

KIC 008255887

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})
008255887-01	OBS	0908.01	4.708327	133.779700	7935.2	3.214	619.7	612.2	1.21	5560	10.87	431.75

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008255887-01	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.

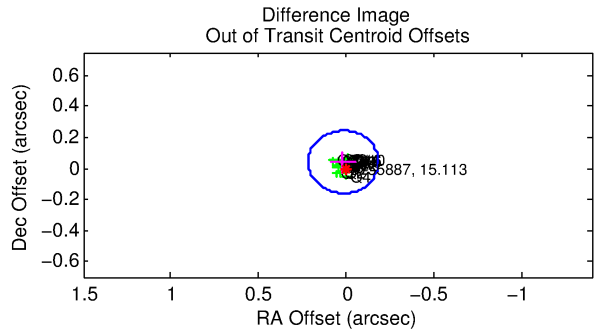
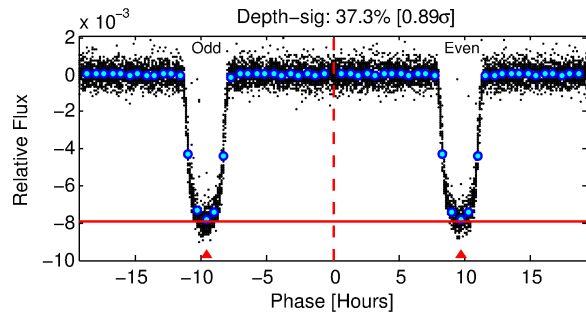
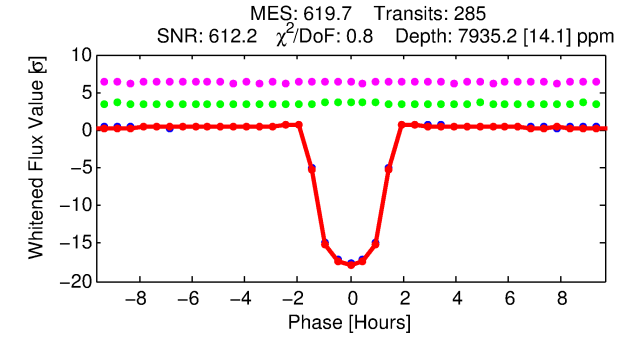
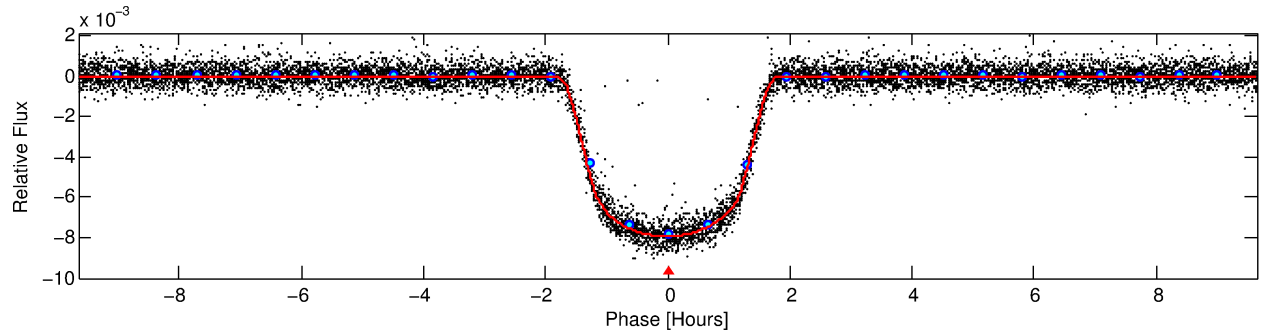
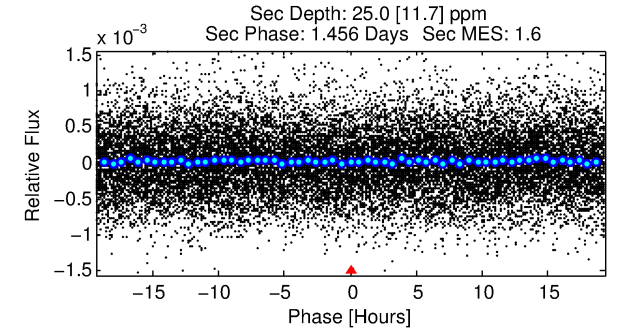
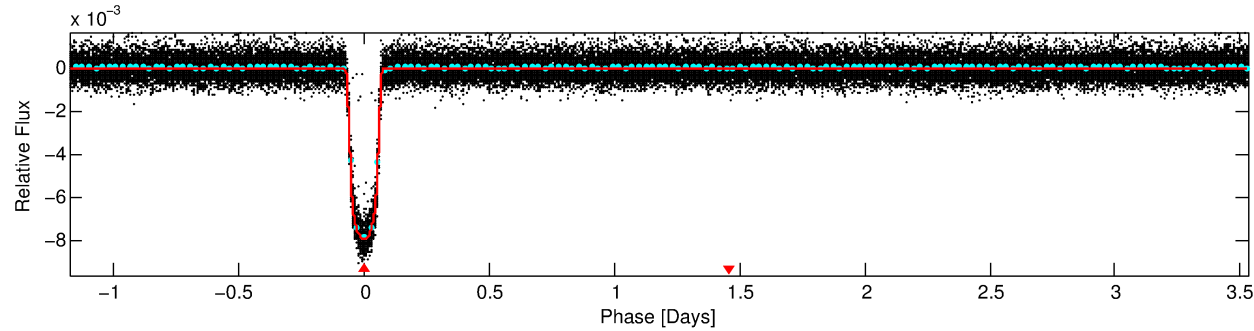
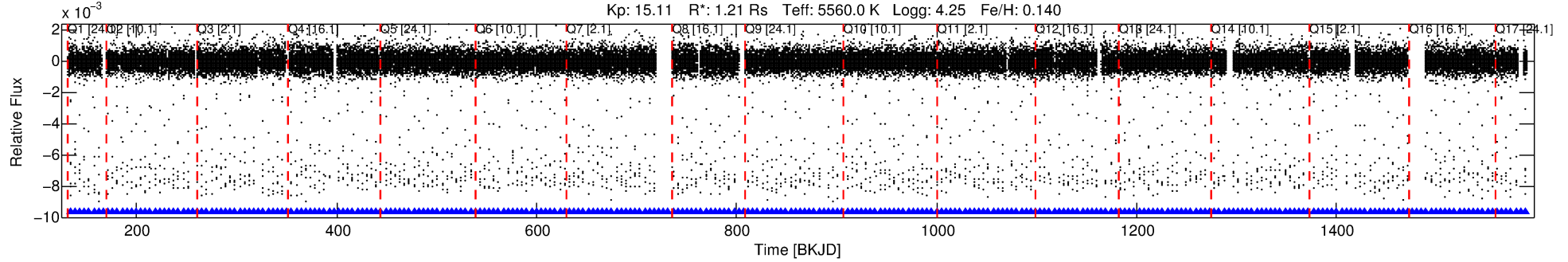
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008255887-01

No Significant Match Found

DV One-Page Summary

KIC: 8255887 Candidate: 1 of 1 Period: 4.708 d
KOI: K00908.01 Corr: 0.994



DV Fit Results:

Period = 4.70833 [0.00000] d
Epoch = 133.7797 [0.0001] BKJD
Rp/R* = 0.0823 [0.0008]
a/R* = 11.15 [0.44]
b = 0.43 [0.08]
Seff = 431.75 [191.13]
Teff = 1162 [129] K
Rp = 10.86 [2.92] Re
a = 0.0539 [0.0142] AU
Ag = 0.34 [0.21] [-3.10 σ]
Teffp = 1370 [165] K [0.99 σ]

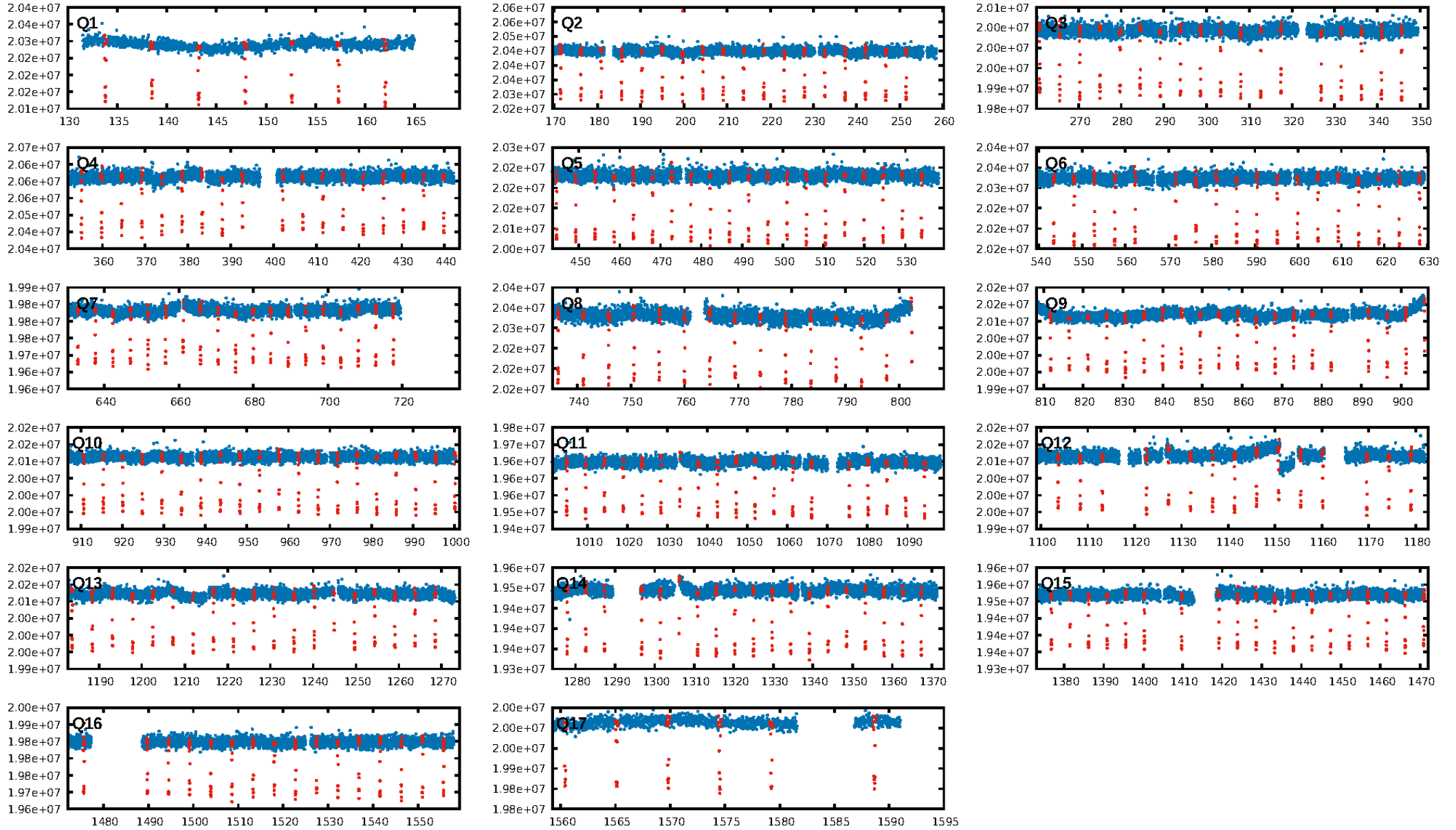
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 1.00 [272/272]
GhostDiagnostic-chr: 6.269
Centroid-sig: 0.0%
Centroid-so: 0.109 arcsec [4.47 σ]
OotOffset-rm: 0.046 arcsec [0.69 σ]
KicOffset-rm: 0.053 arcsec [0.75 σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 1.00 [17/17]
DiffImageOverlap-fno: 1.00 [17/17]

