

KIC 008081187

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})
008081187-01	OBS	1951.01	37.322934	152.833285	304.8	7.458	32.0	35.0	19.53	4907	38.81	1772.80

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008081187-01	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.

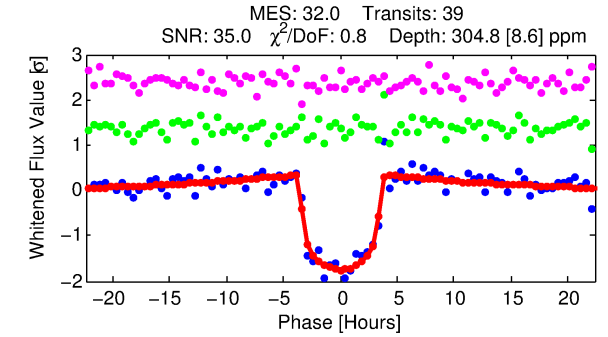
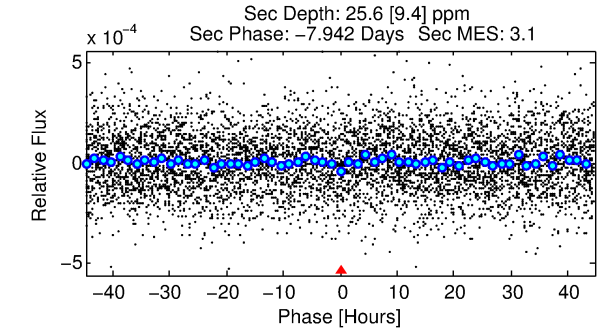
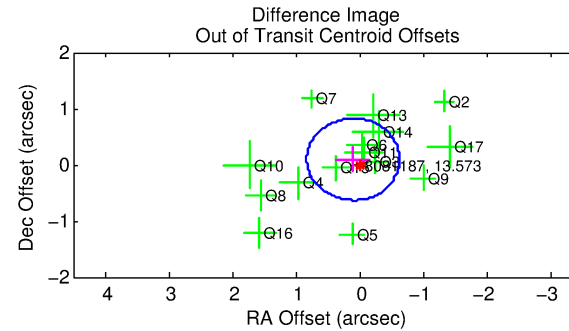
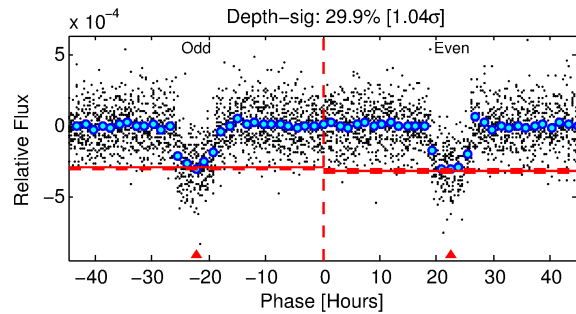
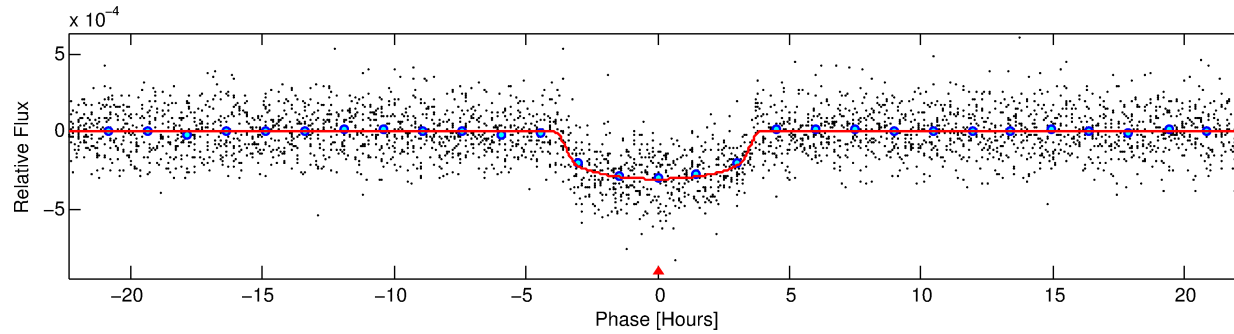
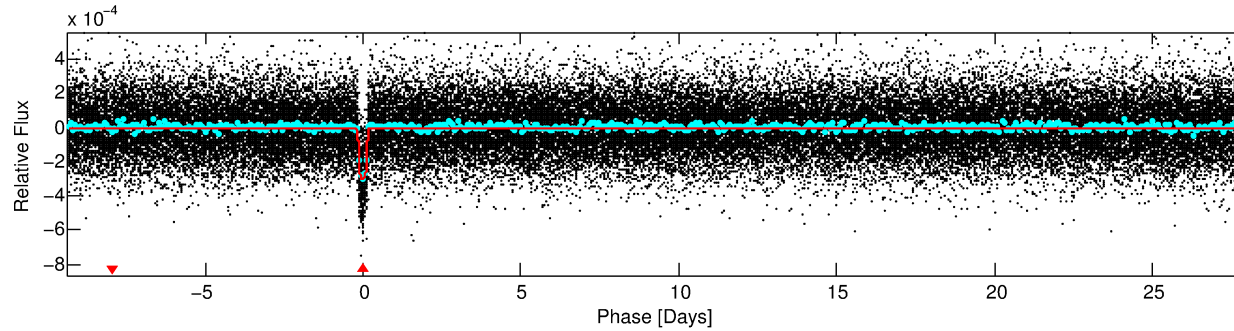
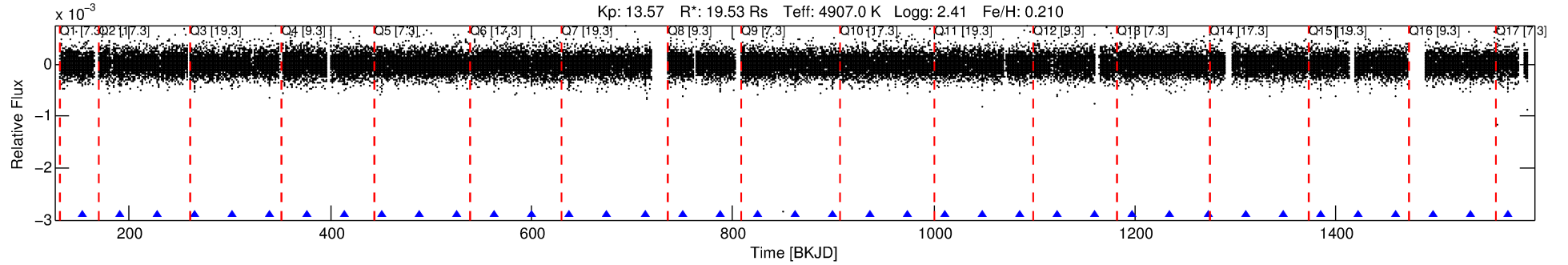
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008081187-01

No Significant Match Found

DV One-Page Summary

KIC: 8081187 Candidate: 1 of 1 Period: 37.323 d
KOI: K01951.01 Corr: 0.971



DV Fit Results:

Period = 37.32293 [0.00017] d
Epoch = 152.8333 [0.0037] BKJD
Rp/R* = 0.0182 [0.0025]
a/R* = 22.92 [11.54]
b = 0.82 [0.20]
Seff = 1772.80 [603.79]
Teq = 1655 [141] K
Rp = 38.81 [11.21] Re
a = 0.3343 [0.0736] AU
Ag = 1.04 [0.59] [0.07 σ]
Teffp = 2585 [305] K [2.77 σ]

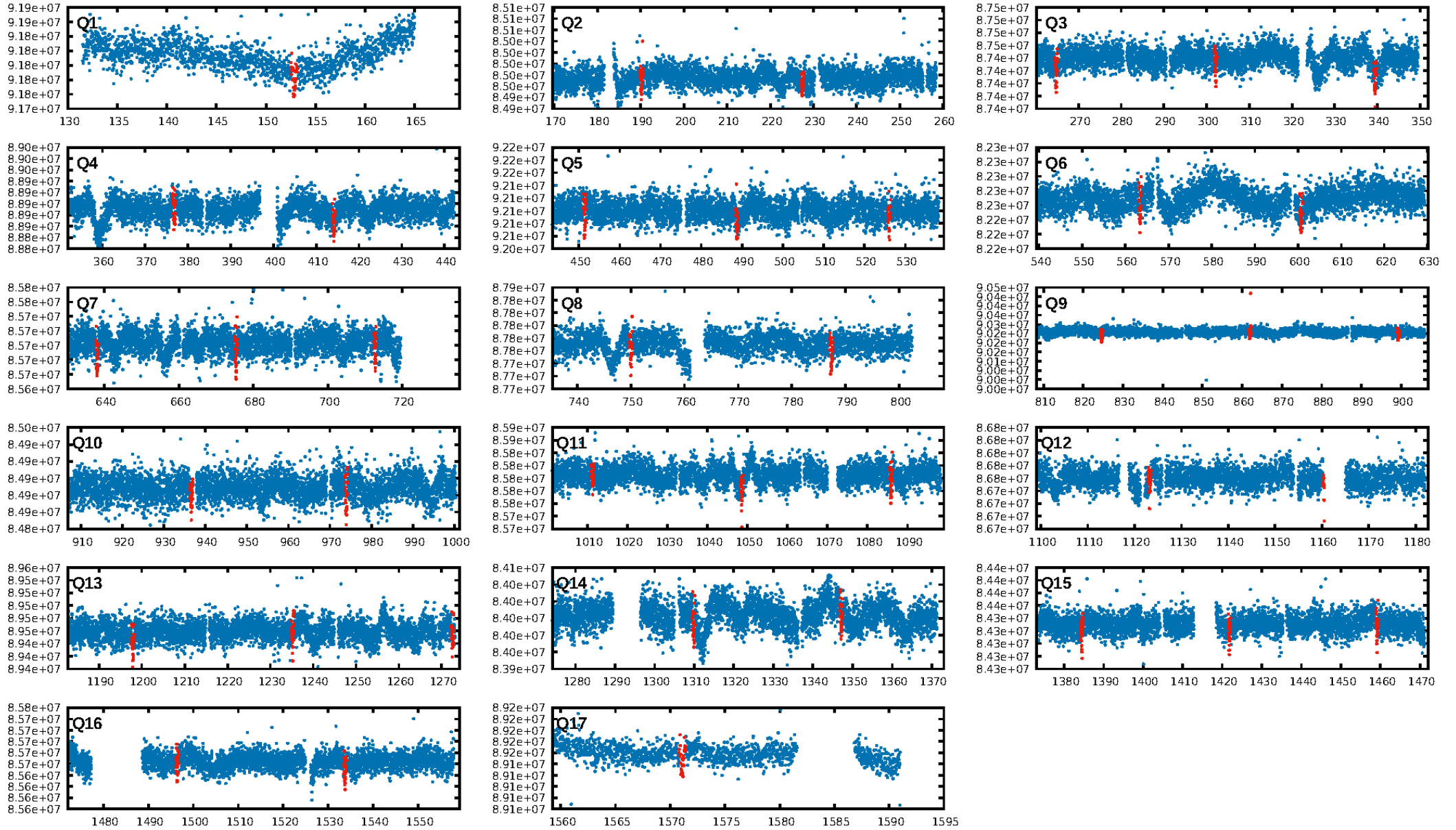
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 73.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 9.13e-210
RollingBand-fgt: 1.00 [37/37]
GhostDiagnostic-chr: 8.697
Centroid-sig: 16.2%
Centroid-so: 0.515 arcsec [1.63 σ]
OotOffset-rm: 0.135 arcsec [0.56 σ]
KicOffset-rm: 0.229 arcsec [0.89 σ]
OotOffset-st: 4/4/3/4 [15]
KicOffset-st: 4/4/3/4 [15]
DiffImageQuality-fgm: 1.00 [15/15]
DiffImageOverlap-fno: 1.00 [16/16]

