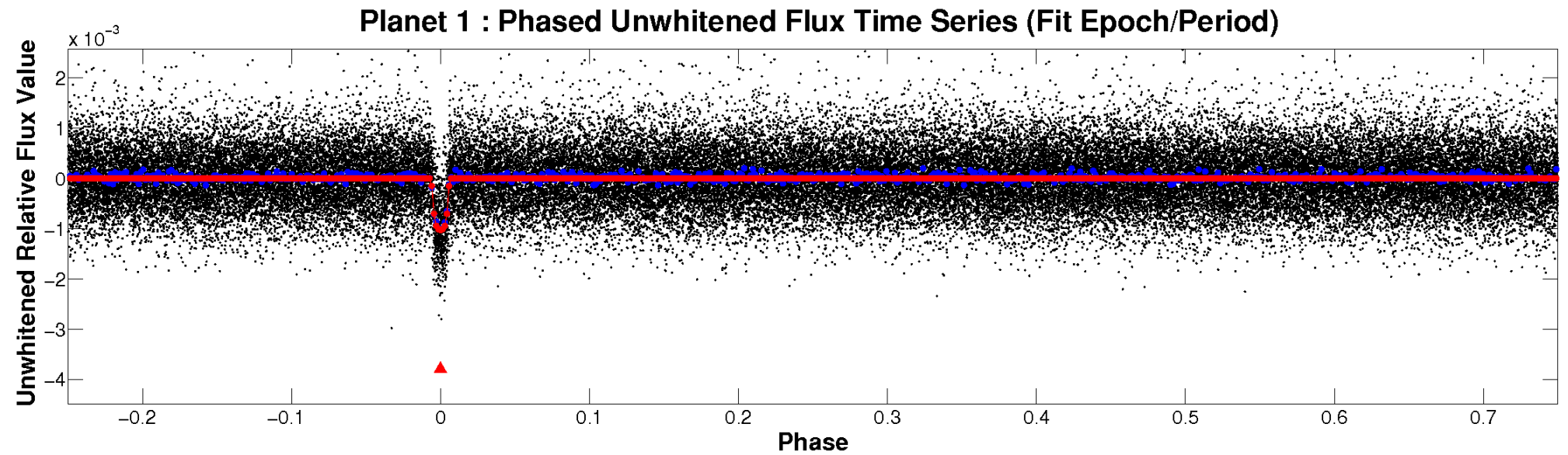


ALT Odd/Even

TCE 008612847-01

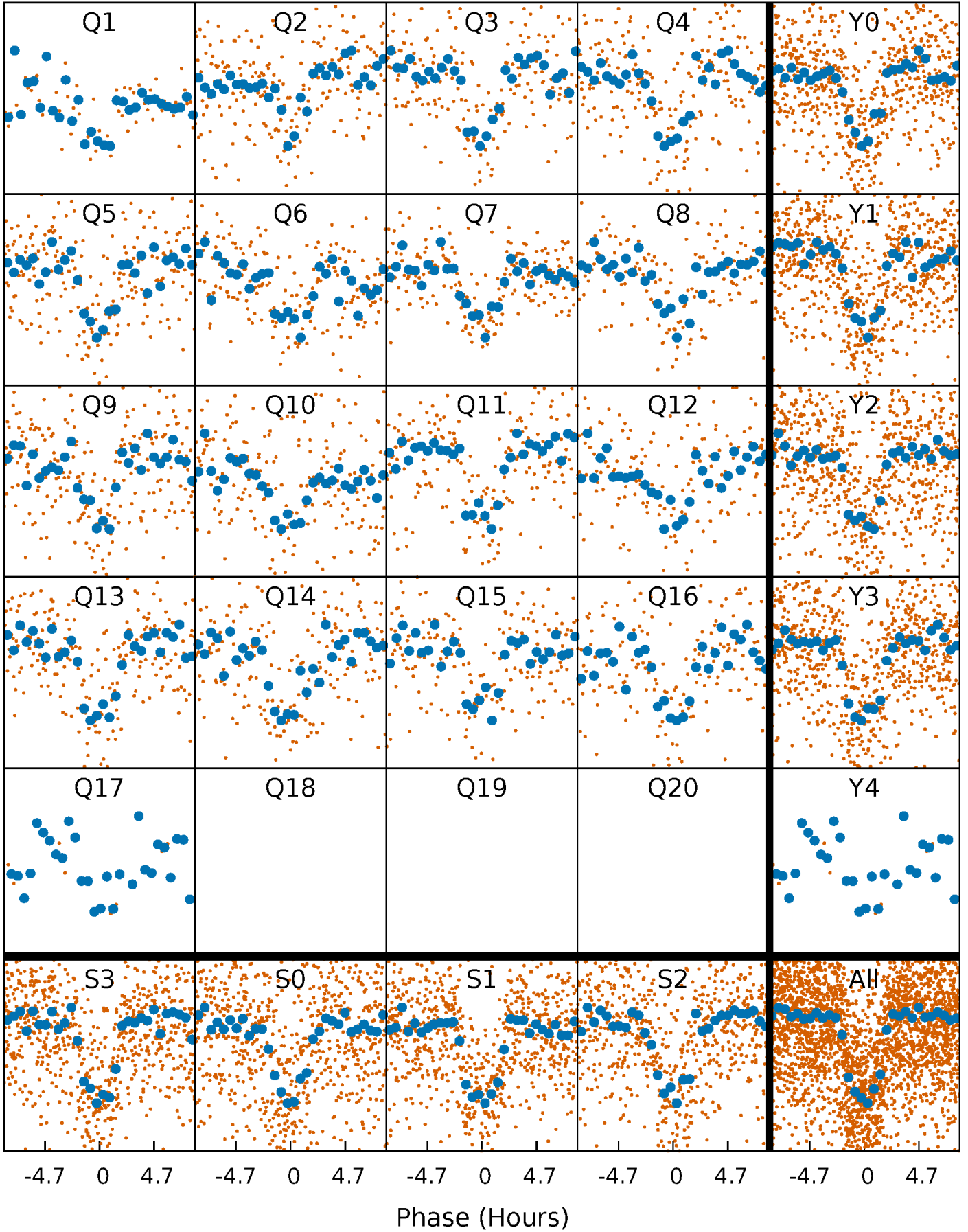


Non-Whitened Vs. Whitened Light Curve



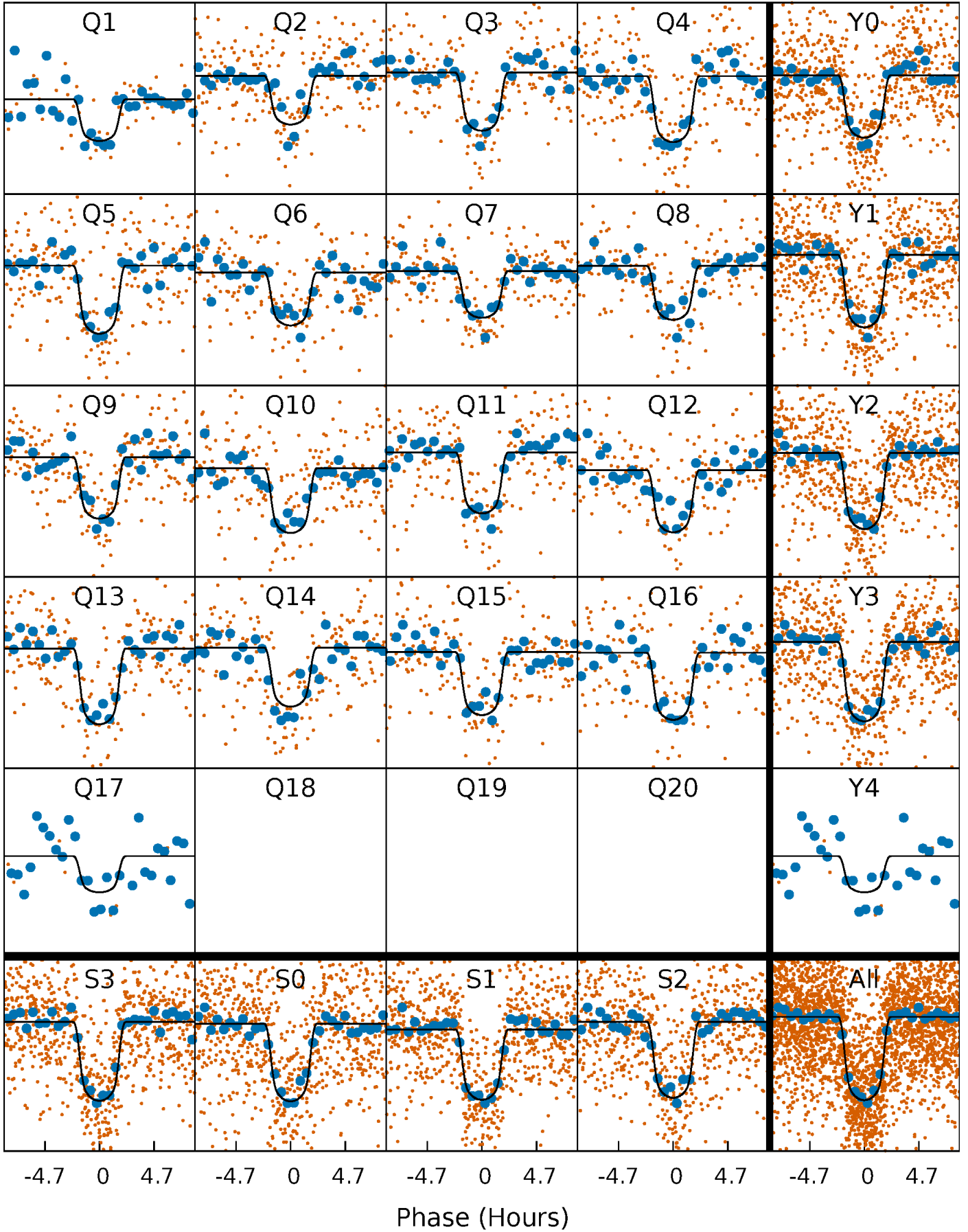
PDC Quarter-Phased Transit Curves

TCE 008612847-01 P= 14.131740 Days $T_0=142.260953$ (BKJD)



