

KIC 008489260

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})
008489260-01	OBS	7889.01	130.232869	218.292760	630.3	6.523	7.6	7.6	0.90	5616	2.40	2.86

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008489260-01	OBS	PC	0.39	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.

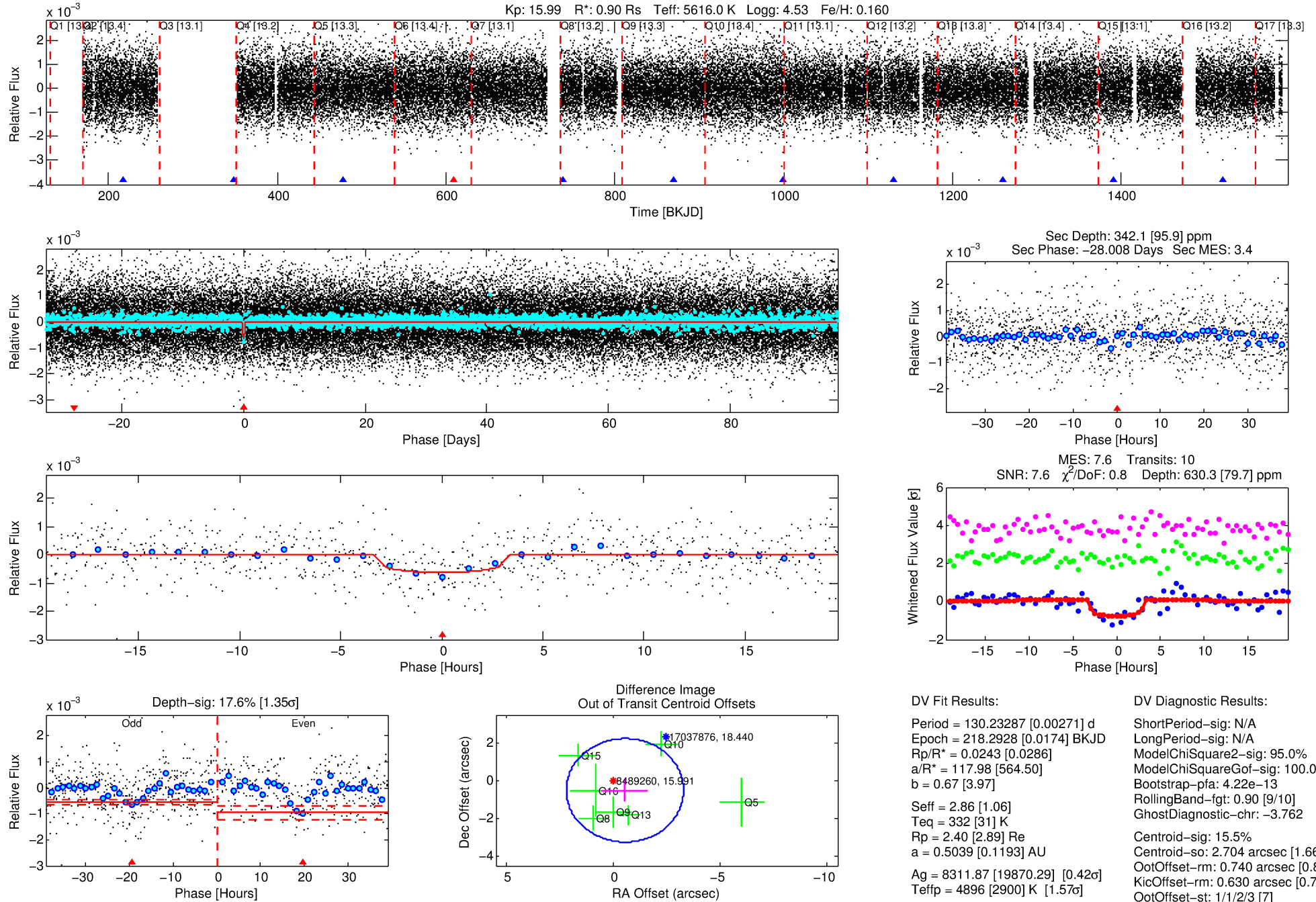
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008489260-01

No Significant Match Found

DV One-Page Summary

KIC: 8489260 Candidate: 1 of 1 Period: 130.233 d



DV Fit Results:

Period = 130.23287 [0.00271] d
Epoch = 218.2928 [0.0174] BKJD
Rp/R* = 0.0243 [0.0286]
a/R* = 117.98 [564.50]
b = 0.67 [3.97]
Seff = 2.86 [1.06]
Teq = 332 [31] K
Rp = 2.40 [2.89] Re
a = 0.5039 [0.1193] AU
Ag = 8311.87 [19870.29] [0.42 σ]
Teff = 4896 [2900] K [1.57 σ]

