

KIC 008144355

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})
008144355-01	OBS	No	80.567956	206.479734	1429.5	60.613	18.1	30.5	5.18	5089	25.92	84.90

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008144355-01	OBS	FP	0.00	1	0	0	0	LPP_DV

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

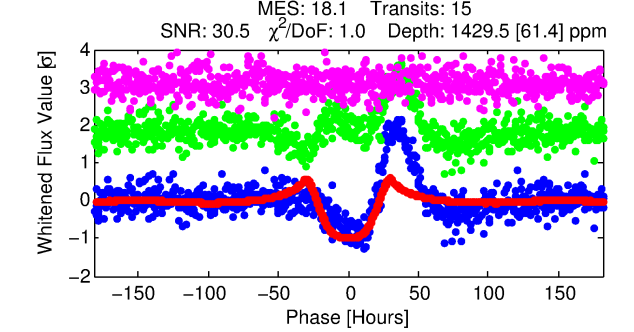
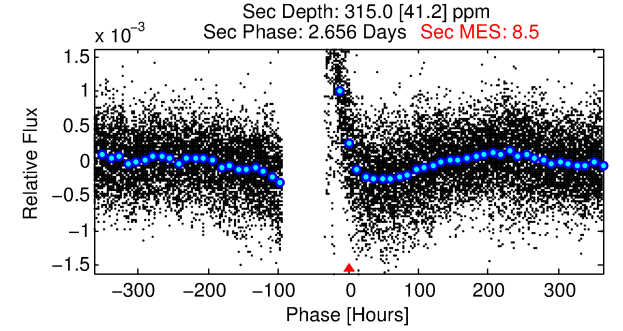
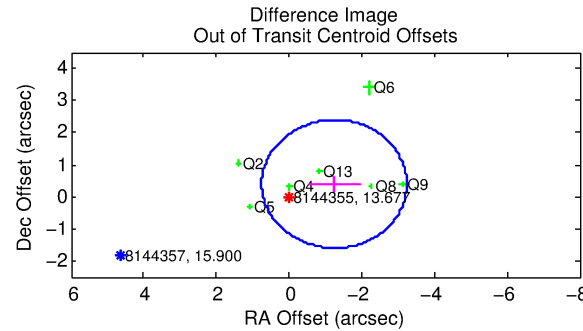
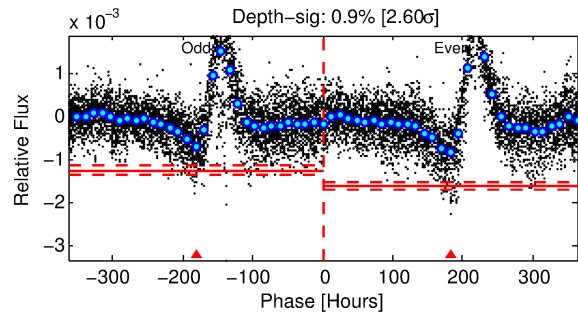
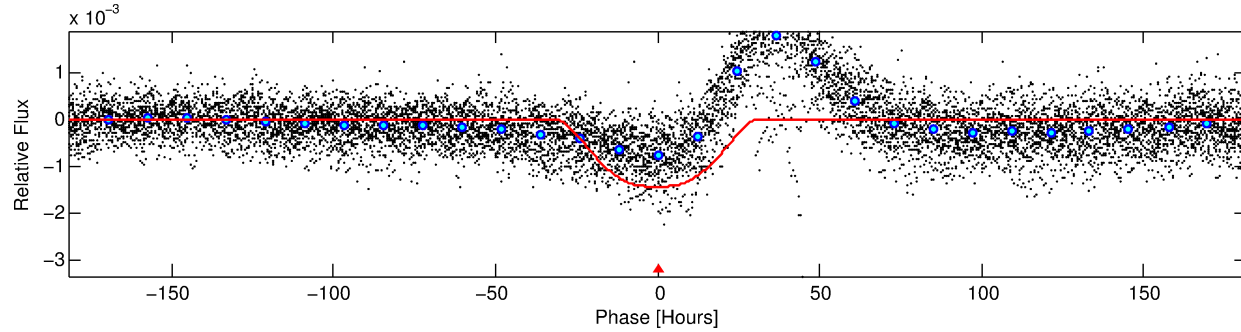
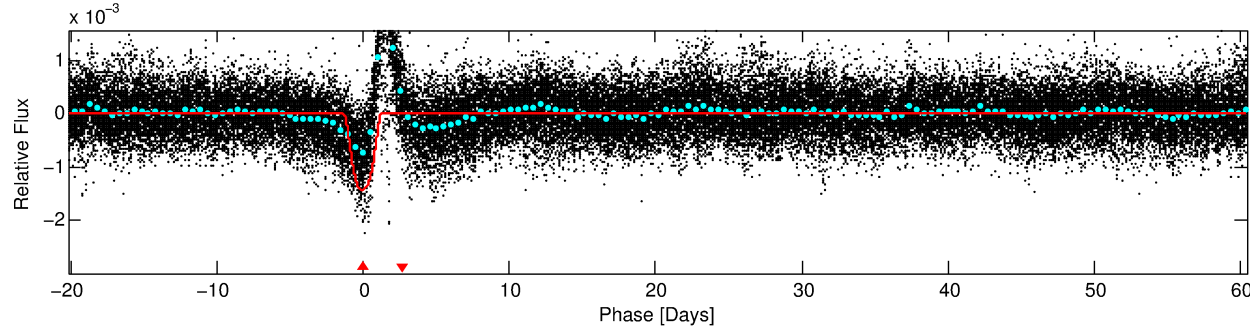
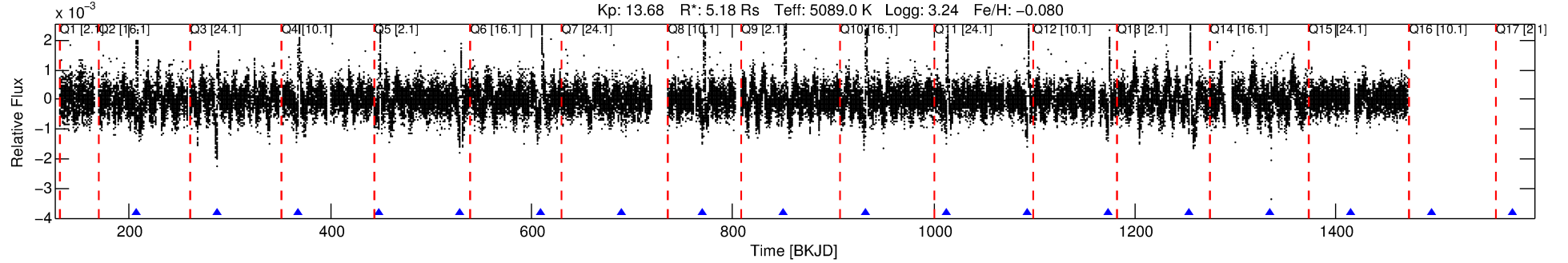
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008144355-01

No Significant Match Found

DV One-Page Summary

KIC: 8144355 Candidate: 1 of 1 Period: 80.568 d



DV Fit Results:

Period = 80.56796 [0.00393] d
Epoch = 206.4797 [0.0324] BKJD
Rp/R* = 0.0458 [0.0013]
a/R* = 4.50 [0.14]
b = 0.95 [0.00]
Seff = 84.90 [60.33]
Teq = 774 [138] K
Rp = 25.92 [12.09] Re
a = 0.4360 [0.1925] AU
Ag = 49.04 [35.05] [1.37 σ]
Teffp = 3167 [148] K [11.85 σ]

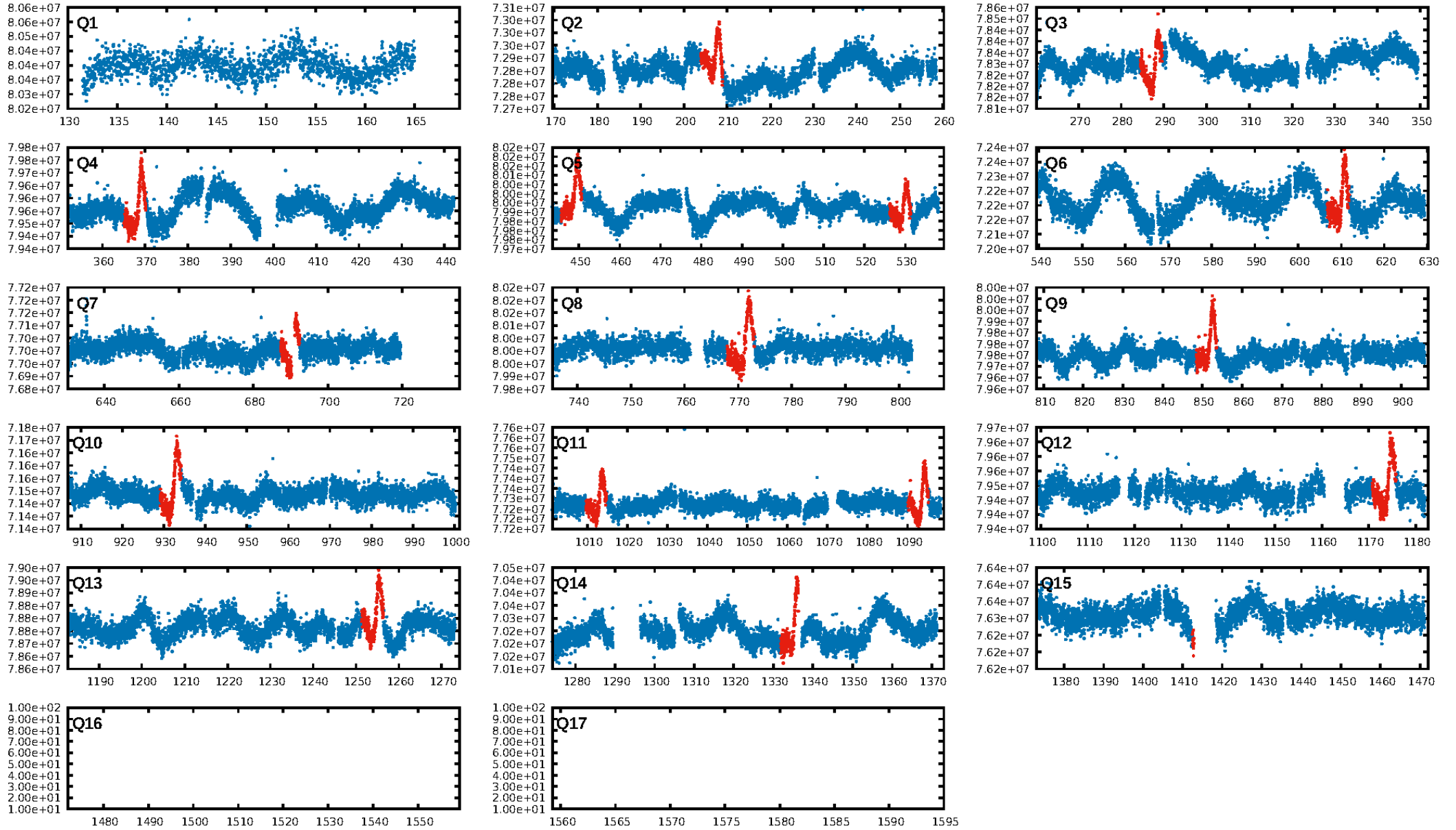
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.1%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 2.26e-79
RollingBand-fgt: 1.00 [15/15]
GhostDiagnostic-chr: 0.9614
Centroid-sig: 69.1%
Centroid-so: 0.338 arcsec [1.92 σ]
OotOffset-rm: 1.301 arcsec [1.96 σ]
OotOffset-st: 2/0/2/3 [7]
KicOffset-rm: 0.947 arcsec [1.31 σ]
KicOffset-st: 2/0/2/3 [7]
DiffImageQuality-fgm: 0.71 [5/7]
DiffImageOverlap-fno: 1.00 [7/7]