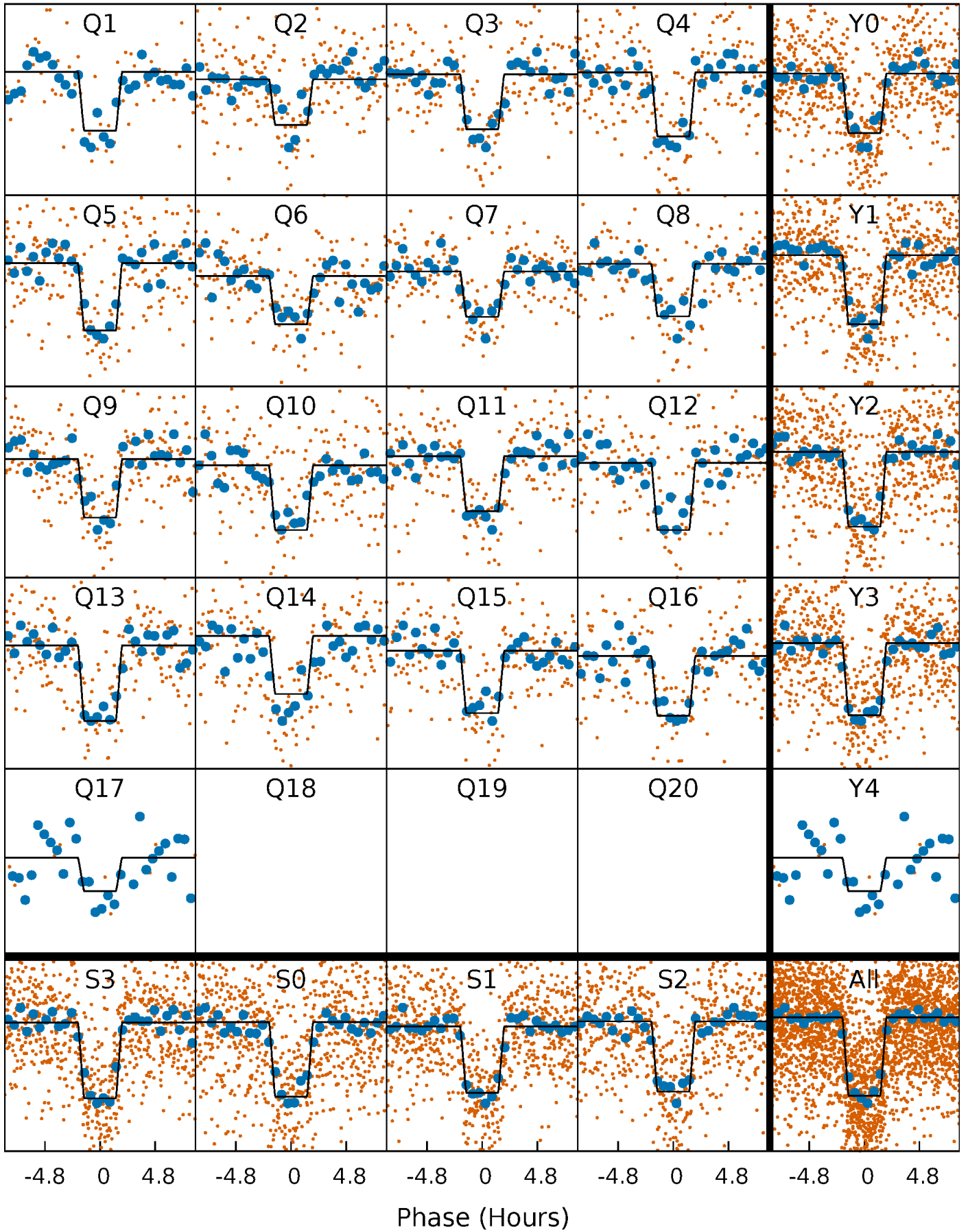
DV Quarter-Phased Transit Curves

TCE 008612847-01 P= 14.131740 Days $T_0=142.260953$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

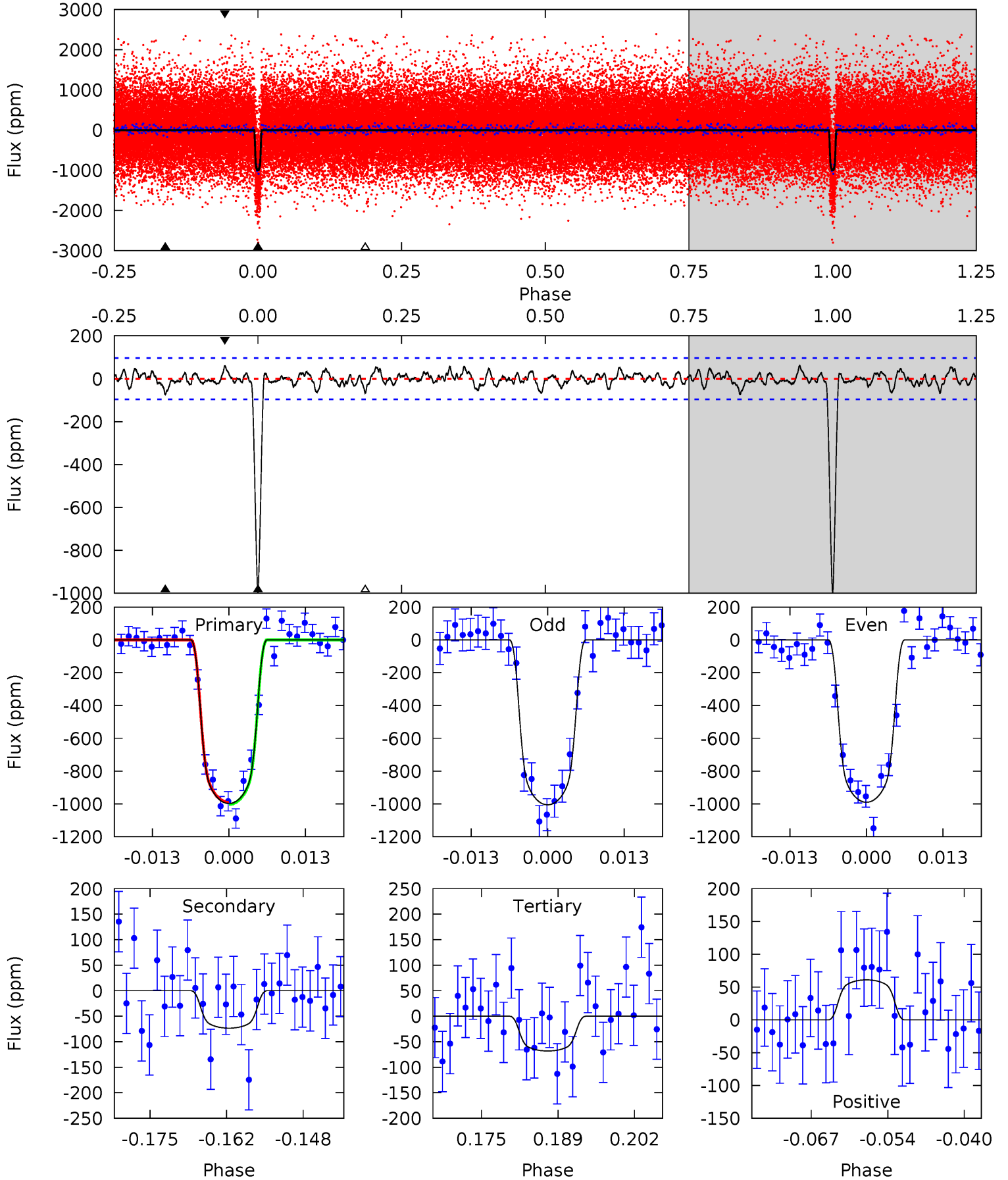
TCE 008612847-01 P= 14.131778 Days $T_0=142.258713$ (BKJD)