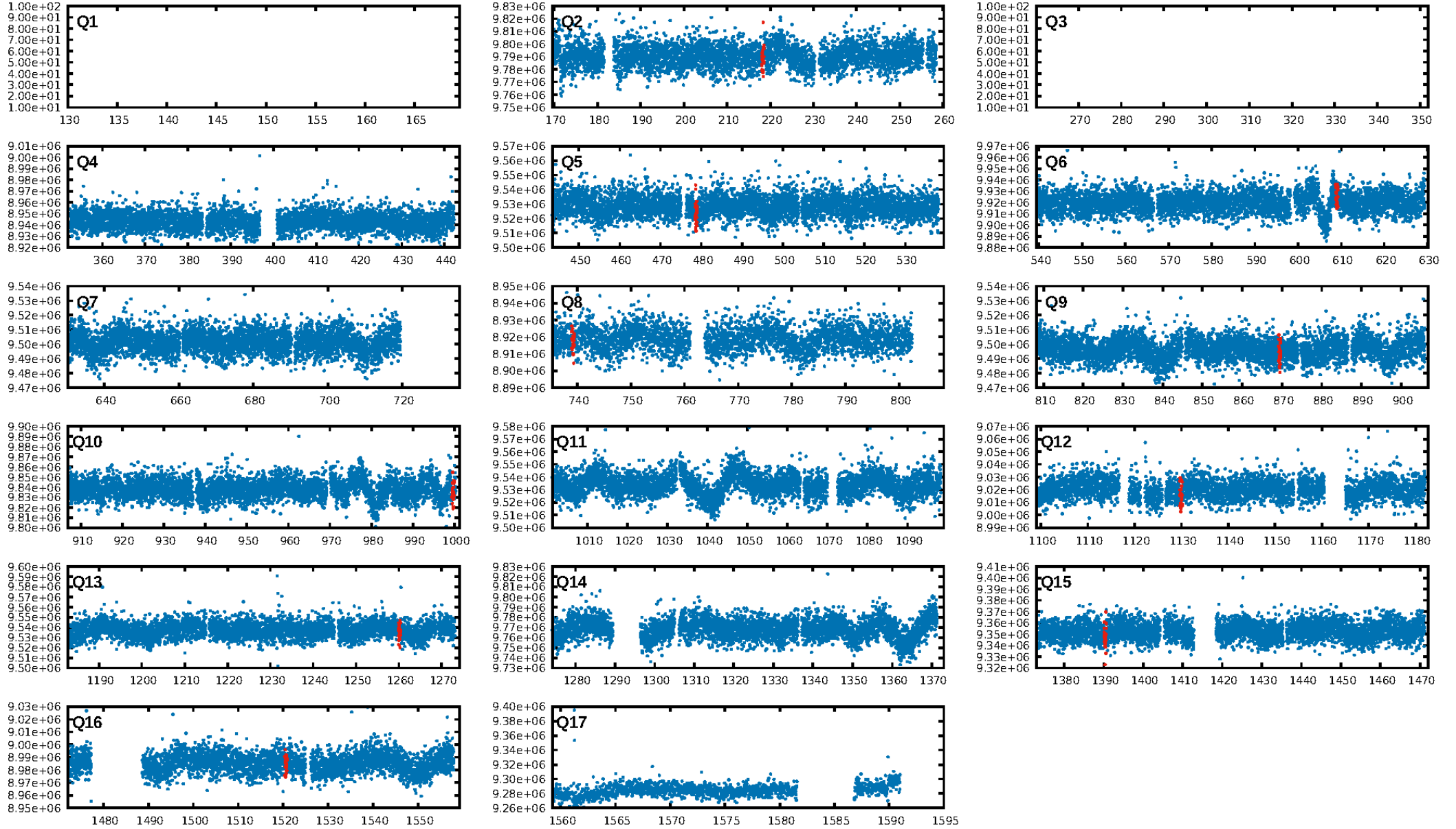
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 95.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 4.22e-13
RollingBand-fgt: 0.90 [9/10]
GhostDiagnostic-chr: -3.762
Centroid-sig: 15.5%
Centroid-so: 2.704 arcsec [1.66 σ]
OotOffset-rm: 0.740 arcsec [0.81 σ]
OotOffset-st: 1/1/2/3 [7]
KicOffset-rm: 0.630 arcsec [0.71 σ]
KicOffset-st: 1/1/2/3 [7]
DiffImageQuality-fgm: 0.57 [4/7]
DiffImageOverlap-fno: 1.00 [9/9]

