

KIC 005265212

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})
005265212-01	OBS	No	43.086074	136.535490	136.2	38.699	8.6	10.6	1.27	6353	2.95	41.20

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005265212-01	OBS	FP	0.00	1	0	0	0	LPP_DV—CENT_FEW_DIFFS

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

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

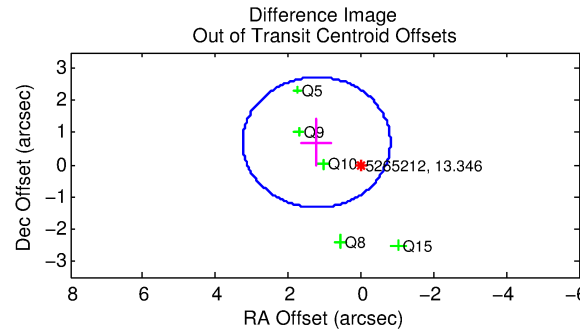
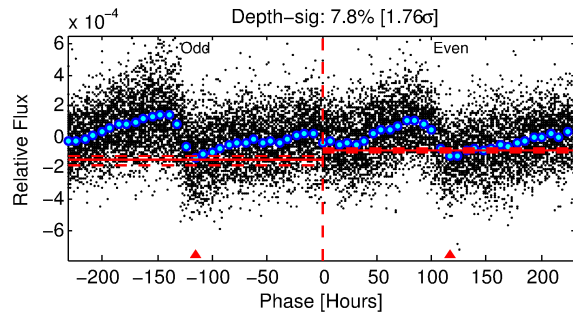
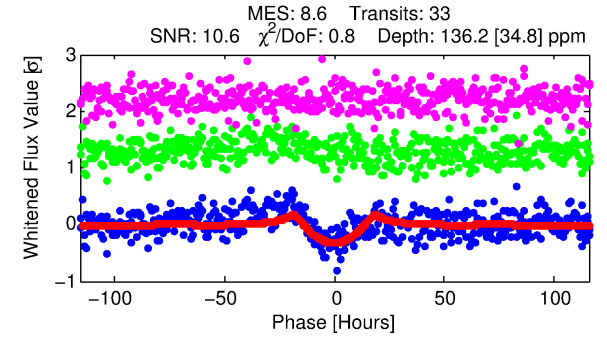
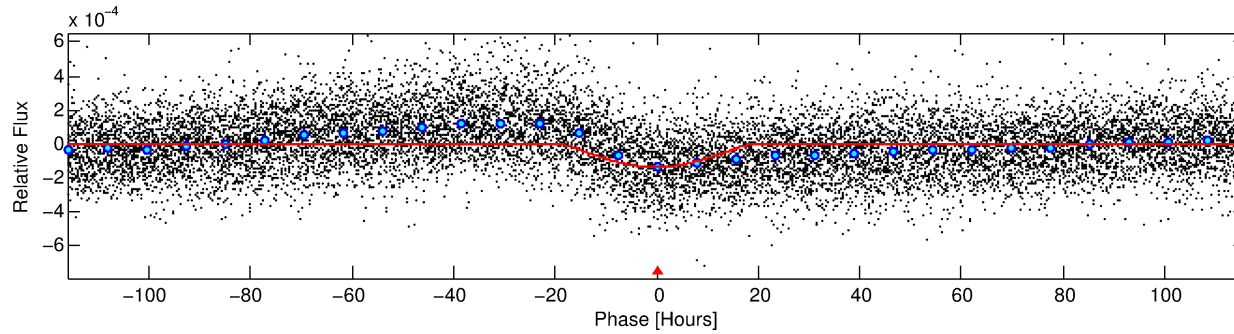
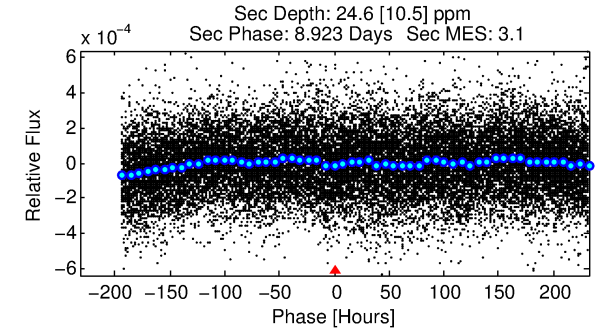
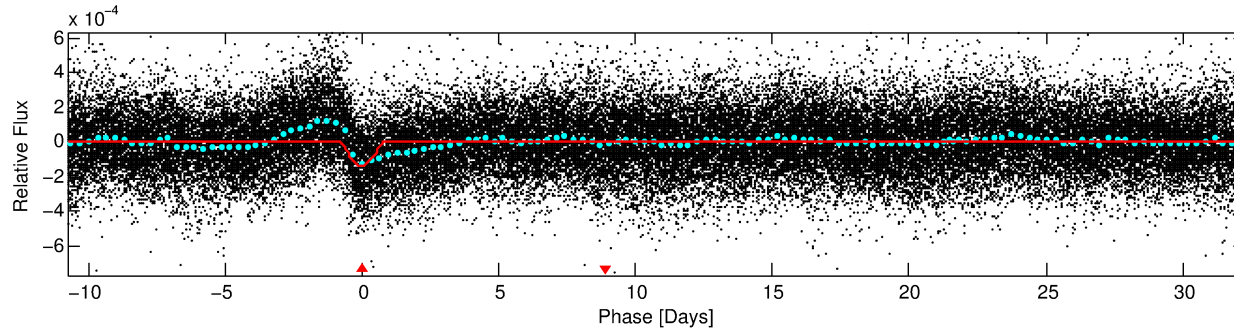
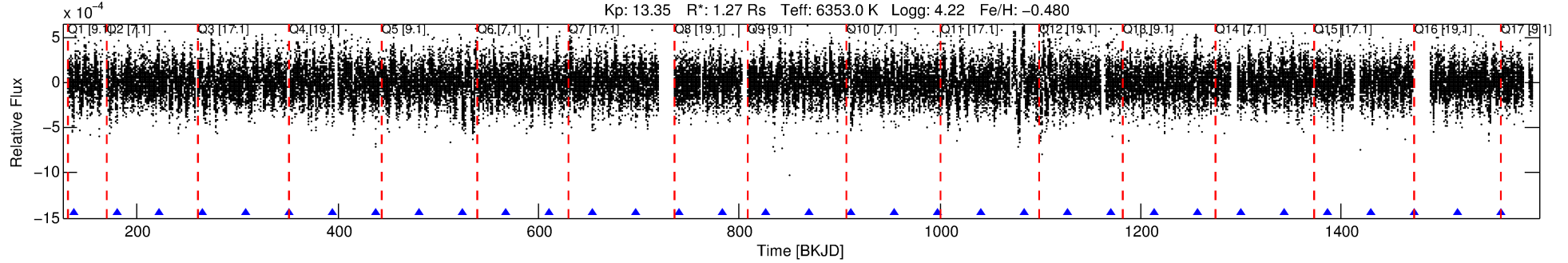
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005265212-01

No Significant Match Found

DV One-Page Summary

KIC: 5265212 Candidate: 1 of 1 Period: 43.086 d



DV Fit Results:

Period = 43.08607 [0.00286] d
Epoch = 136.5355 [0.0538] BKJD
Rp/R* = 0.0213 [0.0275]
a/R* = 2.03 [0.52]
b = 1.00 [0.04]
Seff = 41.20 [13.15]
Teff = 646 [52] K
Rp = 2.95 [3.85] Re
a = 0.2390 [0.0453] AU
Ag = 88.56 [232.87] [0.38σ]
Teffp = 3064 [2004] K [1.21σ]

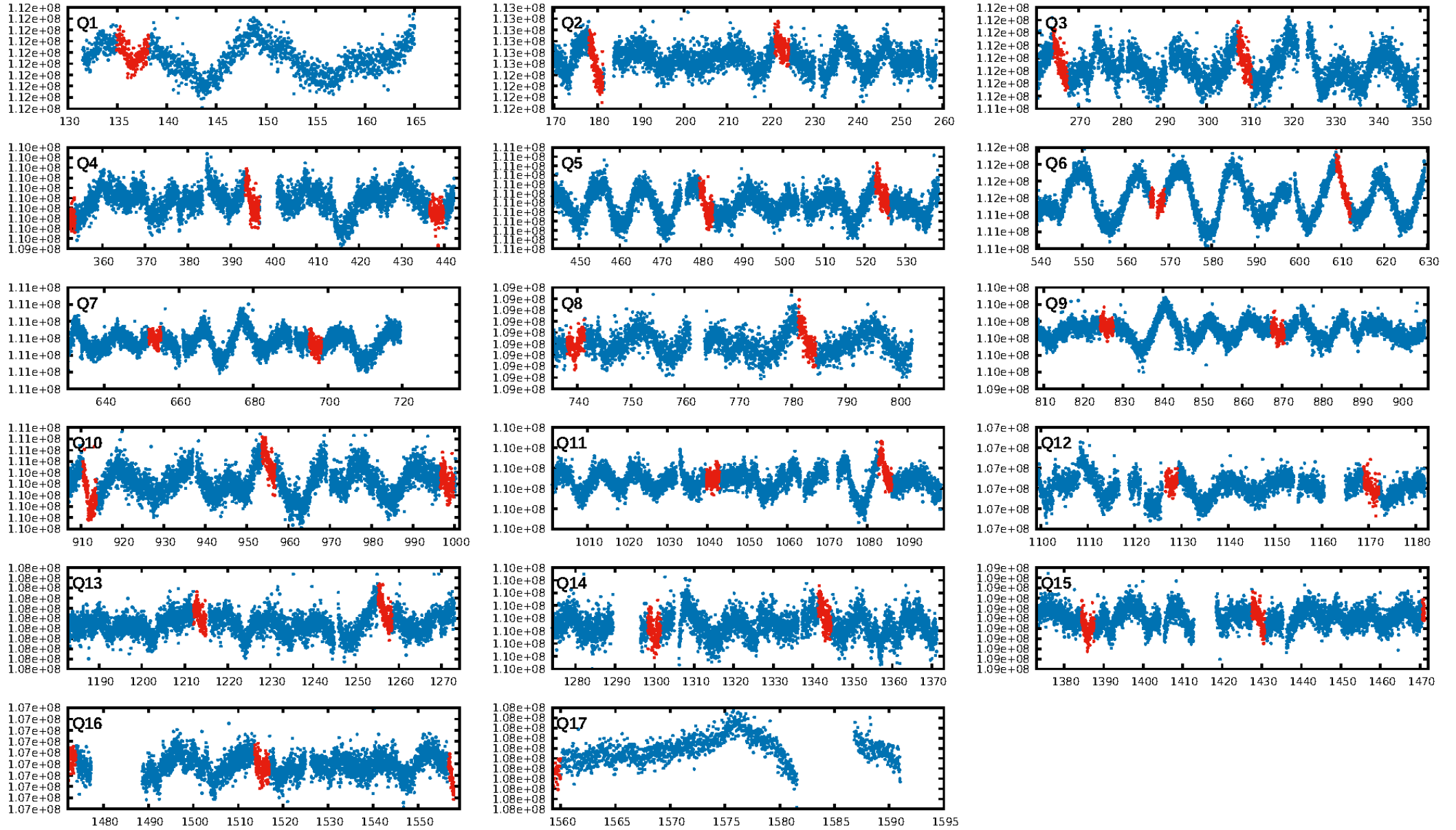
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 92.1%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.69e-17
RollingBand-fgt: 1.00 [32/32]
GhostDiagnostic-chr: 4.861
Centroid-sig: 14.0%
Centroid-so: 0.362 arcsec [0.71σ]
OotOffset-rm: 1.407 arcsec [2.08σ]
KicOffset-rm: 1.451 arcsec [1.92σ]
OotOffset-st: 1/1/1/2 [5]
KicOffset-st: 1/1/1/2 [5]
DiffImageQuality-fgm: 0.80 [4/5]
DiffImageOverlap-fno: 1.00 [11/11]