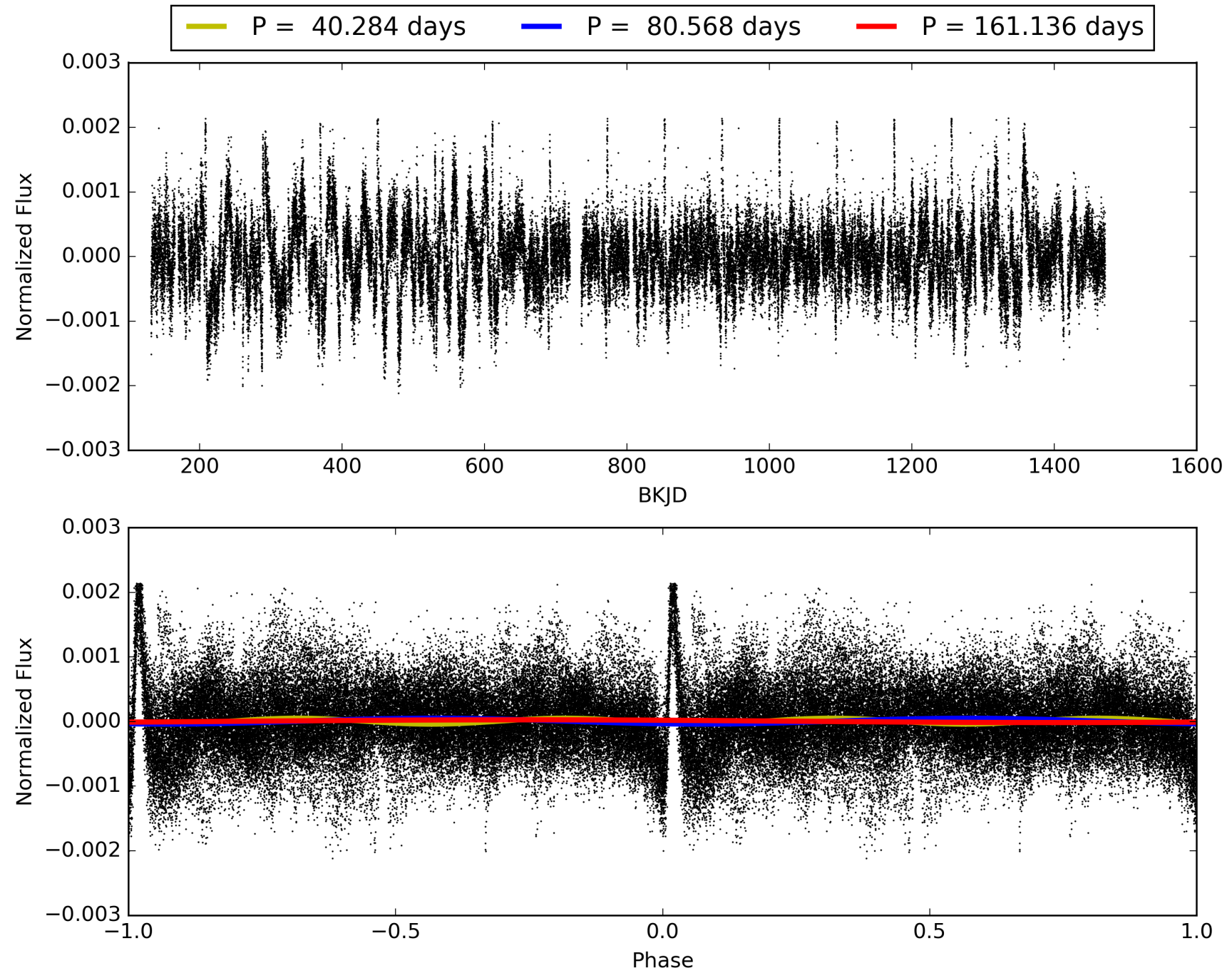
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 01:49:37 Z