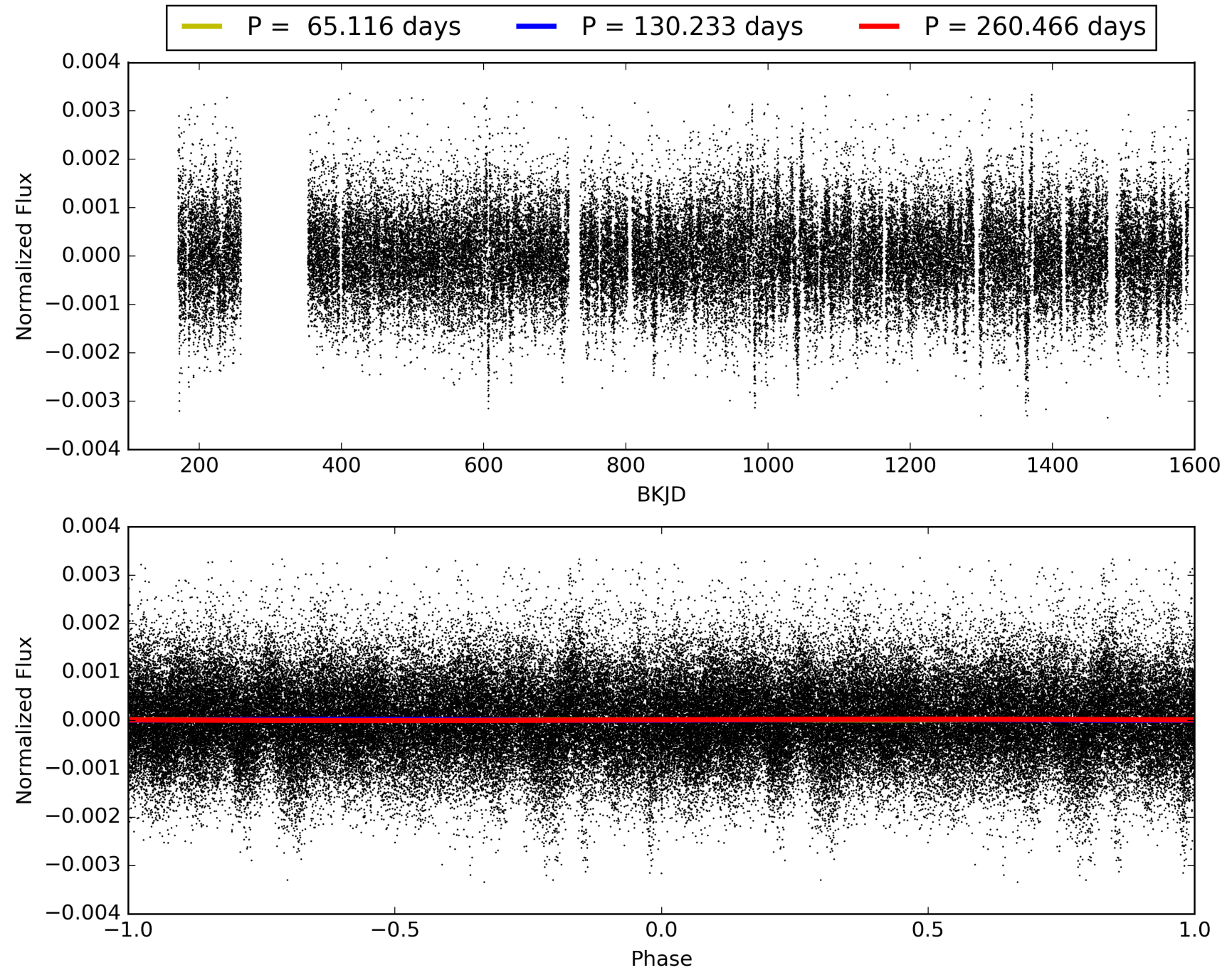
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 14:58:35 Z