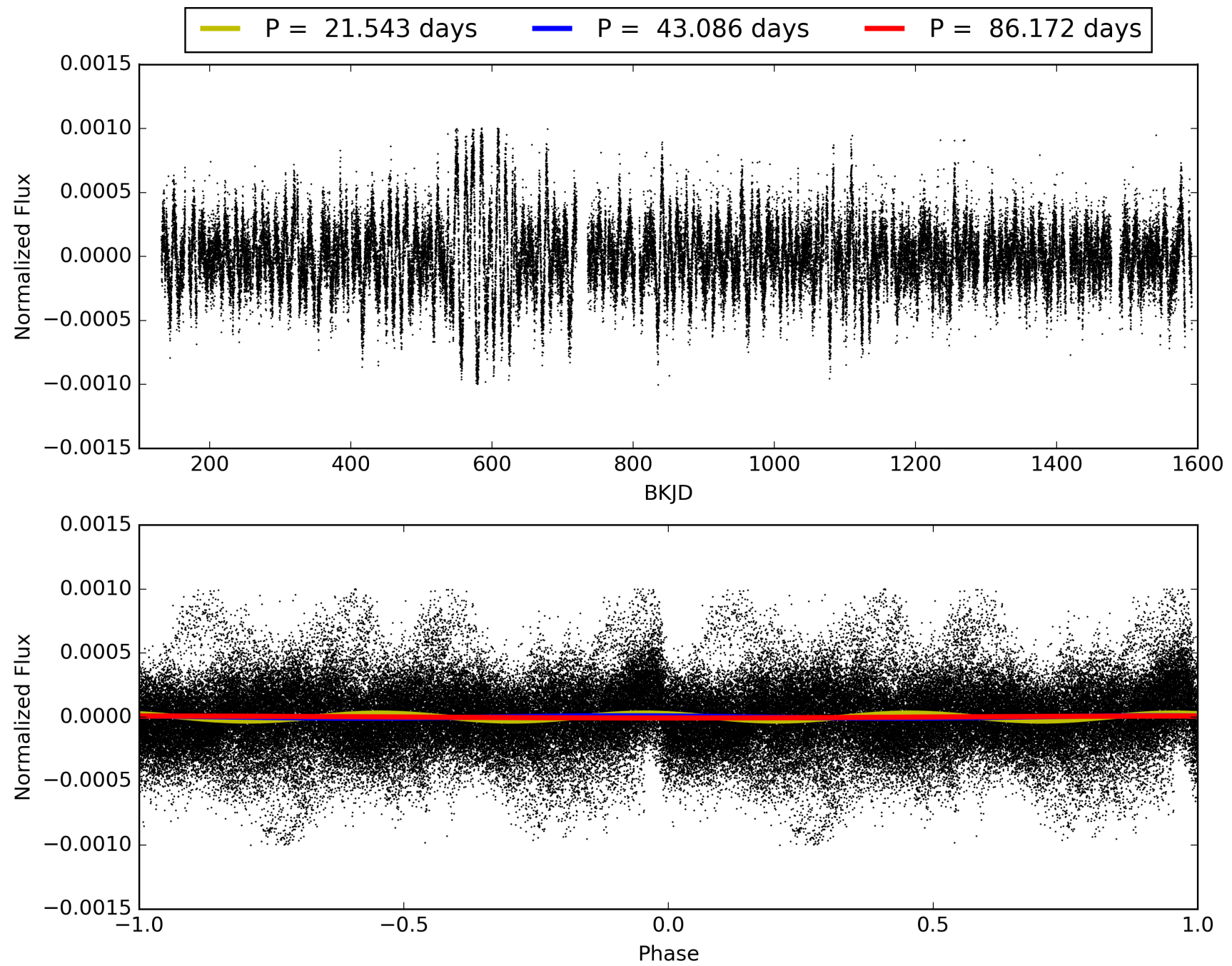
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 15:50:42 Z