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

TCE 008144355-01, PDC Light Curves

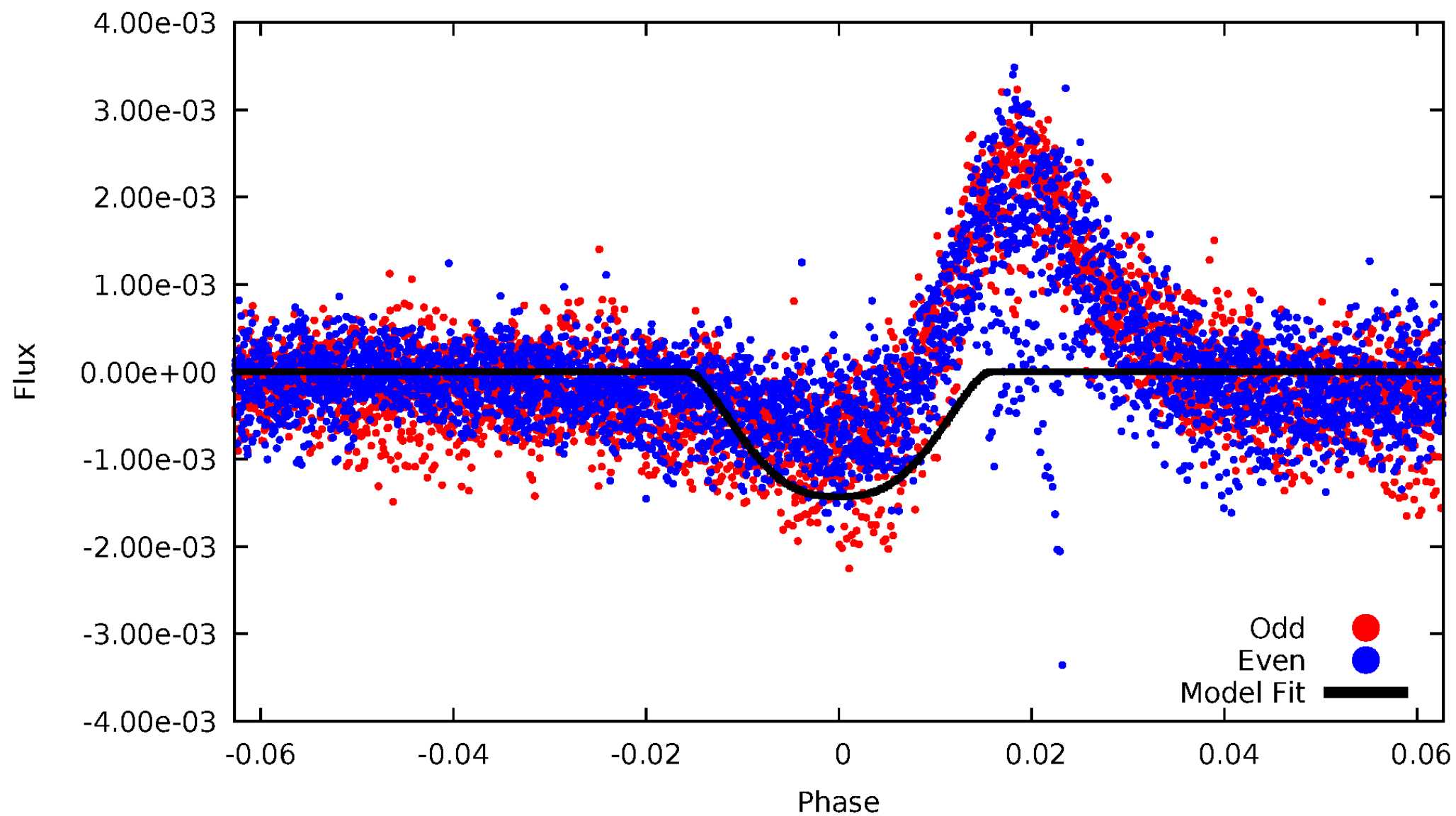


TCE 008144355-01



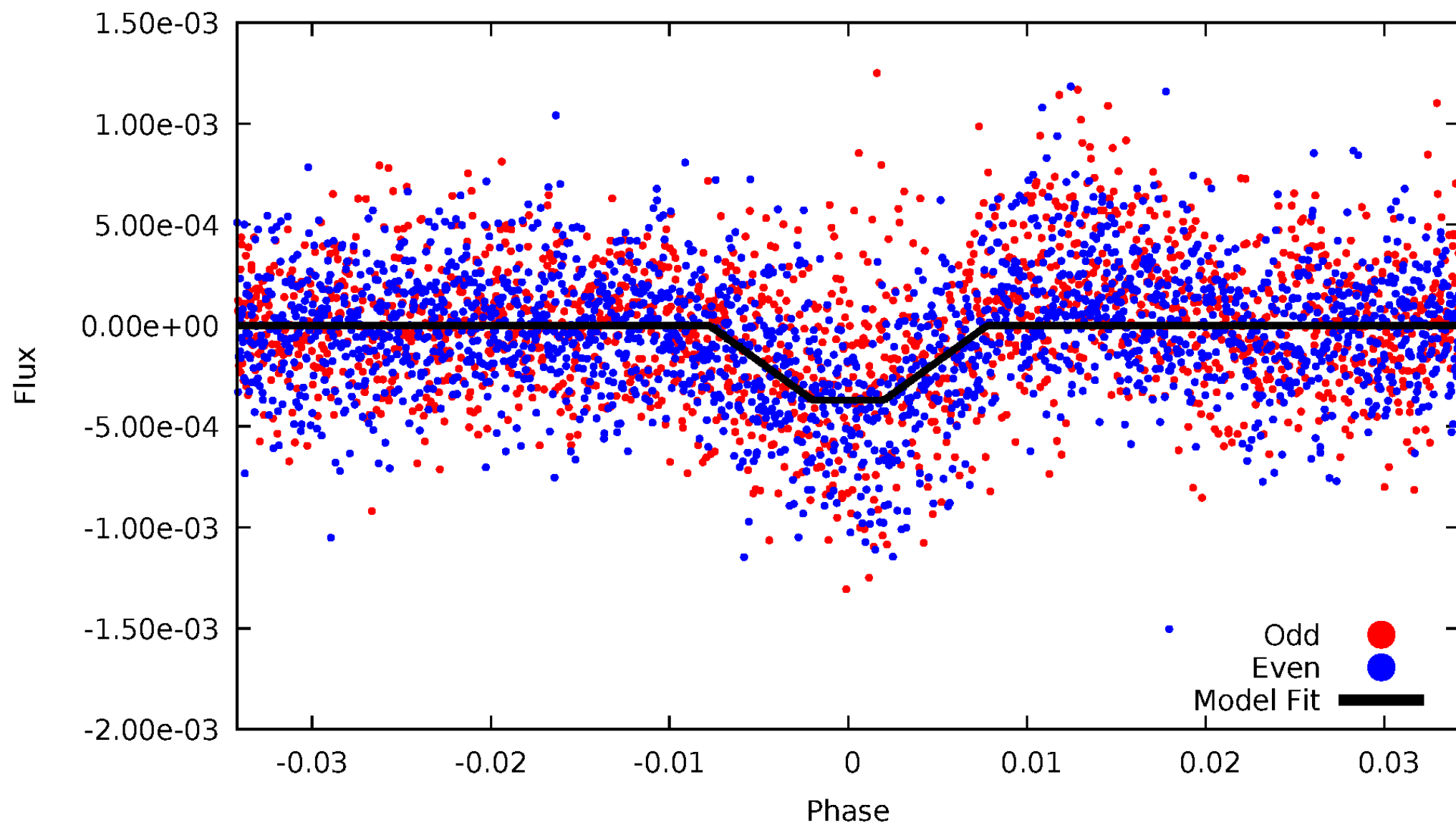
DV Odd/Even

TCE 008144355-01

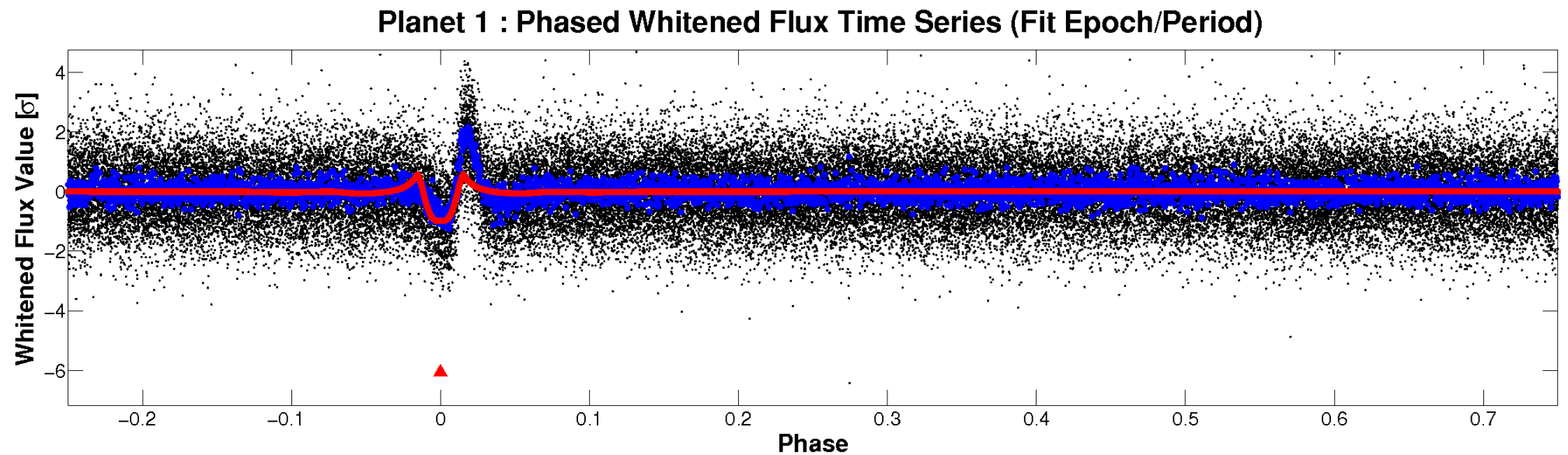
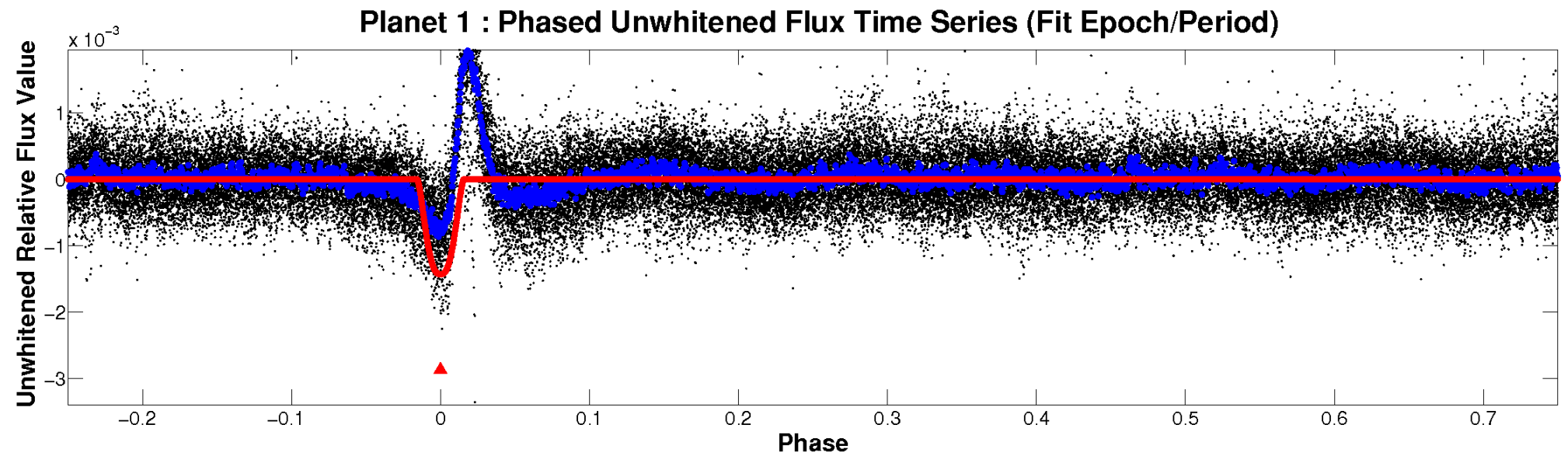