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

TCE 008489260-01, PDC Light Curves

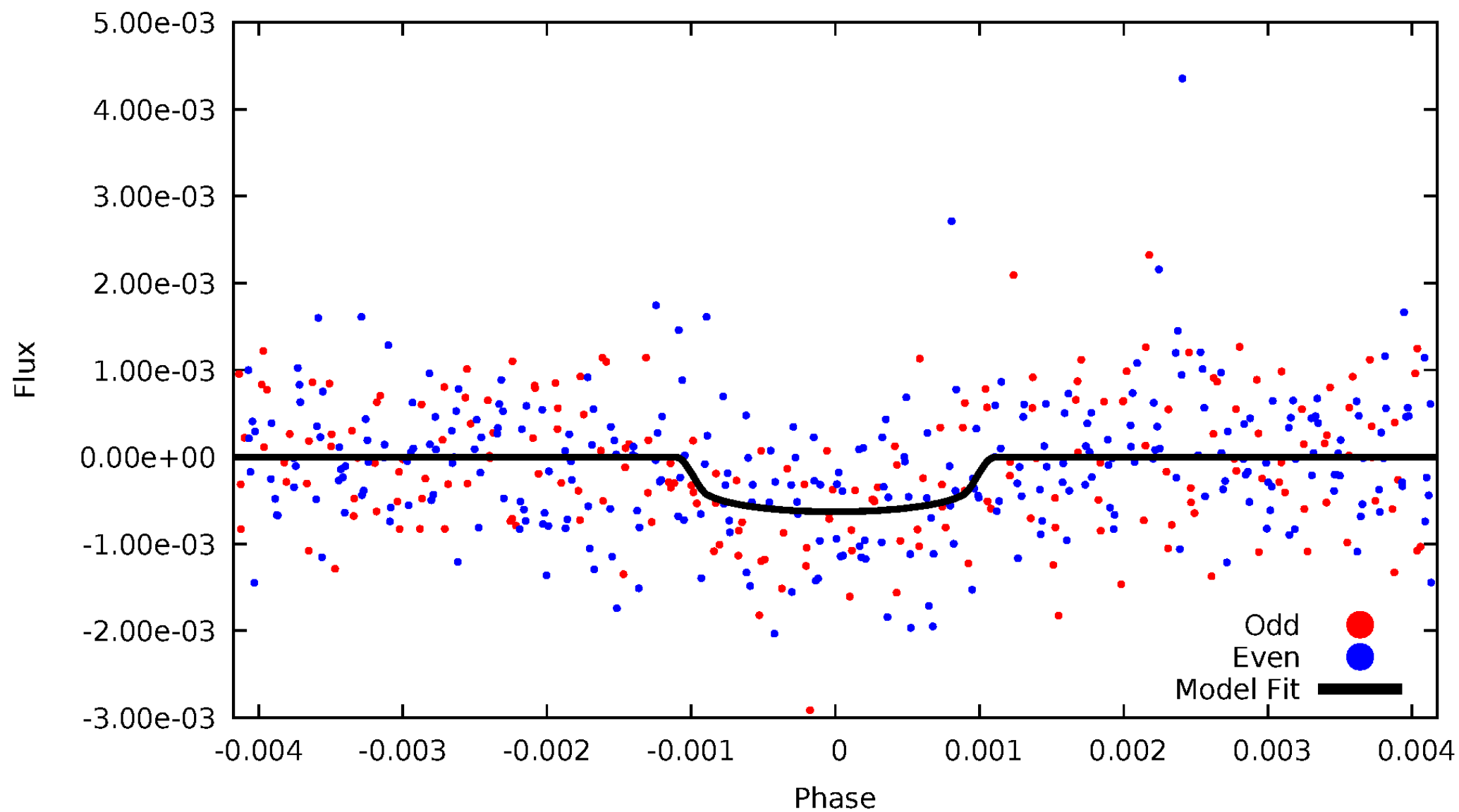


TCE 008489260-01