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

TCE 005265212-01, PDC Light Curves

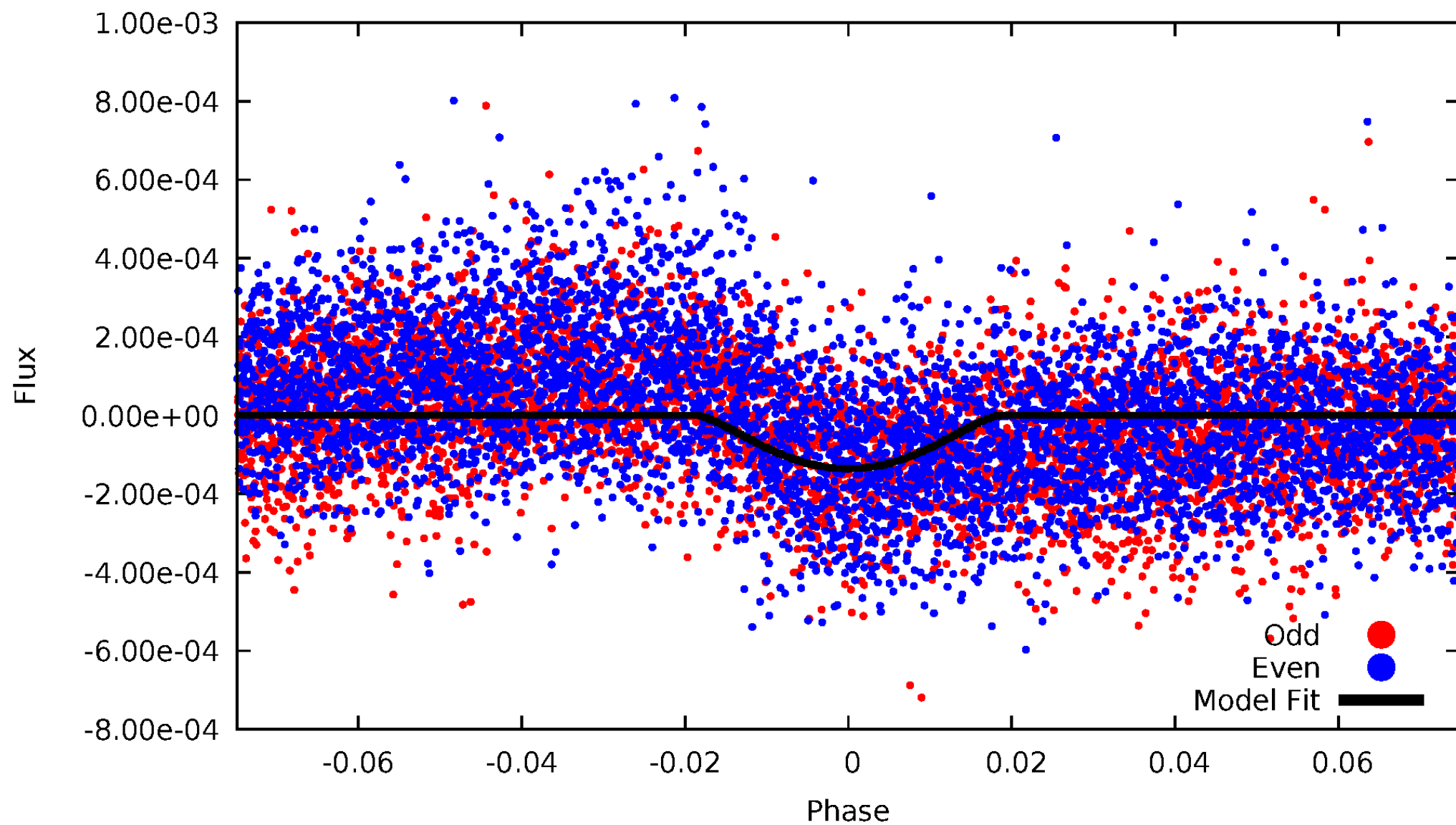


TCE 005265212-01



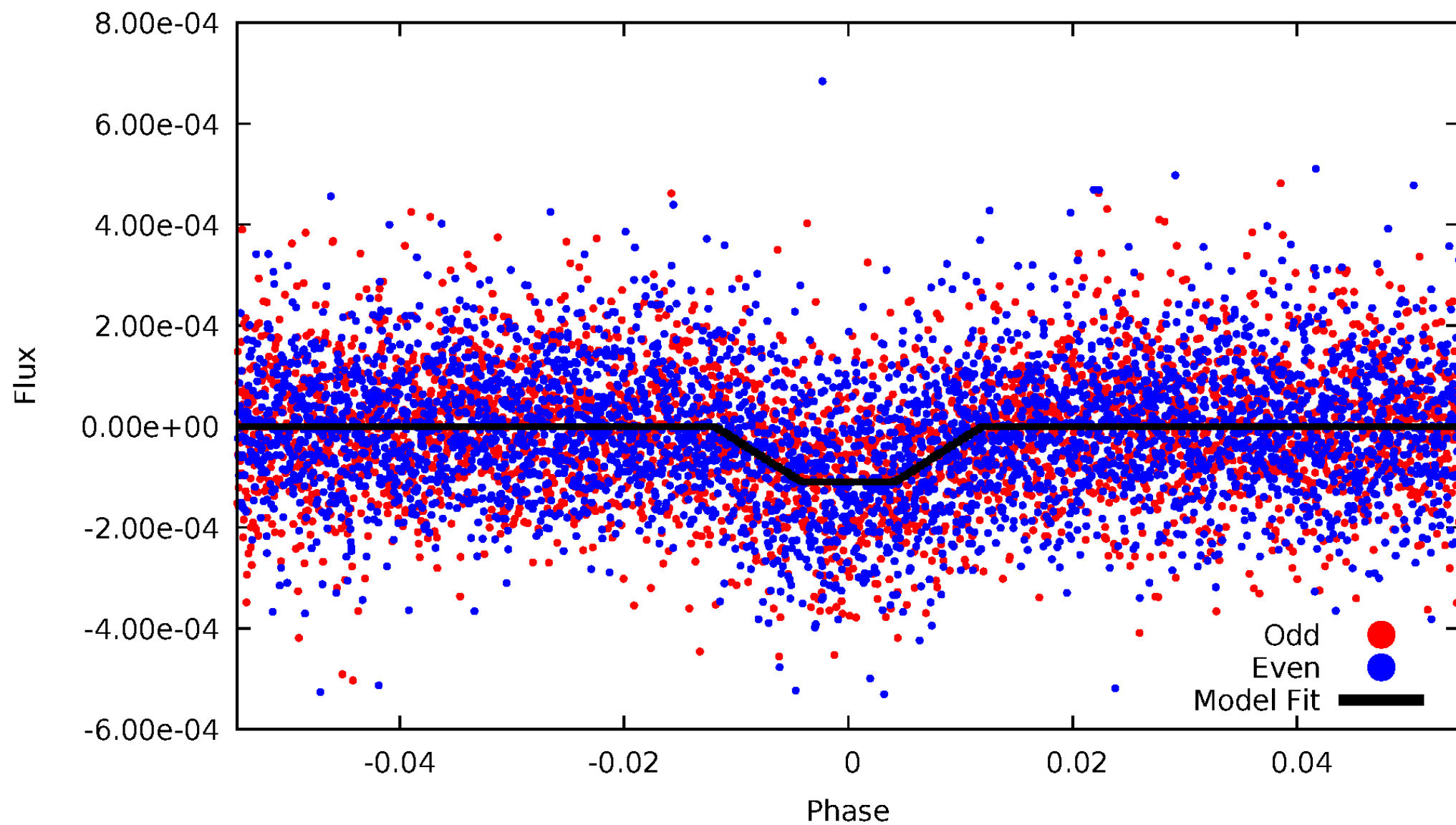
DV Odd/Even

TCE 005265212-01

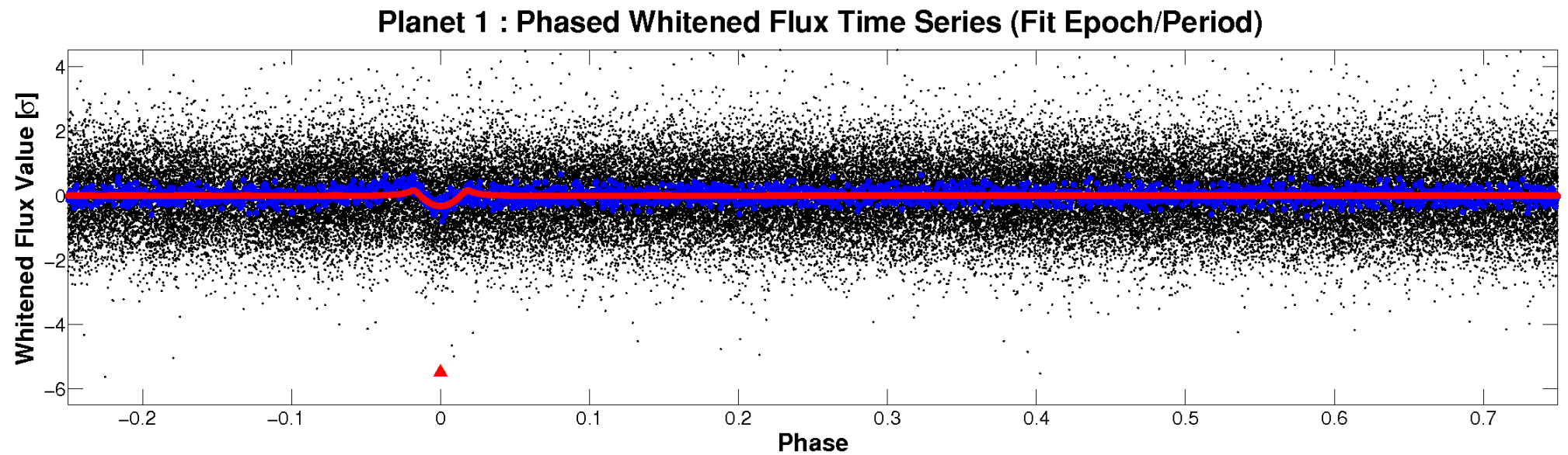
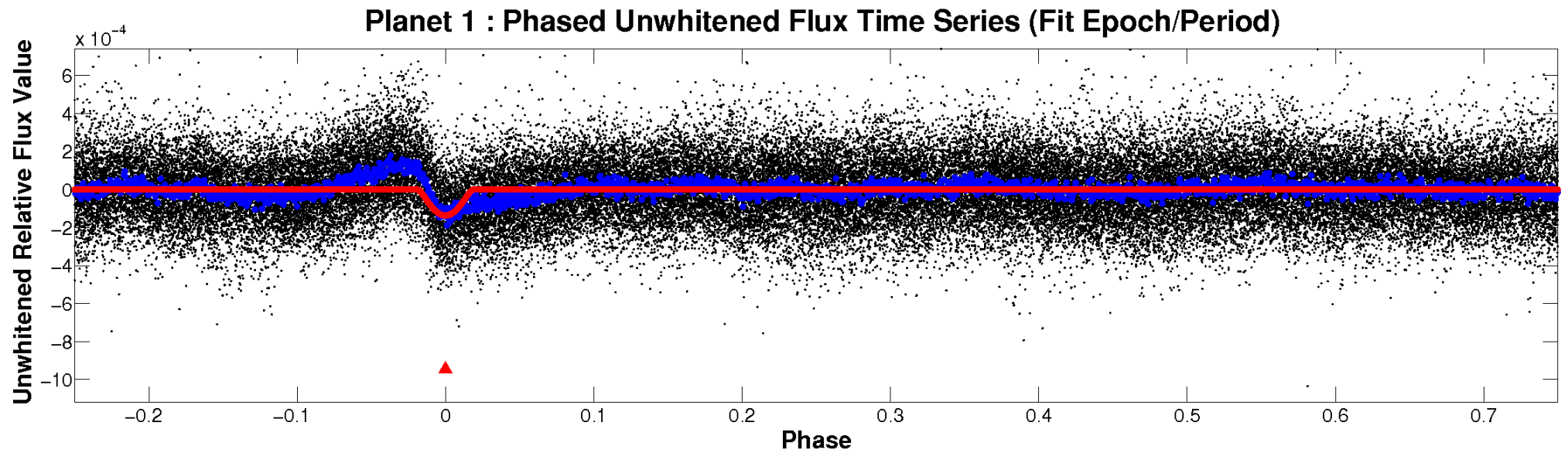