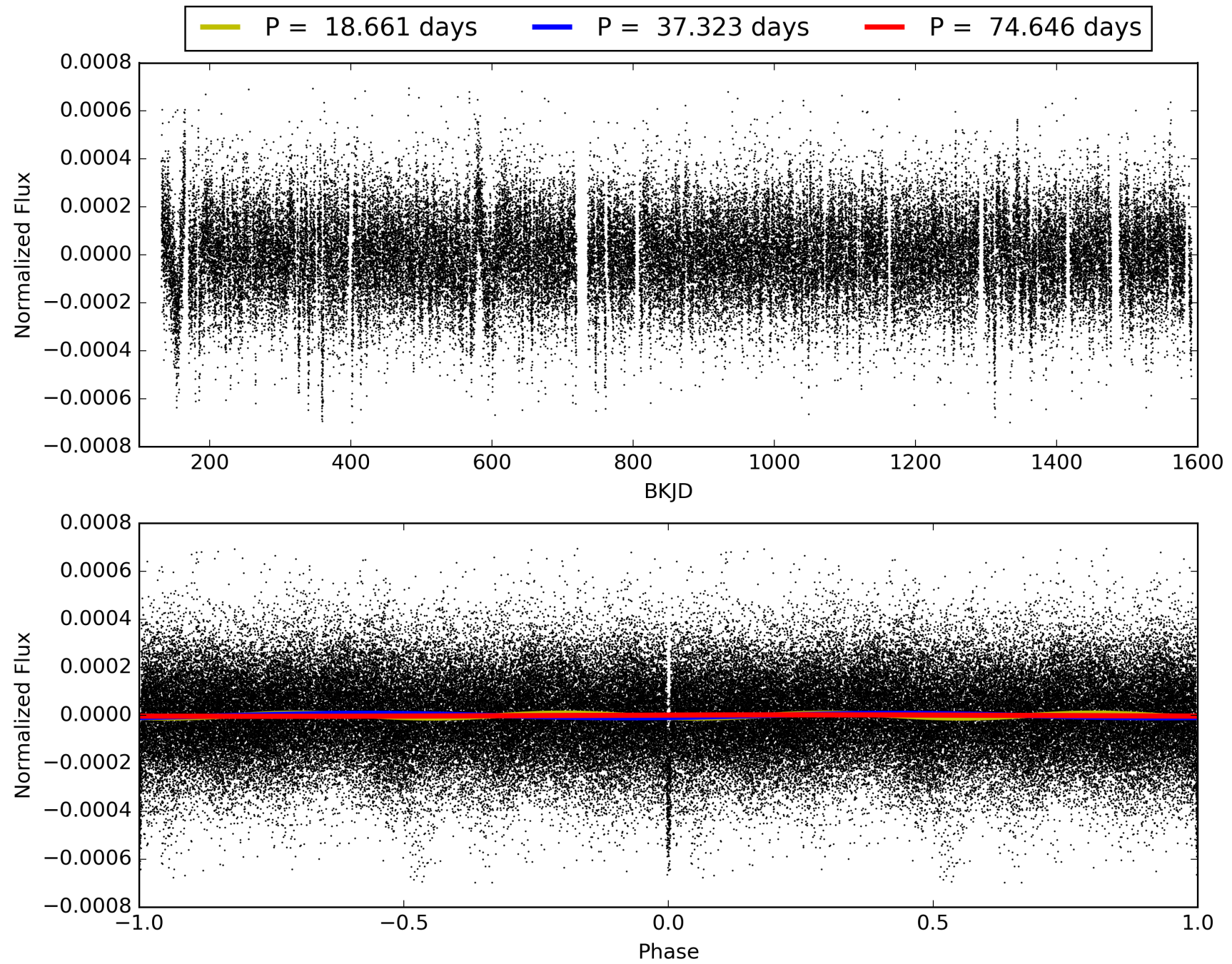
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 22:39:17 Z