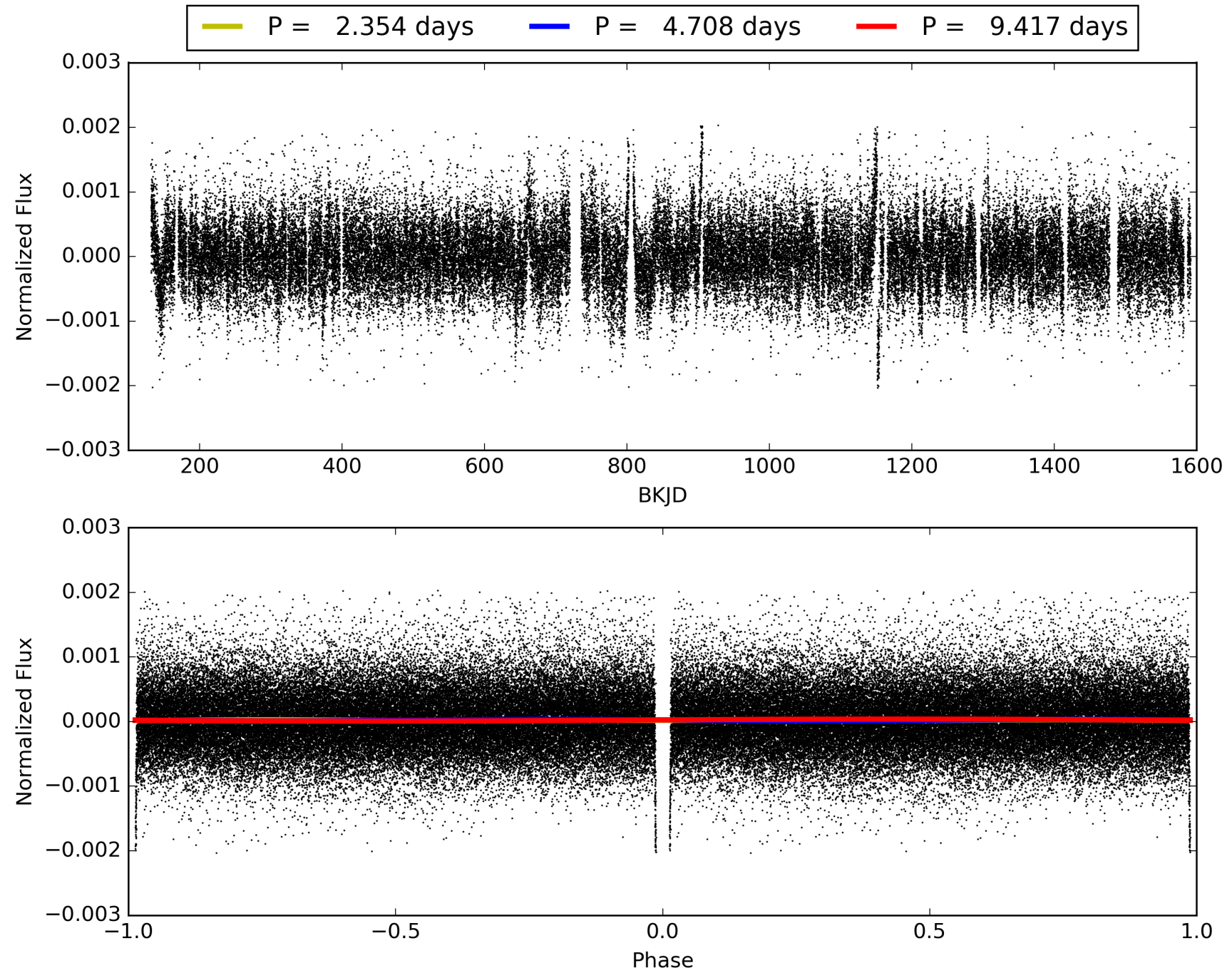
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 23:57:35 Z