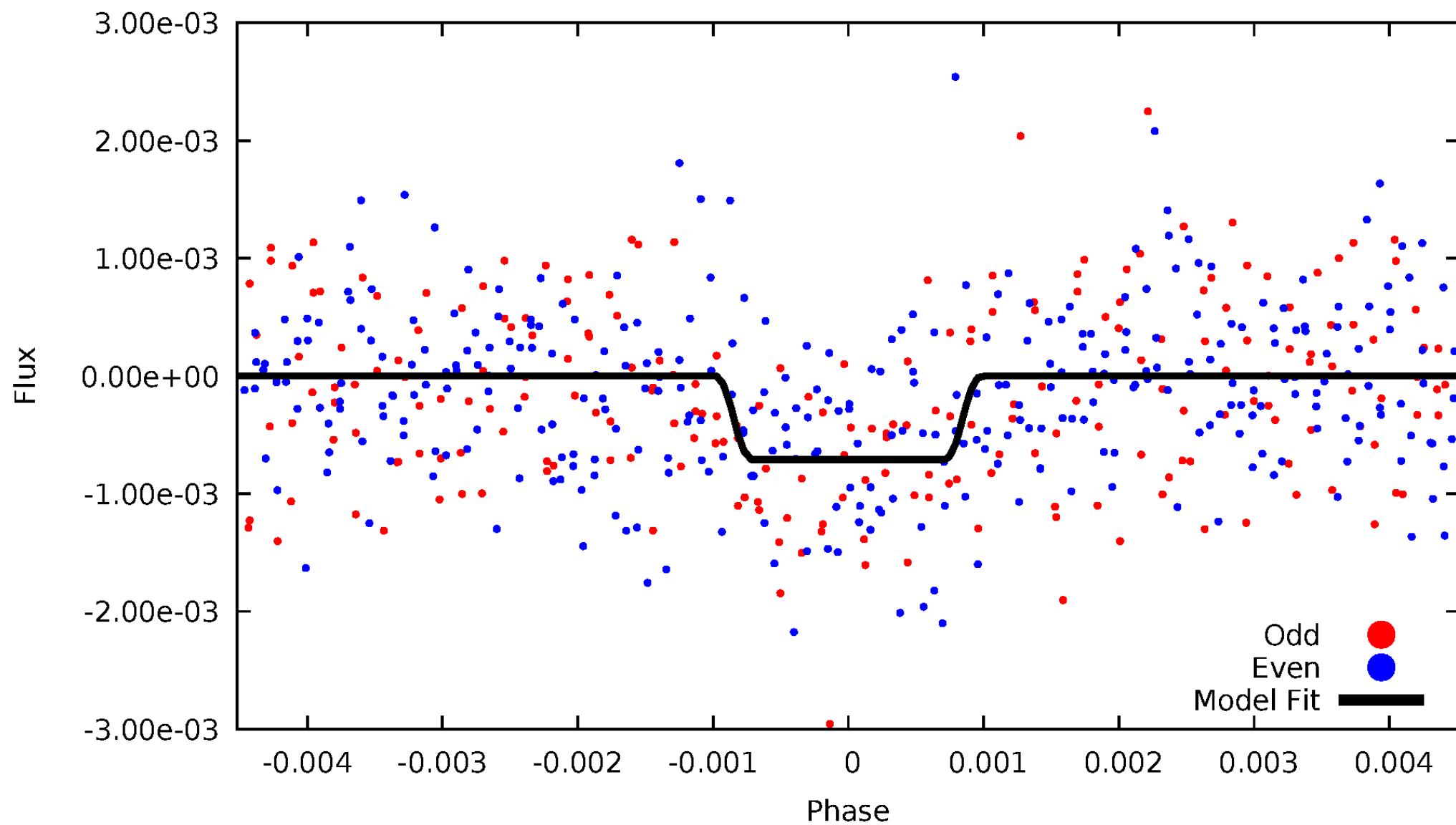
DV Odd/Even

TCE 008489260-01



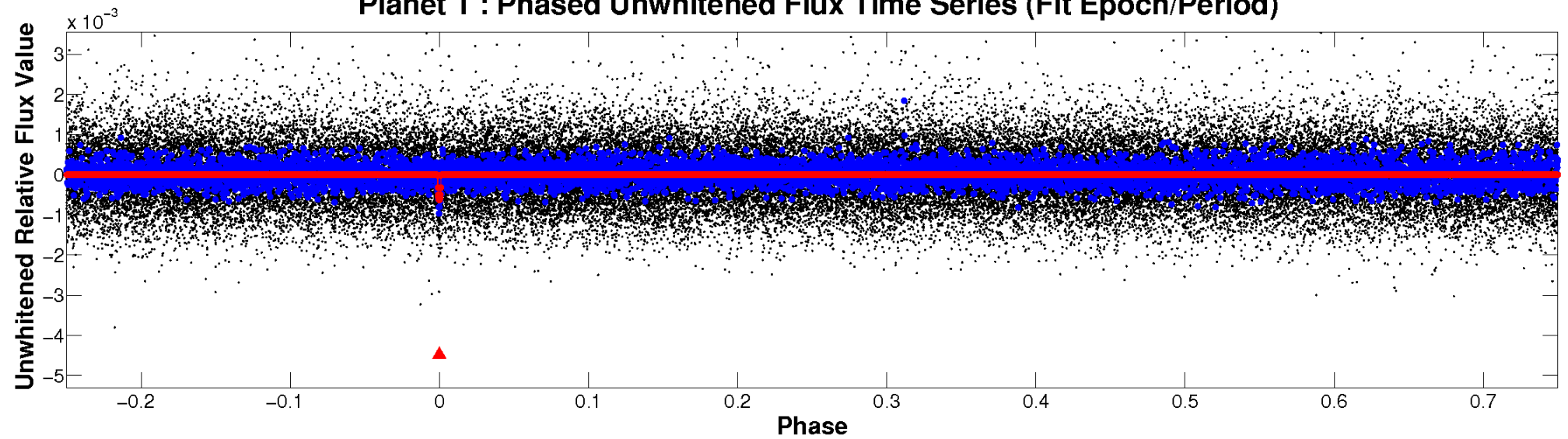
ALT Odd/Even

TCE 008489260-01

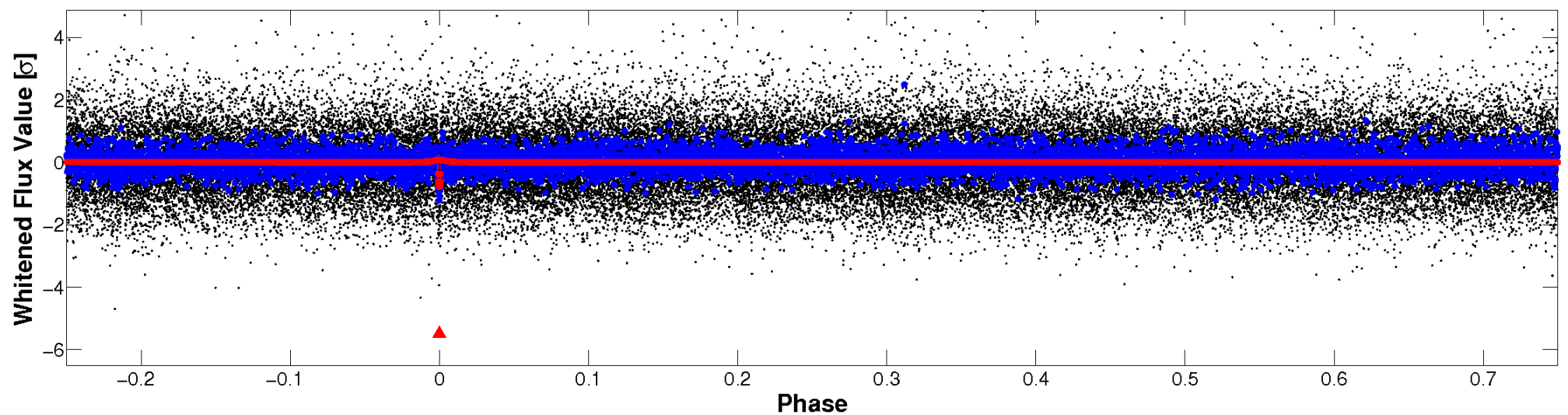