ALT Odd/Even

TCE 005265212-01

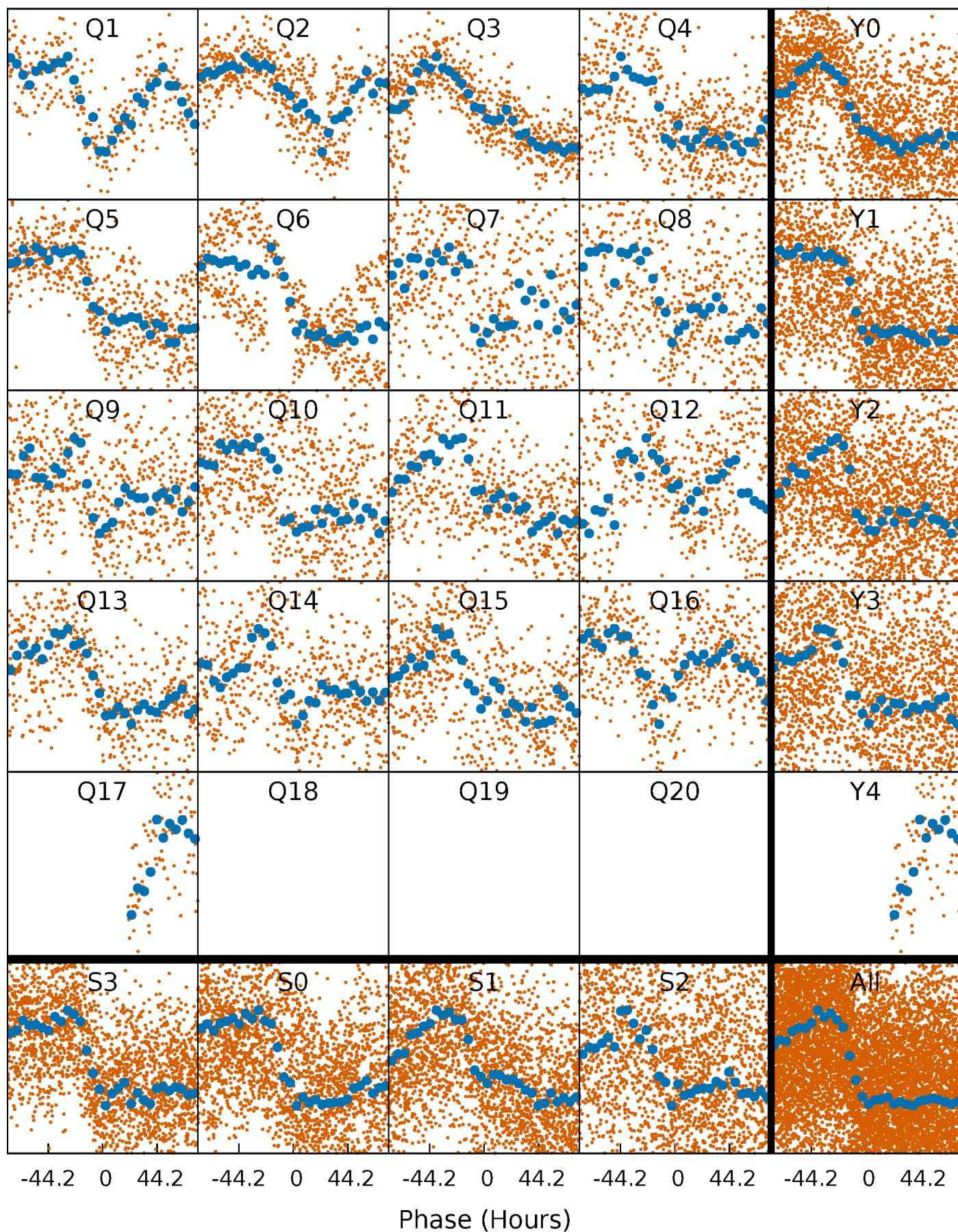


Non-Whitened Vs. Whitened Light Curve



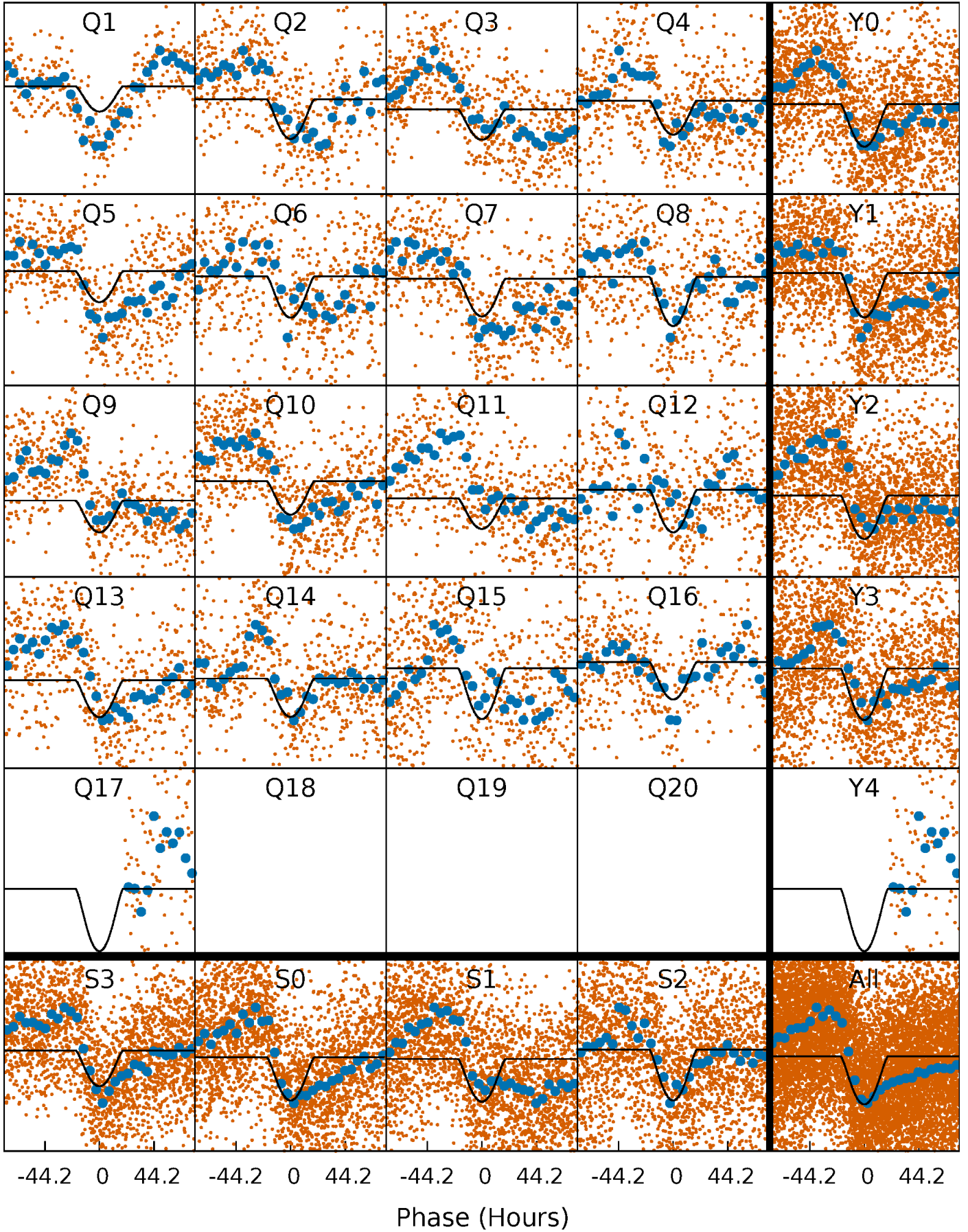
PDC Quarter-Phased Transit Curves

TCE 005265212-01 P= 43.086074 Days $T_0=136.535491$ (BKJD)



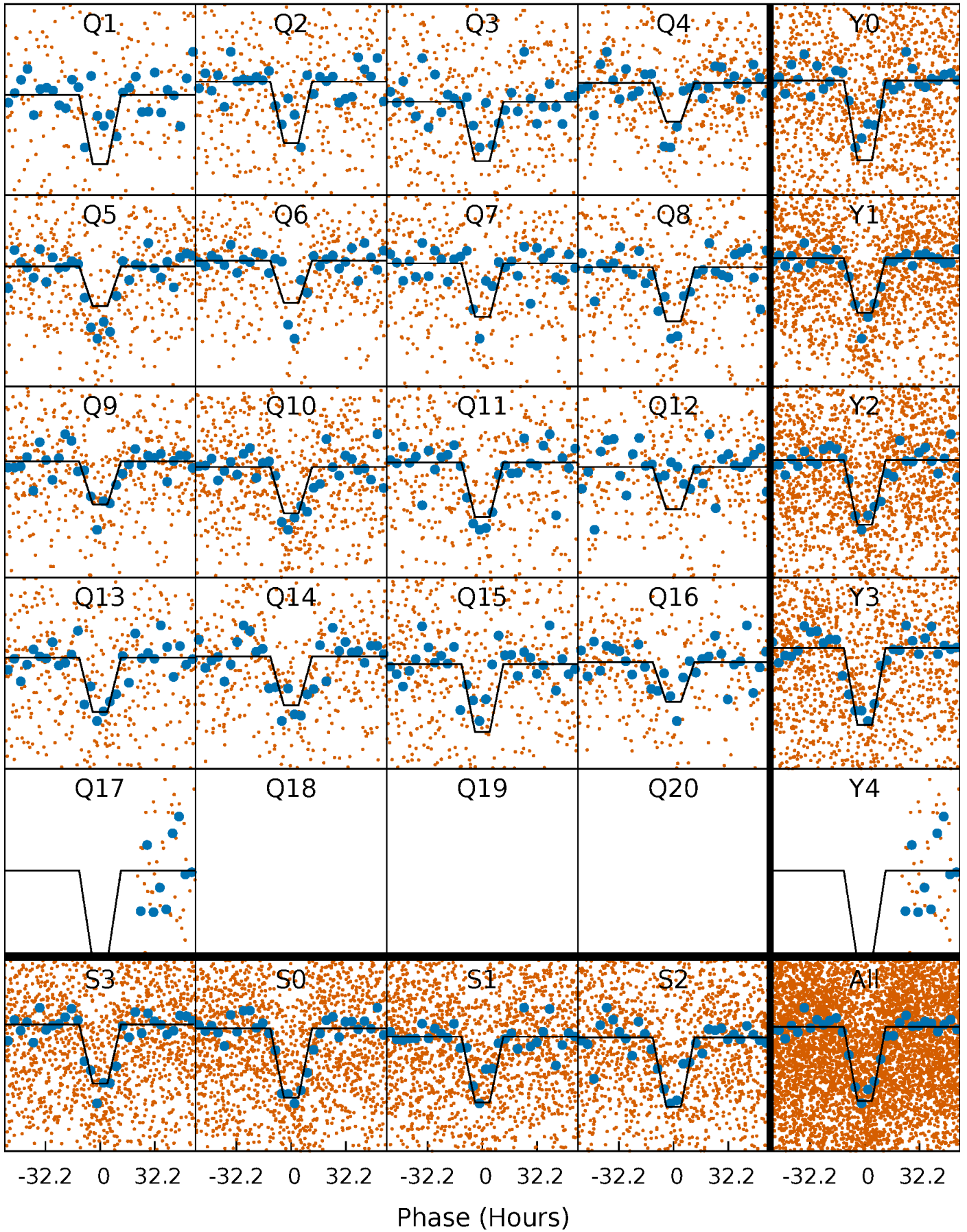
DV Quarter-Phased Transit Curves

TCE 005265212-01 P= 43.086074 Days $T_0=136.535491$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

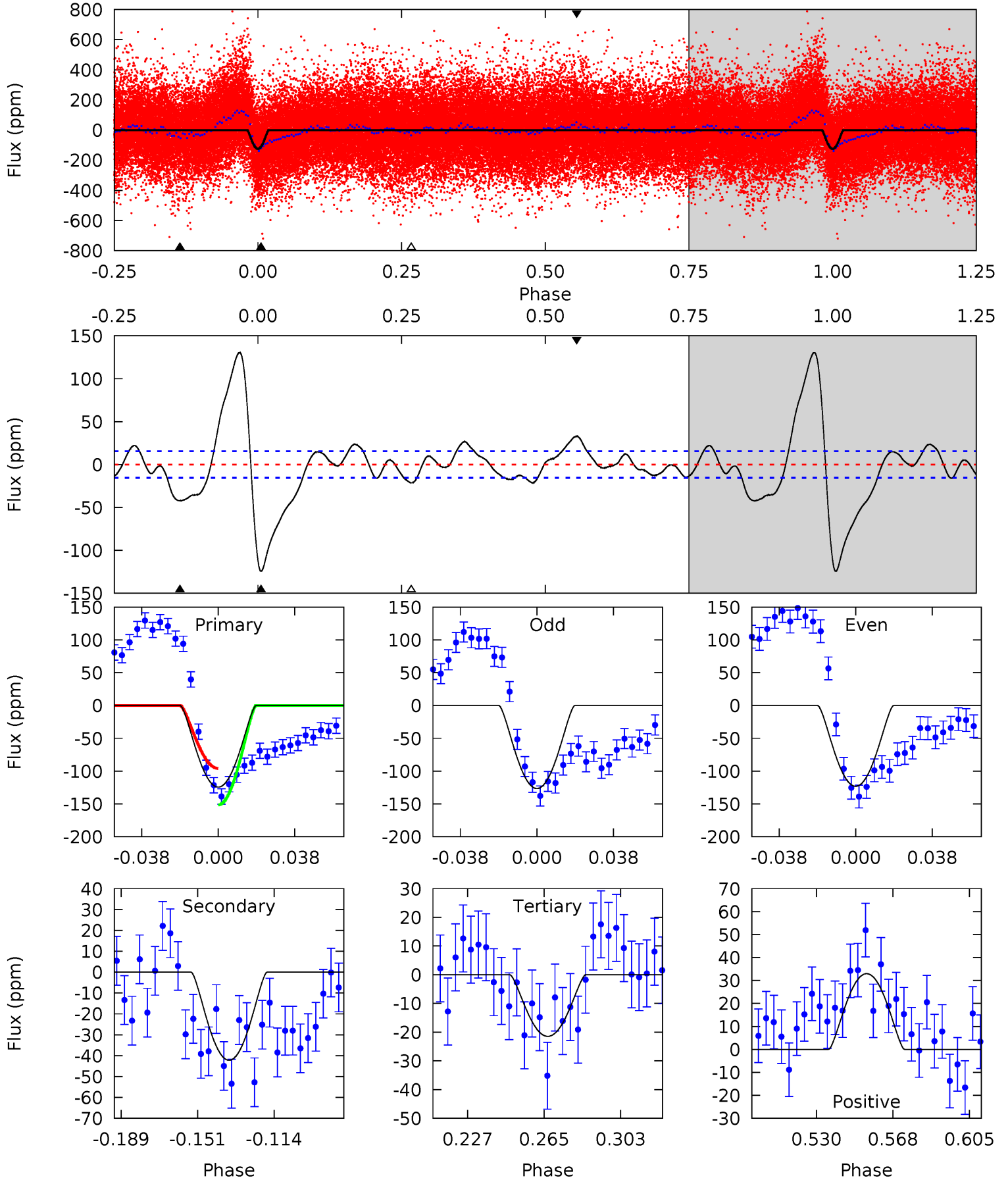
TCE 005265212-01 P= 43.089901 Days $T_0=136.356746$ (BKJD)