DV Model-Shift Uniqueness Test

008612847-01, $P = 14.131740$ Days, $E = 128.129213$ Days

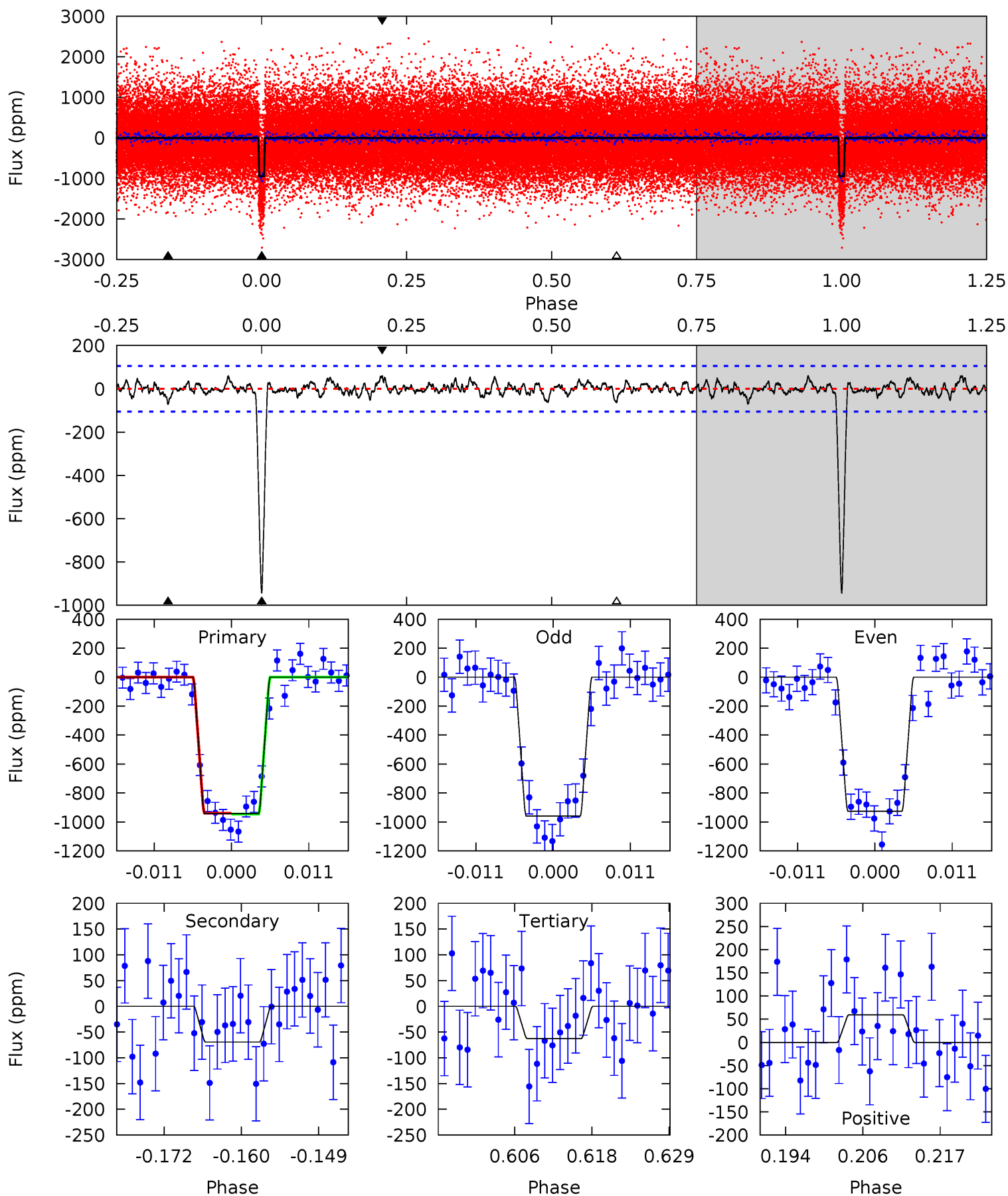
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
51.2	3.77	3.50	3.13	4.97	2.47	1.17	47.7	48.0	0.27	0.64	0.40	1.03	0.06	0.30



Alt Model-Shift Uniqueness Test

008612847-01, $P = 14.131778$ Days, $E = 128.126935$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
44.7	3.29	2.97	2.81	5.00	2.53	0.97	41.7	41.9	0.32	0.48	0.79	1.02	0.06	0.14



Stellar Parameters For KIC 008612847

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5616^{+169}_{-169}	$4.564^{+0.031}_{-0.168}$	$-0.160^{+0.300}_{-0.300}$	$0.822^{+0.207}_{-0.069}$	$0.907^{+0.095}_{-0.104}$	$2.297^{+0.392}_{-1.077}$
	+3%/-3%	+1%/-4%	+188%/-188%	+25%/-8%	+10%/-11%	+17%/-47%
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 008612847-01 / KOI 1264.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-73 ± 19	$3.26^{+0.45}_{-0.27}$	966^{+56}_{-42}	3299^{+146}_{-169}	44^{+15}_{-14}
Alt.	-69 ± 21	$2.89^{+0.38}_{-0.27}$	965^{+59}_{-41}	3415^{+176}_{-200}	54^{+22}_{-19}

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 $T_{\text{obs}} \gg T_{\text{max}}$ AND $A_{\text{obs}} \gg 1.0$

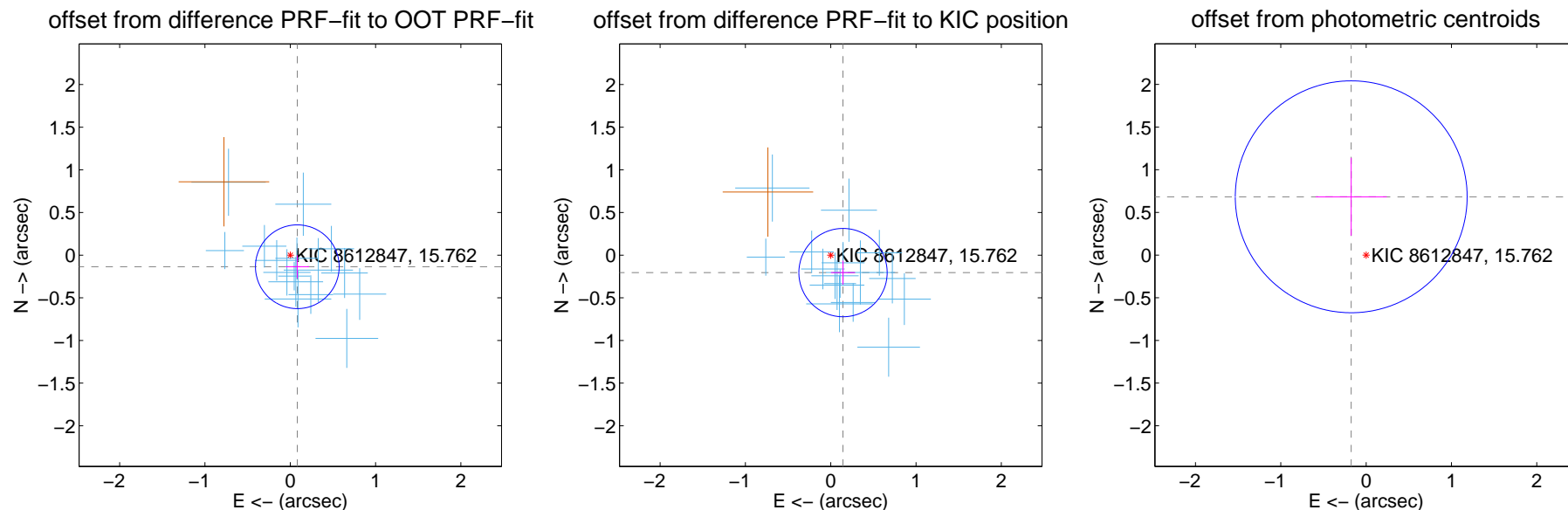
DV Centroid Data

Supplemental centroid analysis for 008612847-01. Kepler magnitude: 15.76. Transit SNR 36.66