Non-Whitened Vs. Whitened Light Curve

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

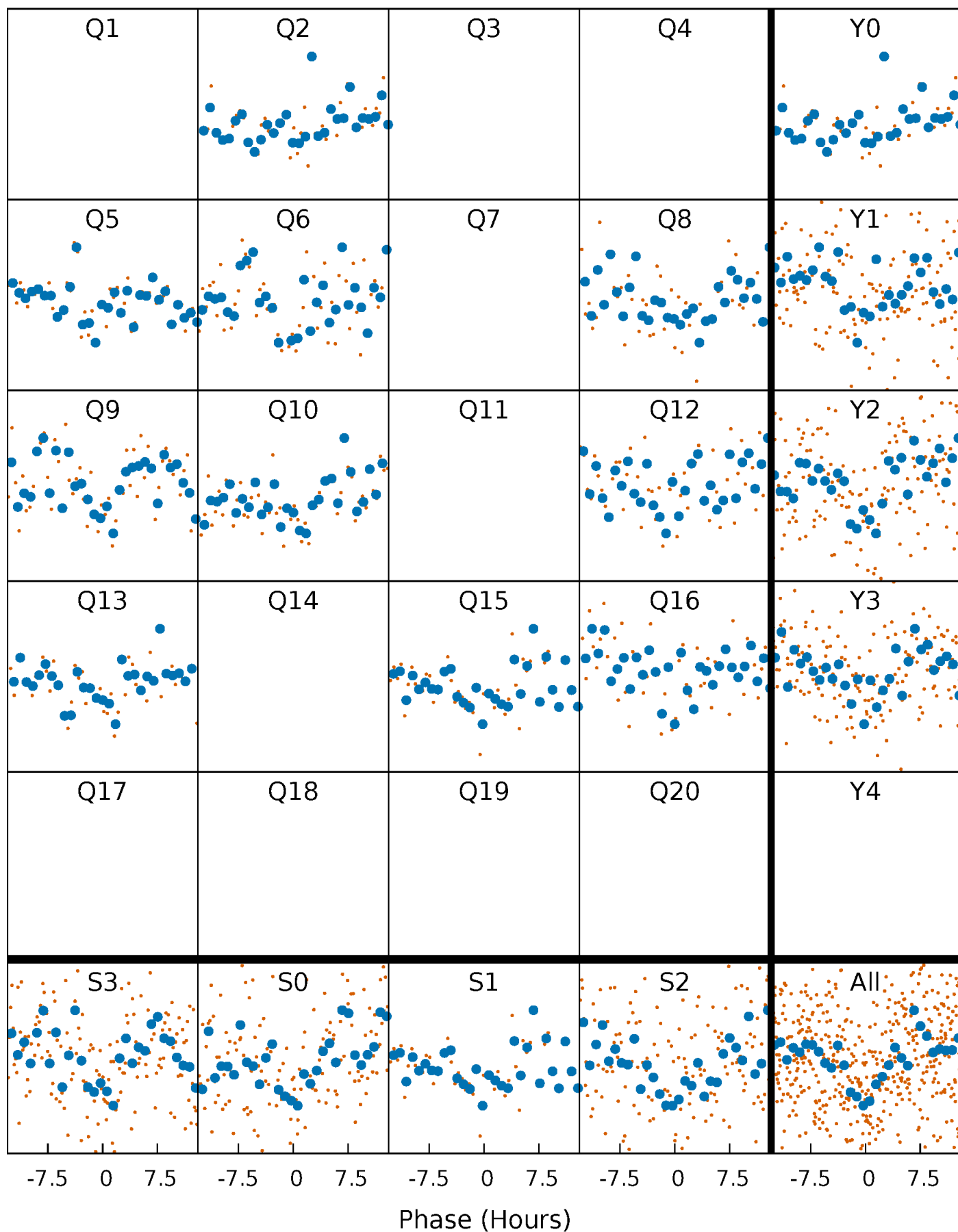