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

TCE 008081187-01, PDC Light Curves

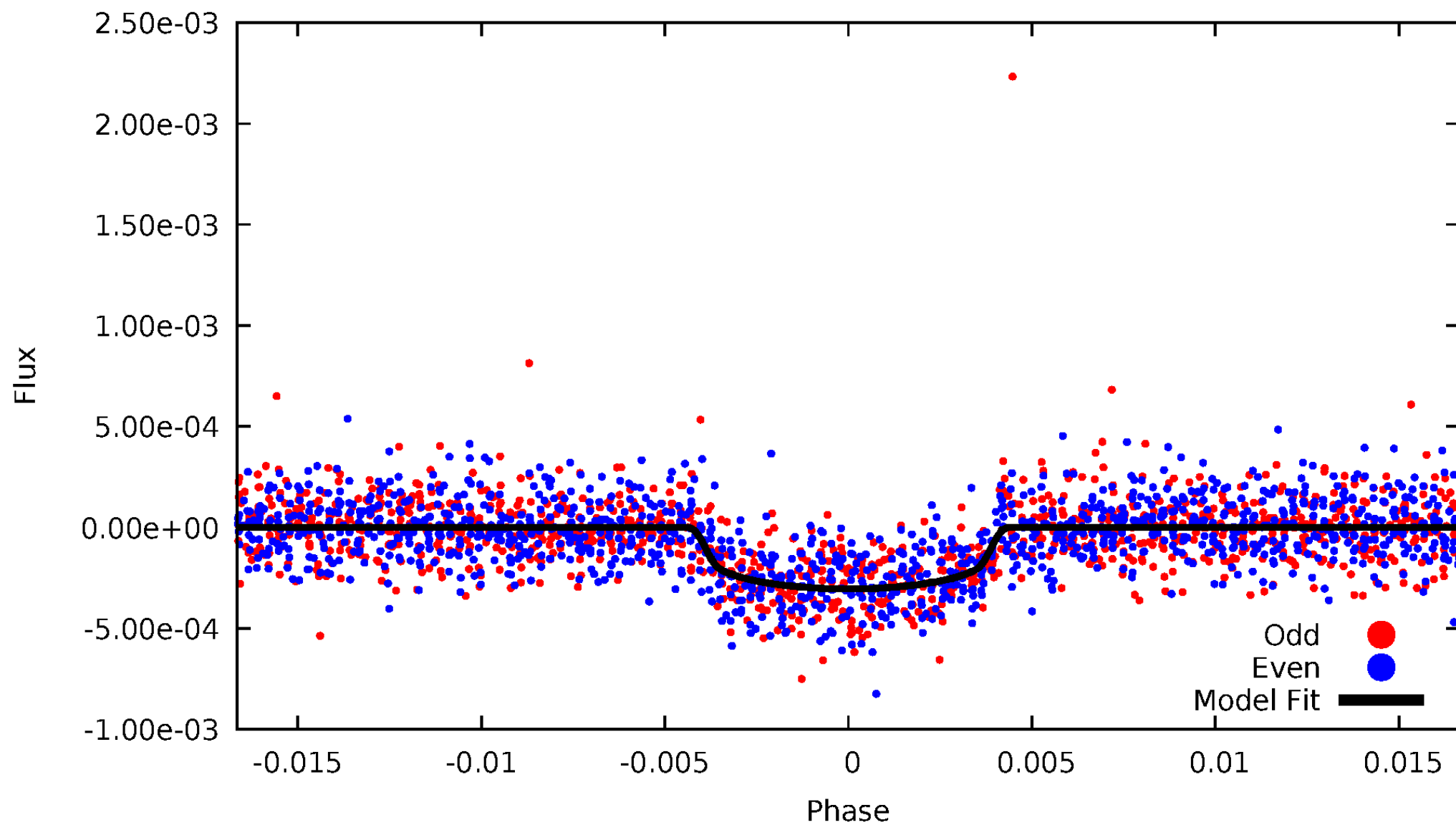


TCE 008081187-01



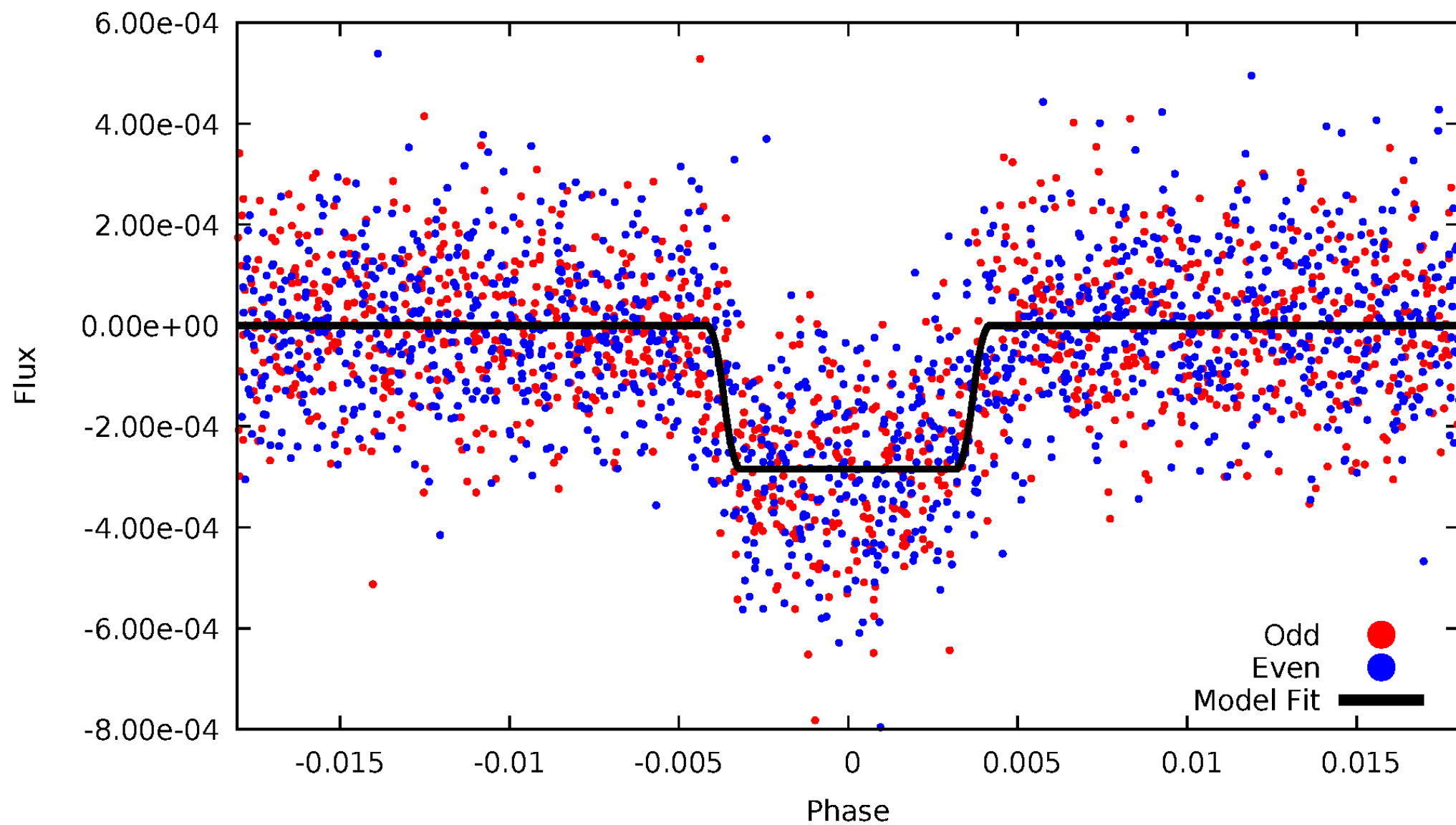
DV Odd/Even

TCE 008081187-01

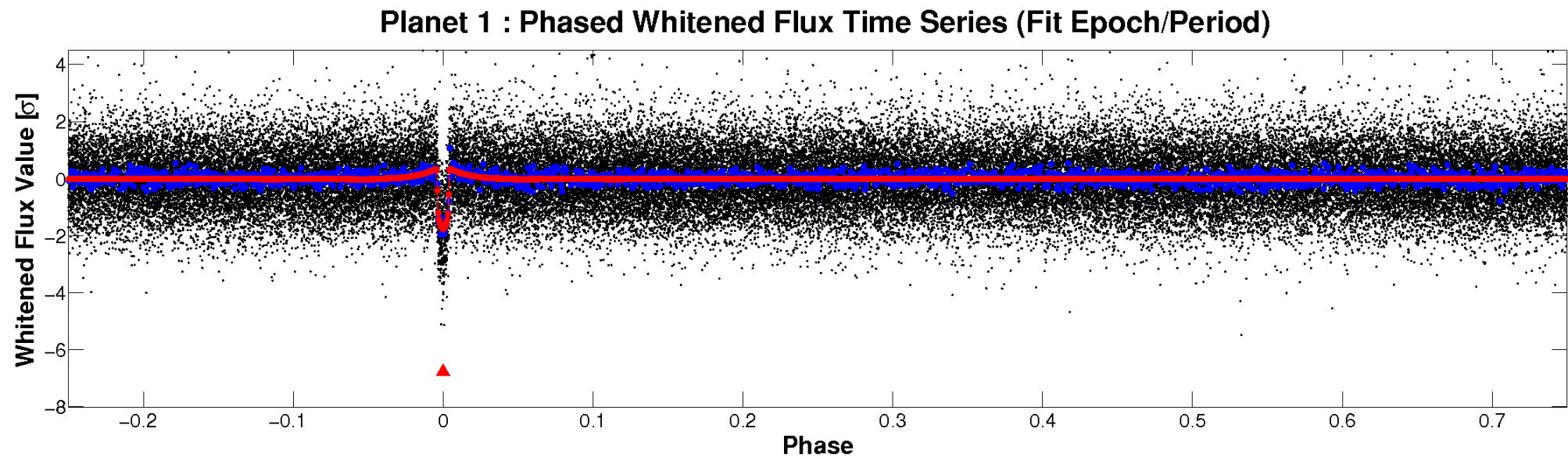
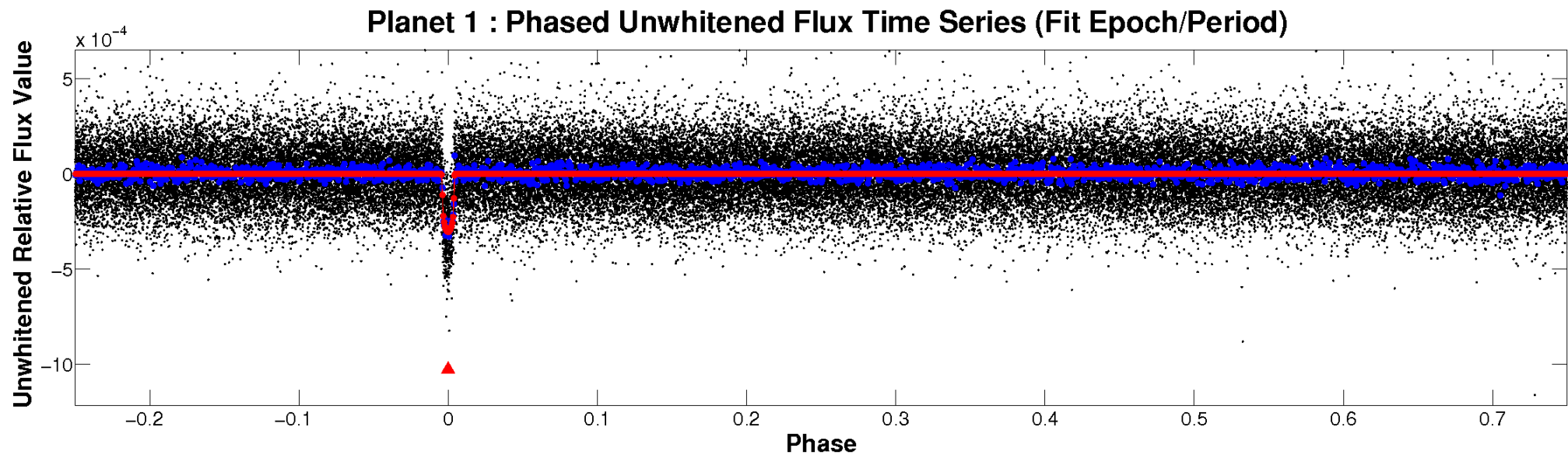