ALT Odd/Even

TCE 008144355-01

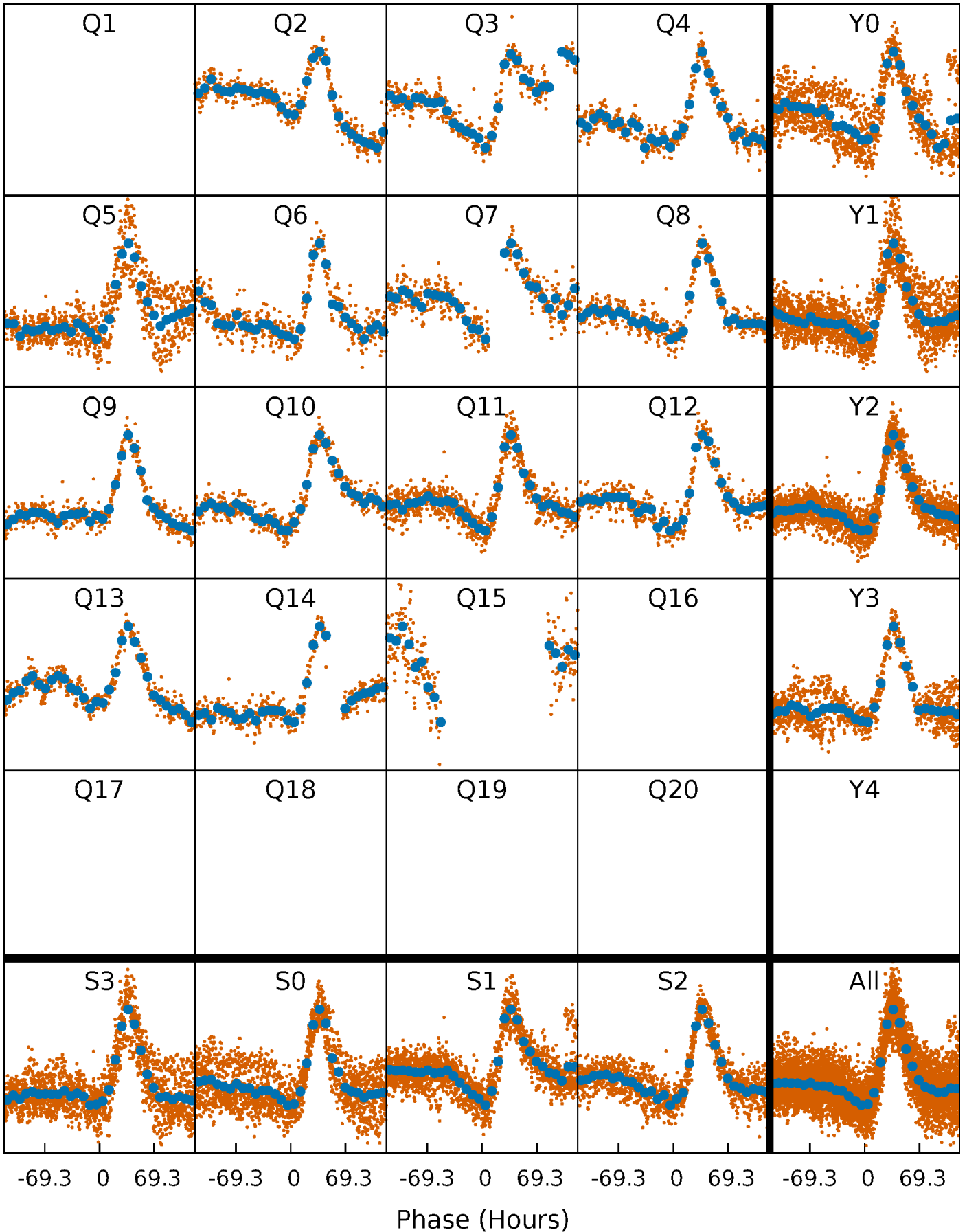


Non-Whitened Vs. Whitened Light Curve



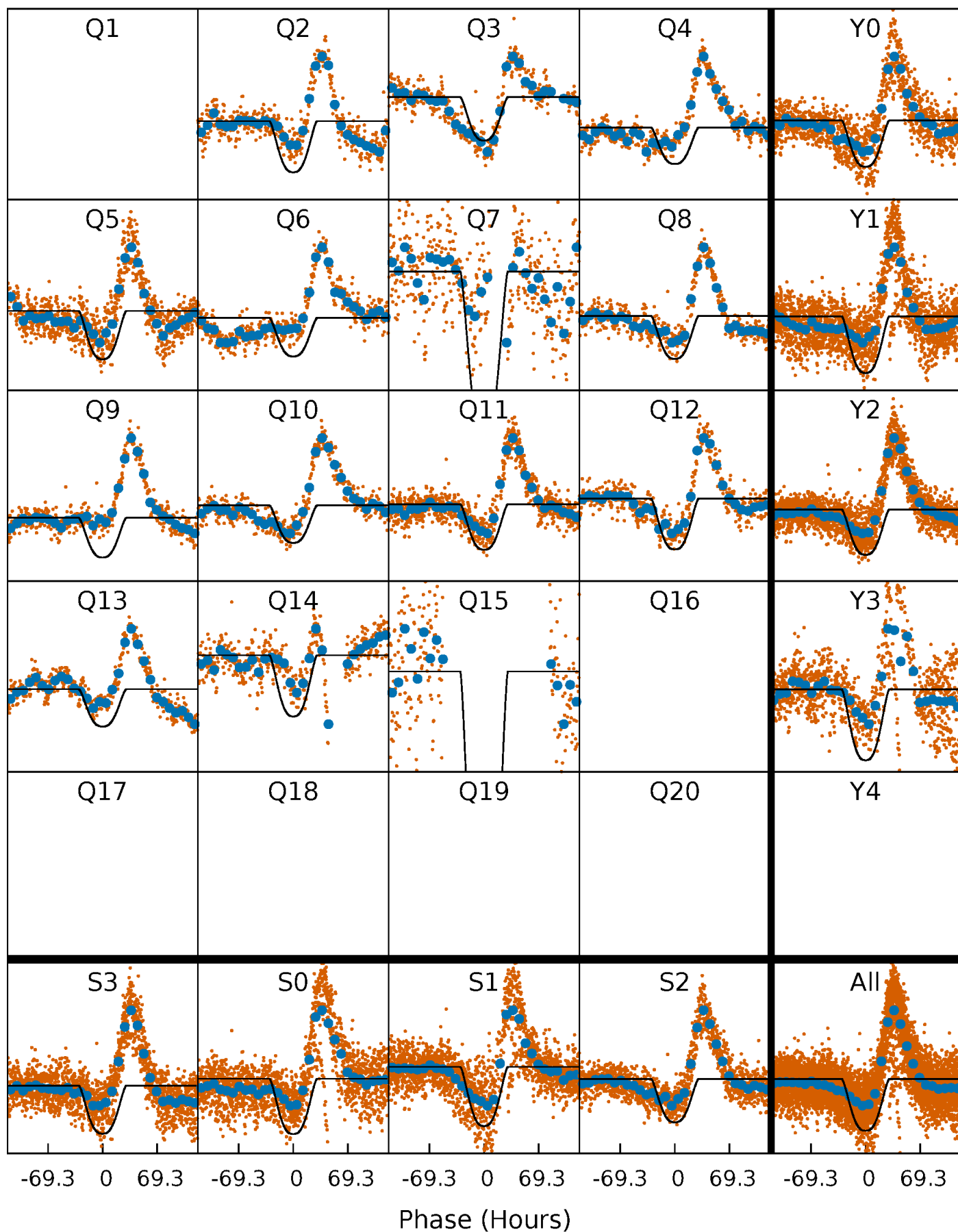
PDC Quarter-Phased Transit Curves

TCE 008144355-01 P= 80.567956 Days $T_0=206.479734$ (BKJD)



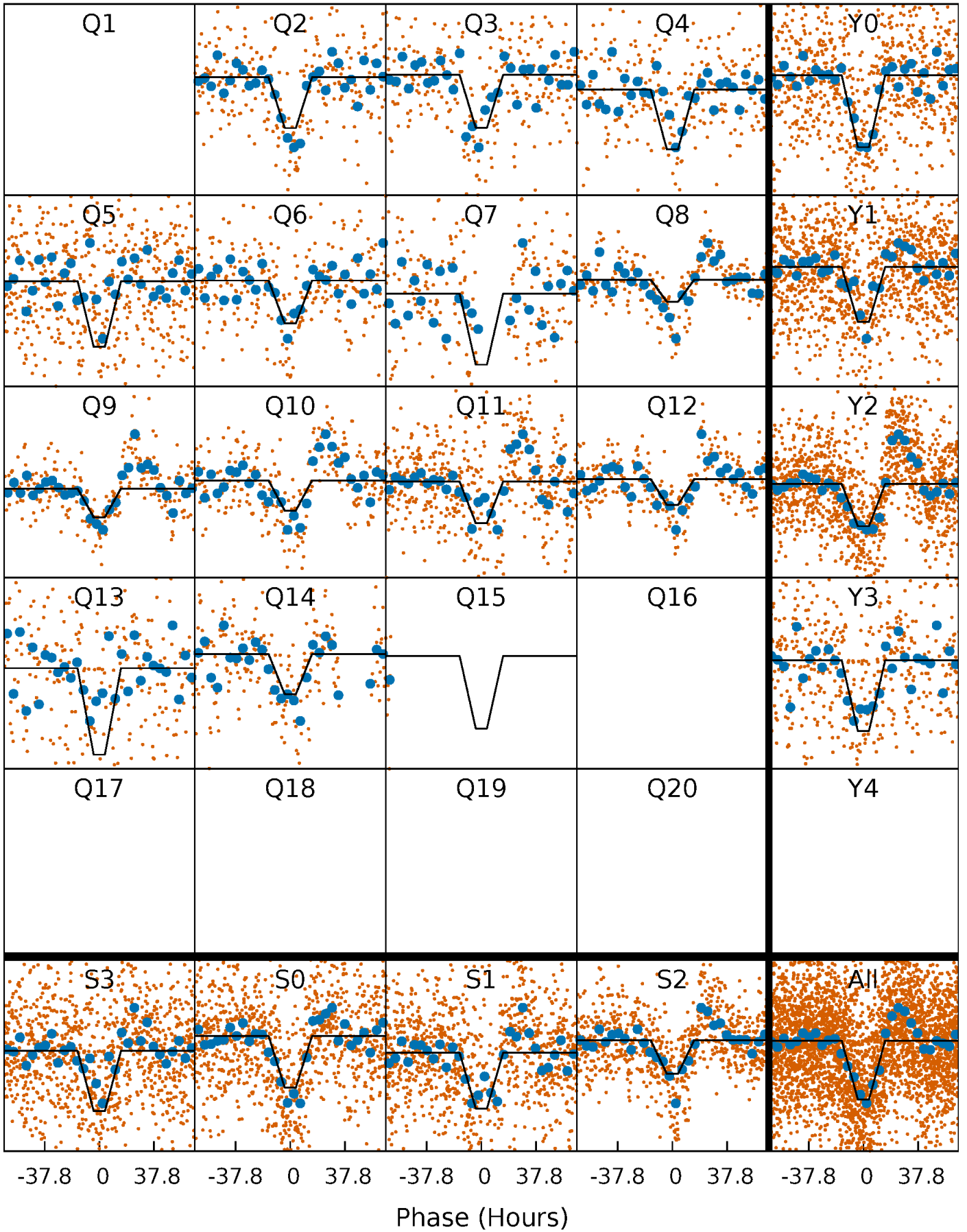
DV Quarter-Phased Transit Curves

TCE 008144355-01 P= 80.567956 Days $T_0=206.479734$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