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



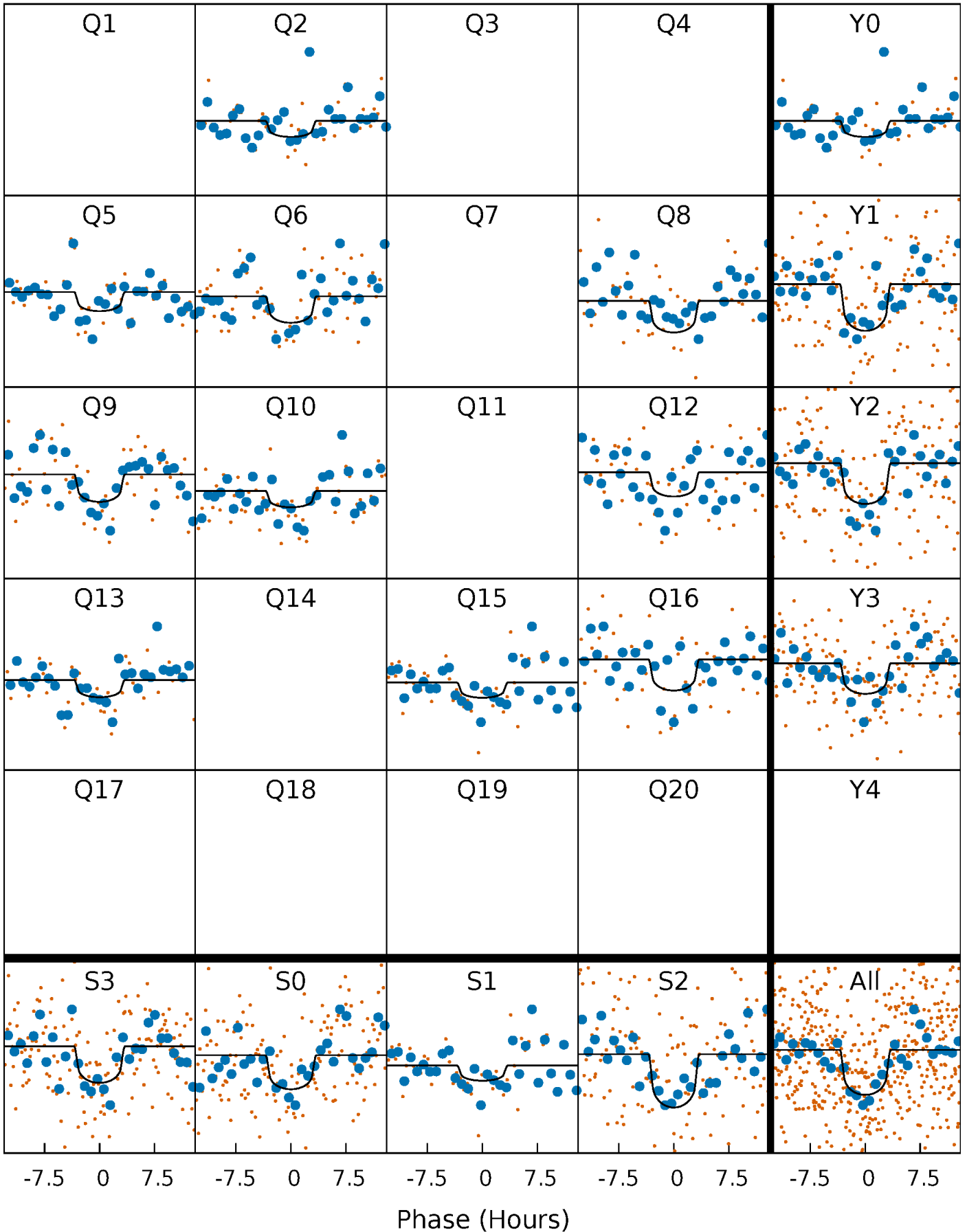
PDC Quarter-Phased Transit Curves

TCE 008489260-01 P=130.232869 Days $T_0=218.292760$ (BKJD)