There are 16 quarters with good PRF difference image offsets

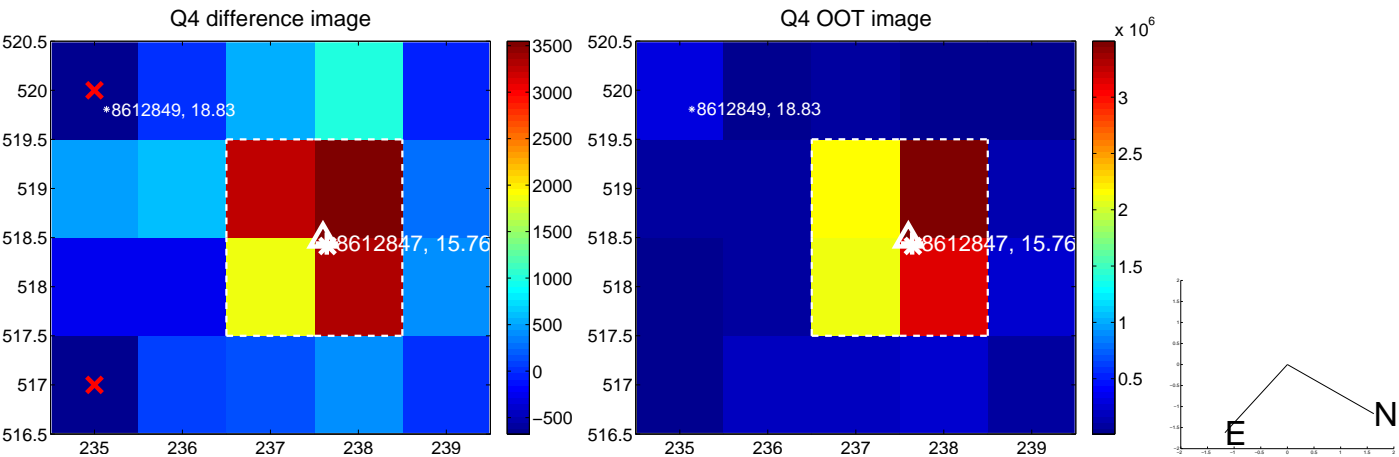
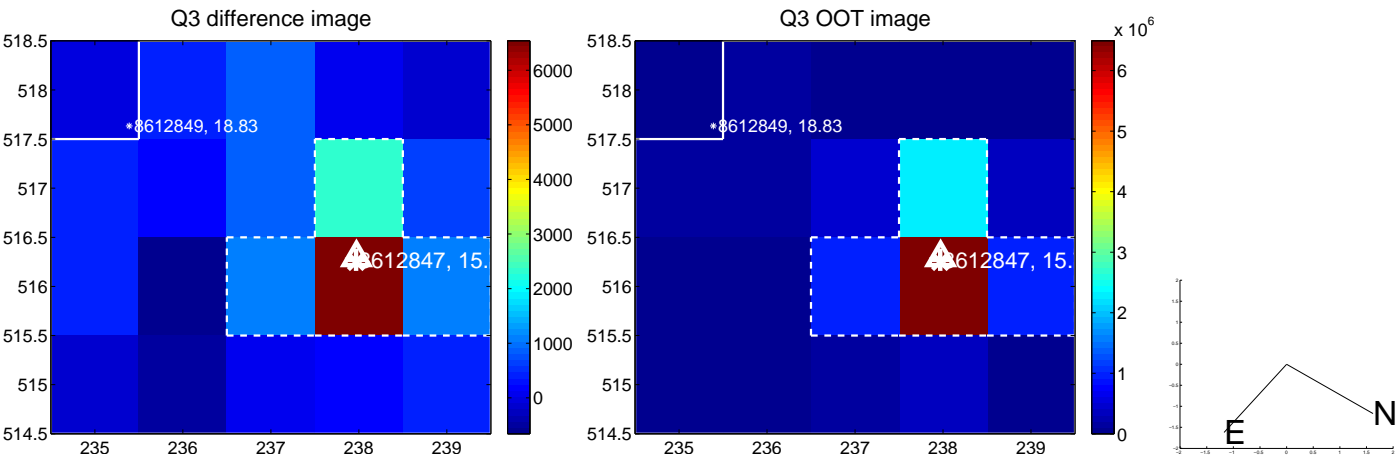
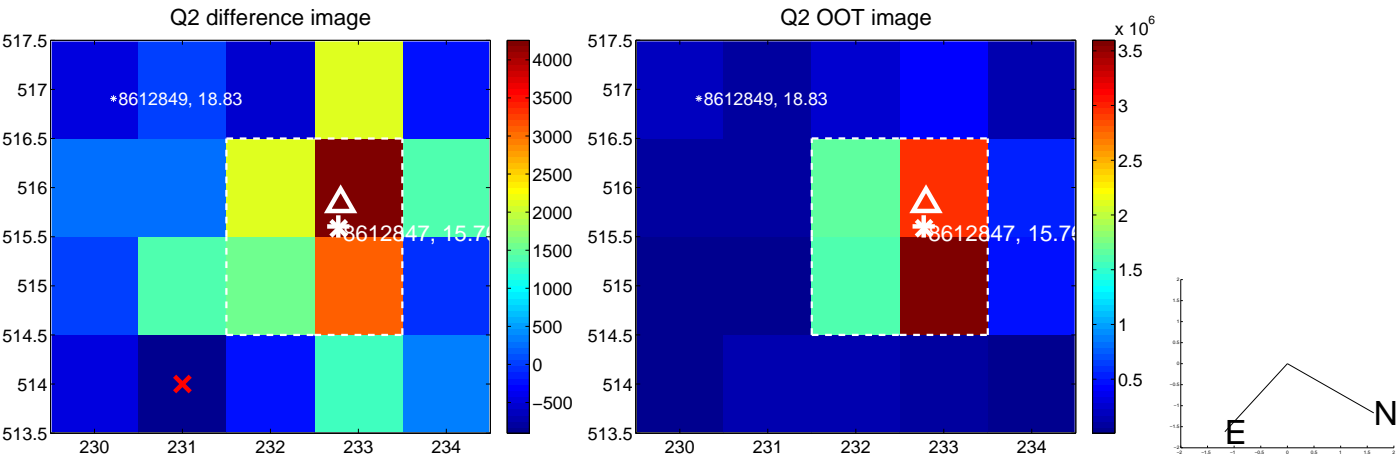
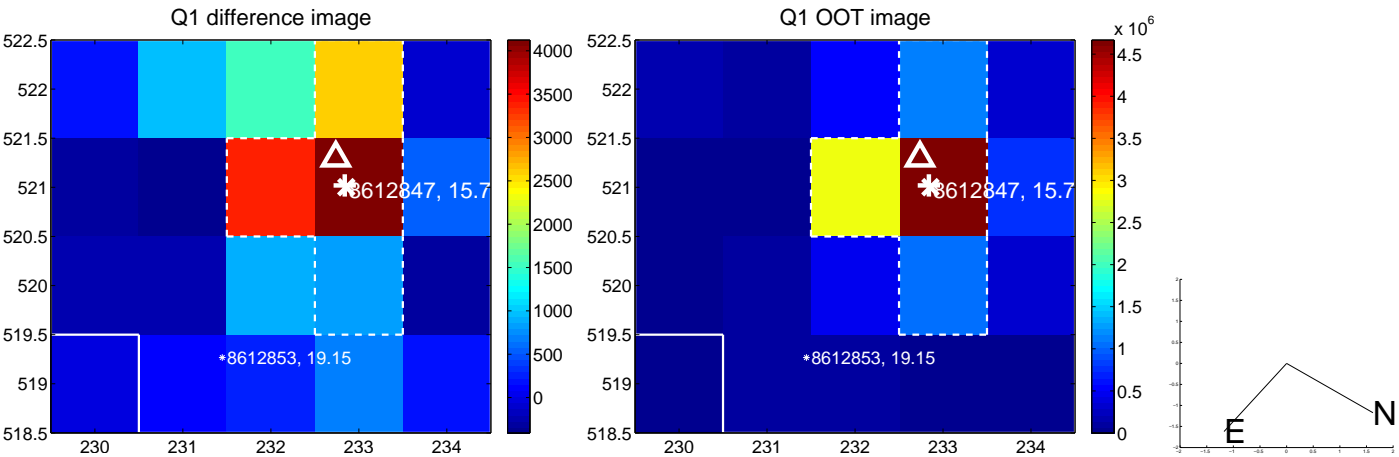
The direct PRF centroid is offset from the target star catalog position by about 0.13 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.159 ± 0.164	0.97	-0.083 ± 0.137	-0.136 ± 0.134
PRF-fit source offset from KIC position	0.250 ± 0.173	1.45	-0.144 ± 0.141	-0.205 ± 0.140
photometric centroid source offset	0.71 ± 0.45	1.56	0.17 ± 0.42	0.68 ± 0.46