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

TCE 008255887-01, PDC Light Curves

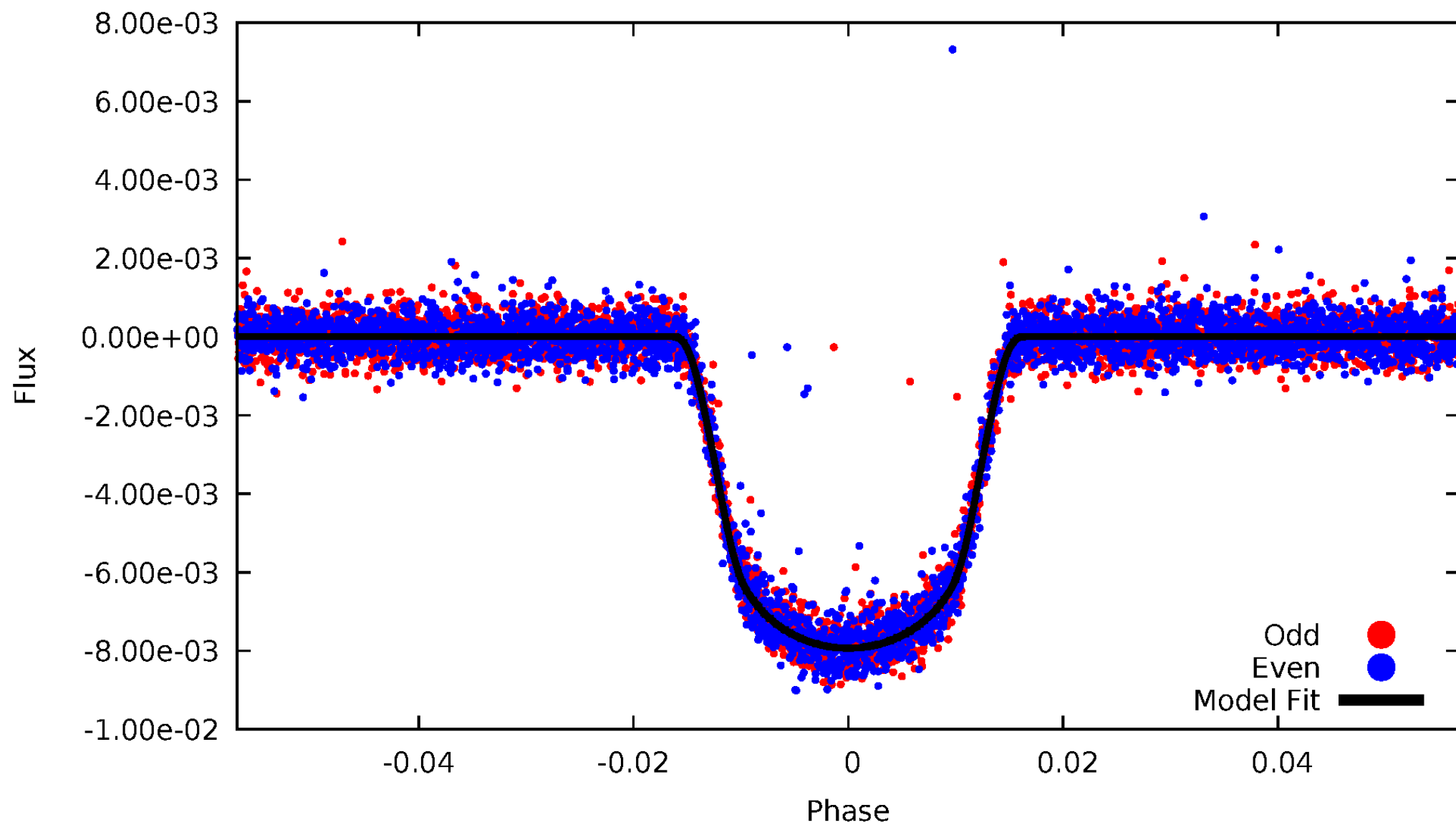


TCE 008255887-01



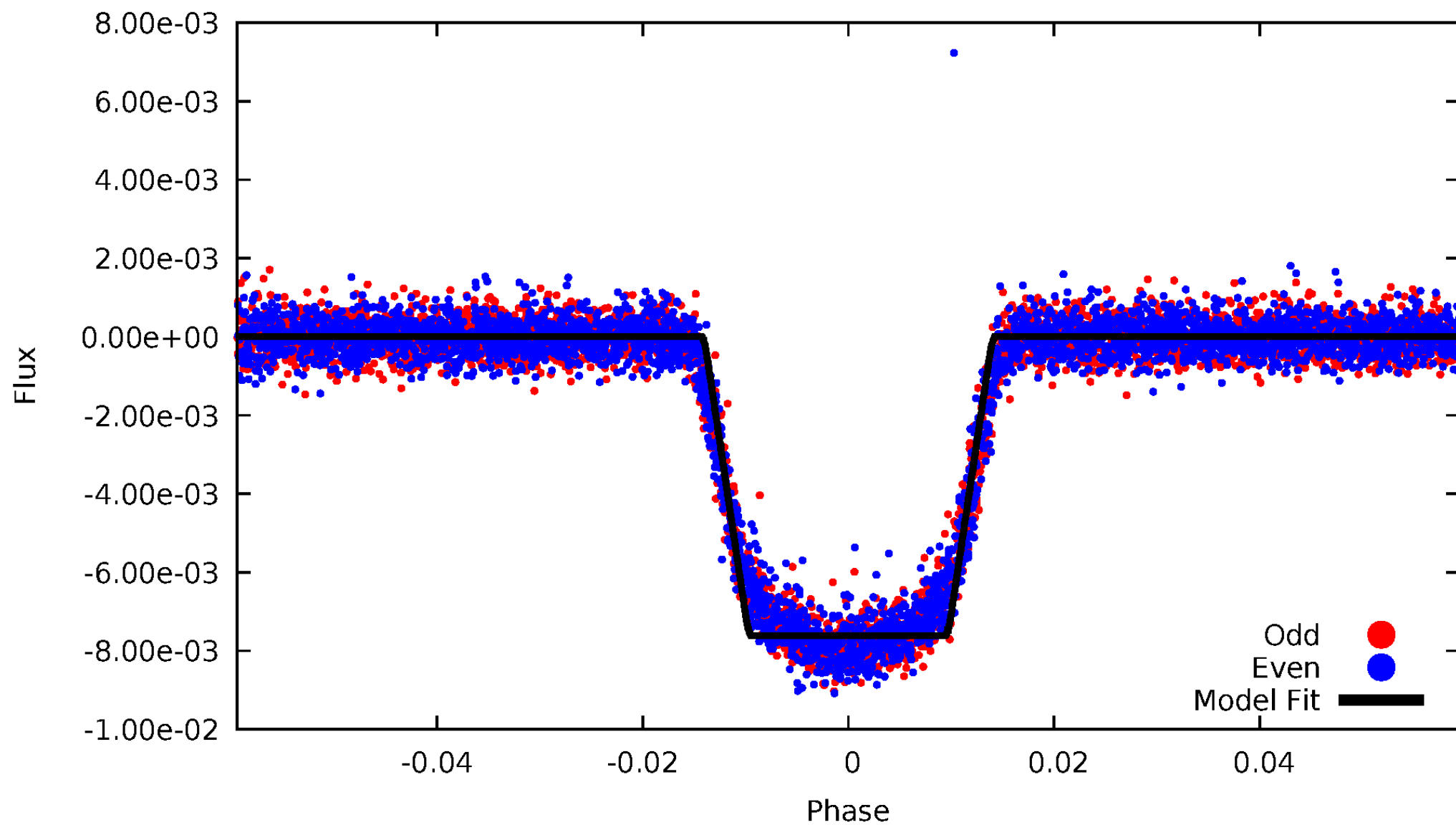
DV Odd/Even

TCE 008255887-01



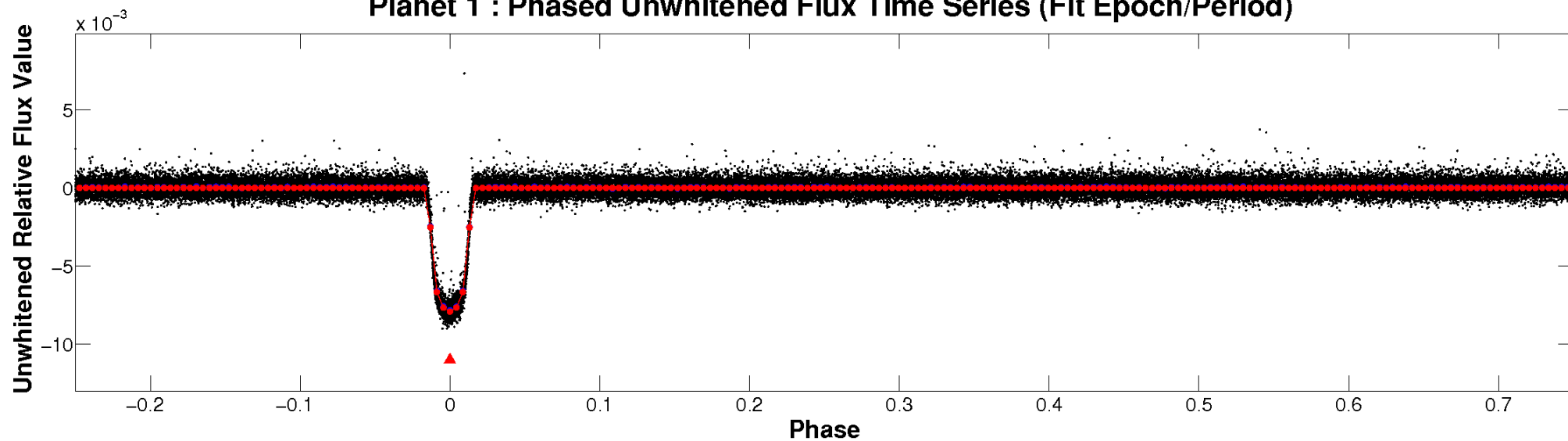
ALT Odd/Even

TCE 008255887-01

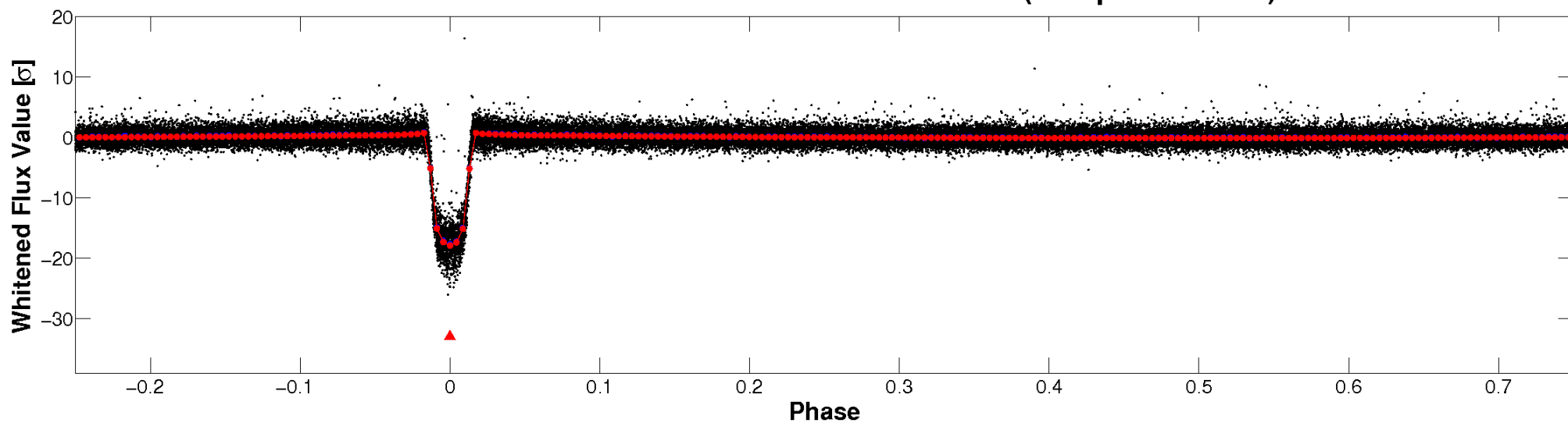


Non-Whitened Vs. Whitened Light Curve

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

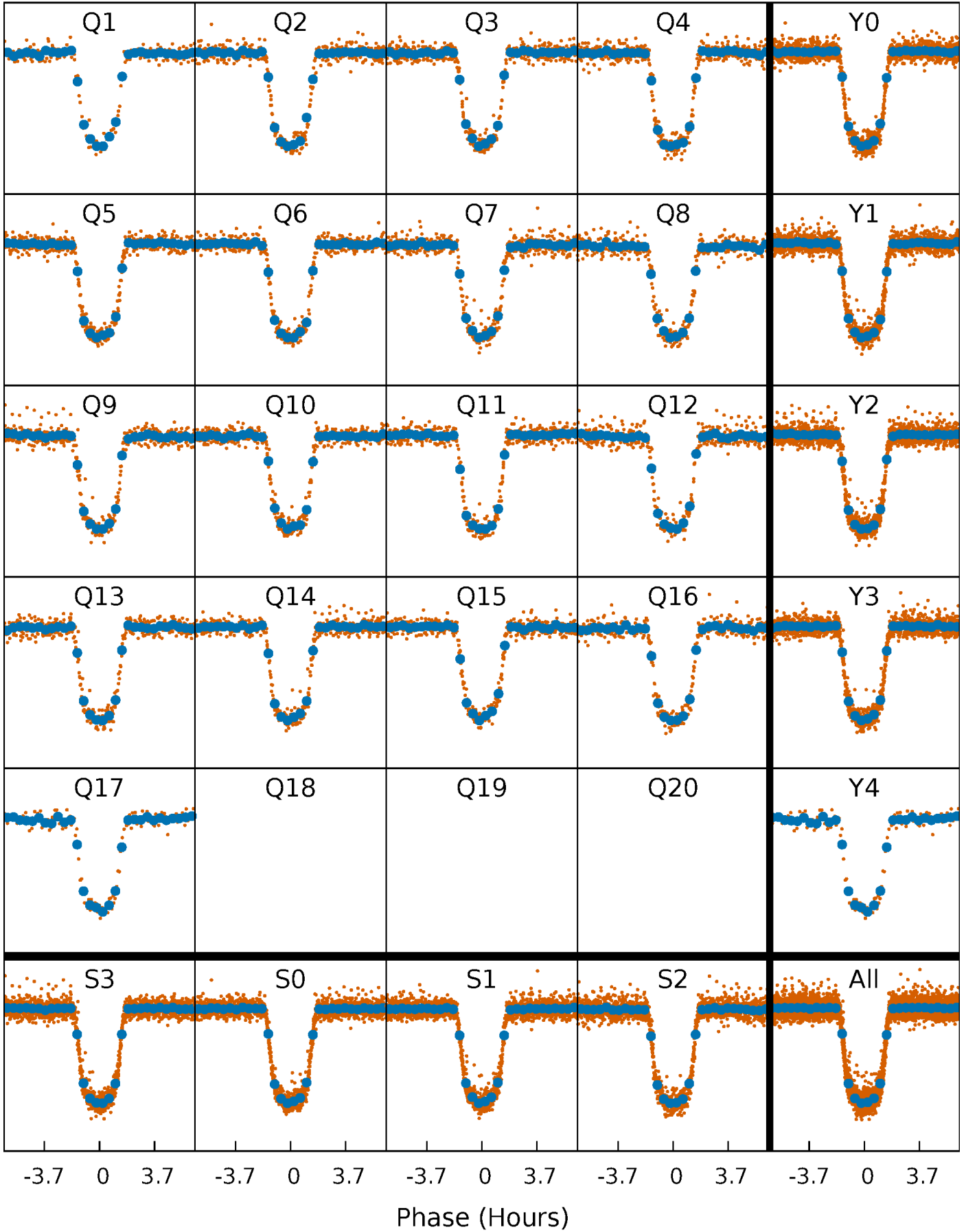


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



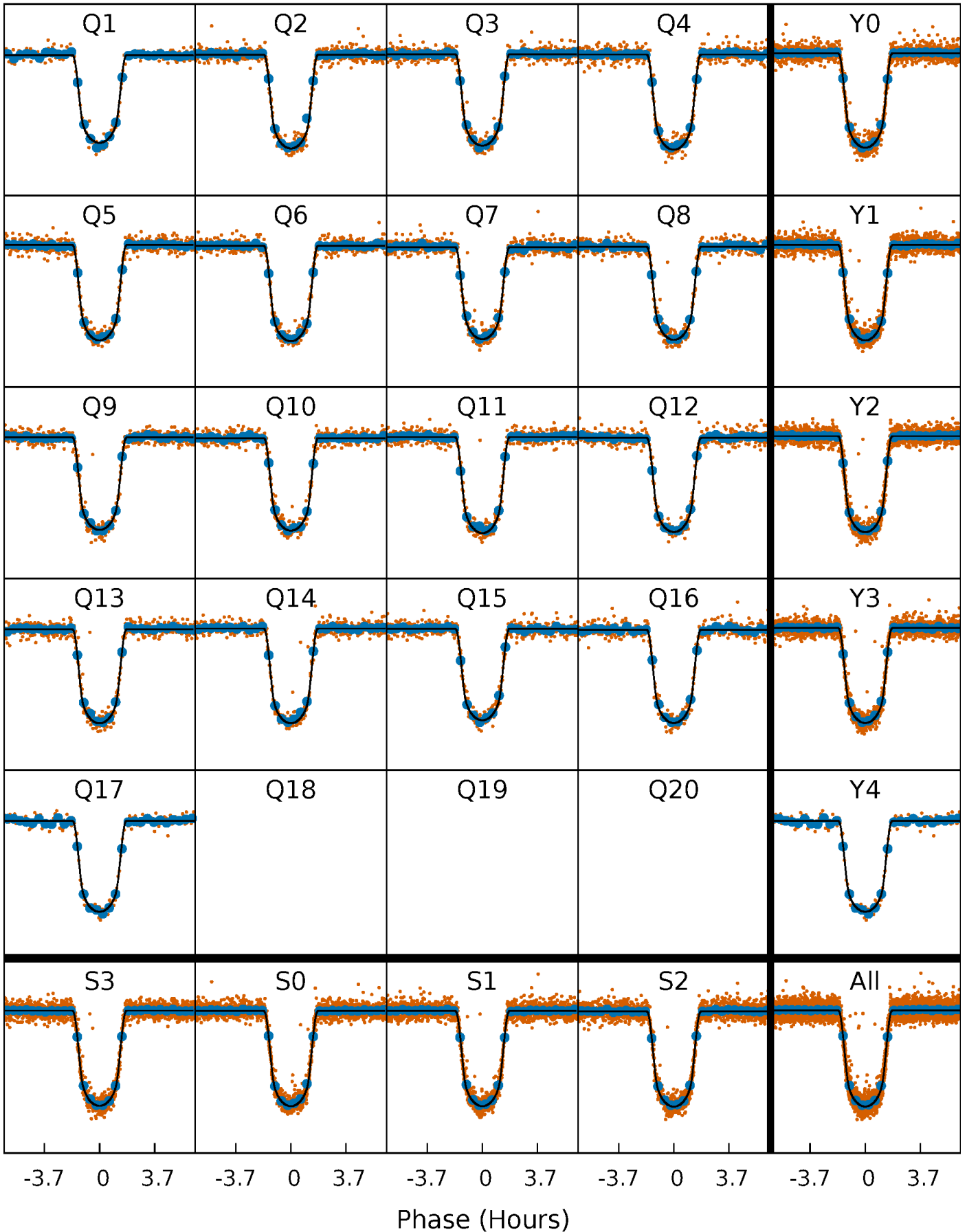
PDC Quarter-Phased Transit Curves

TCE 008255887-01 P= 4.708327 Days $T_0=133.779700$ (BKJD)