ALT Odd/Even

TCE 008081187-01

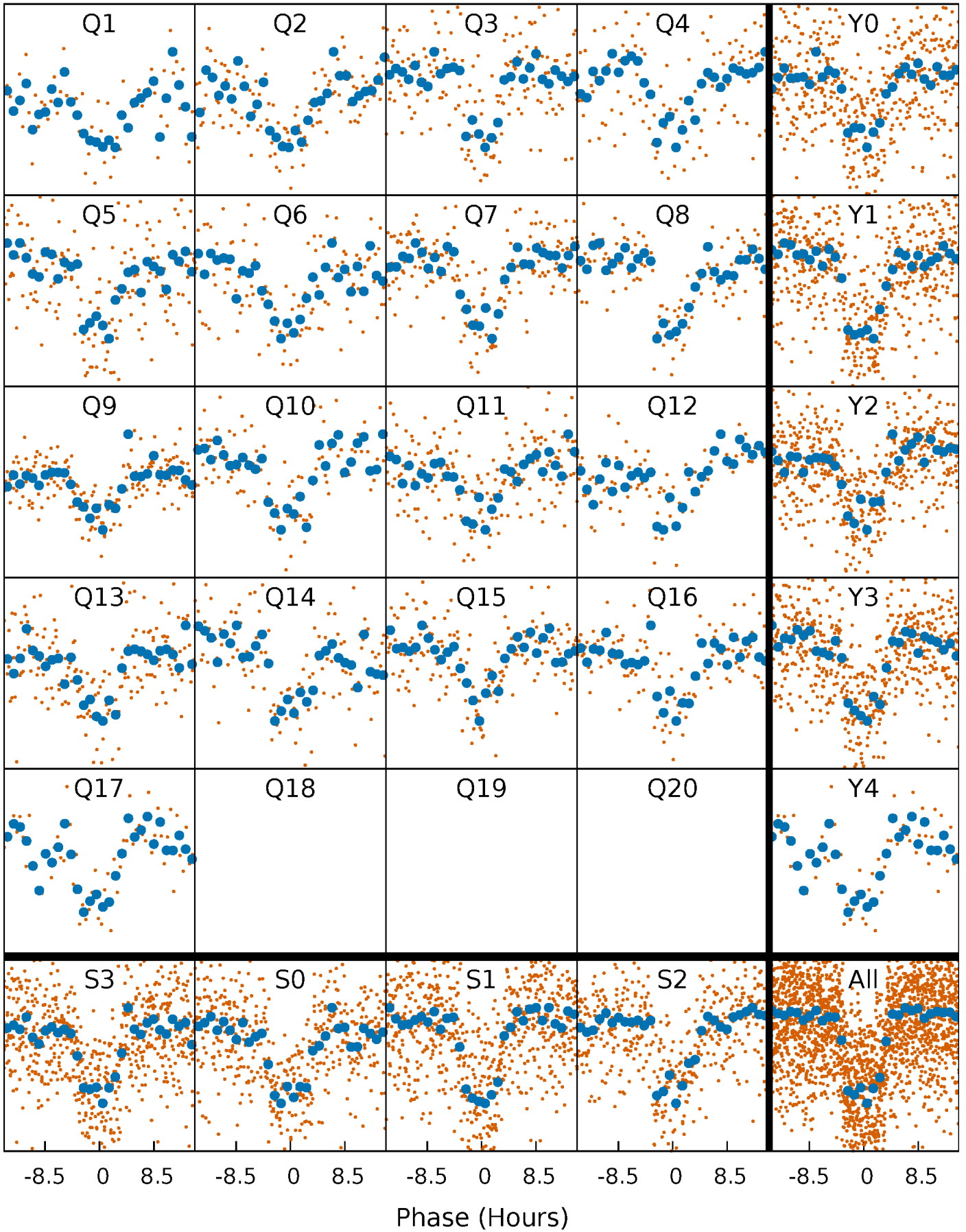


Non-Whitened Vs. Whitened Light Curve



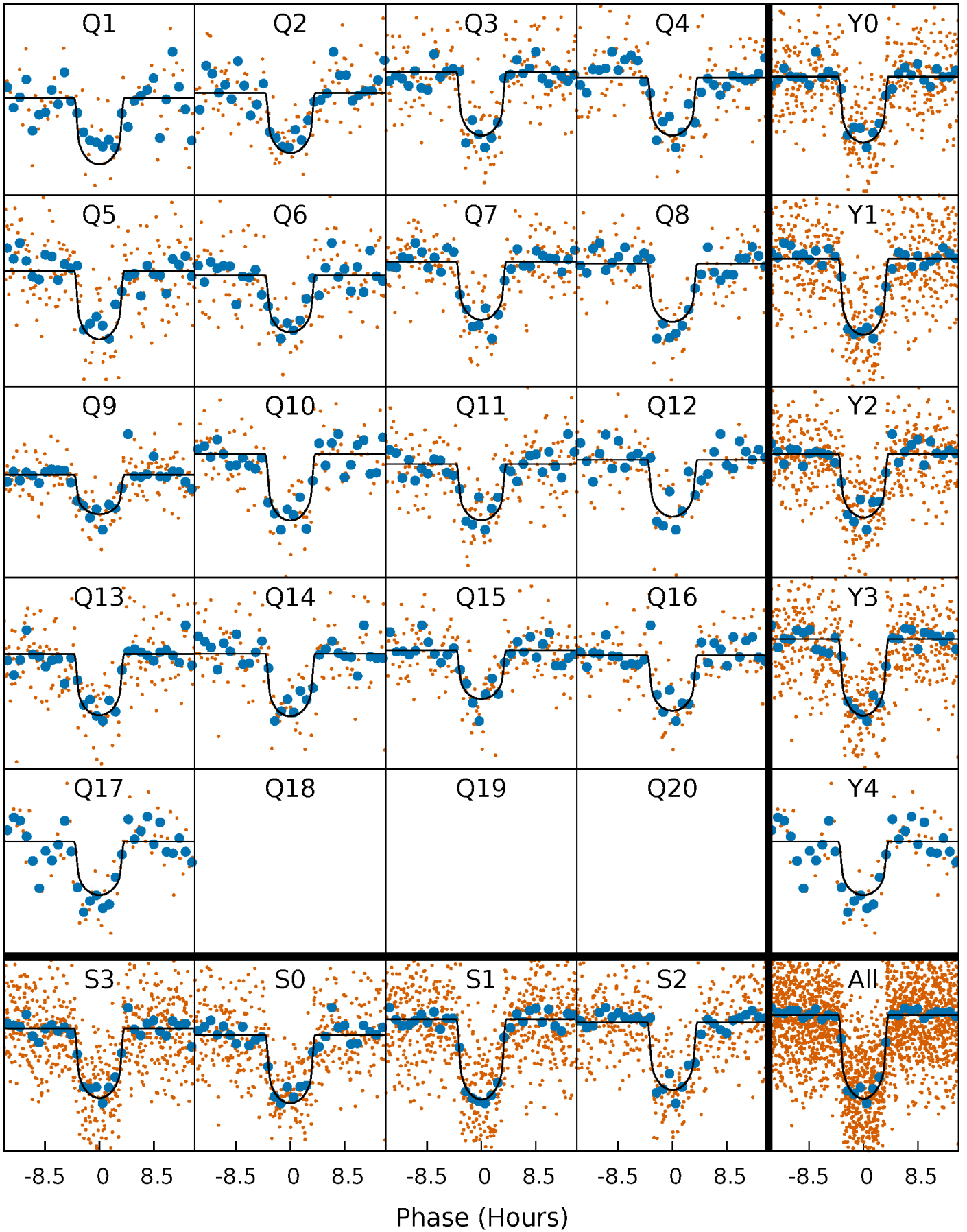
PDC Quarter-Phased Transit Curves

TCE 008081187-01 P= 37.322934 Days $T_0=152.833285$ (BKJD)



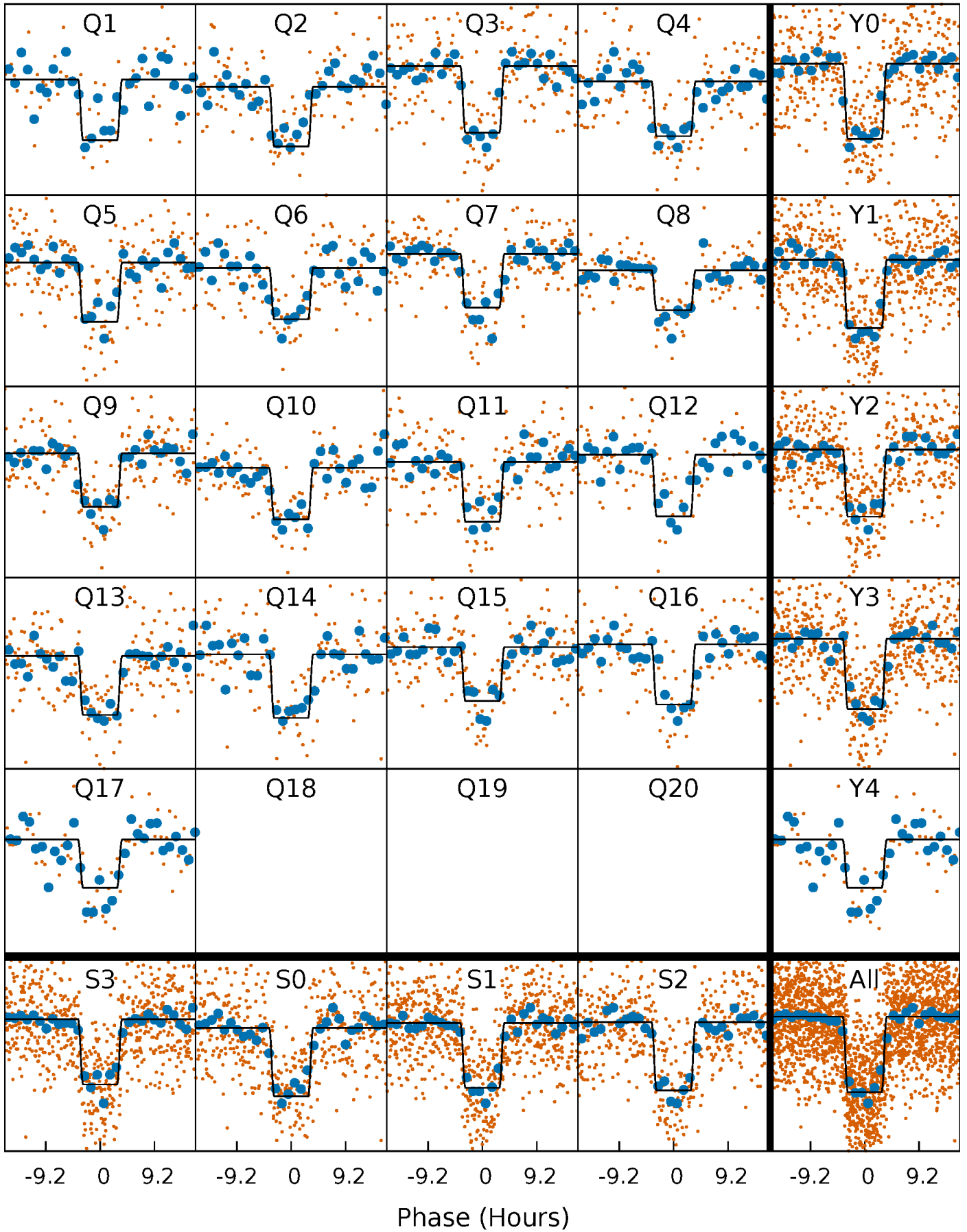
DV Quarter-Phased Transit Curves

TCE 008081187-01 P= 37.322934 Days $T_0=152.833285$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