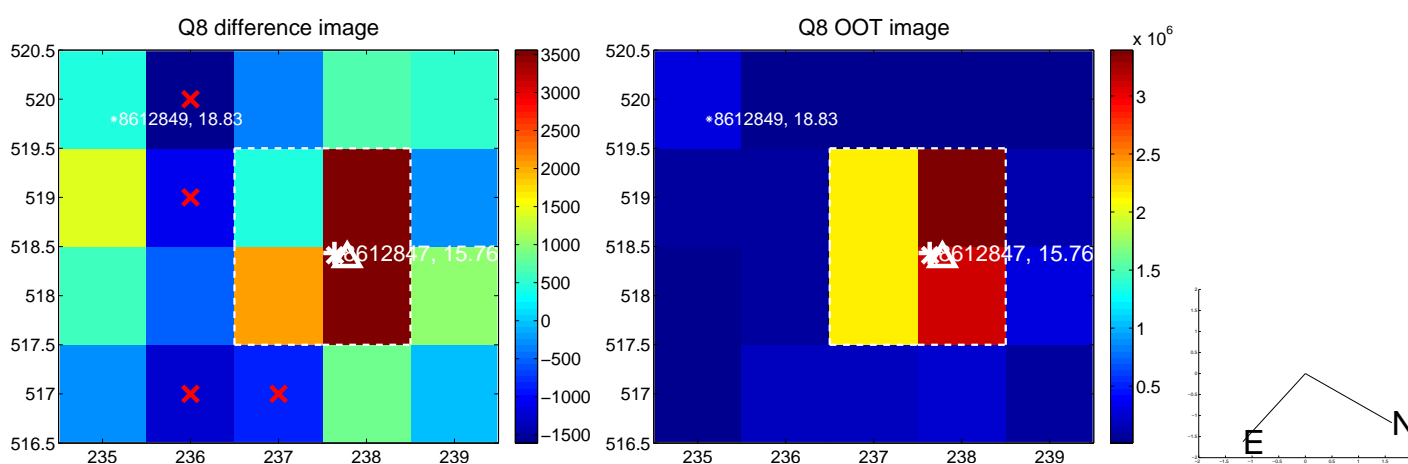
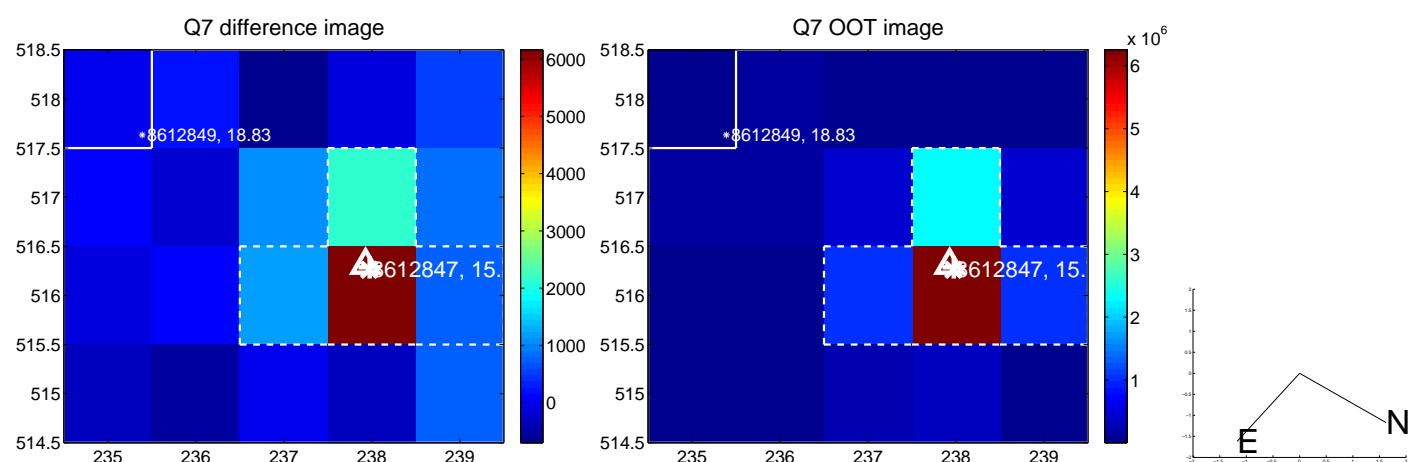
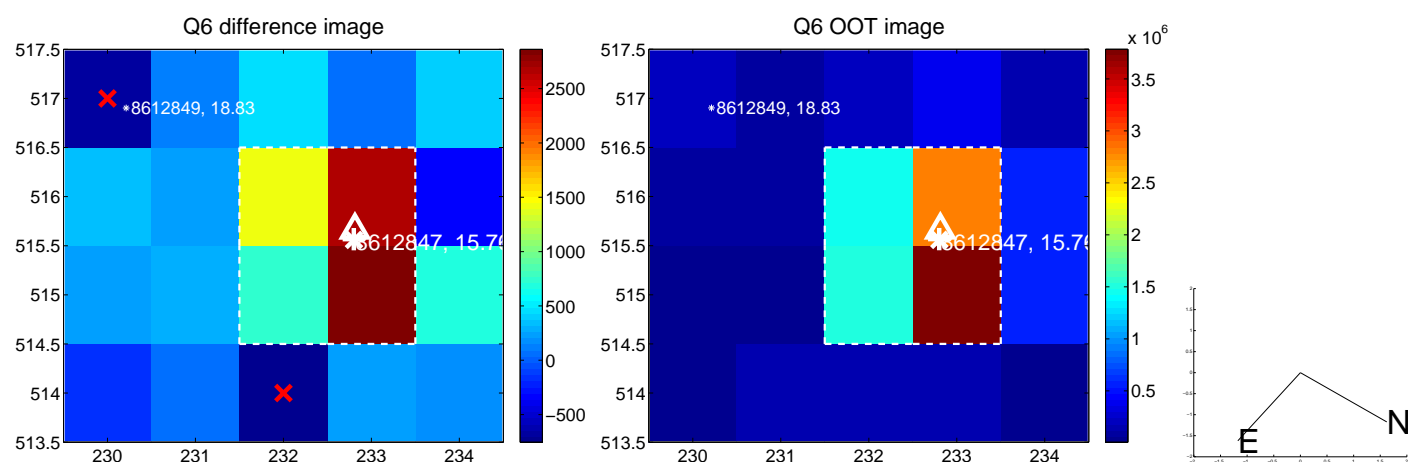
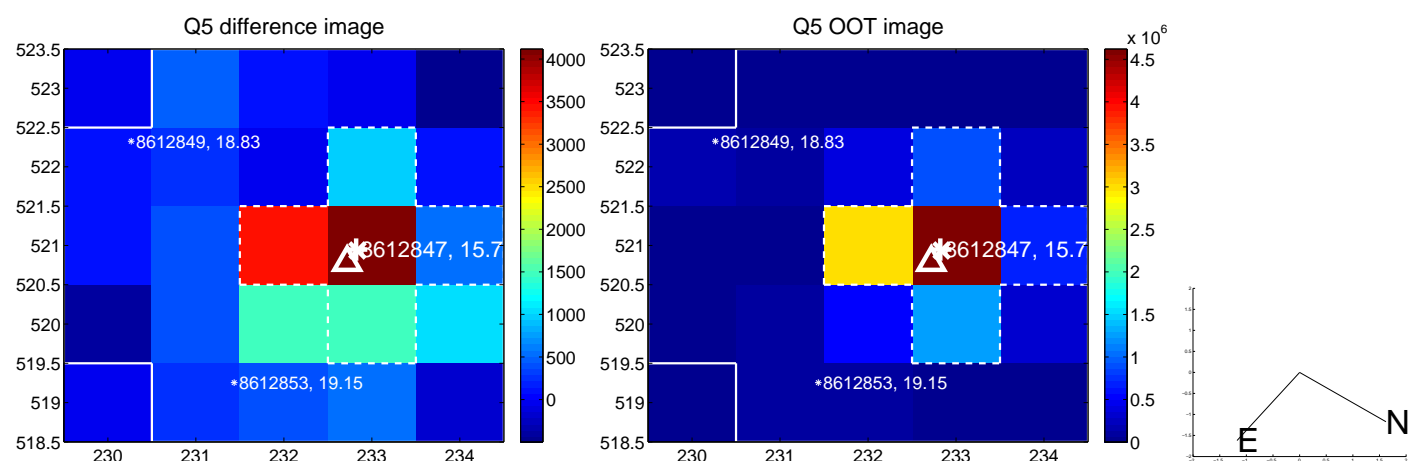