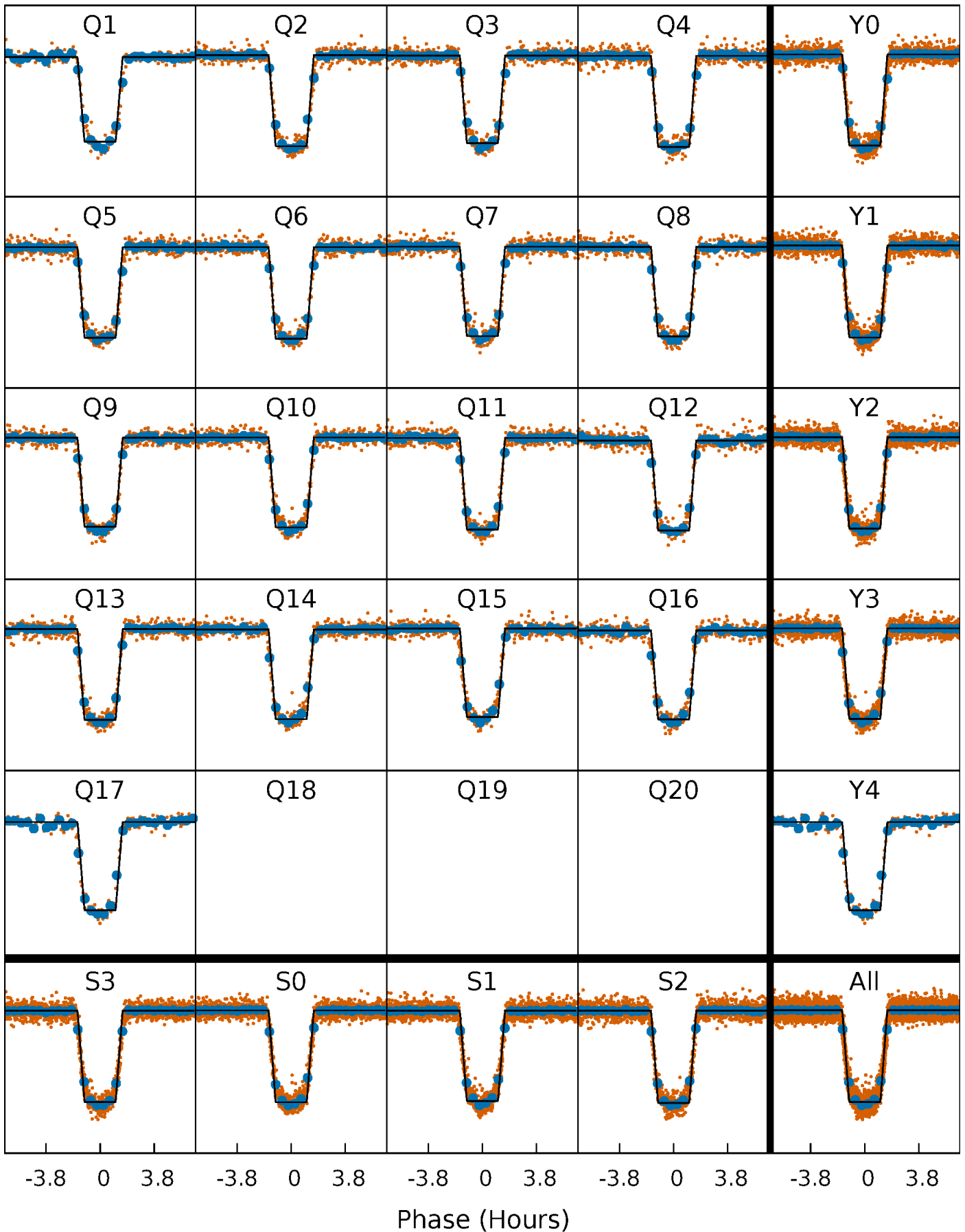
DV Quarter-Phased Transit Curves

TCE 008255887-01 P= 4.708327 Days $T_0=133.779700$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

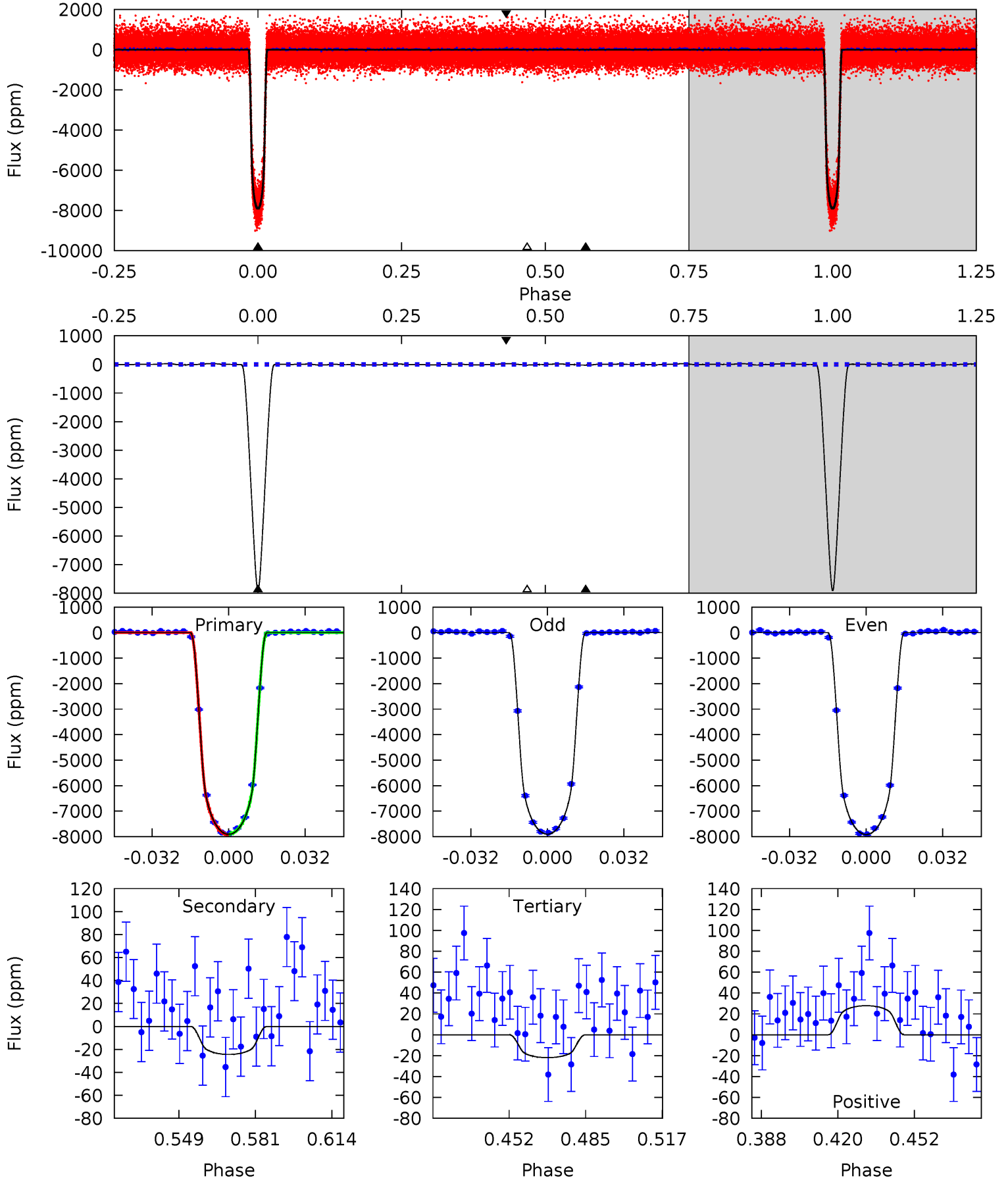
TCE 008255887-01 P= 4.708347 Days $T_0=133.776739$ (BKJD)



DV Model-Shift Uniqueness Test

008255887-01, P = 4.708327 Days, E = 129.071373 Days

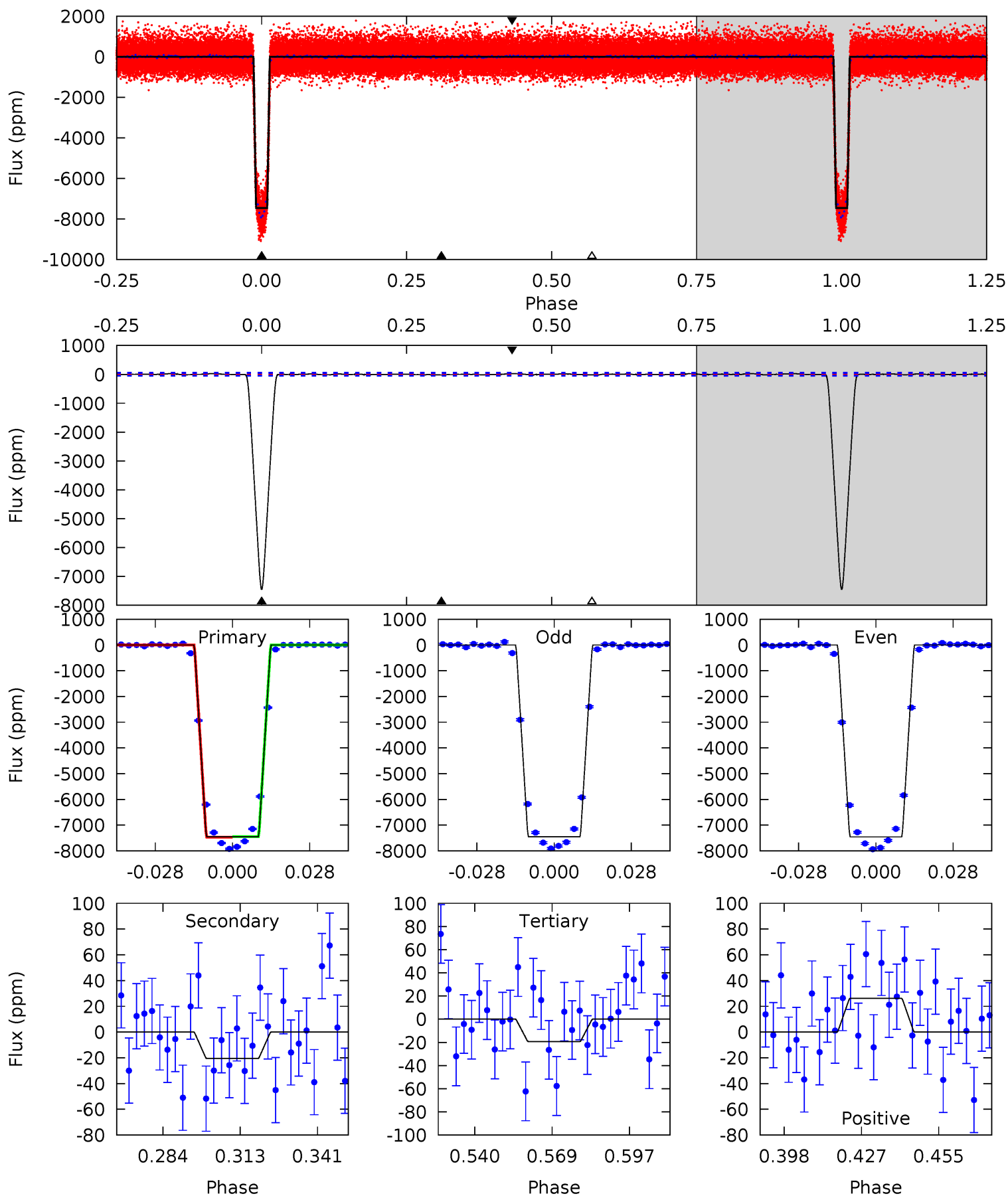
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
850.5	2.62	2.35	3.00	4.80	2.14	1.25	848.1	847.5	0.27	-0.37	0.73	0.99	0.00	1.38