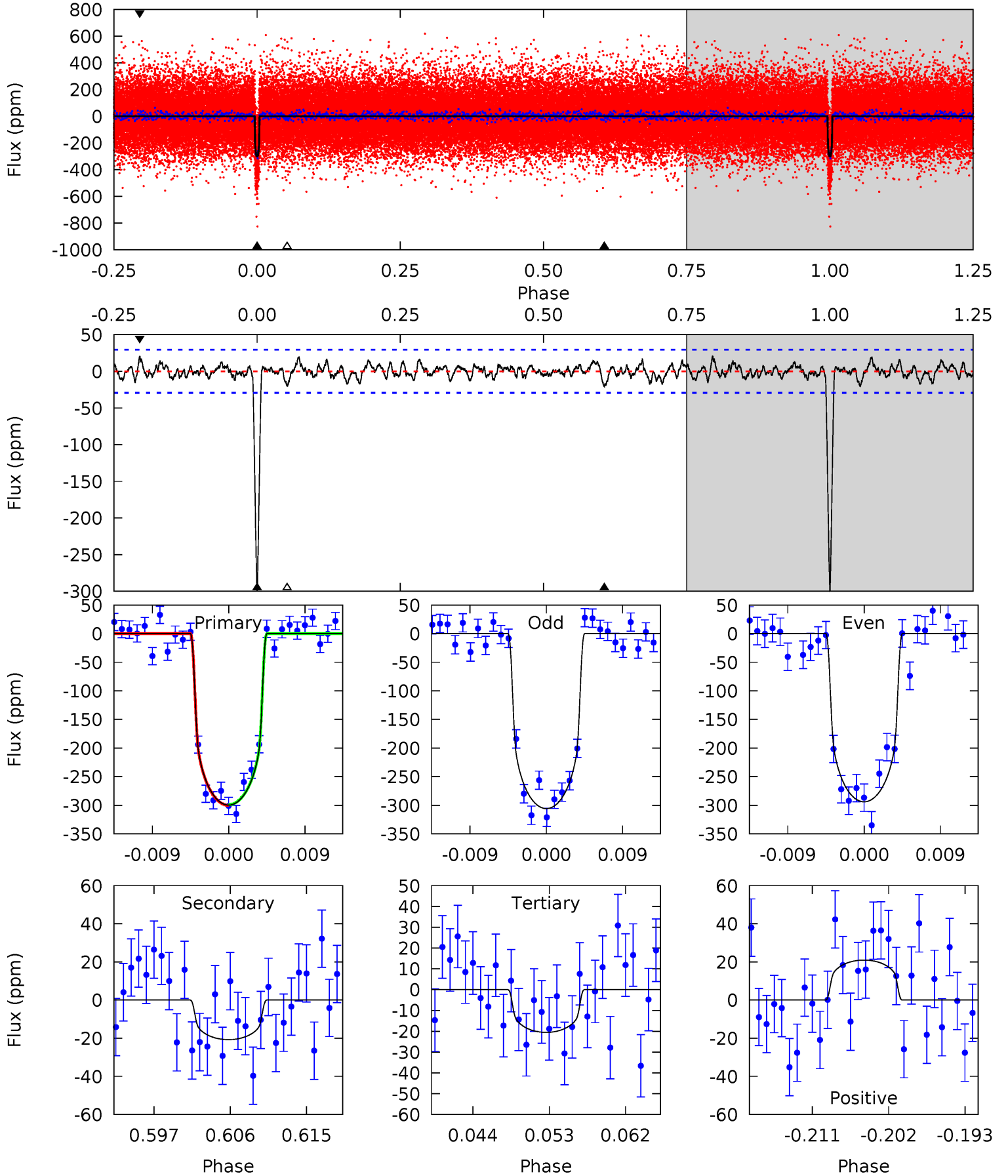
TCE 008081187-01 P= 37.321602 Days $T_0=152.858250$ (BKJD)



DV Model-Shift Uniqueness Test

008081187-01, $P = 37.322934$ Days, $E = 115.510351$ Days

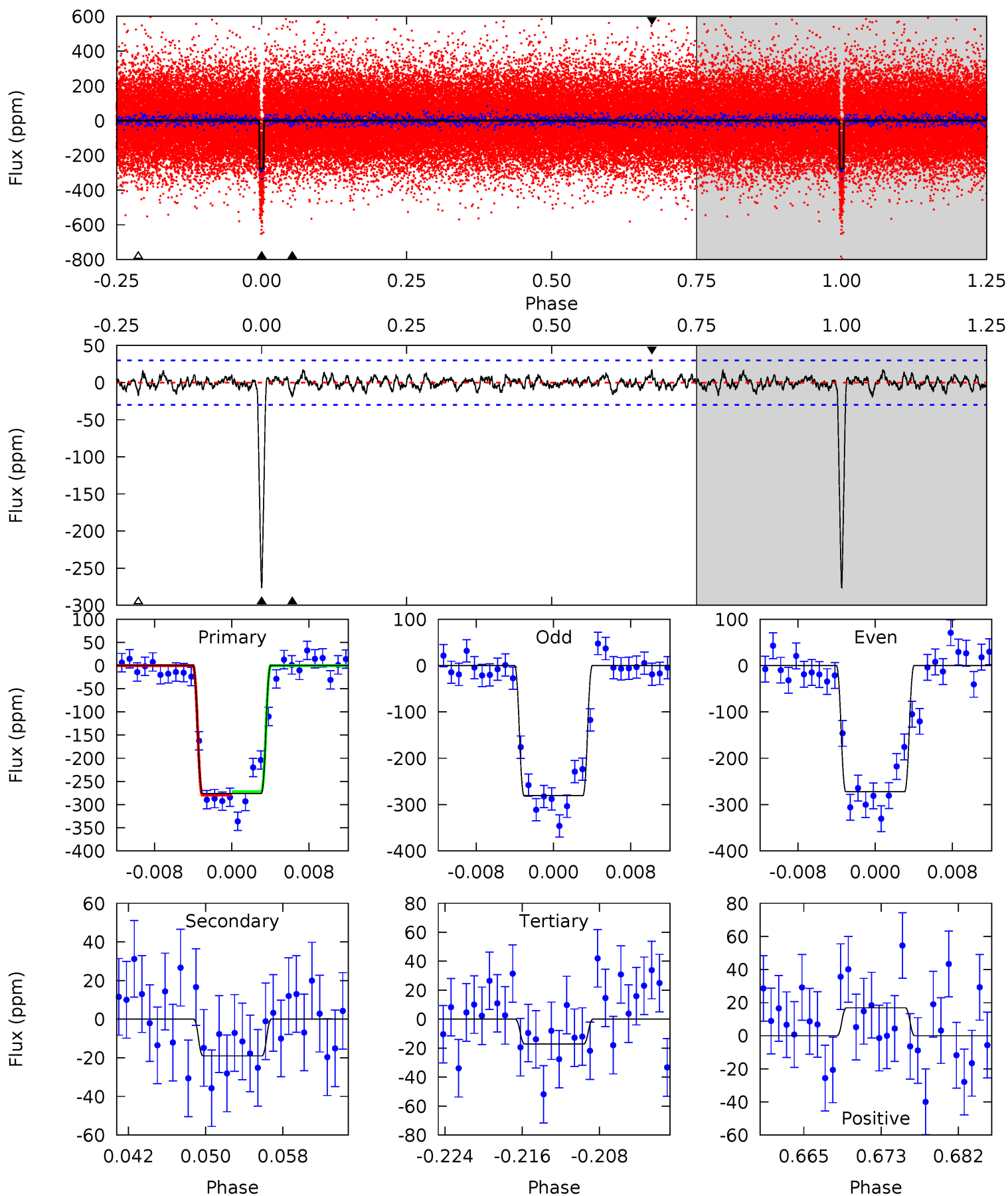
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
51.3	3.55	3.52	3.59	5.05	2.62	1.15	47.8	47.7	0.04	-0.03	1.02	0.98	0.07	0.11



Alt Model-Shift Uniqueness Test

008081187-01, $P = 37.321602$ Days, $E = 115.536648$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
46.5	3.21	2.89	2.84	5.06	2.64	0.94	43.6	43.7	0.32	0.36	0.72	0.98	0.06	0.62



Stellar Parameters For KIC 008081187

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	4907^{+28}_{-108}	$2.410^{+0.184}_{-0.057}$	$0.210^{+0.150}_{-0.050}$	$19.530^{+1.236}_{-4.943}$	$3.573^{+0.030}_{-0.544}$	$0.001^{+0.001}_{-0.000}$
	+1%/-2%	+8%/-2%	+71%/-24%	+6%/-25%	+1%/-15%	+99%/-16%
Source	SPE90	SPE90	SPE90	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 008081187-01 / KOI 1951.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-21 ± 6	$37.58^{+6.16}_{-6.89}$	2289^{+65}_{-140}	2853^{+227}_{-279}	$0.846^{+0.501}_{-0.293}$
Alt.	-19 ± 6	$34.09^{+6.39}_{-6.10}$	2285^{+70}_{-143}	2907^{+260}_{-296}	$0.957^{+0.613}_{-0.385}$

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

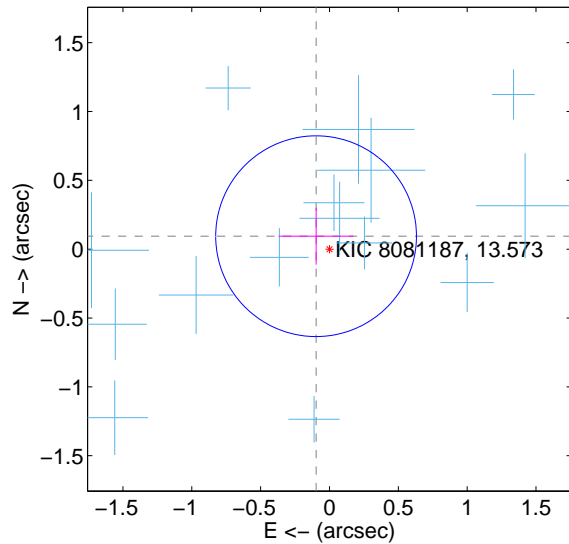
Supplemental centroid analysis for 008081187-01. Kepler magnitude: 13.57. Transit SNR 34.99

There are 15 quarters with good PRF difference image offsets

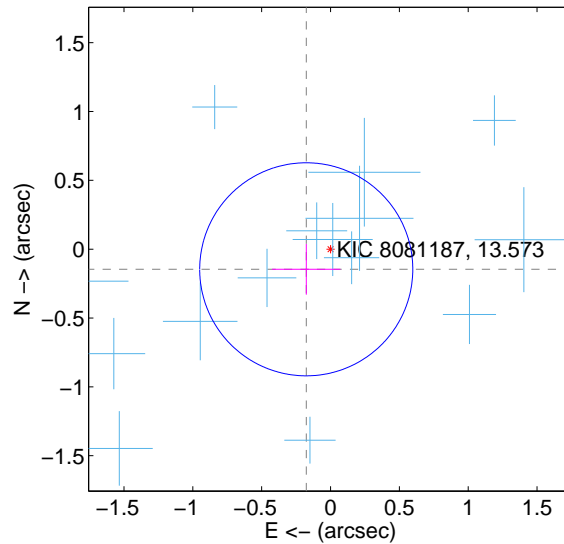
The direct PRF centroid is offset from the target star catalog position by about 0.25 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.135 ± 0.243	0.56	0.097 ± 0.273	0.094 ± 0.207
PRF-fit source offset from KIC position	0.229 ± 0.258	0.89	0.176 ± 0.248	-0.146 ± 0.184
photometric centroid source offset	0.52 ± 0.32	1.63	0.13 ± 0.30	-0.50 ± 0.32