DV Model-Shift Uniqueness Test

005265212-01, P = 43.086074 Days, E = 93.449417 Days

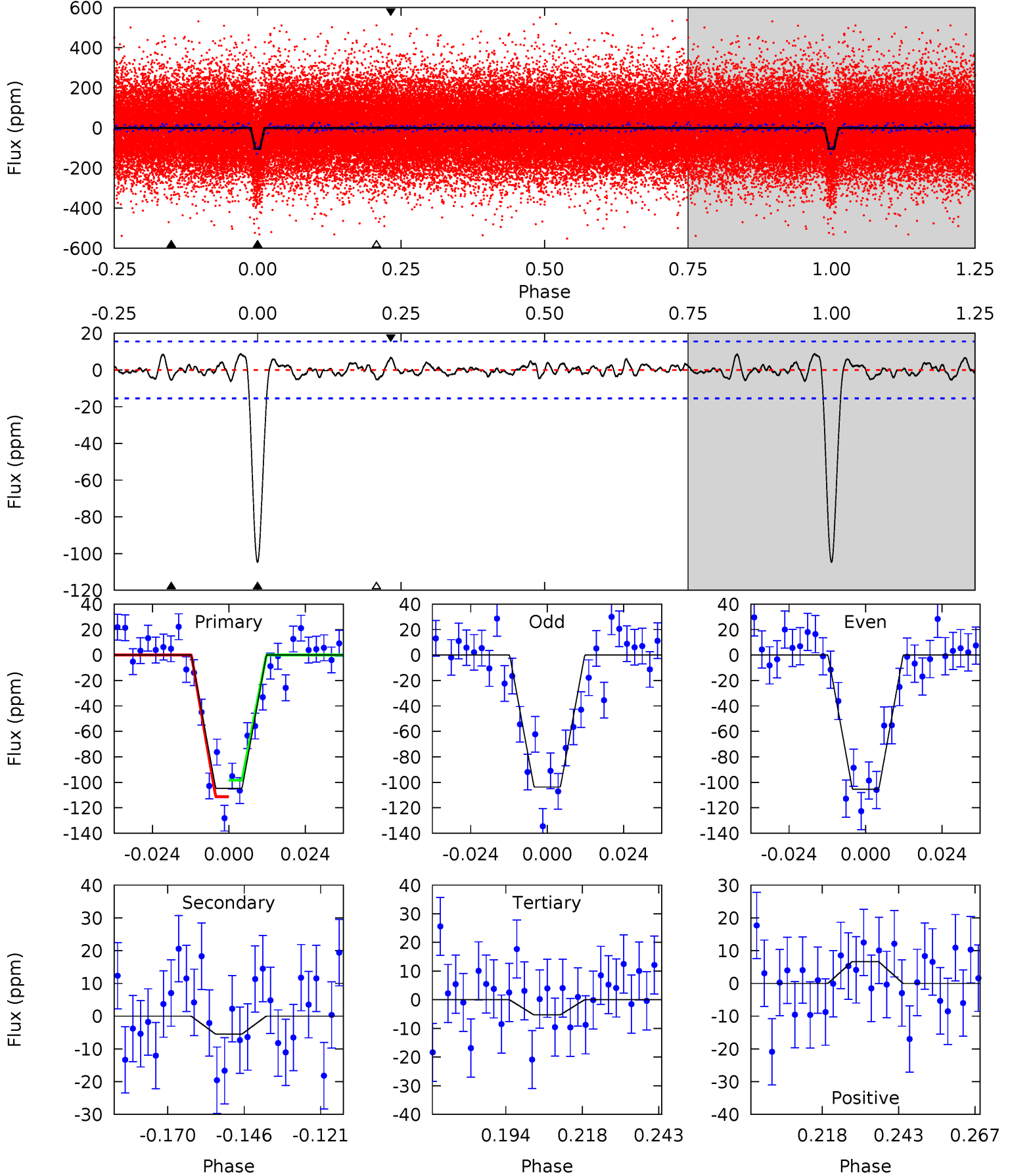
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
38.1	12.9	6.58	10.1	4.76	2.08	7.73	31.6	28.0	6.36	2.83	0.53	1.26	0.51	8.59



Alt Model-Shift Uniqueness Test

005265212-01, P = 43.089901 Days, E = 93.266845 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
32.7	1.72	1.65	2.09	4.85	2.25	0.77	31.1	30.6	0.07	-0.37	0.28	1.07	0.08	2.04



Stellar Parameters For KIC 005265212

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6353^{+152}_{-190}	$4.222^{+0.171}_{-0.140}$	$-0.480^{+0.300}_{-0.300}$	$1.270^{+0.260}_{-0.260}$	$0.980^{+0.146}_{-0.097}$	$0.674^{+0.577}_{-0.267}$
	+2%/-3%	+4%/-3%	+62%/-62%	+20%/-20%	+15%/-10%	+86%/-40%
Source	PHO1	FLK73	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 005265212-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-42 ± 3	$4.17^{+3.32}_{-2.65}$	897^{+56}_{-50}	3446^{+1511}_{-553}	76^{+520}_{-53}
Alt.	-5 ± 3	$3.10^{+3.41}_{-2.13}$	900^{+53}_{-56}	2728^{+1247}_{-515}	16^{+158}_{-13}

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

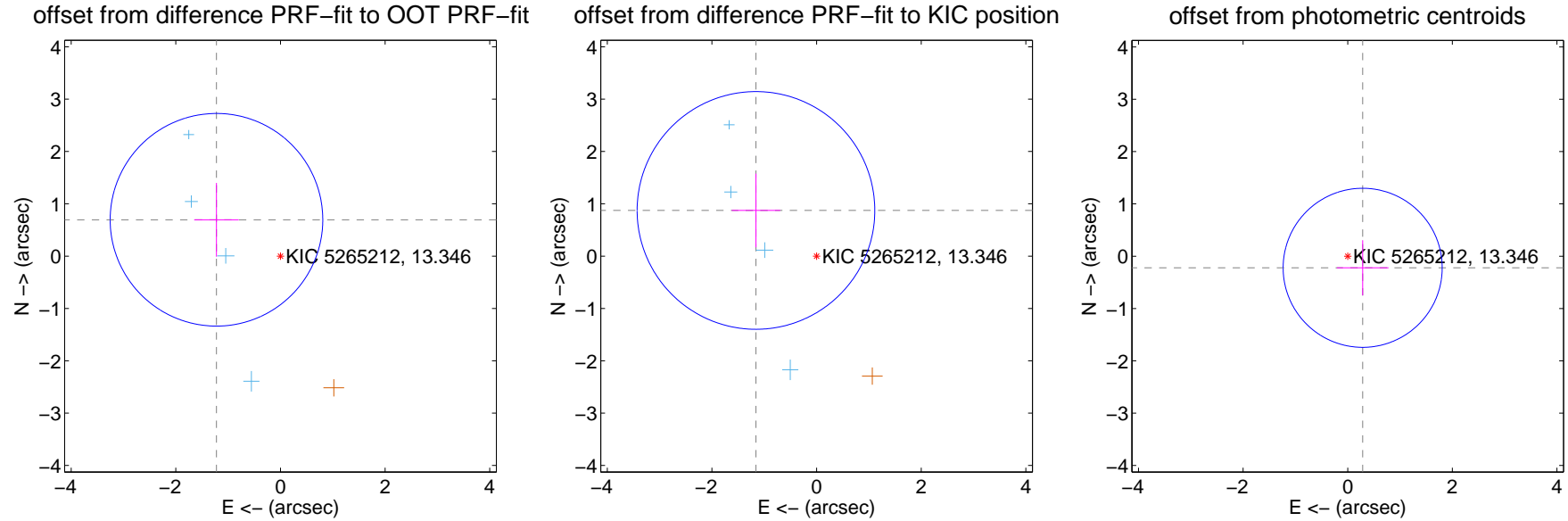
DV Centroid Data

Supplemental centroid analysis for 005265212-01. Kepler magnitude: 13.35. Transit SNR 10.61