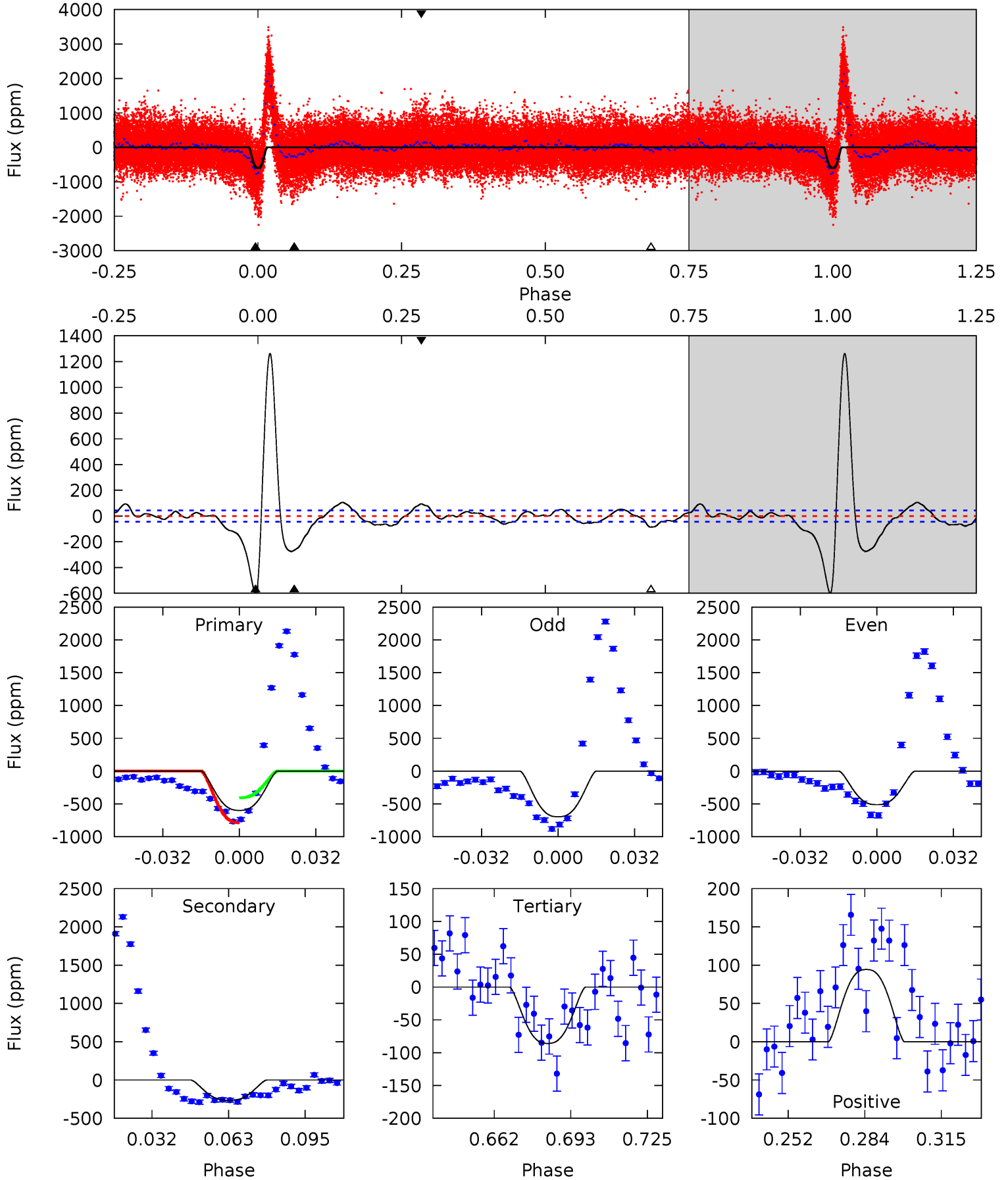
TCE 008144355-01 P= 80.560773 Days $T_0=207.001589$ (BKJD)



DV Model-Shift Uniqueness Test

008144355-01, P = 80.567956 Days, E = 125.911778 Days

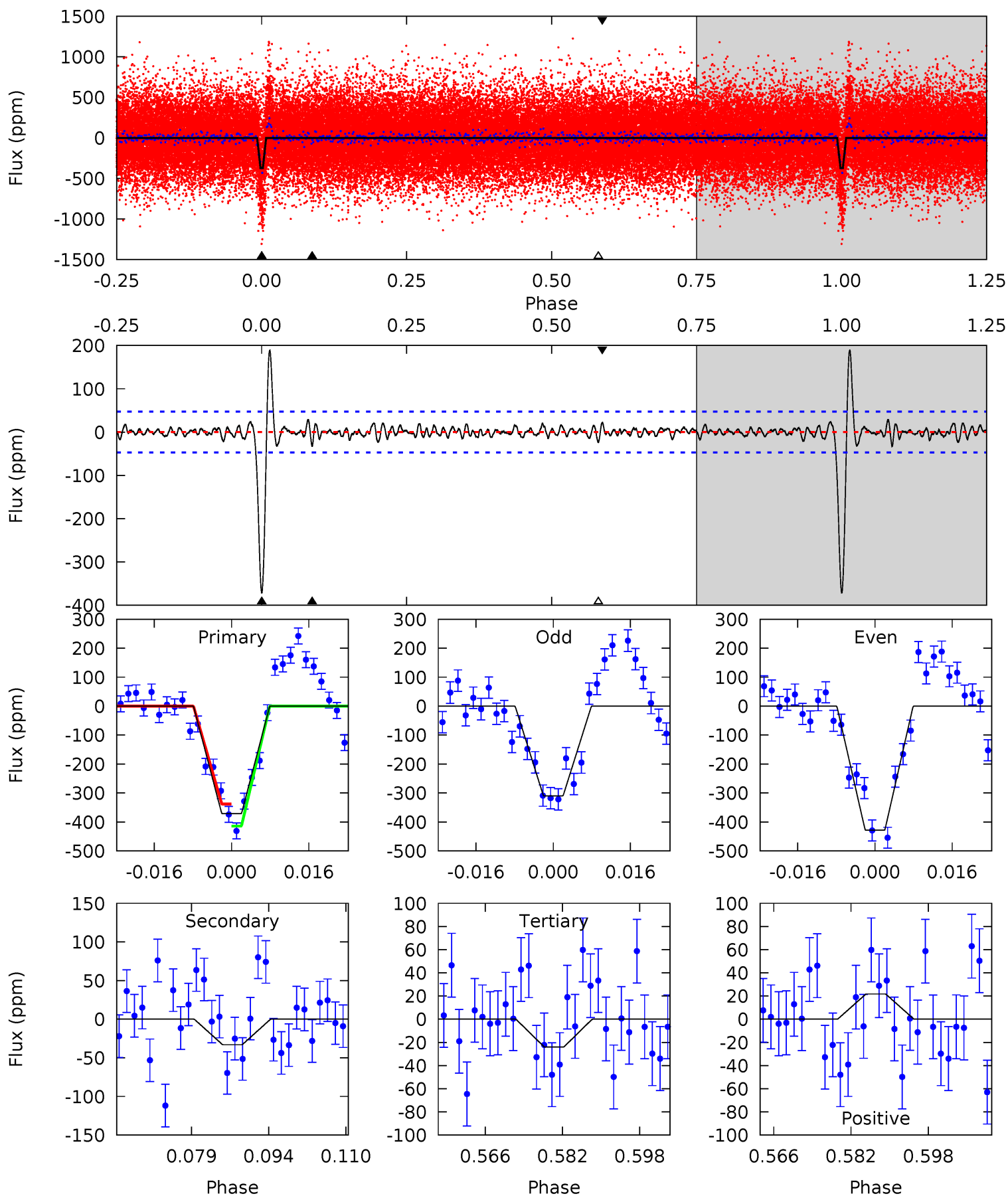
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
66.0	29.2	9.46	10.4	4.80	2.15	7.90	56.5	55.6	19.8	18.9	10.1	1.15	0.68	20.5



Alt Model-Shift Uniqueness Test

008144355-01, P = 80.560773 Days, E = 126.440816 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
38.9	3.46	2.51	2.28	4.94	2.41	1.16	36.4	36.6	0.95	1.18	6.21	0.87	0.34	3.98



Stellar Parameters For KIC 008144355

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5089^{+115}_{-153}	$3.240^{+0.409}_{-0.220}$	$-0.080^{+0.250}_{-0.300}$	$5.183^{+1.408}_{-2.413}$	$1.705^{+0.232}_{-0.696}$	$0.017^{+0.061}_{-0.010}$
	+2%/-3%	+13%/-7%	+312%/-375%	+27%/-47%	+14%/-41%	+353%/-56%
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 008144355-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-266 ± 9	$25.82^{+4.67}_{-6.70}$	1072^{+99}_{-119}	3474^{+70}_{-90}	42^{+25}_{-12}
Alt.	-33 ± 10	$10.73^{+2.00}_{-2.60}$	1070^{+104}_{-121}	3292^{+169}_{-183}	30^{+22}_{-11}