Alt Model-Shift Uniqueness Test

008255887-01, P = 4.708347 Days, E = 129.068392 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
748.9	2.06	1.95	2.63	4.82	2.19	0.99	747.0	746.3	0.12	-0.57	0.35	1.00	0.00	1.10



Stellar Parameters For KIC 008255887

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5560^{+166}_{-166}	$4.246^{+0.252}_{-0.189}$	$0.140^{+0.250}_{-0.250}$	$1.210^{+0.325}_{-0.293}$	$0.940^{+0.113}_{-0.085}$	$0.748^{+0.984}_{-0.373}$
	+3%/-3%	+6%/-4%	+179%/-179%	+27%/-24%	+12%/-9%	+132%/-50%
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 008255887-01 / KOI 0908.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-24 ± 9	$10.81^{+1.70}_{-1.46}$	1619^{+137}_{-118}	1795^{+333}_{-3858}	$0.332^{+0.173}_{-0.144}$
Alt.	-21 ± 10	$11.46^{+1.79}_{-1.66}$	1617^{+124}_{-127}	-1867^{+3873}_{-305}	$0.250^{+0.166}_{-0.127}$

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 $A_{obs} \gg 1.0$

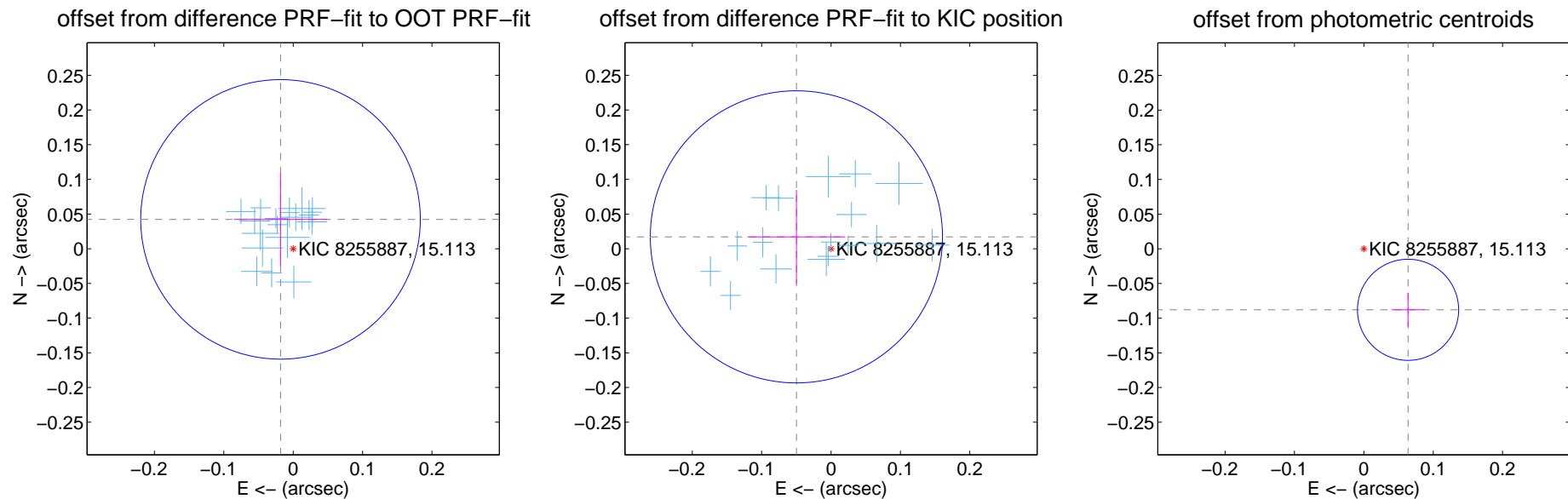
DV Centroid Data

Supplemental centroid analysis for 008255887-01. Kepler magnitude: 15.11. Transit SNR 612.22

There are 17 quarters with good PRF difference image offsets

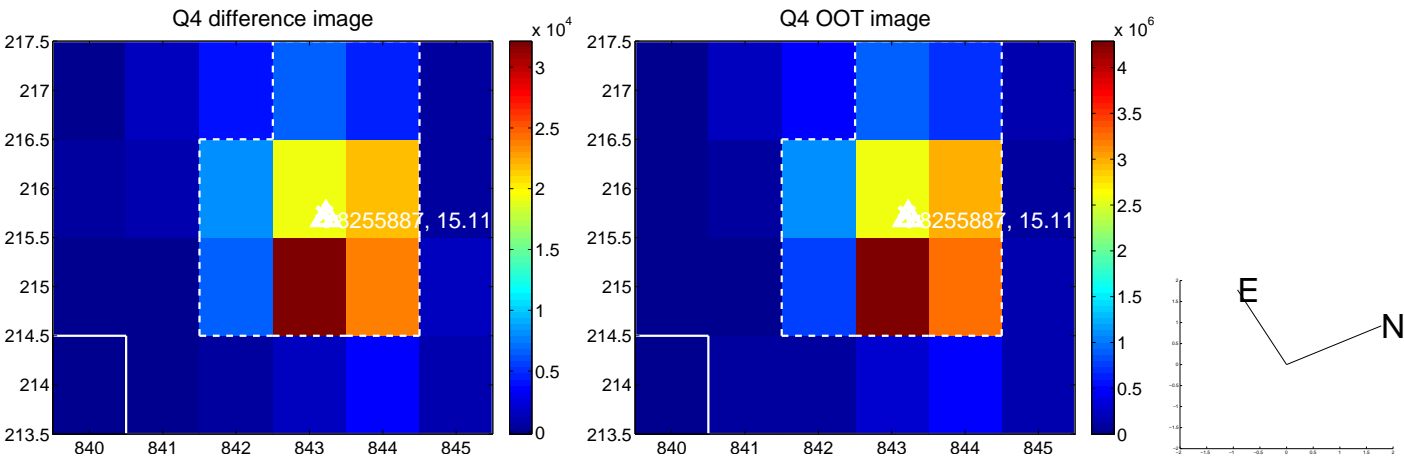
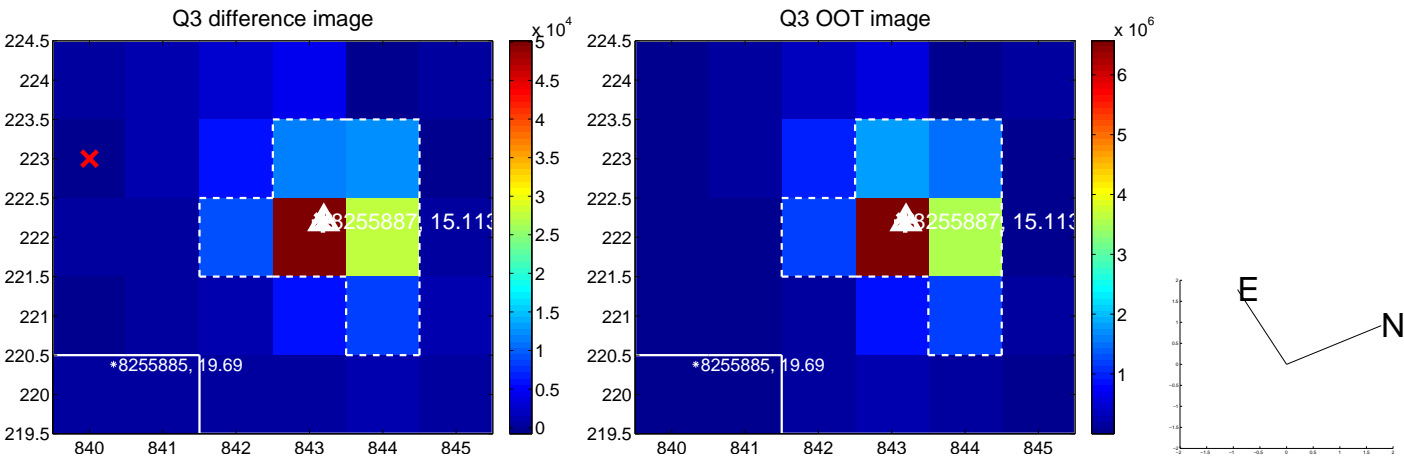
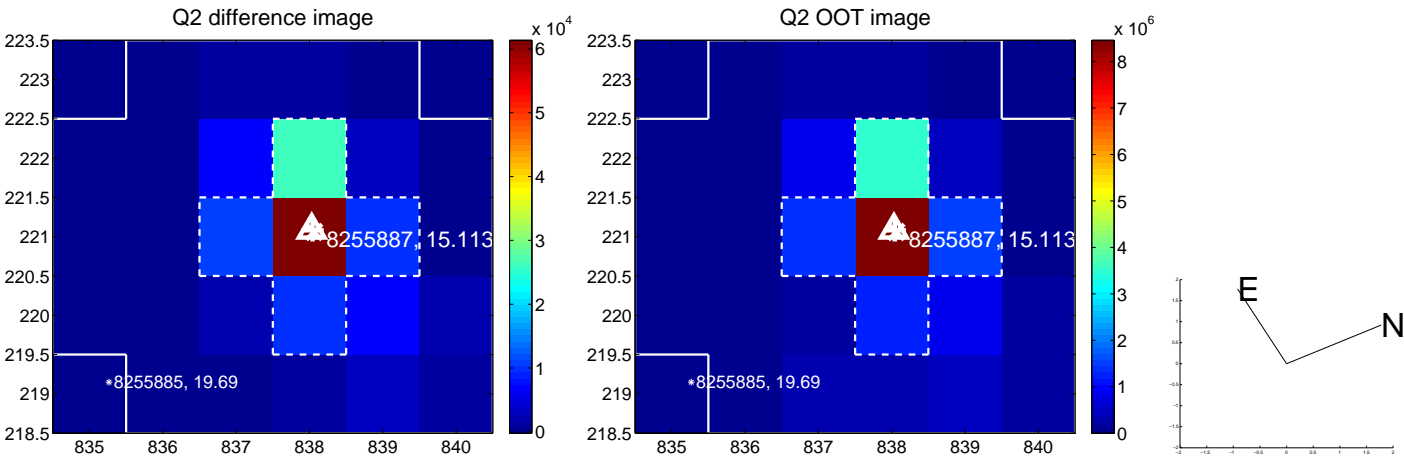
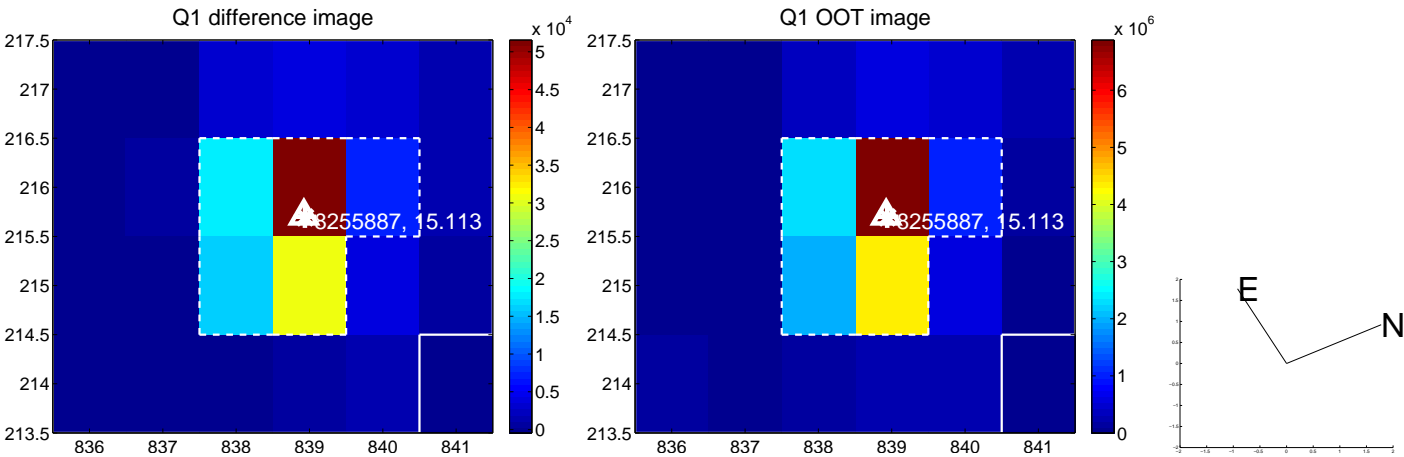
The direct PRF centroid is offset from the target star catalog position by about 0.06 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.046 ± 0.067	0.69	0.018 ± 0.067	0.042 ± 0.067
PRF-fit source offset from KIC position	0.053 ± 0.070	0.75	0.050 ± 0.070	0.017 ± 0.068
photometric centroid source offset	0.11 ± 0.02	4.47	-0.06 ± 0.02	-0.09 ± 0.02