There are 4 quarters with good PRF difference image offsets

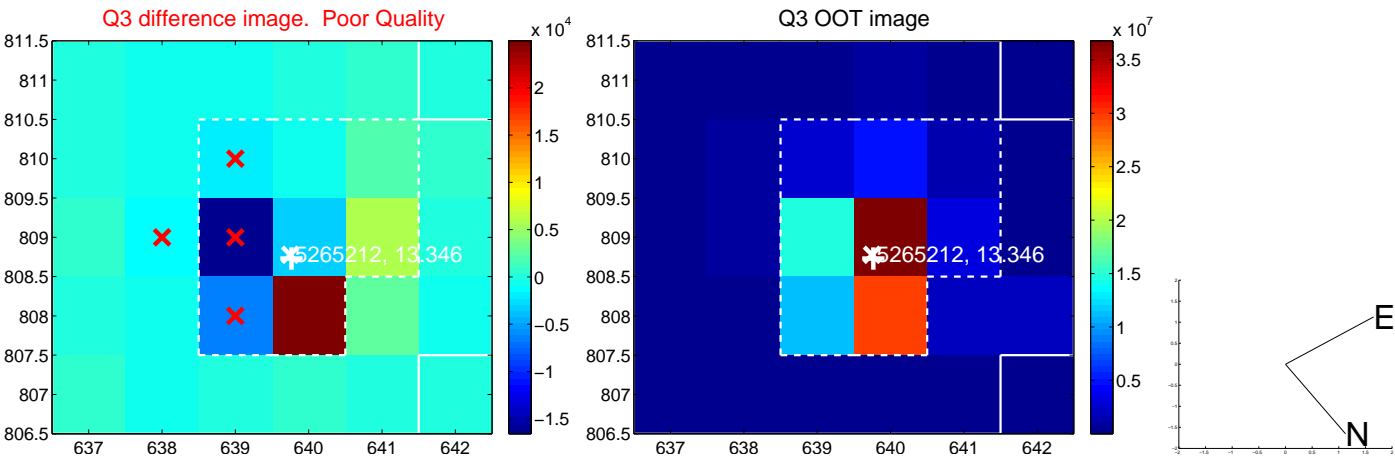
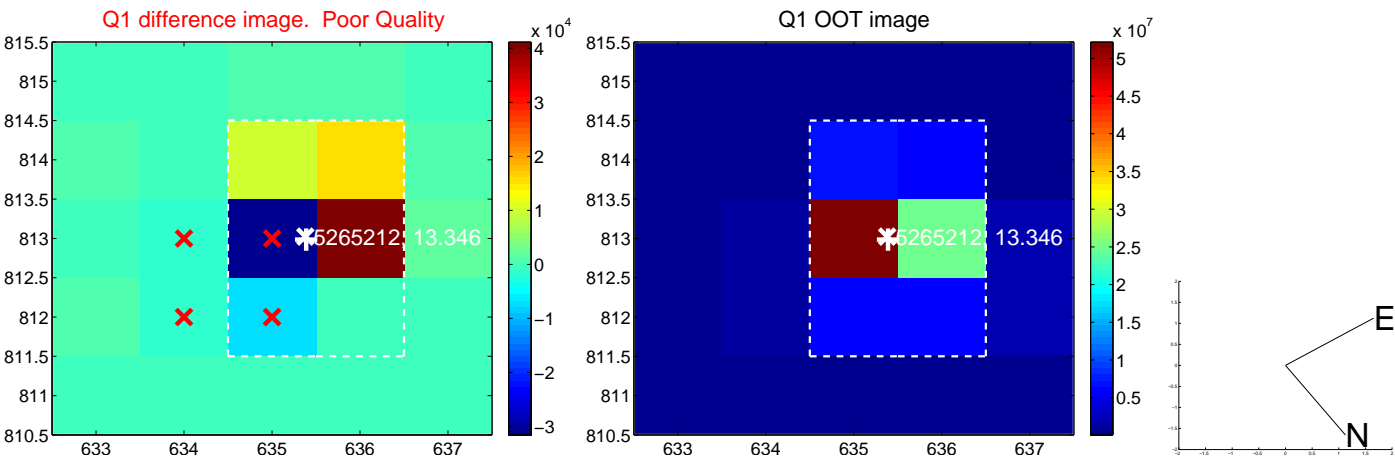
The direct PRF centroid is offset from the target star catalog position by about 0.23 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.407 ± 0.677	2.08	1.223 ± 0.425	0.695 ± 0.705
PRF-fit source offset from KIC position	1.451 ± 0.757	1.92	1.159 ± 0.464	0.873 ± 0.704
photometric centroid source offset	0.36 ± 0.51	0.71	-0.29 ± 0.49	-0.22 ± 0.53

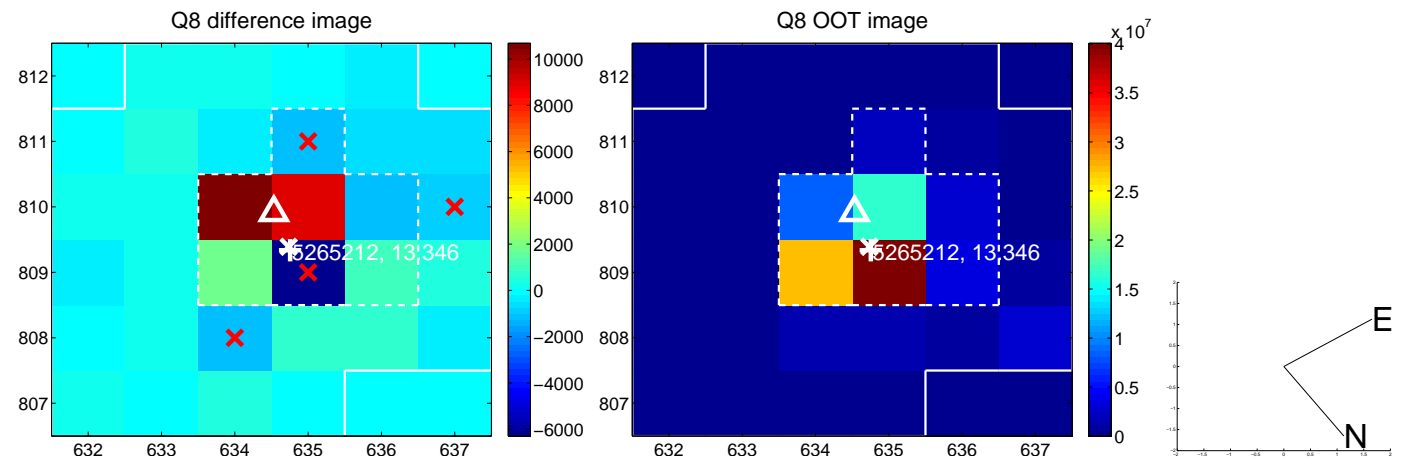
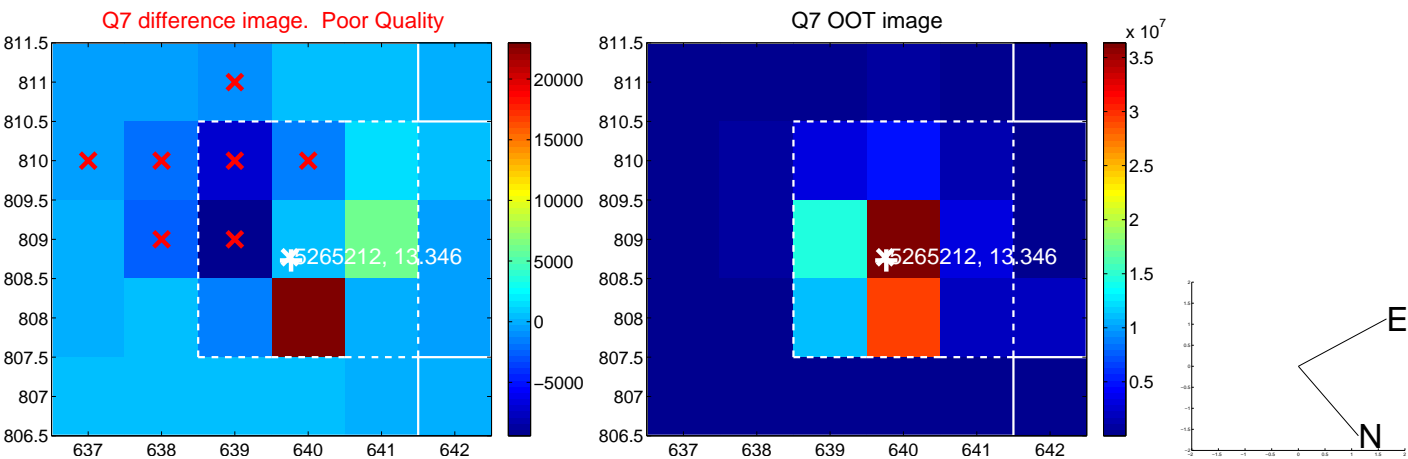
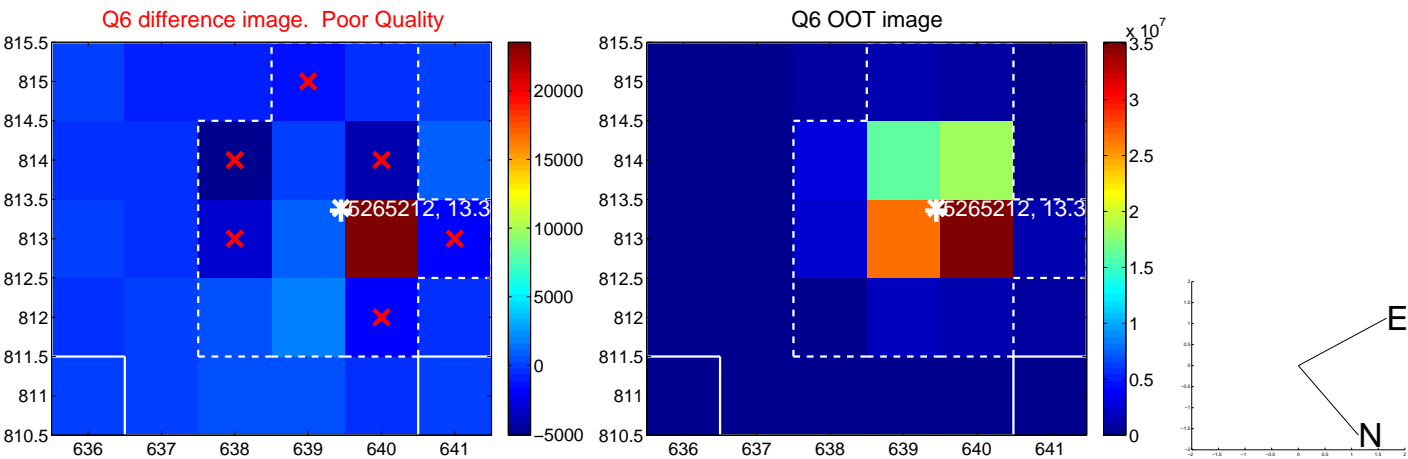
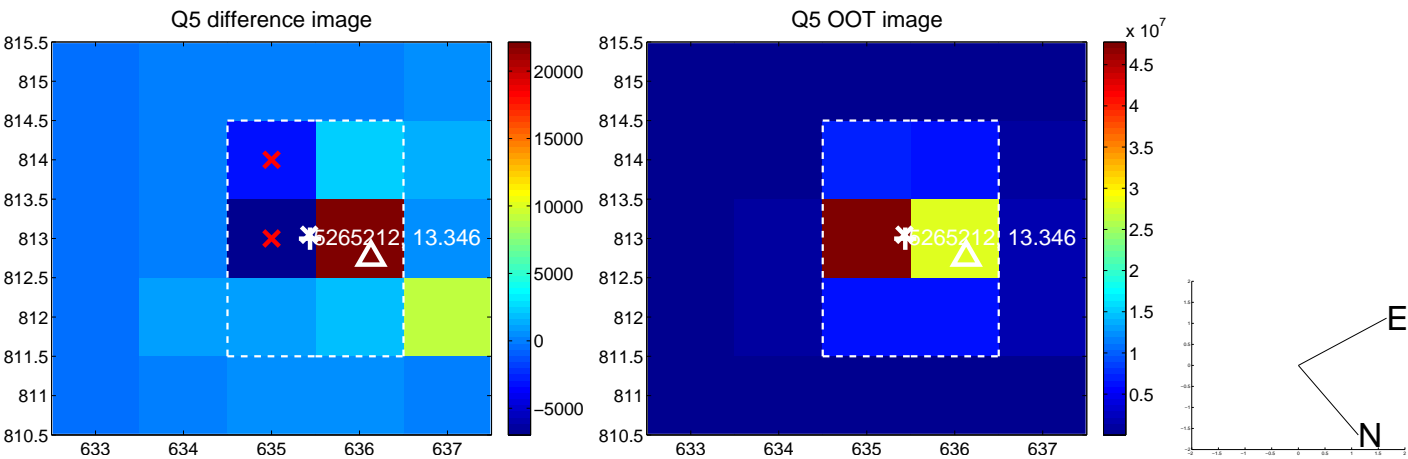