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

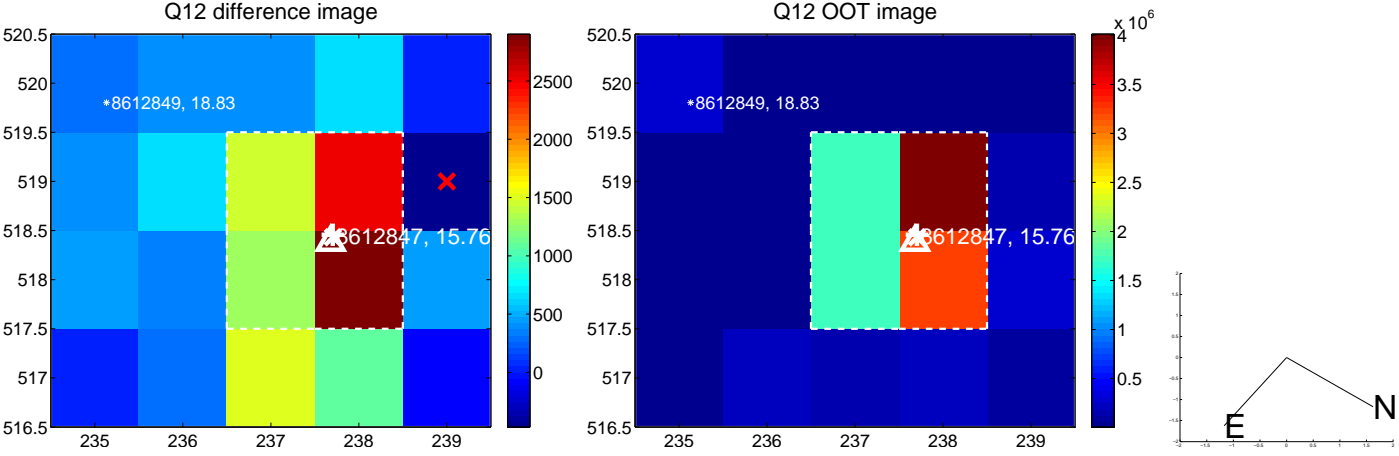
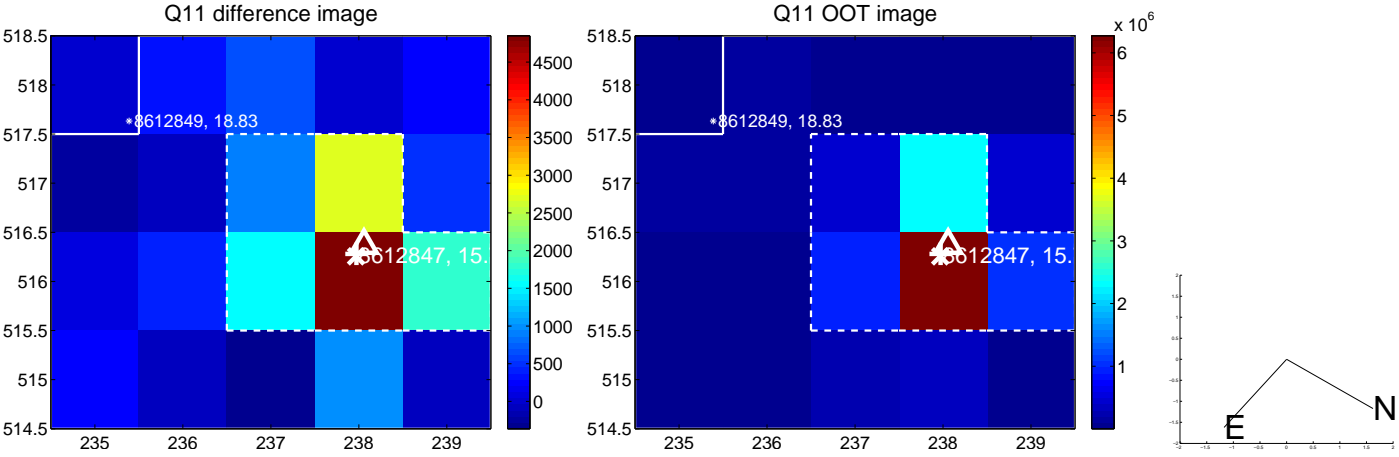
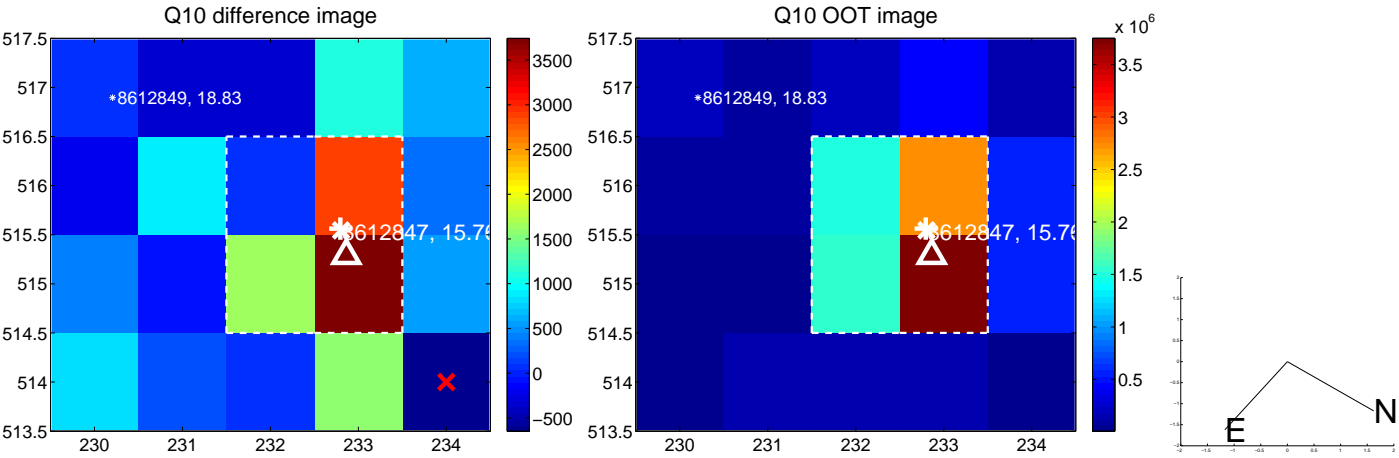
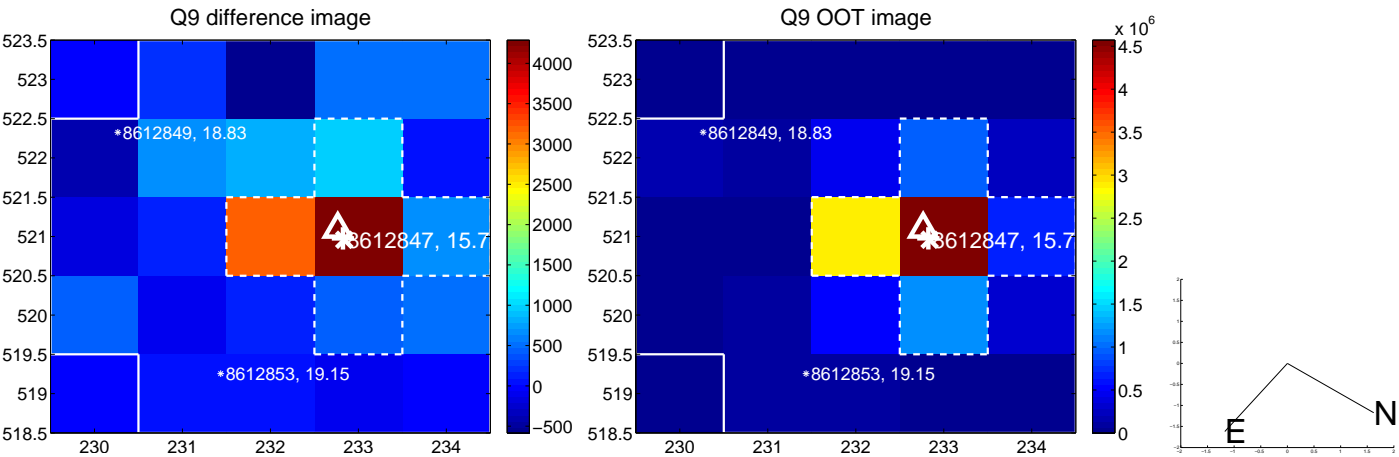
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