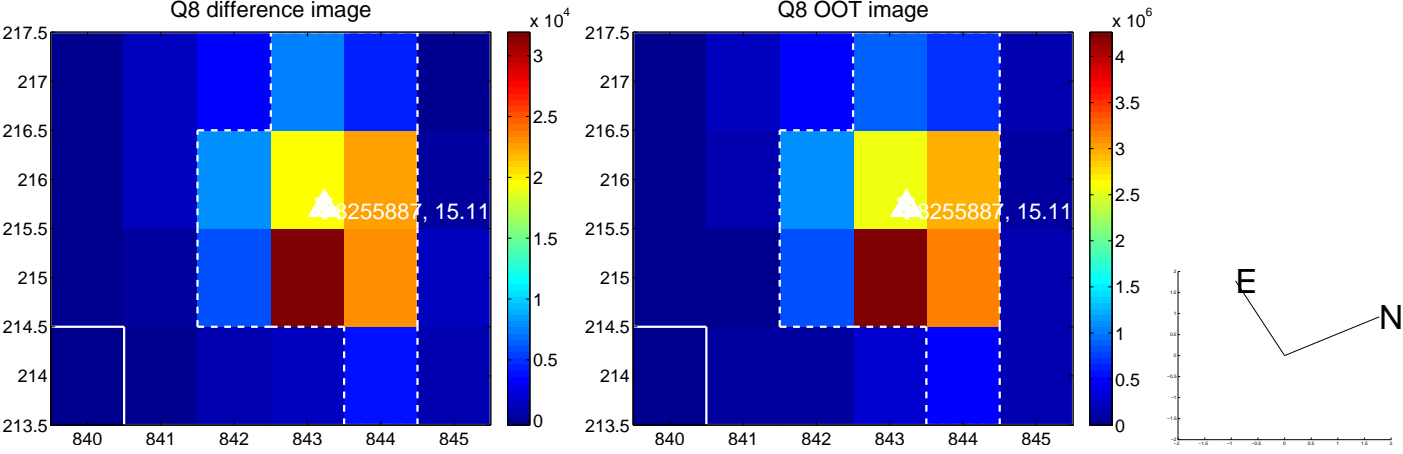
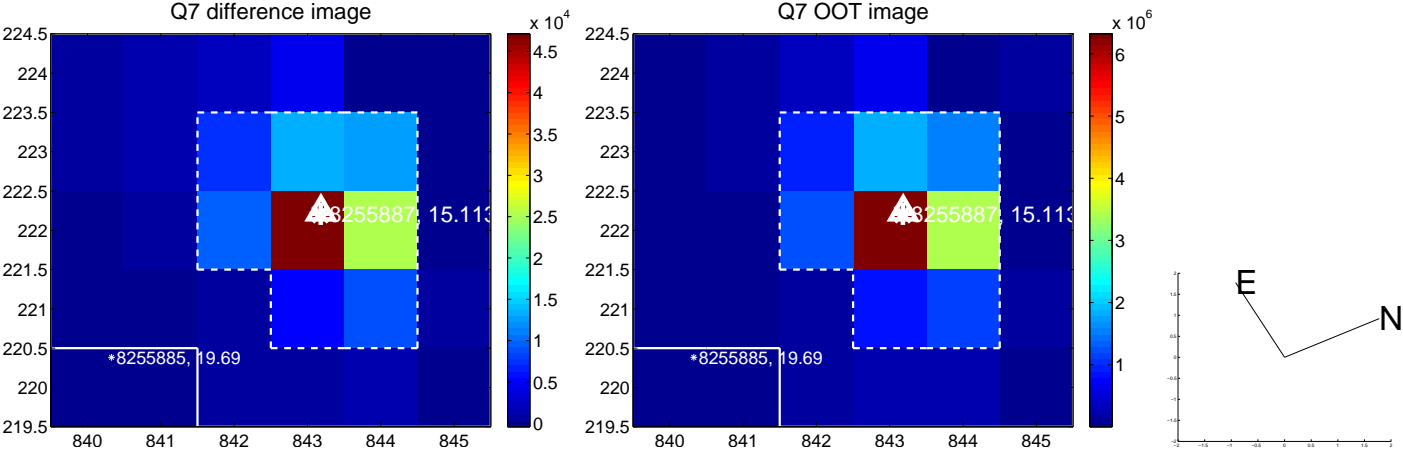
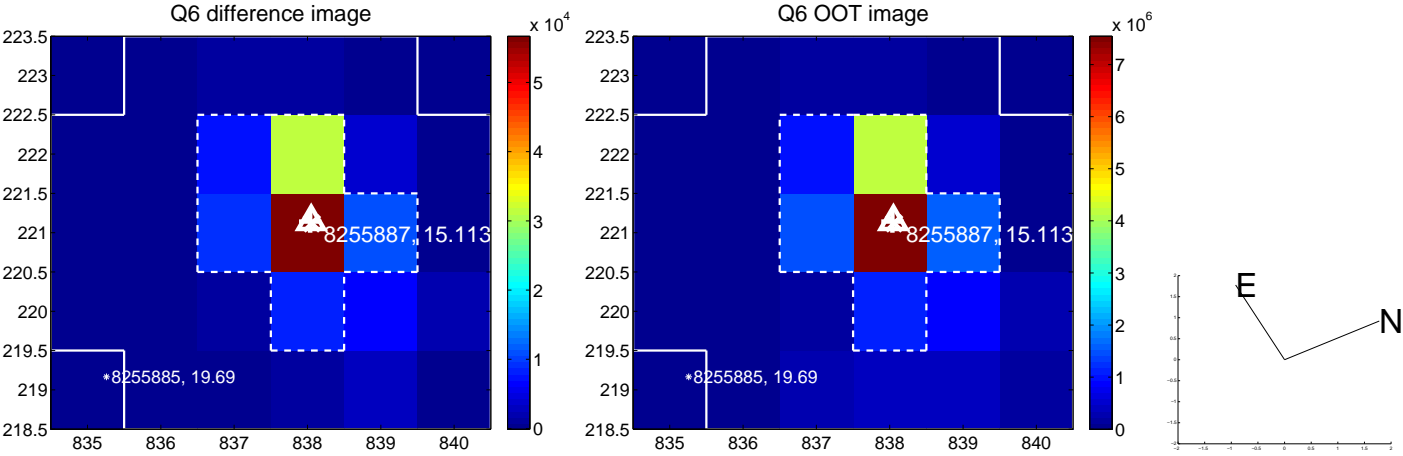
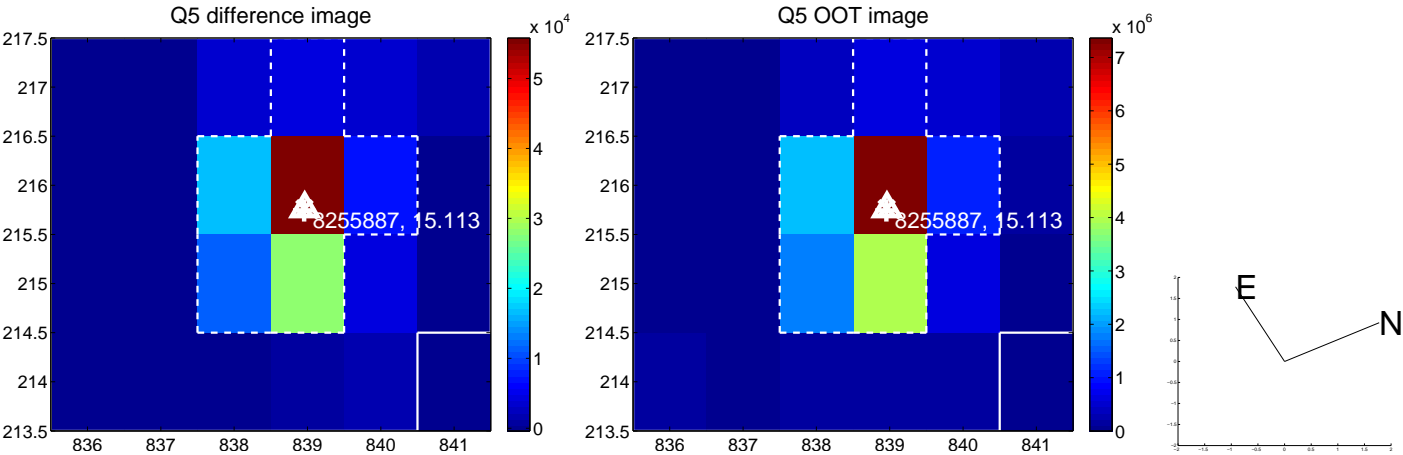