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

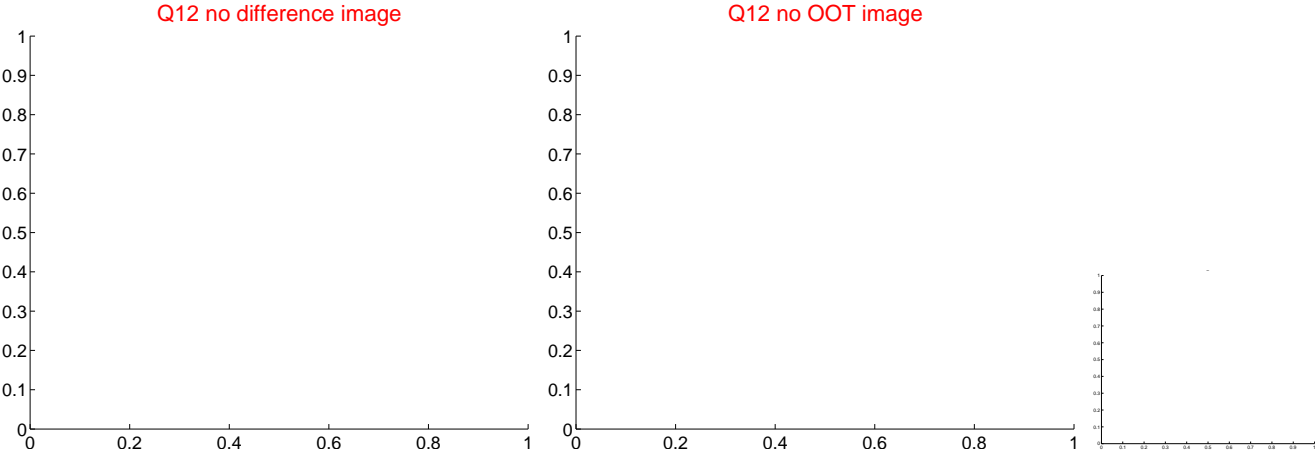
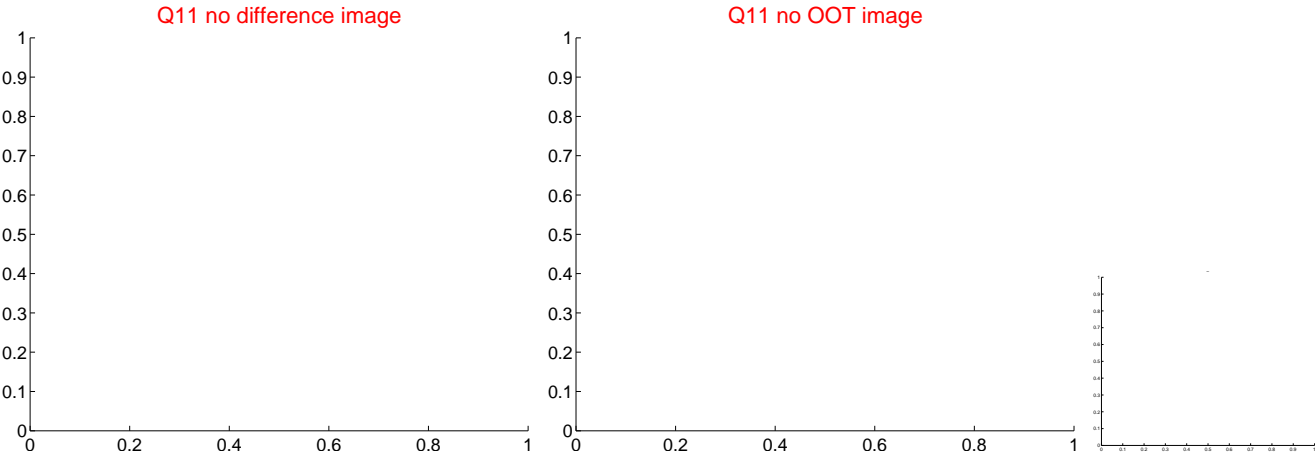
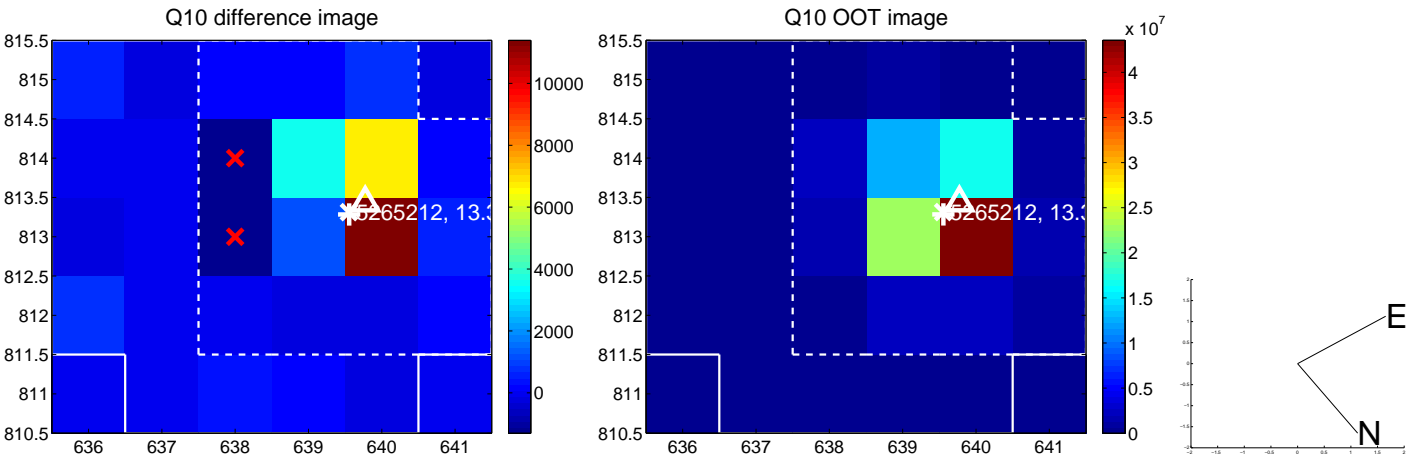
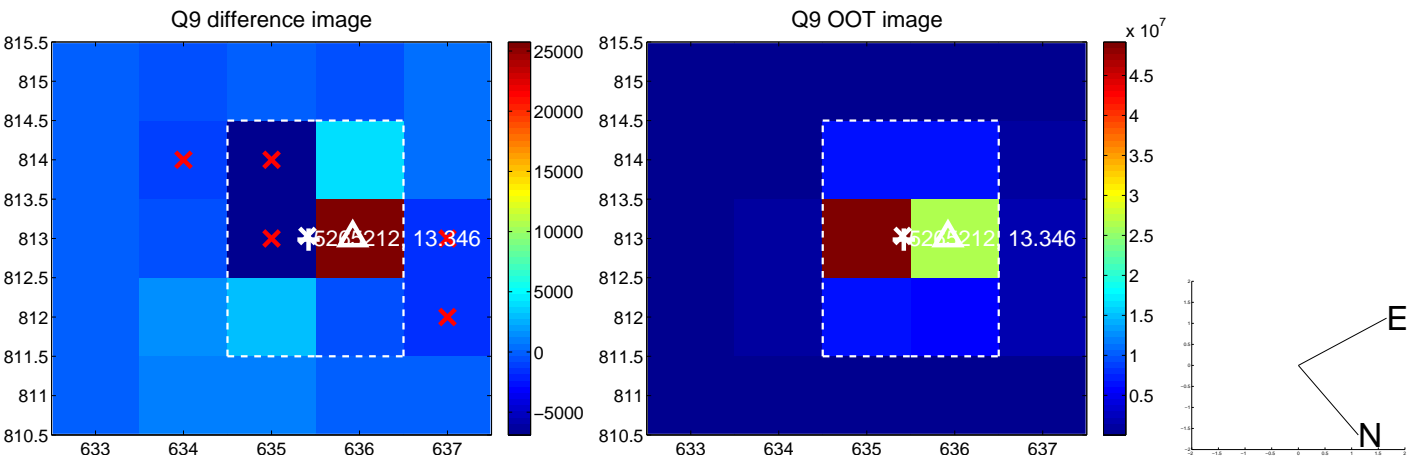
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