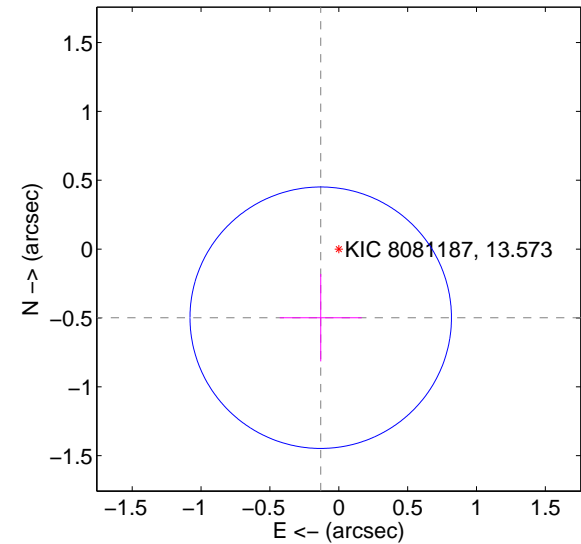
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

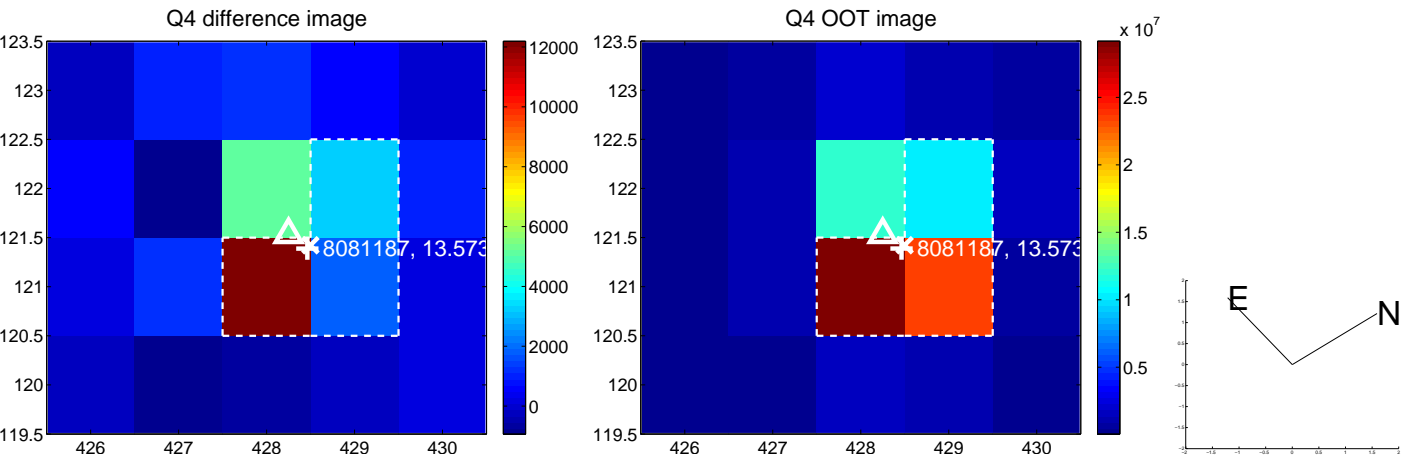
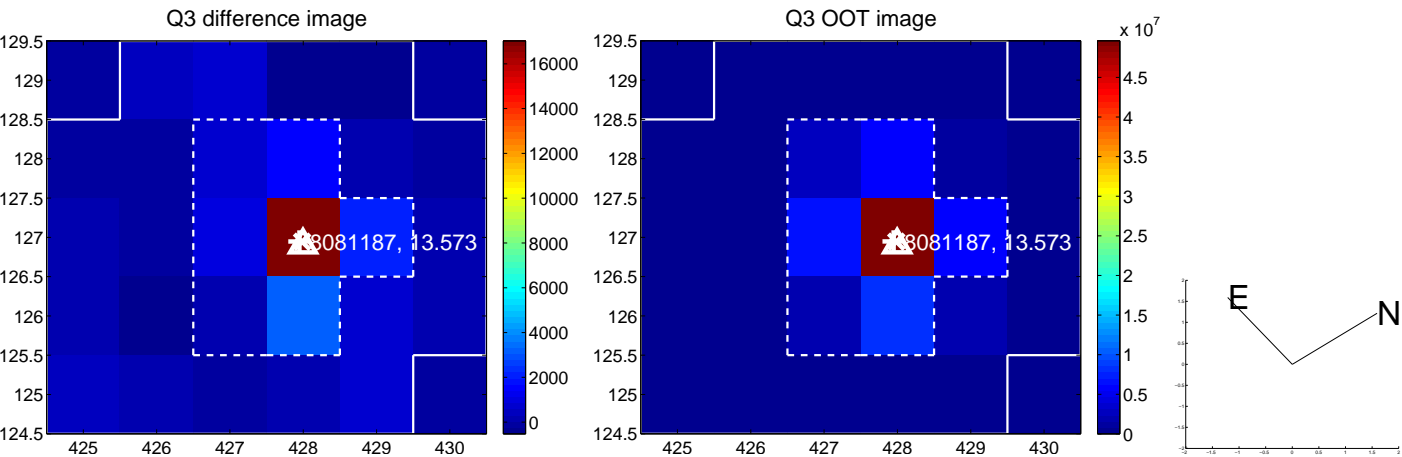
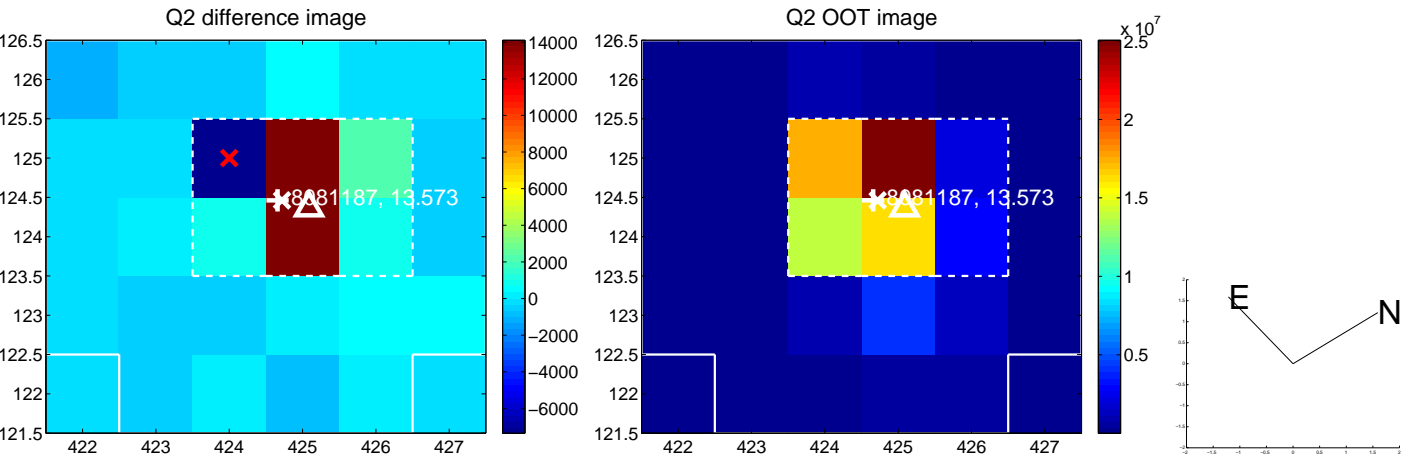
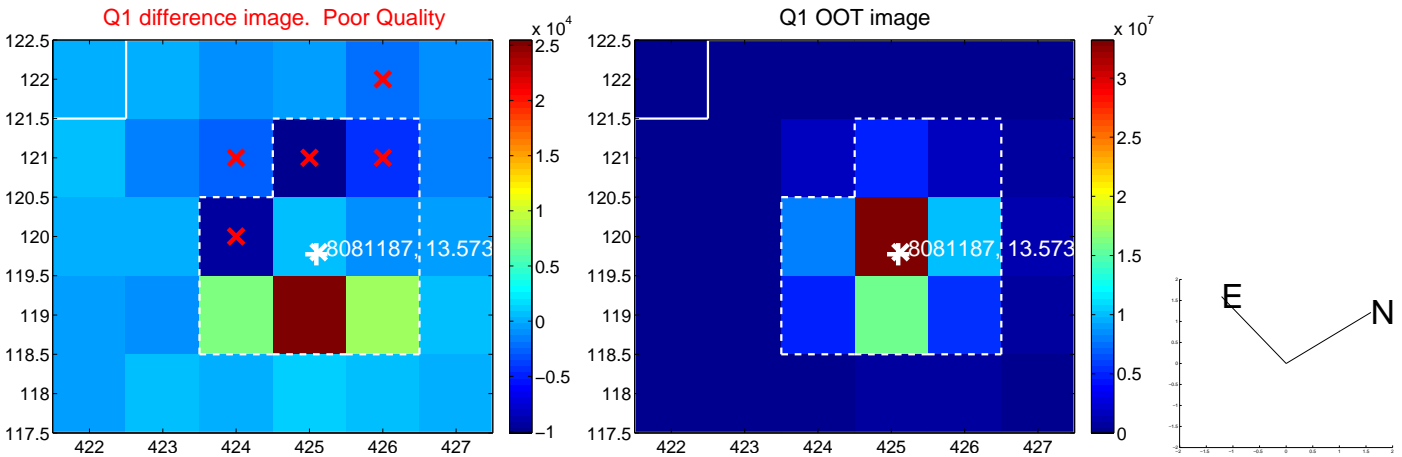