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 $A_{\text{obs}} \gg 1.0$

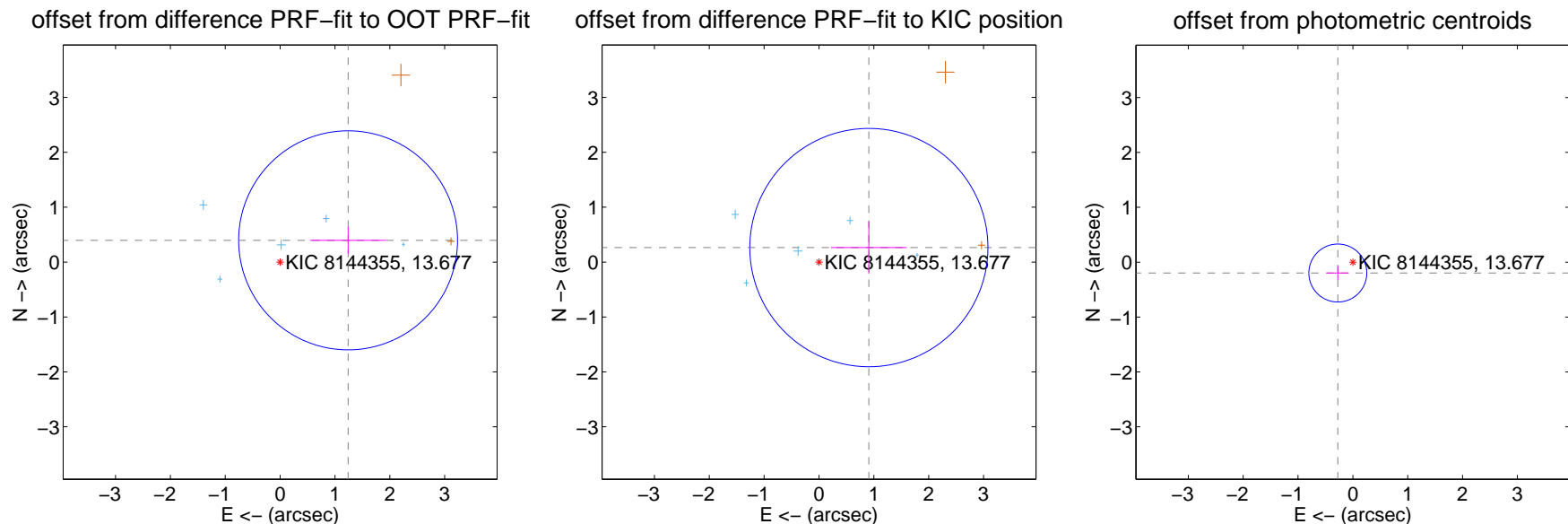
DV Centroid Data

Supplemental centroid analysis for 008144355-01. Kepler magnitude: 13.68. Transit SNR 30.52

There are 5 quarters with good PRF difference image offsets

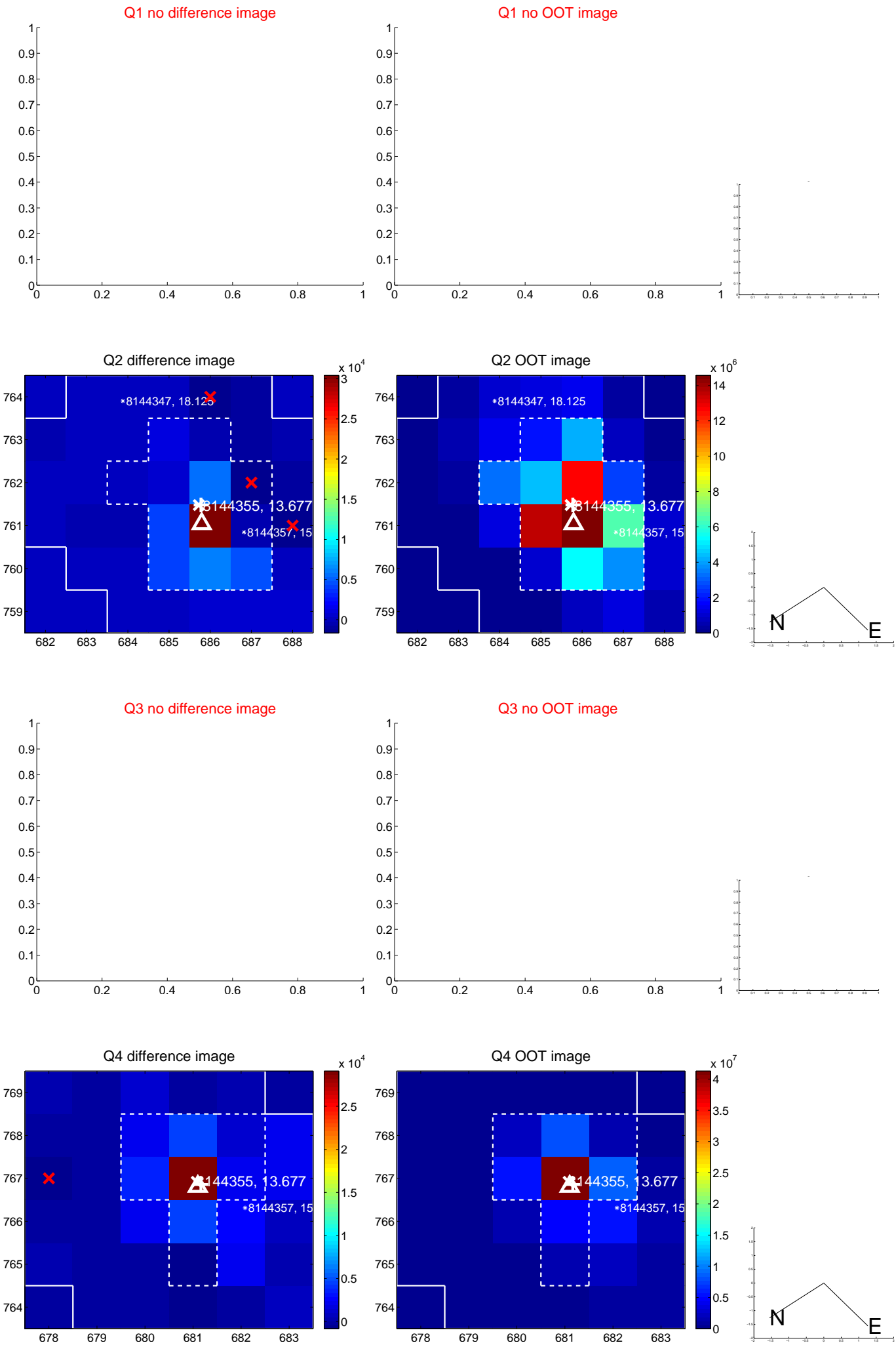
The direct PRF centroid is offset from the target star catalog position by about 0.28 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.301 ± 0.665	1.96	-1.240 ± 0.694	0.396 ± 0.241
PRF-fit source offset from KIC position	0.947 ± 0.724	1.31	-0.909 ± 0.690	0.264 ± 0.473
photometric centroid source offset	0.34 ± 0.18	1.92	0.27 ± 0.20	-0.20 ± 0.12