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

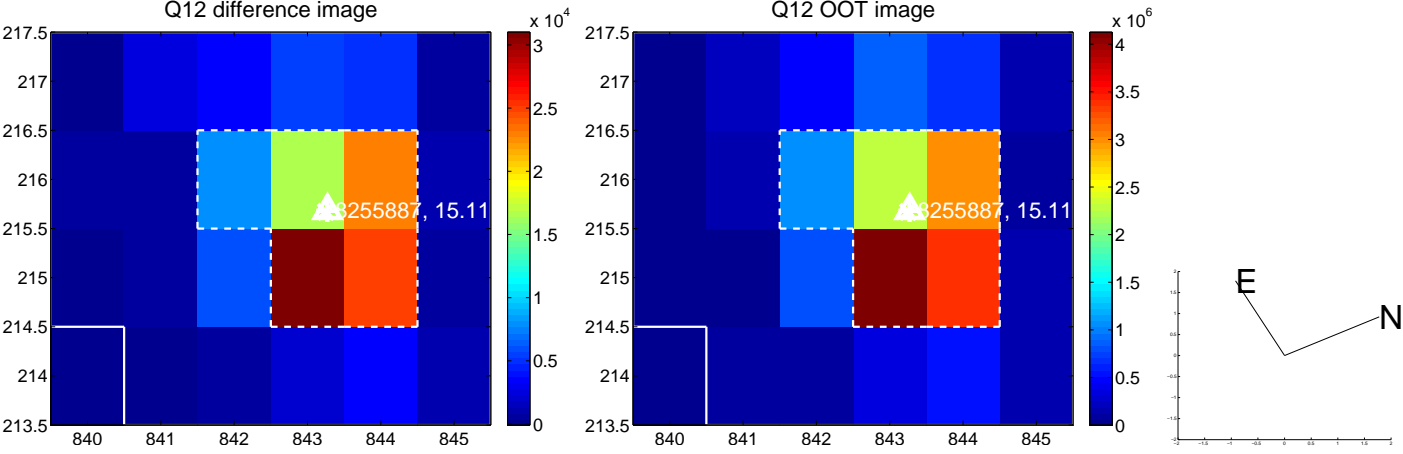
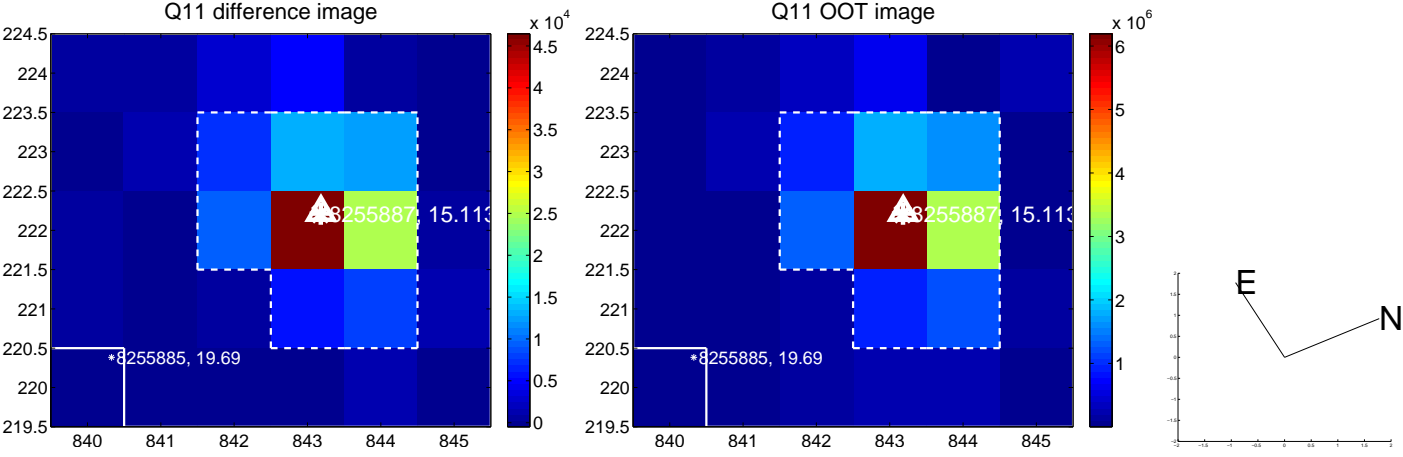
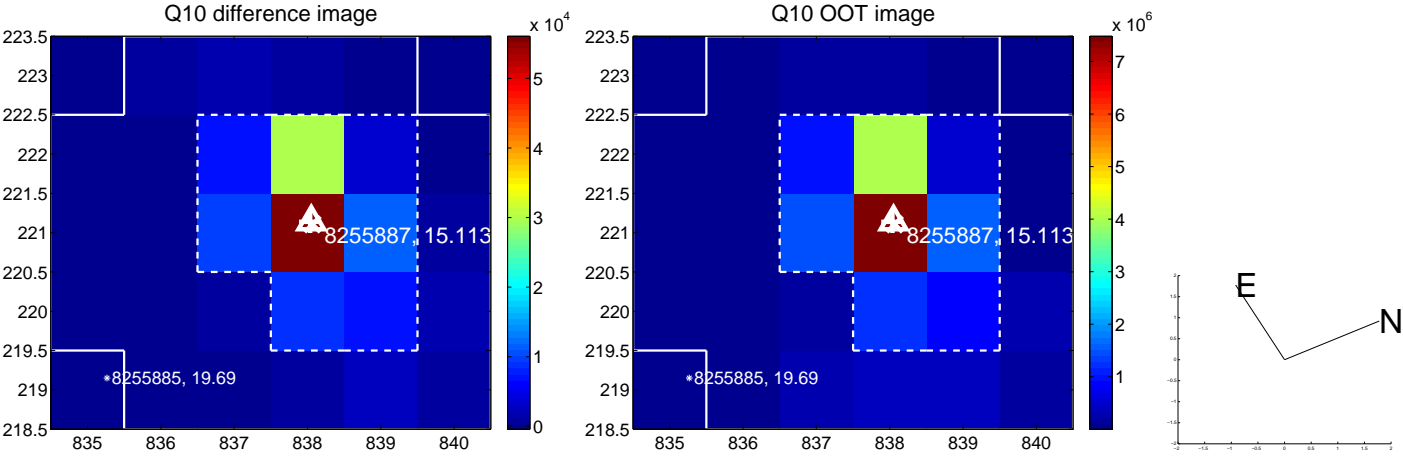
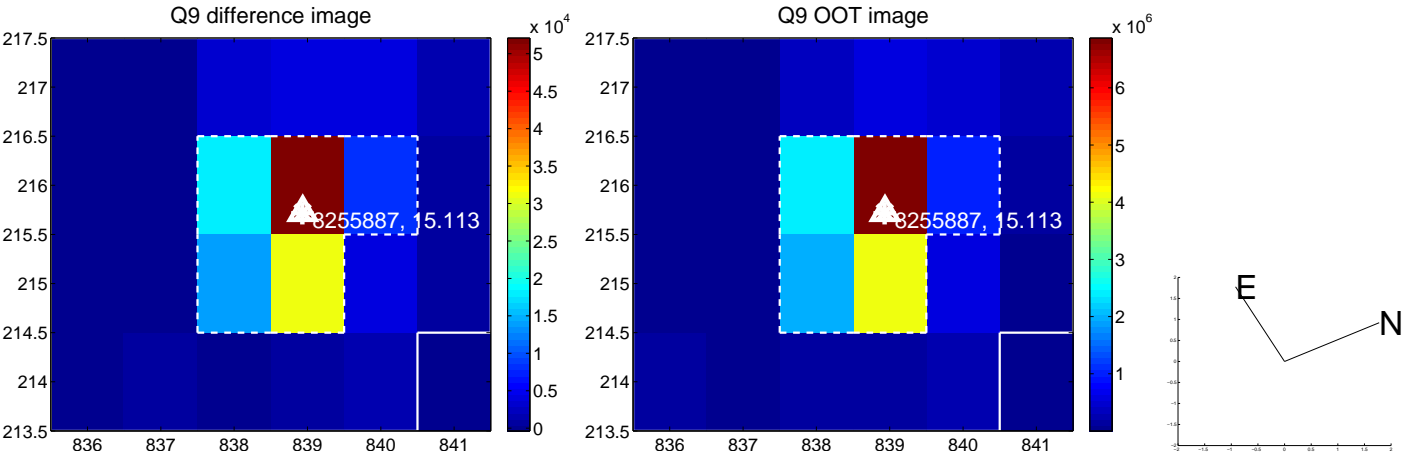
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