offset from photometric centroids

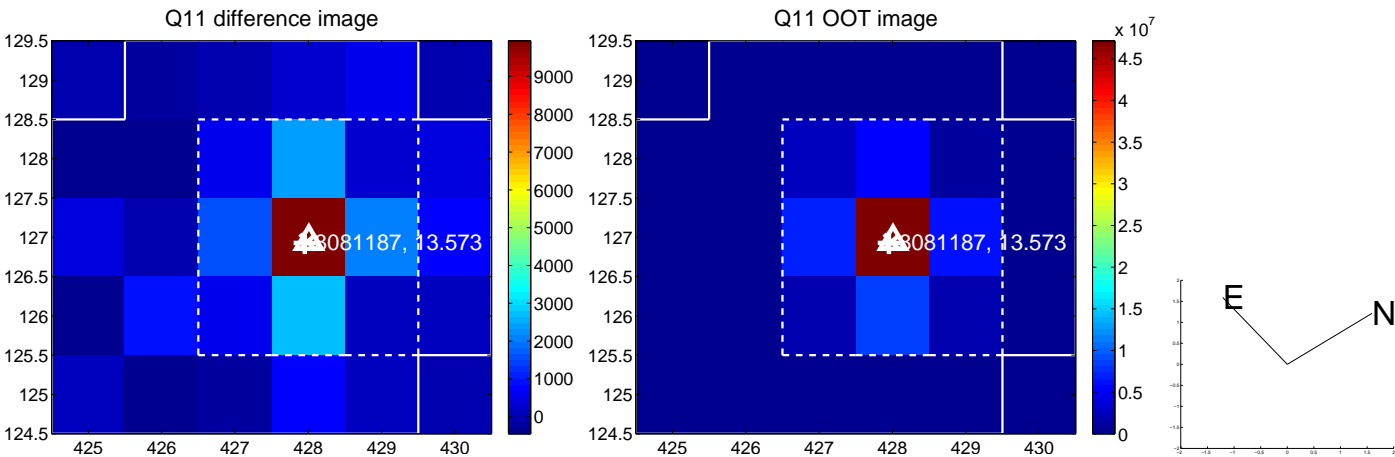
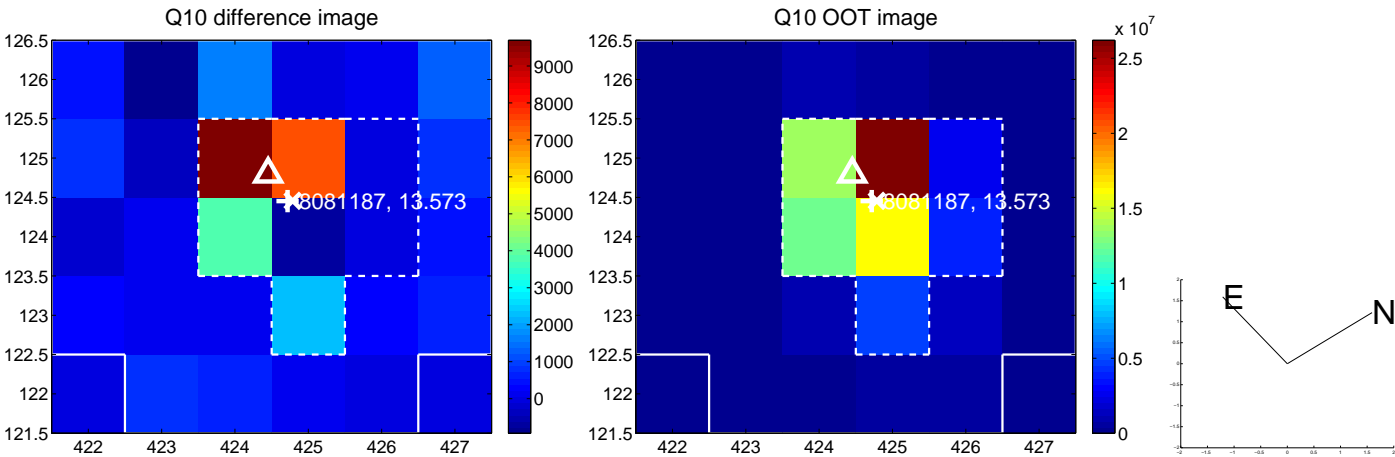
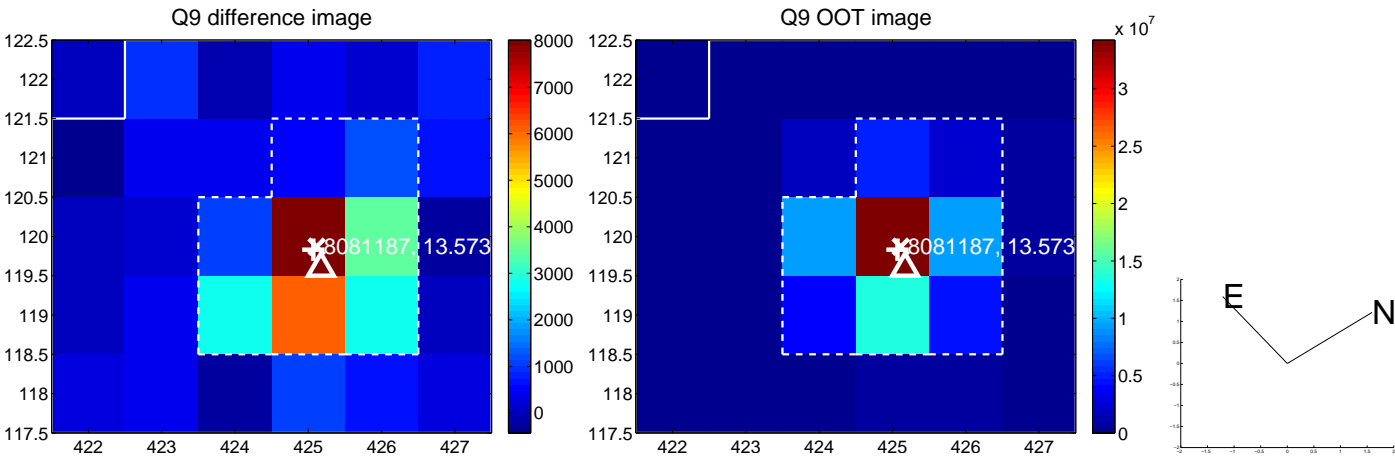