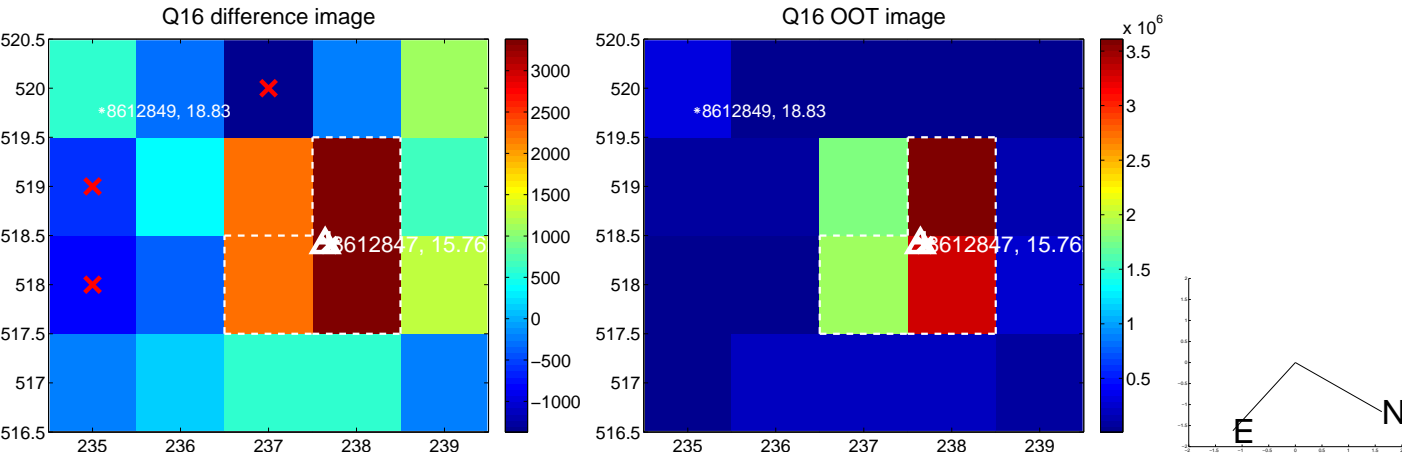
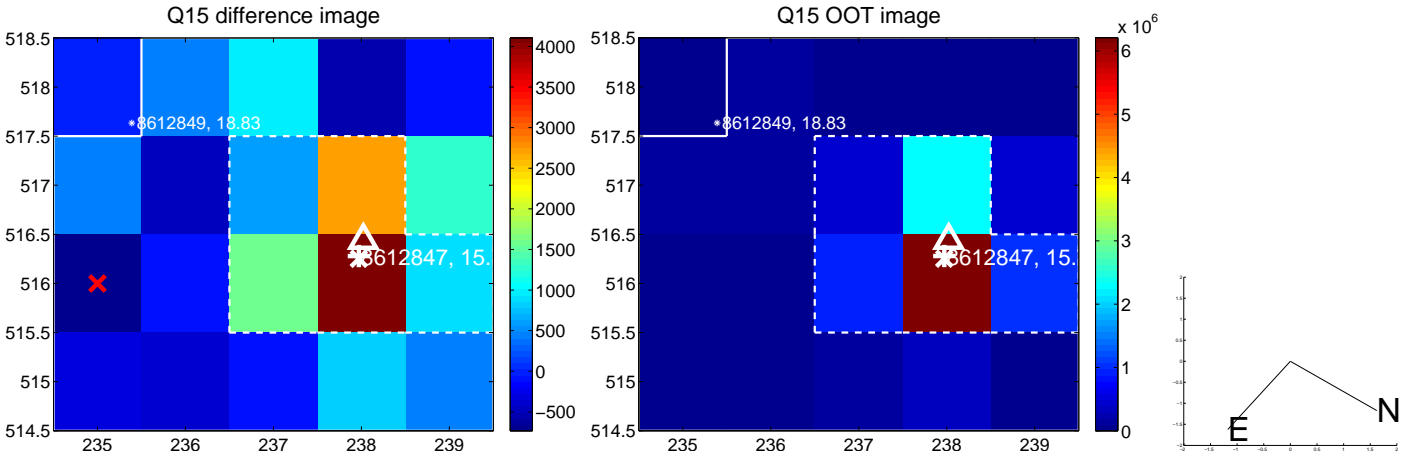
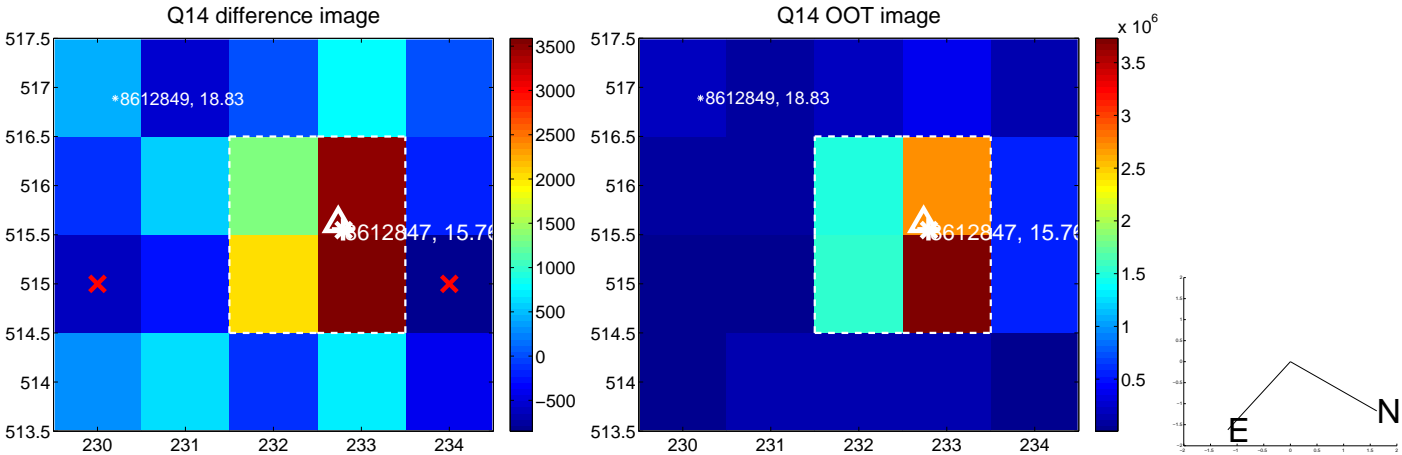
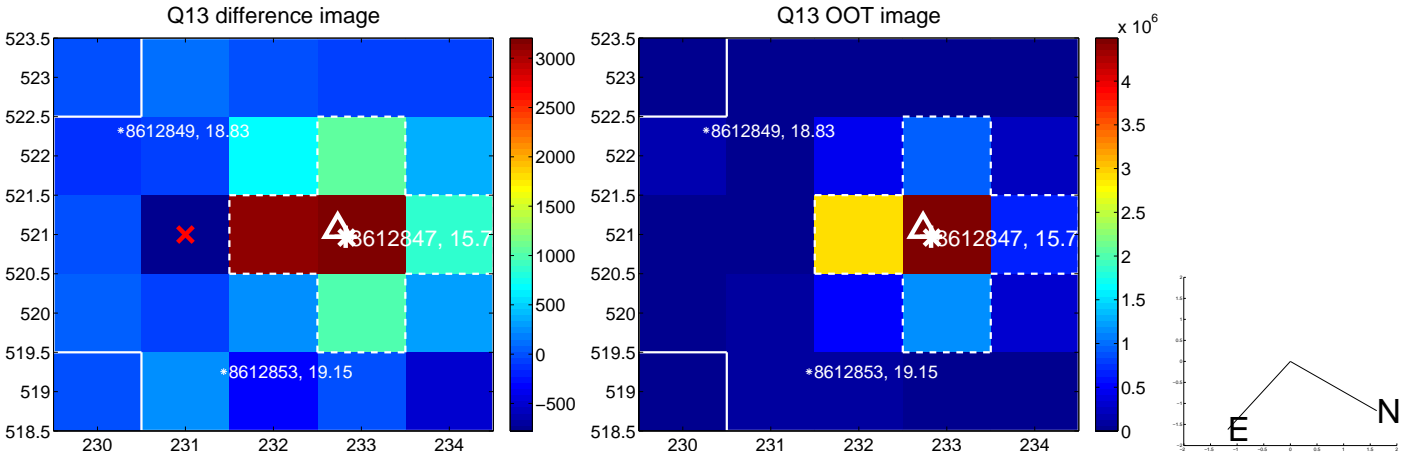
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