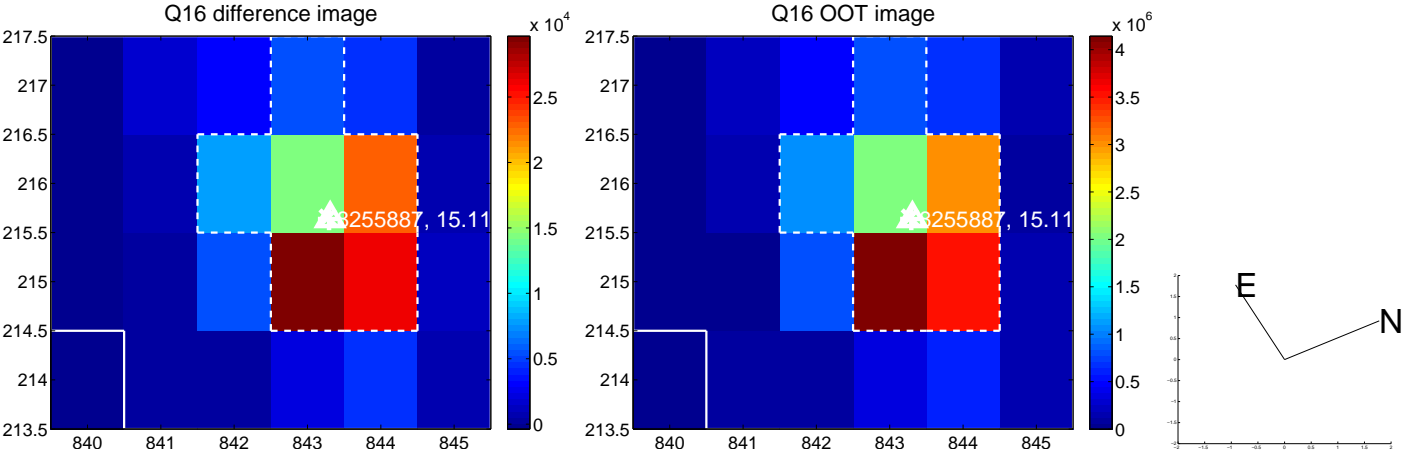
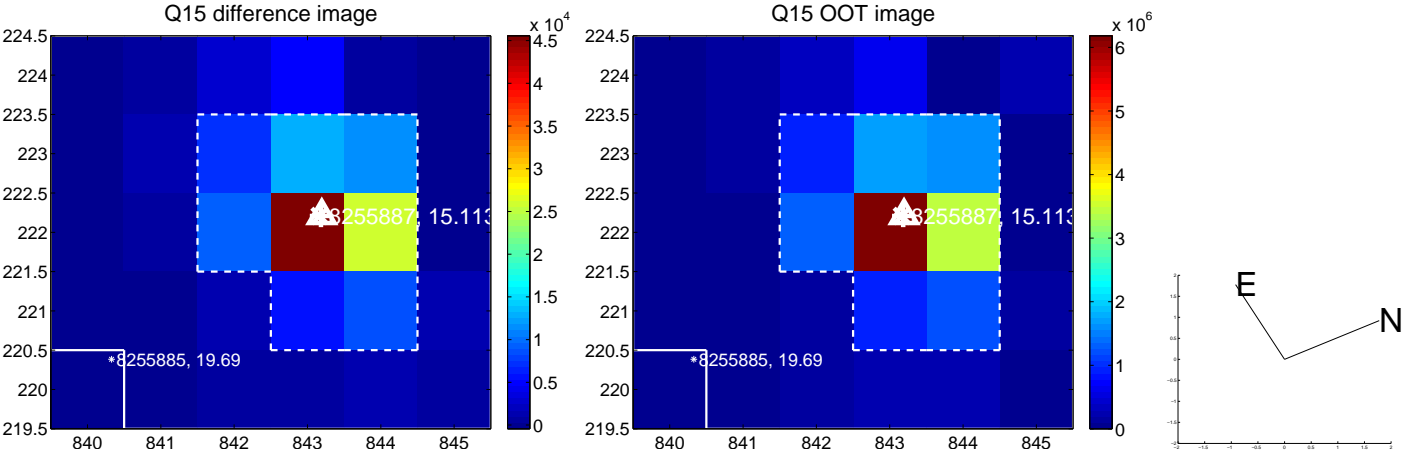
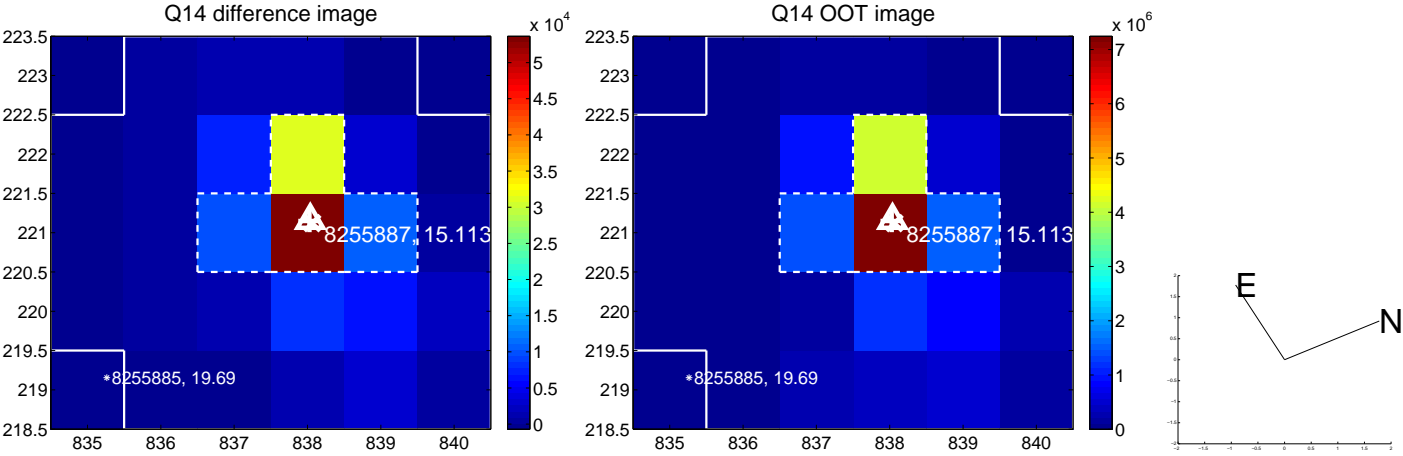
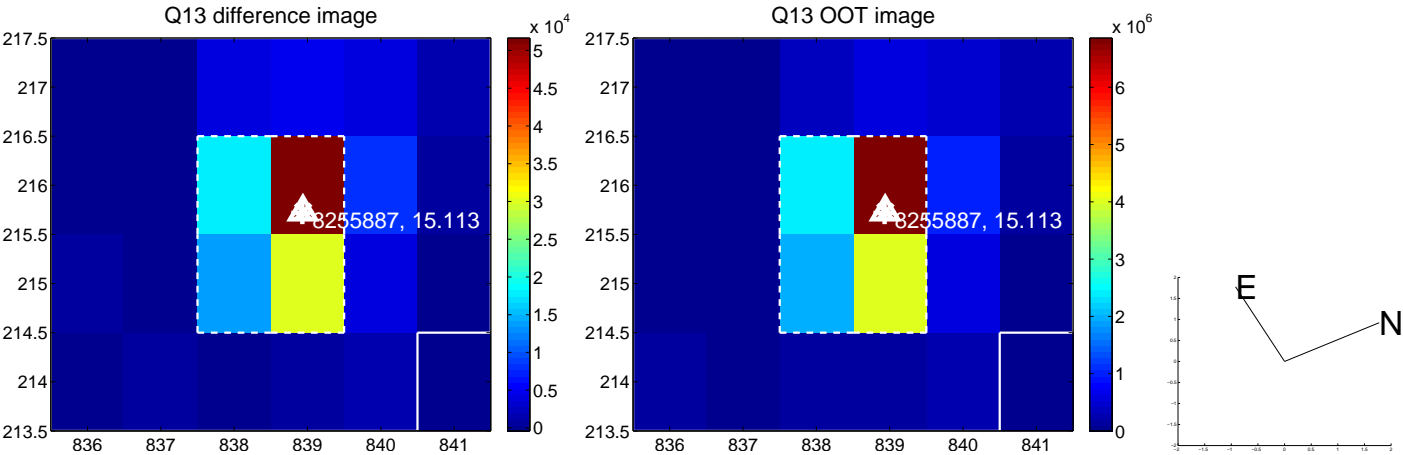
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



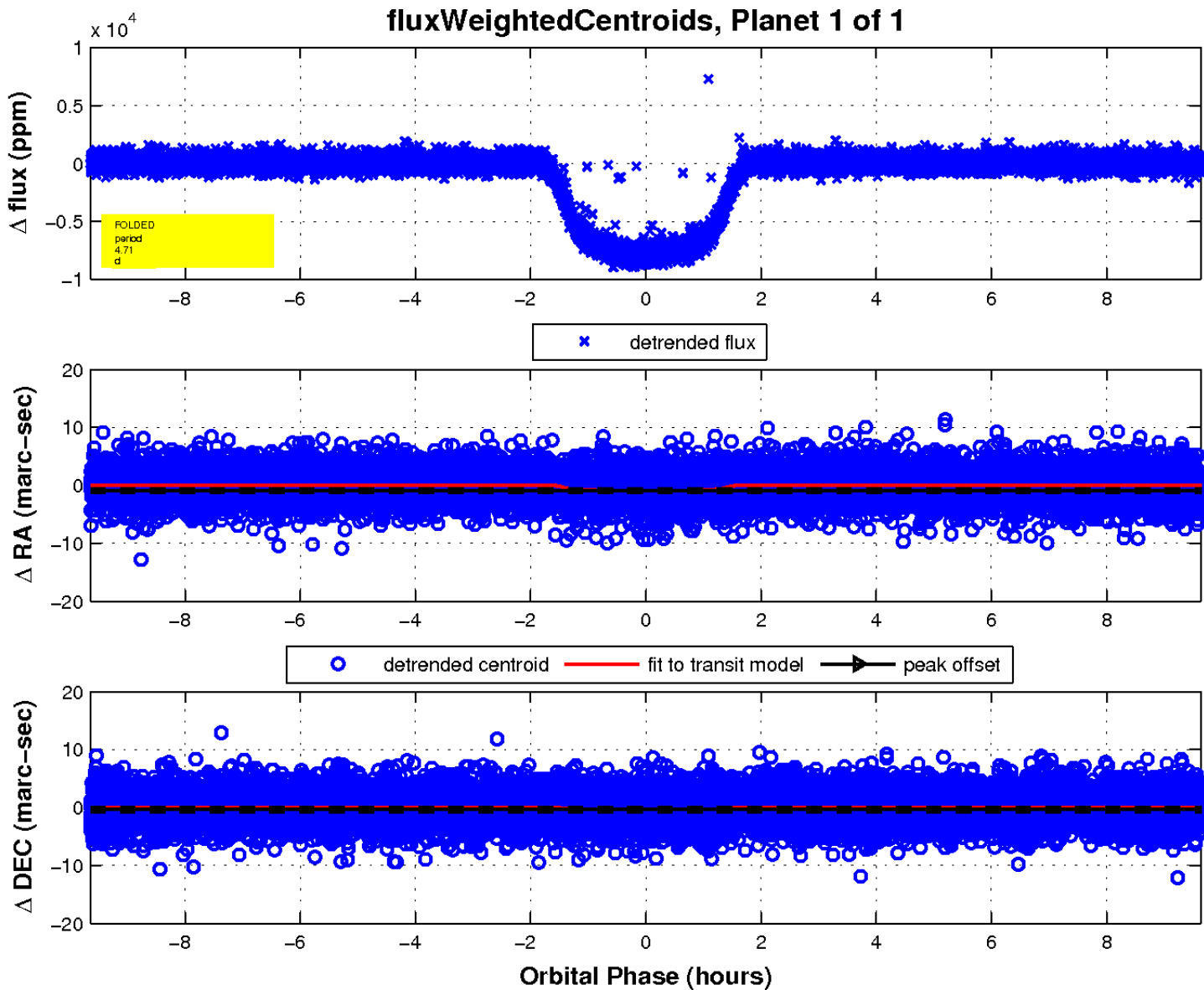
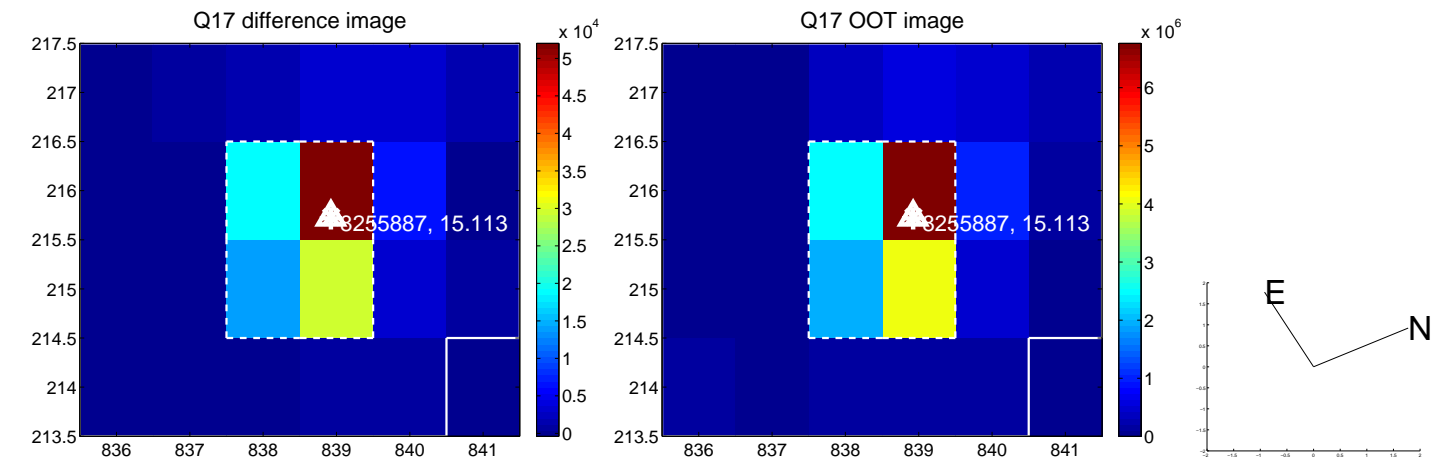
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination