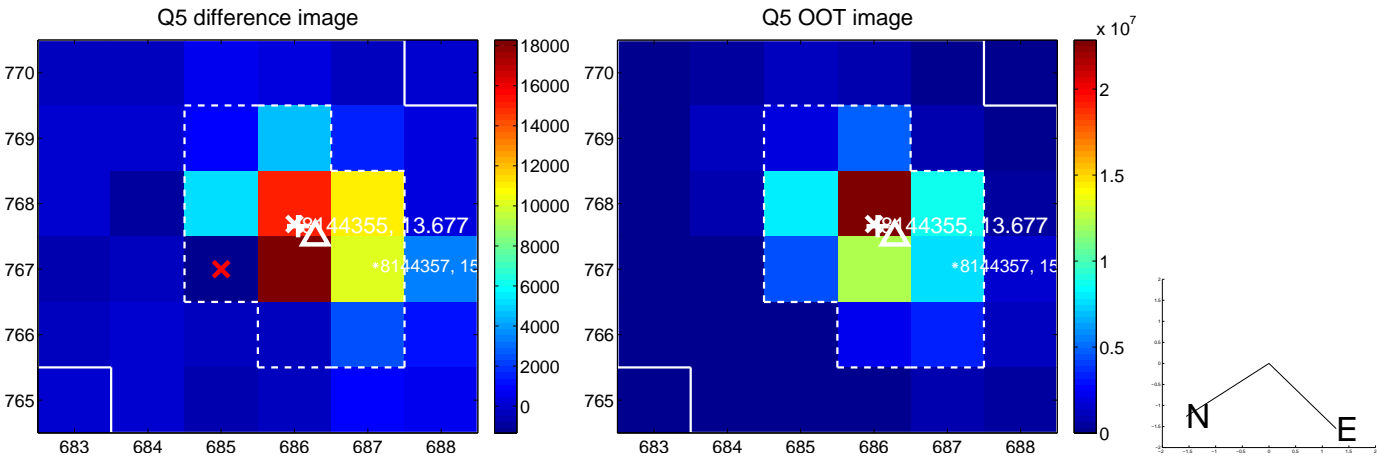


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

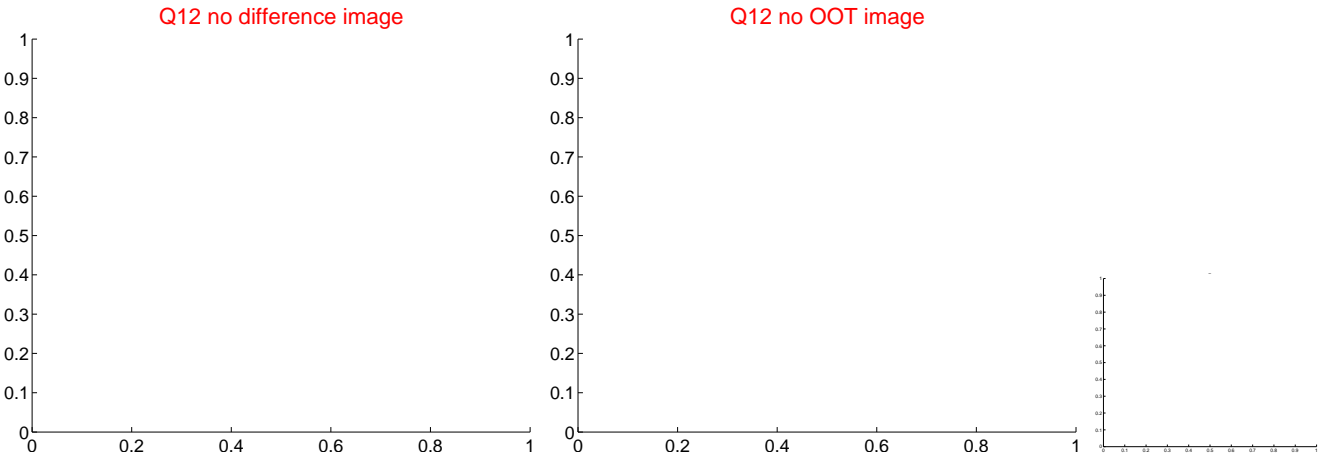
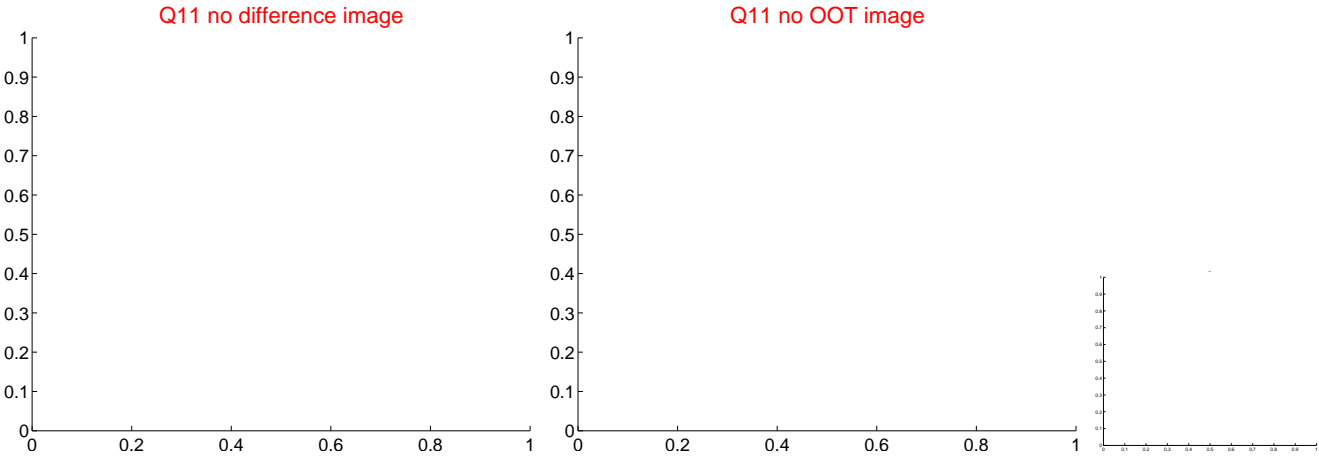
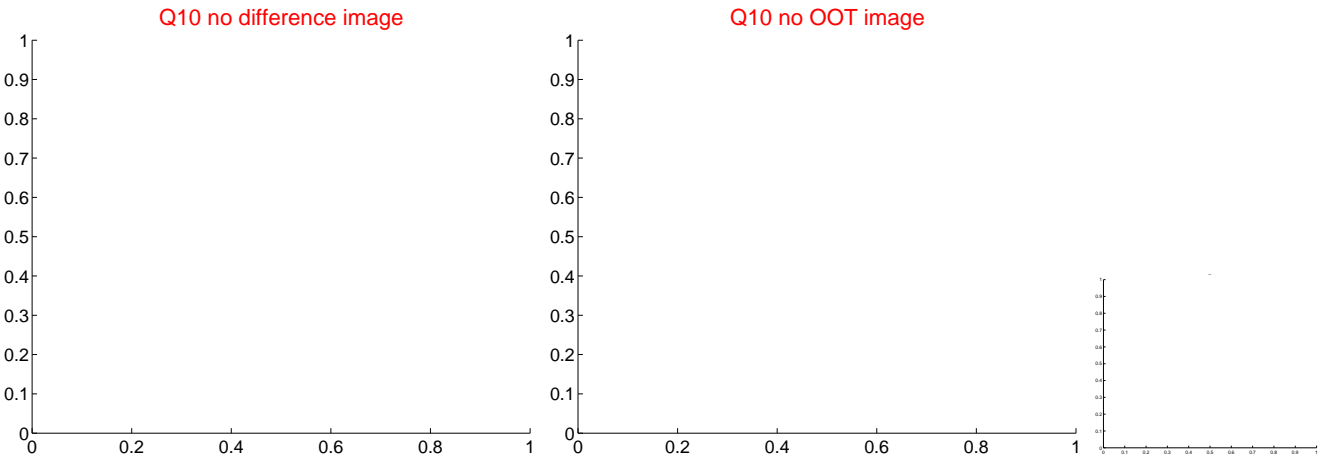
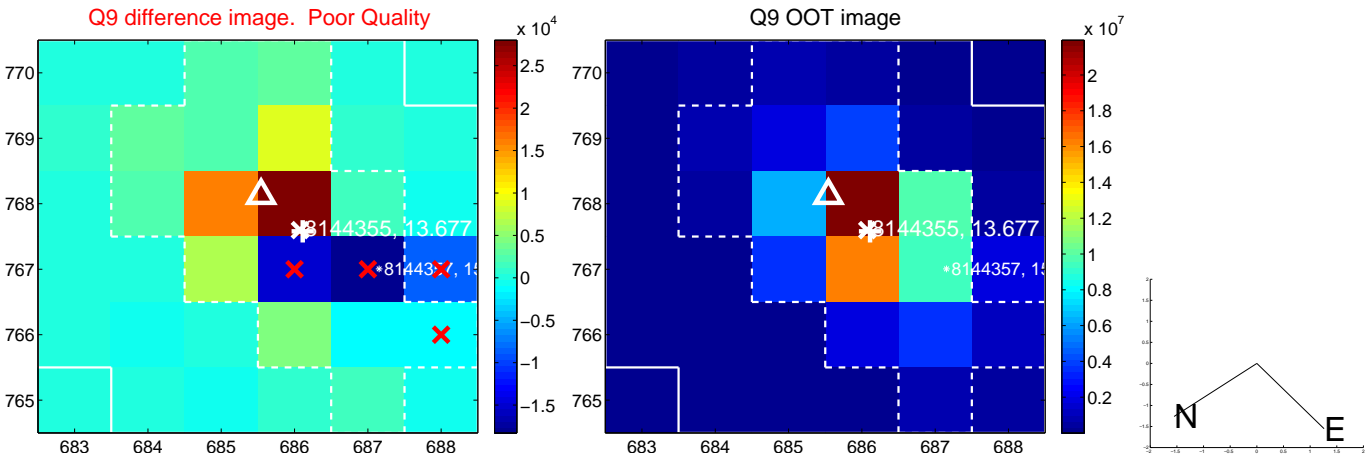
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