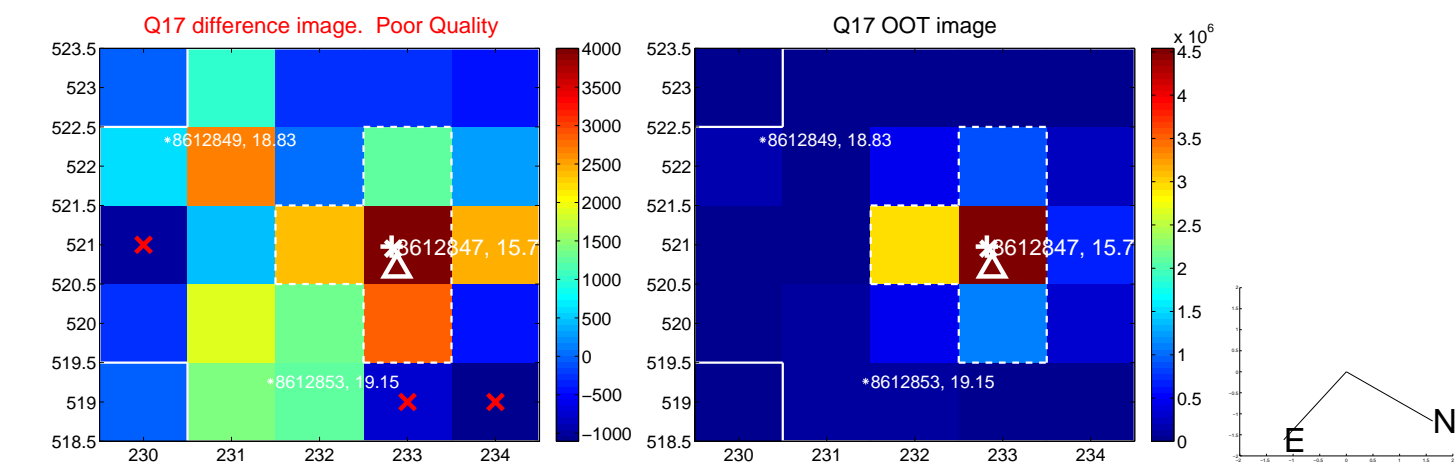
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



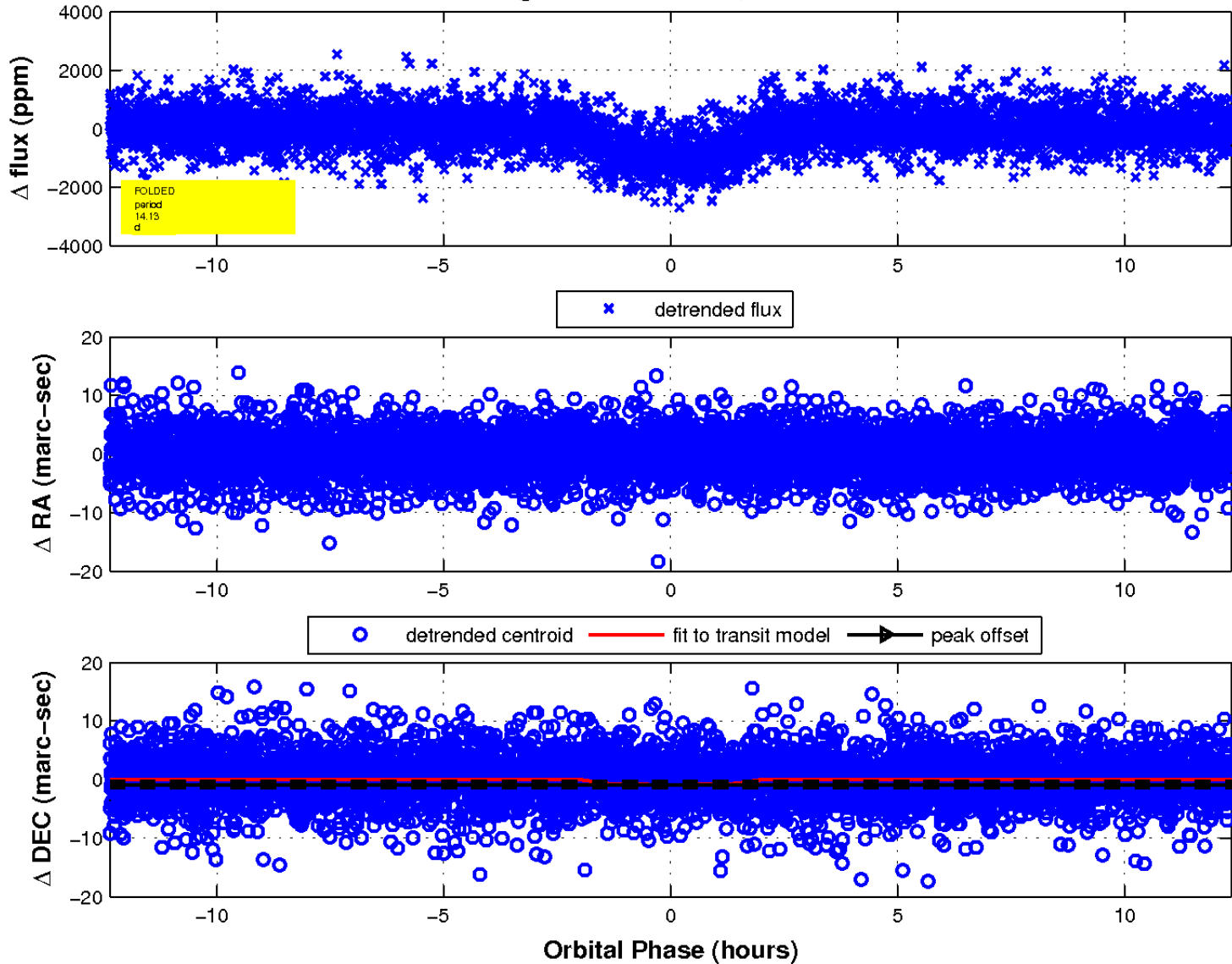
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