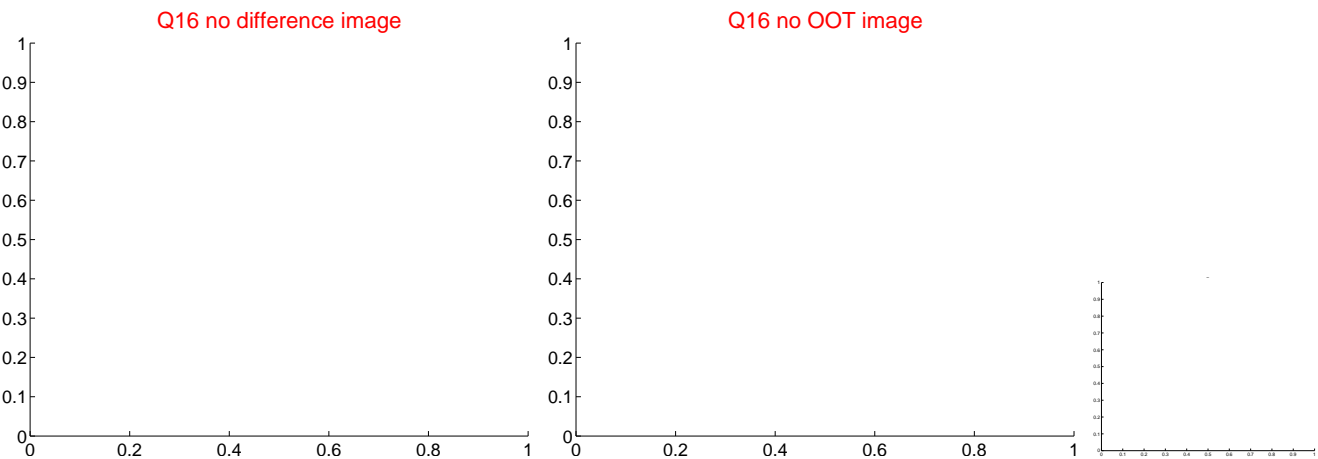
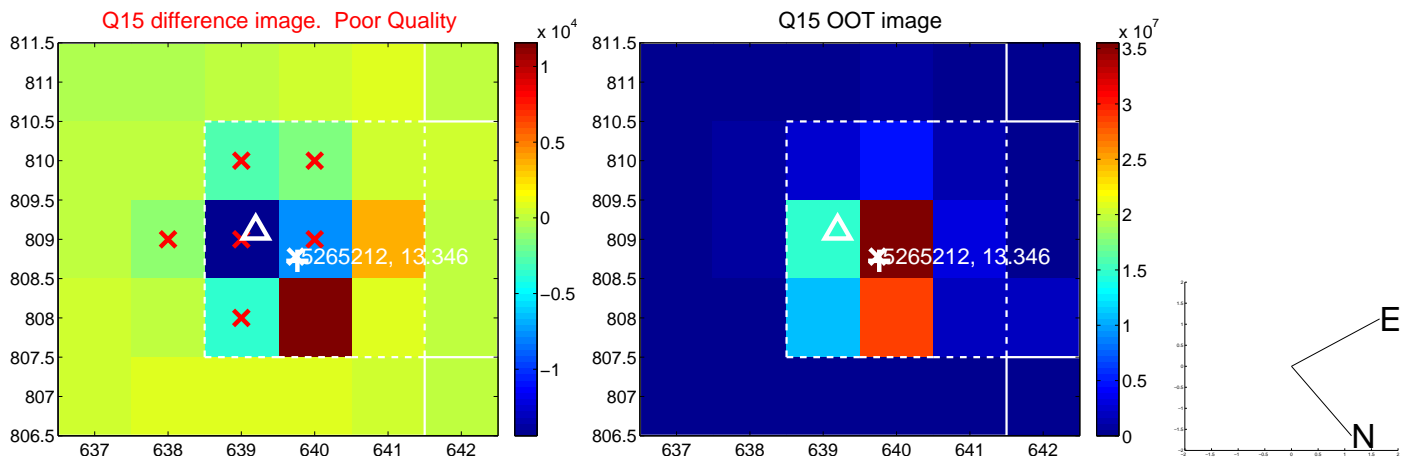
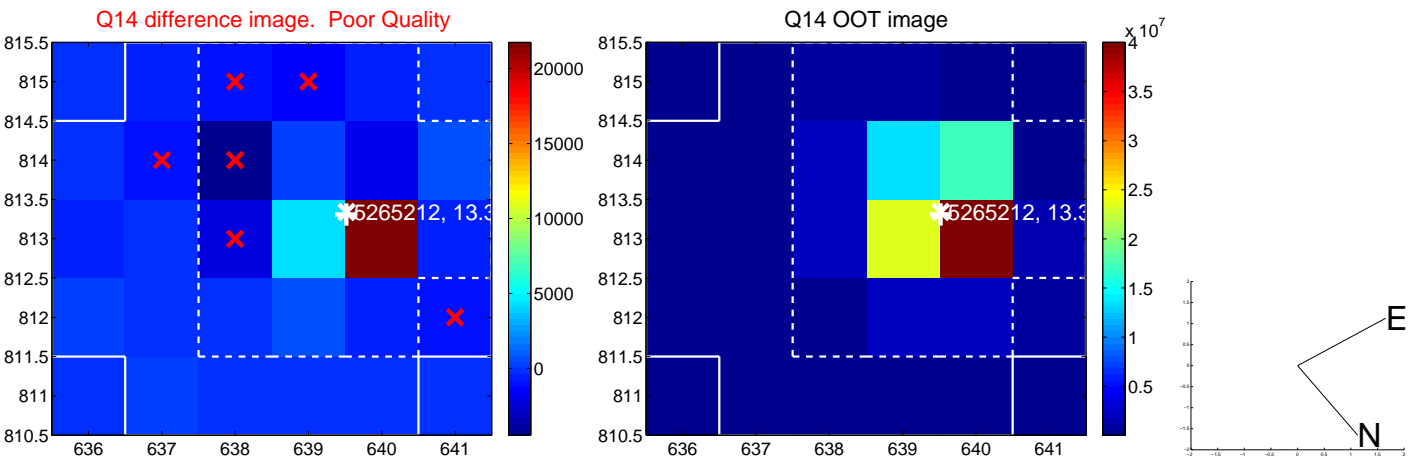
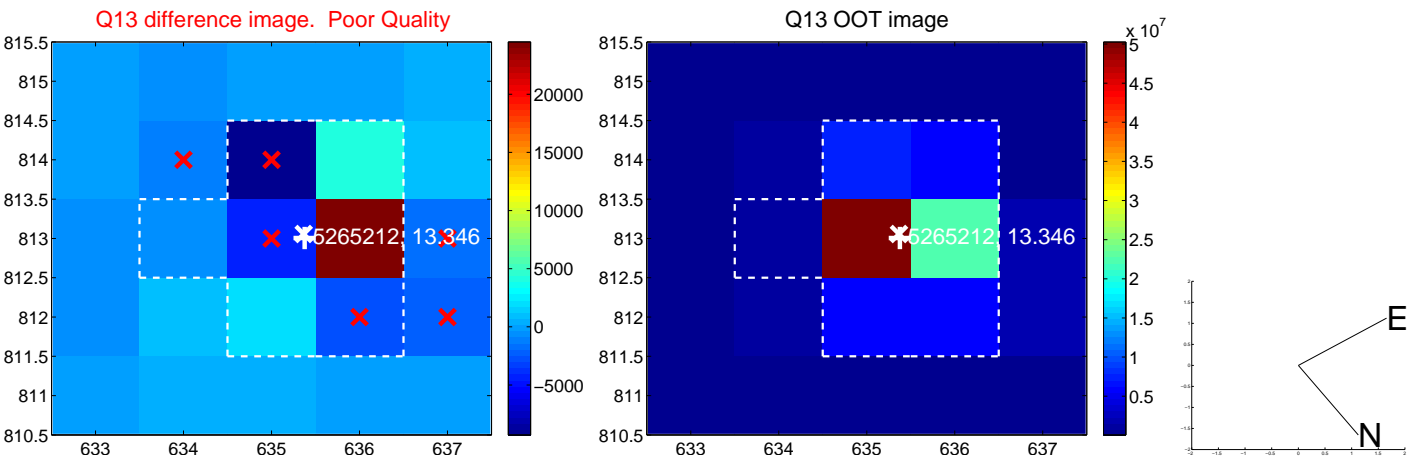
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



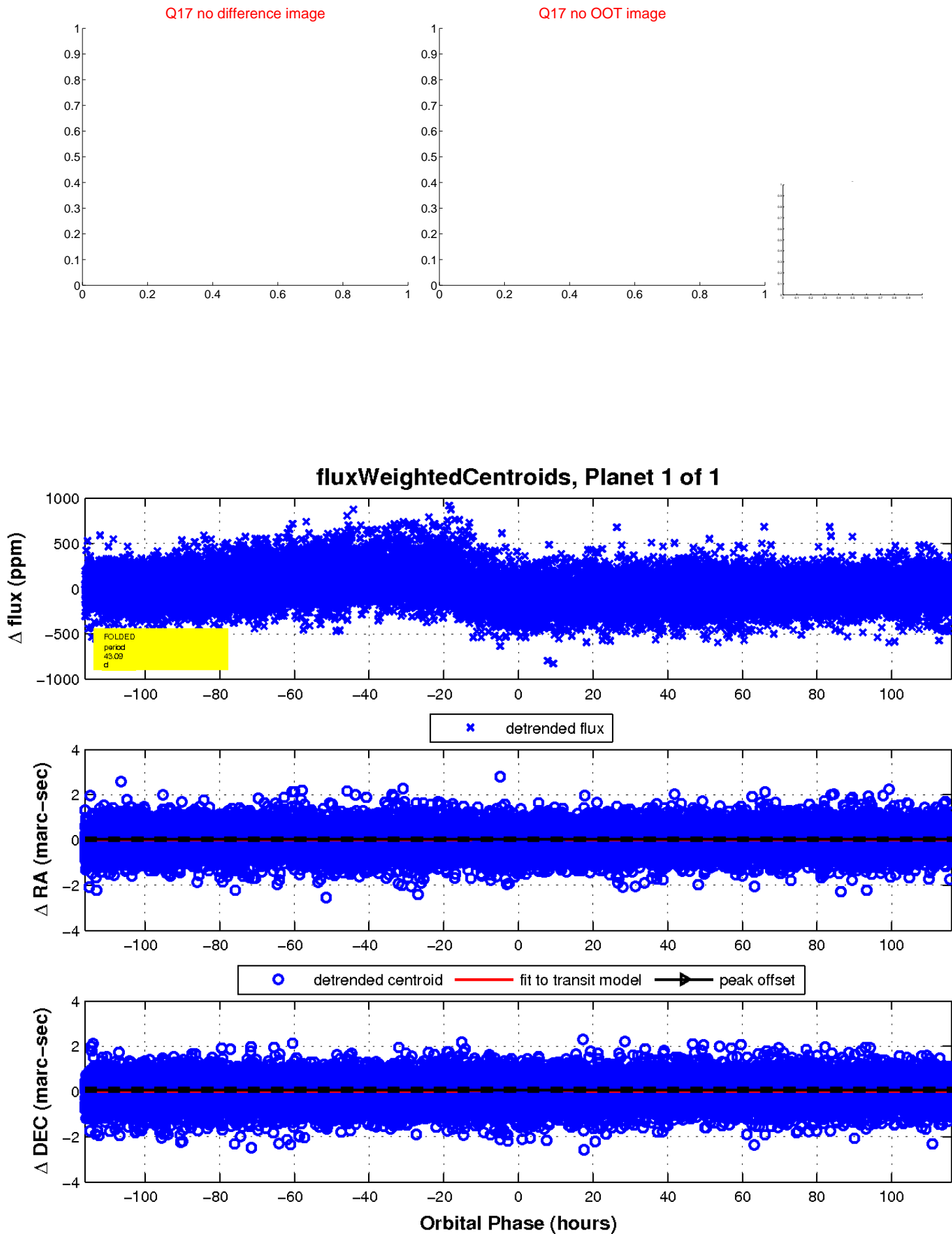
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