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

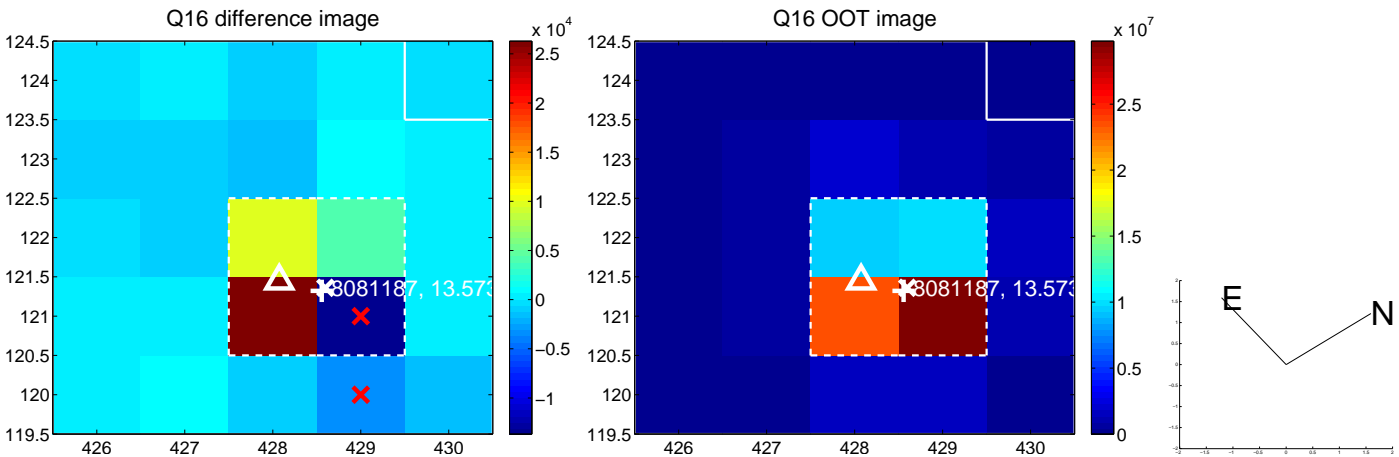
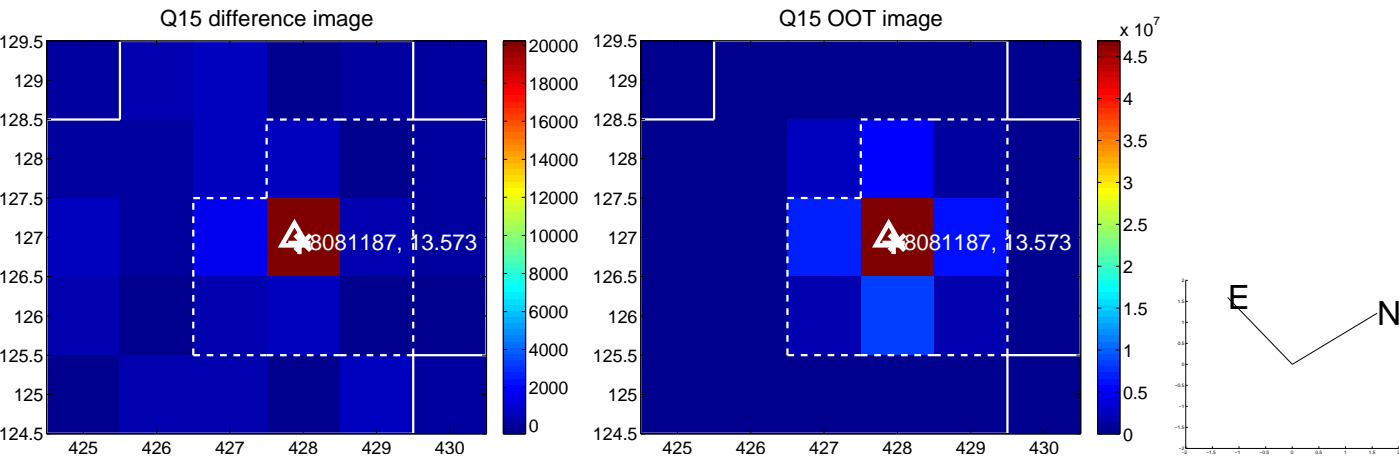
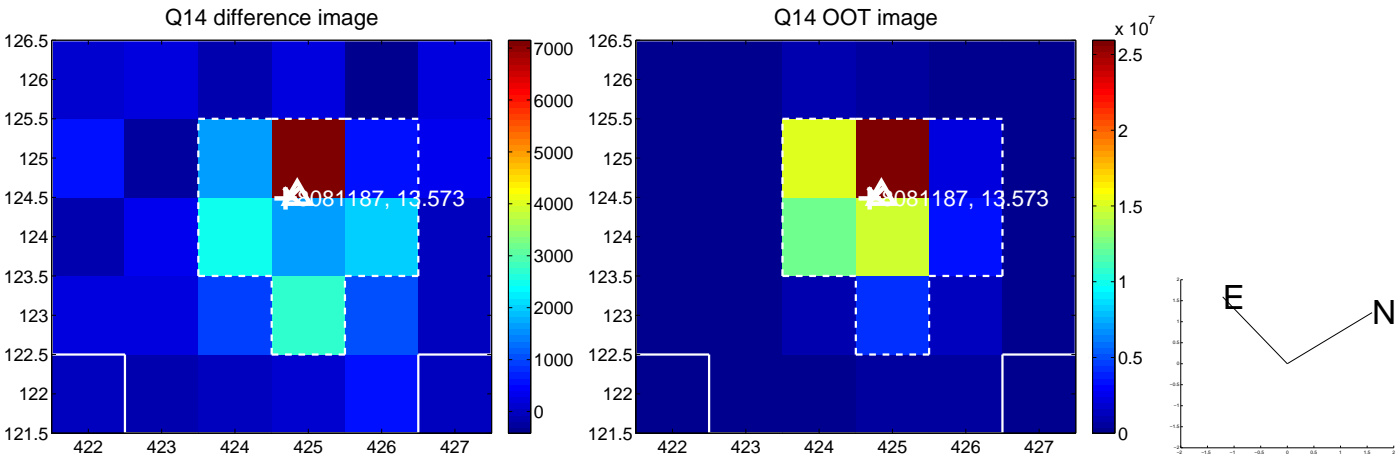
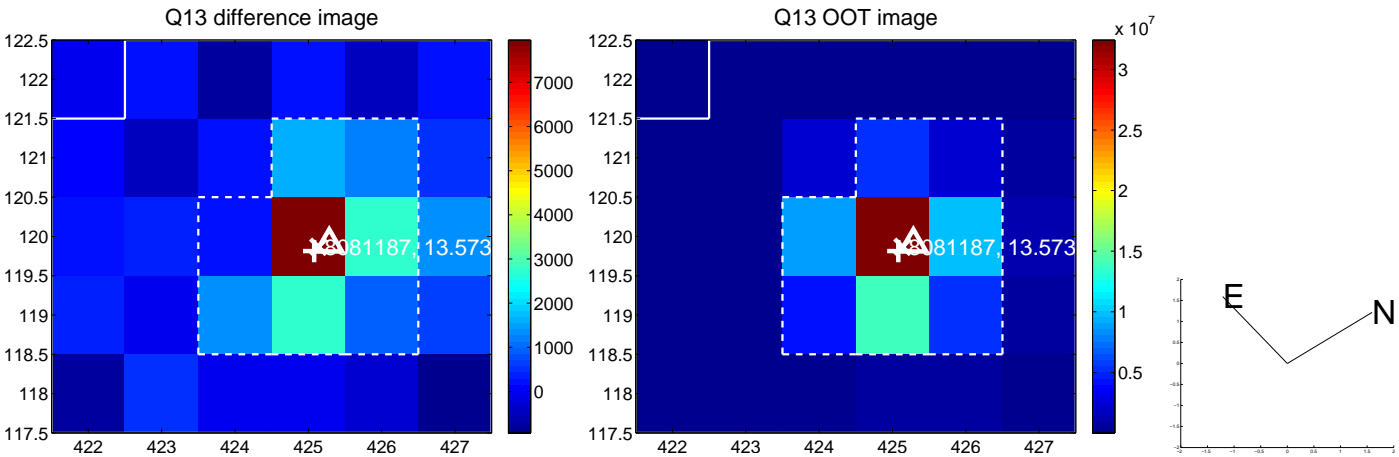
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



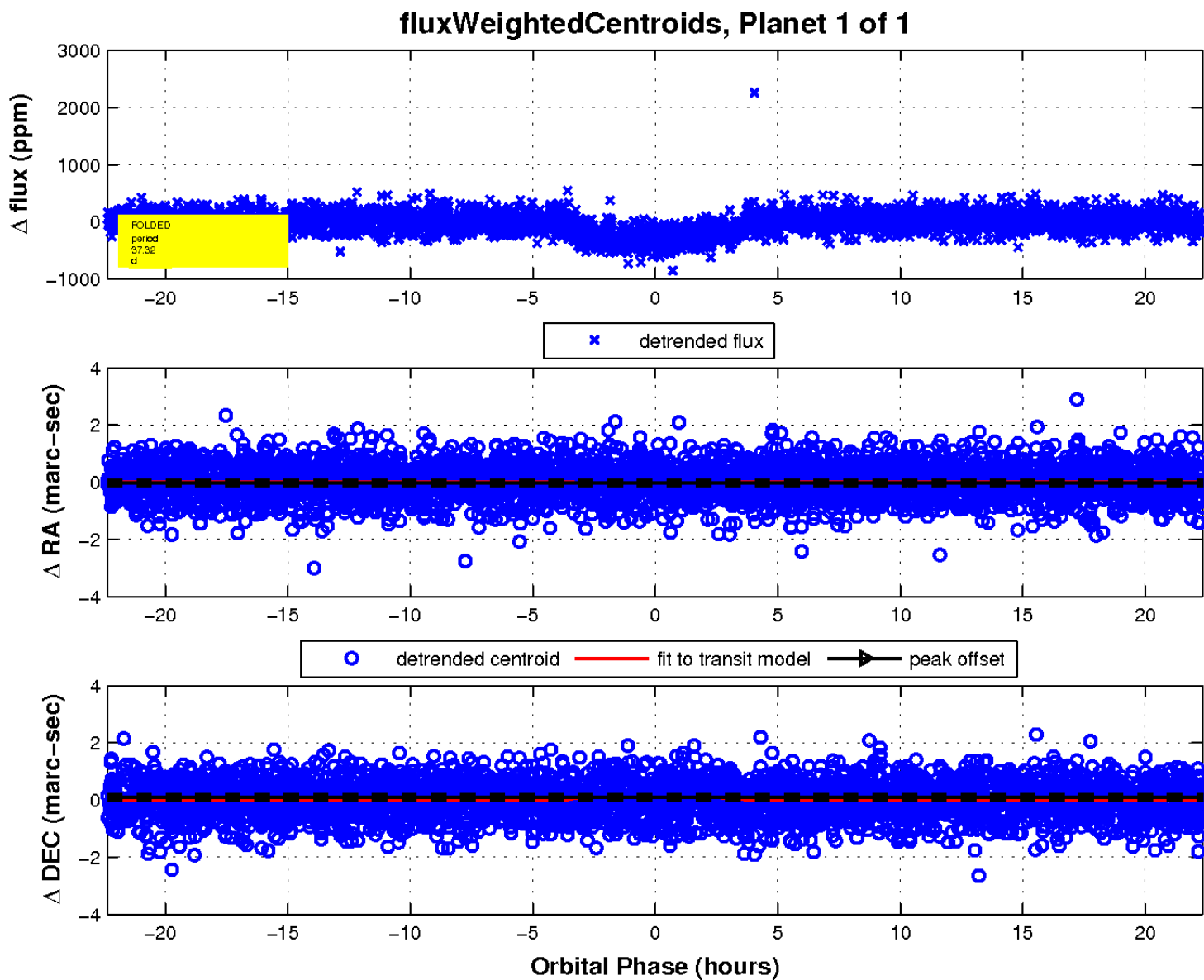
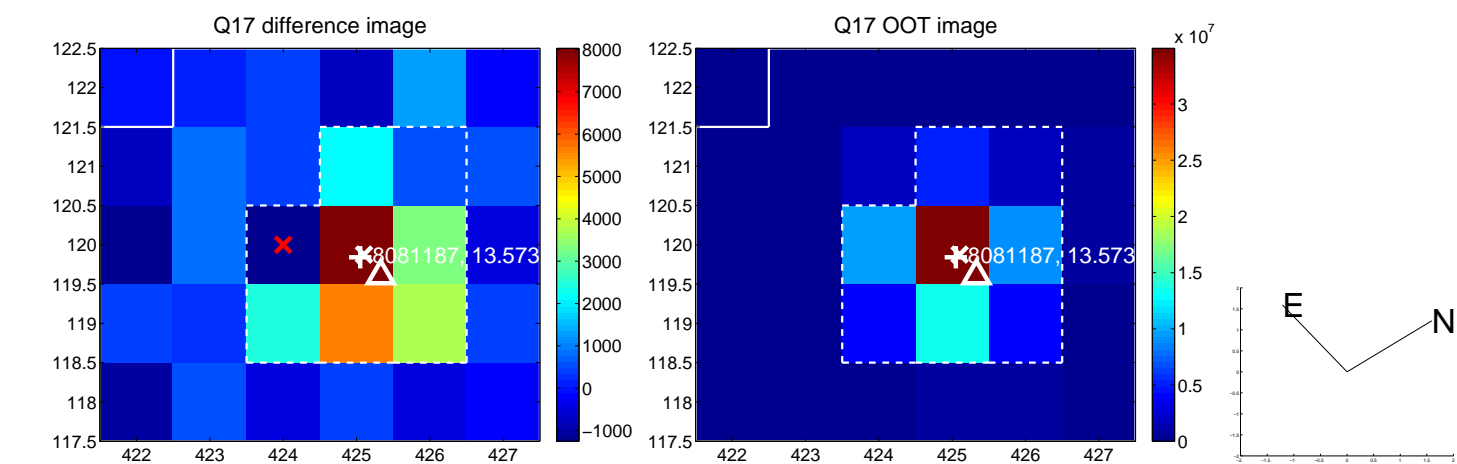
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