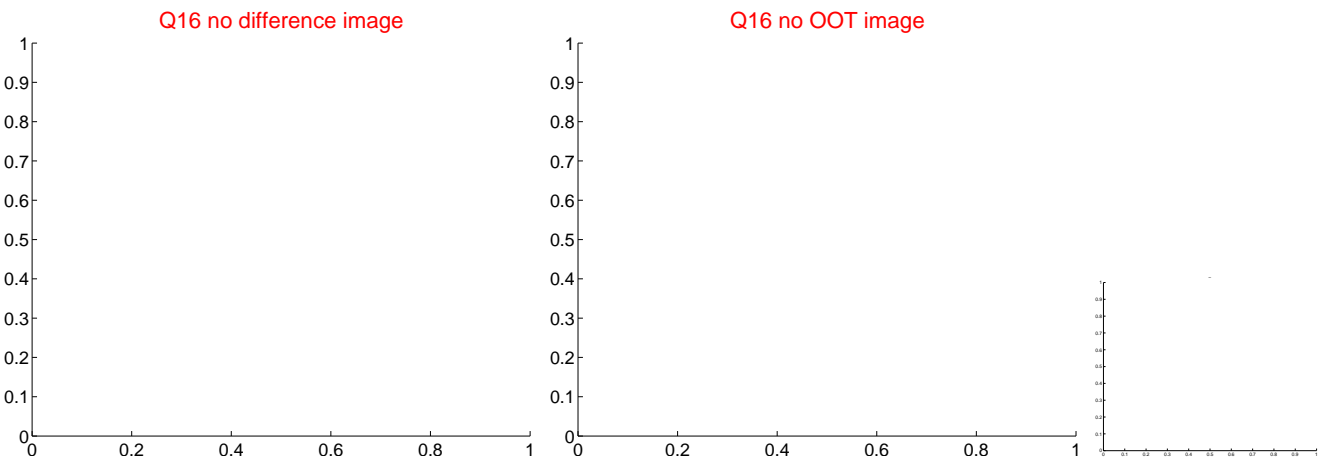
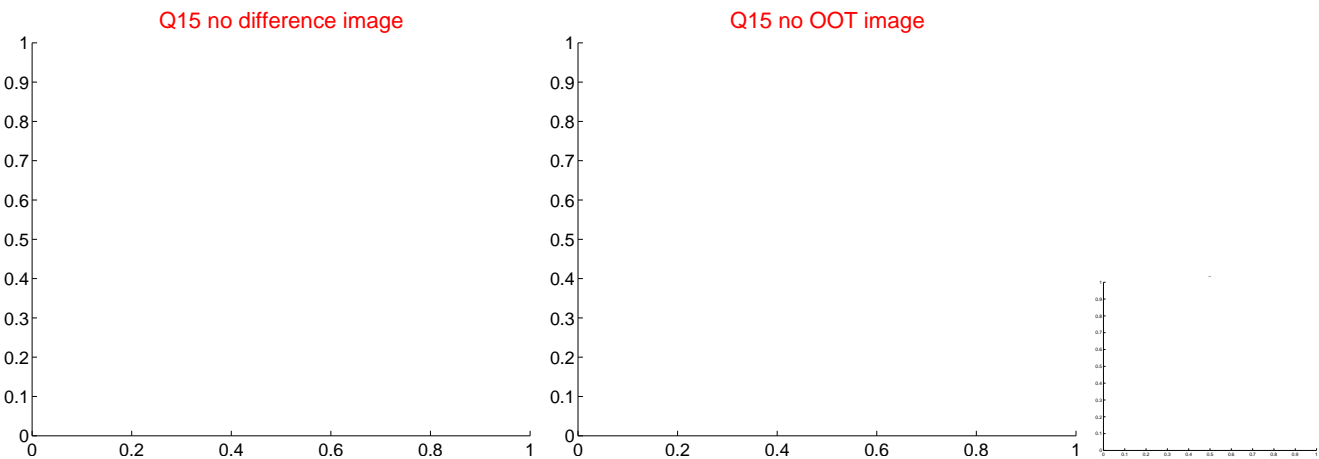
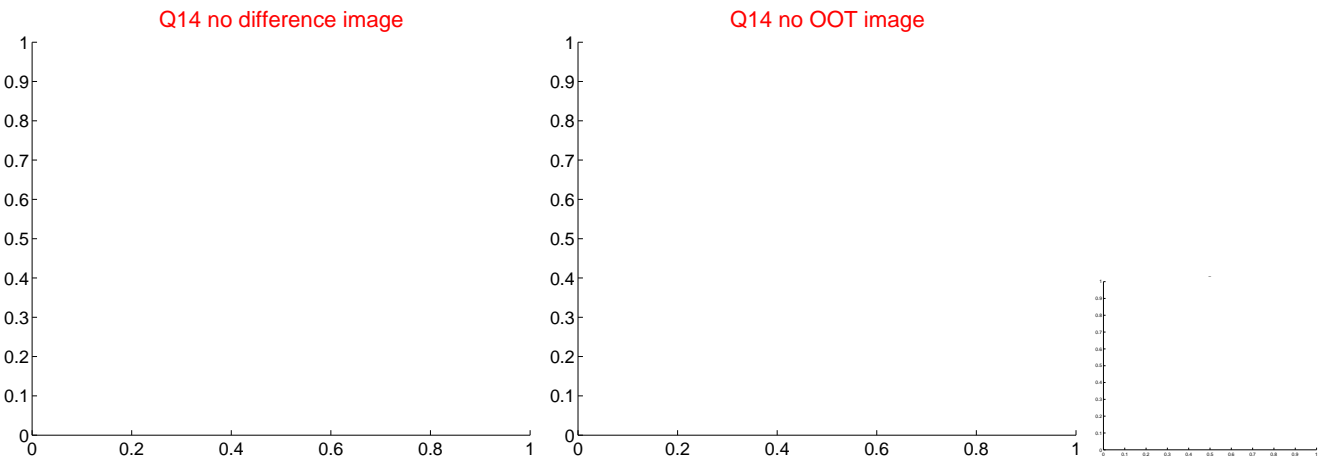
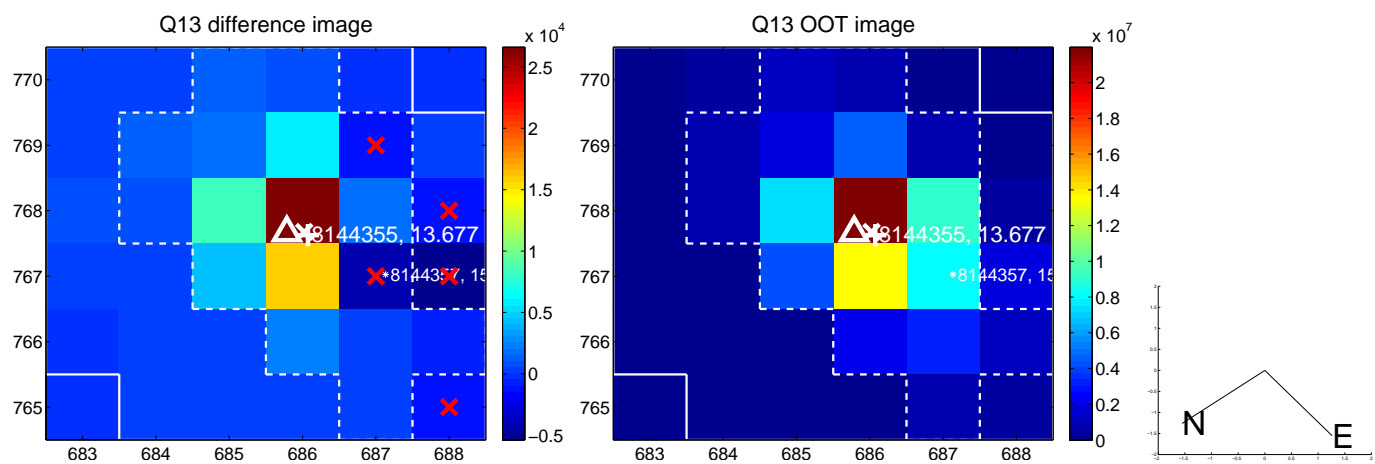
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



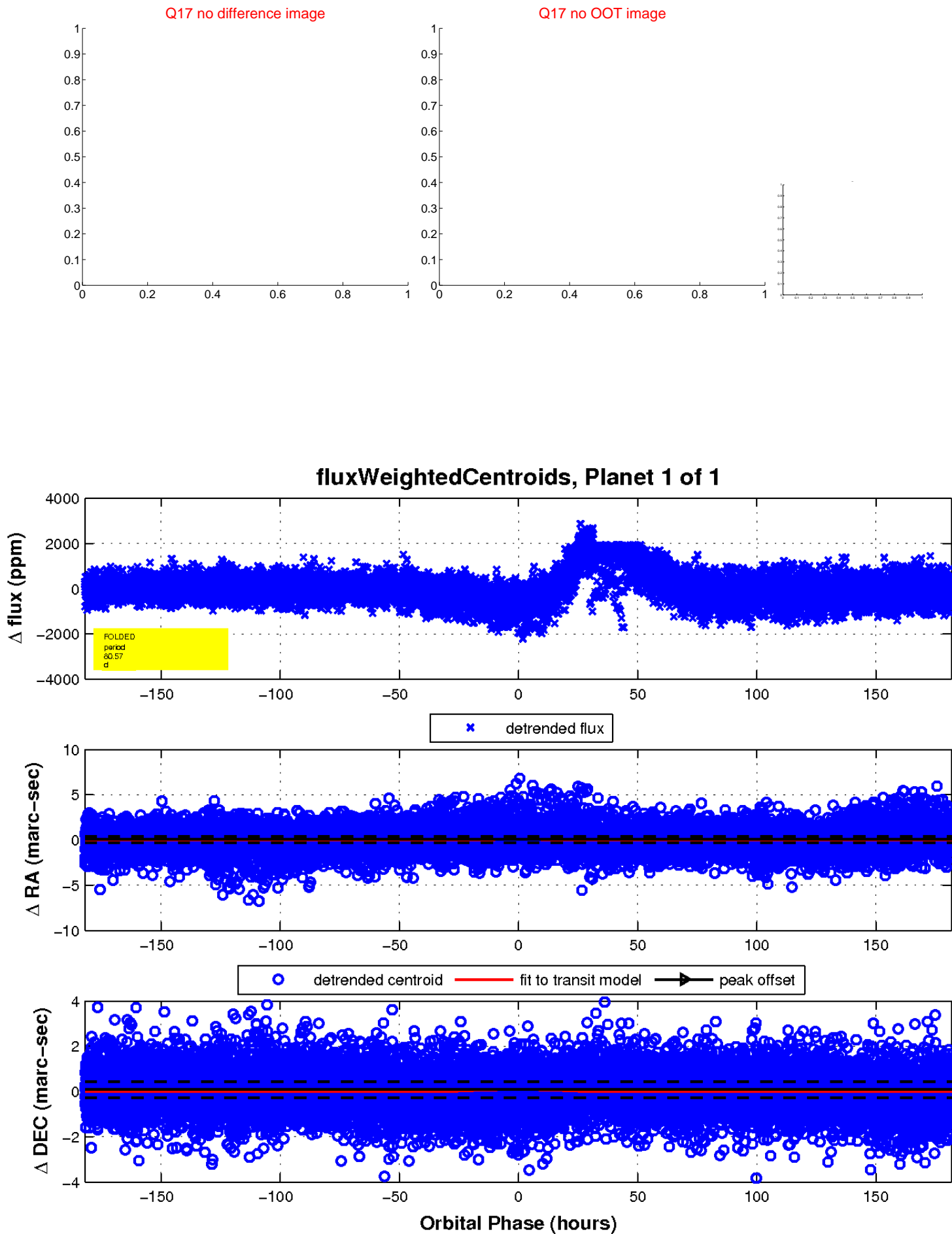
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