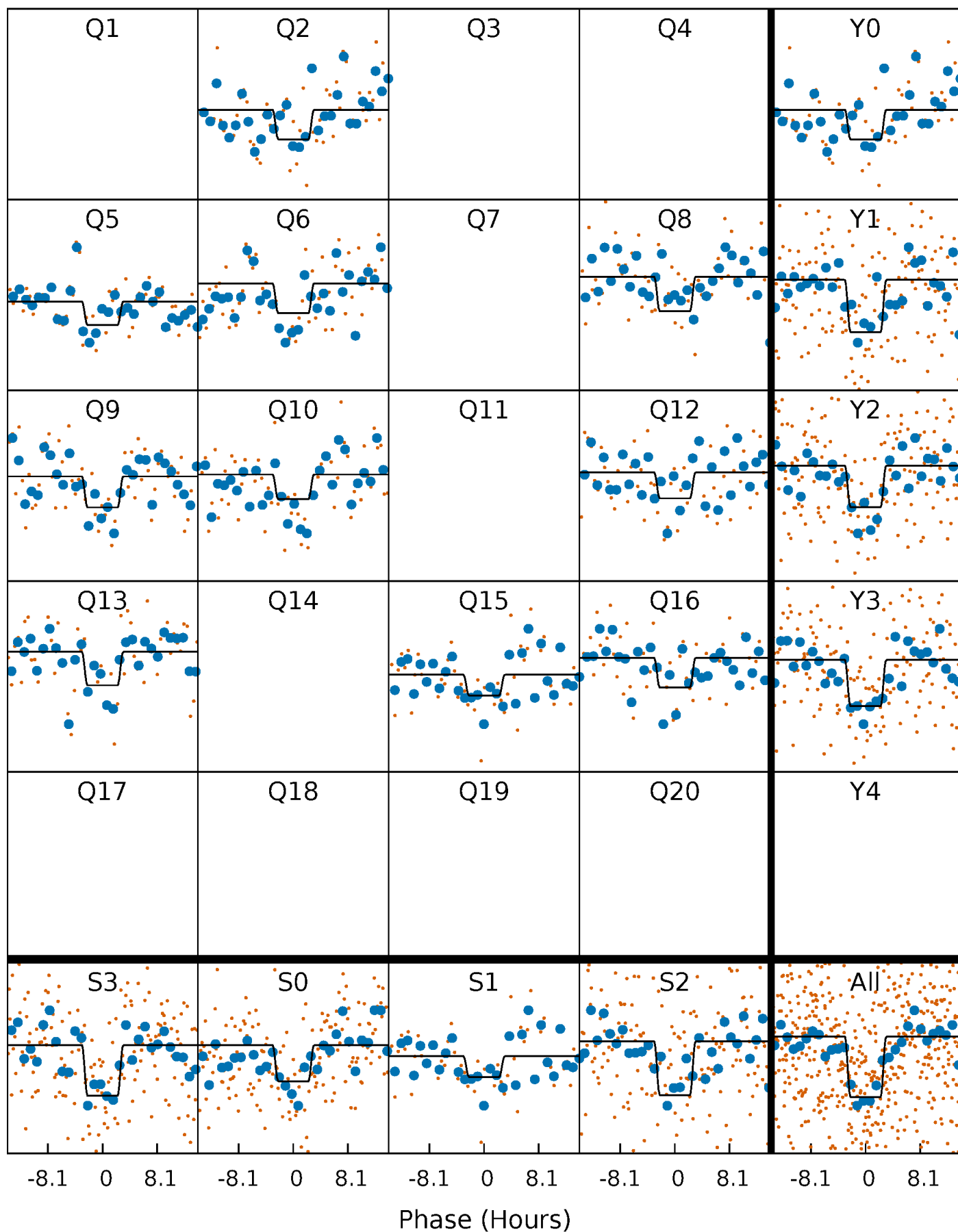
DV Quarter-Phased Transit Curves

TCE 008489260-01 P=130.232869 Days $T_0=218.292760$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

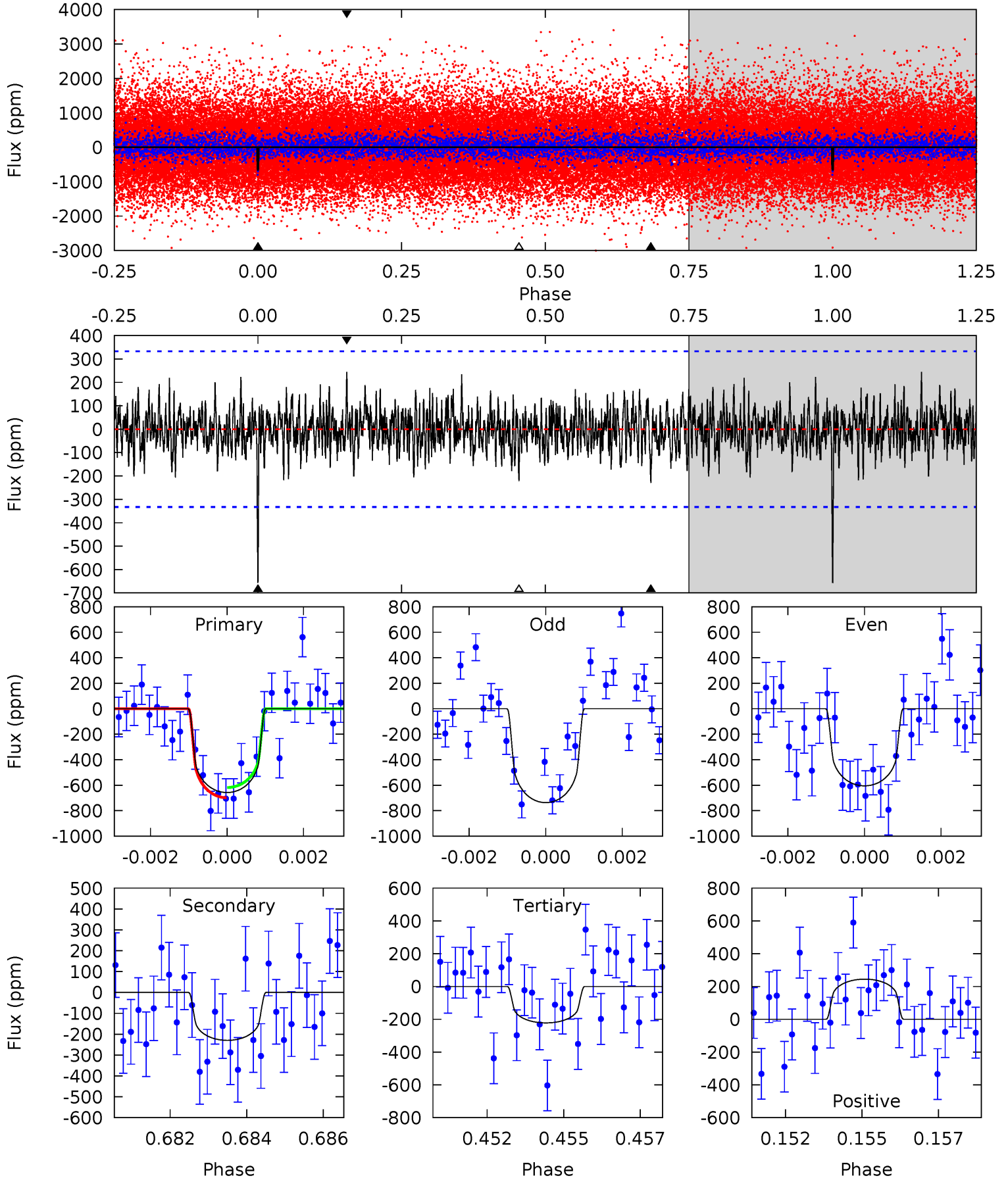
TCE 008489260-01 P=130.232105 Days $T_0=218.294831$ (BKJD)



DV Model-Shift Uniqueness Test

008489260-01, $P = 130.232869$ Days, $E = 88.059891$ Days

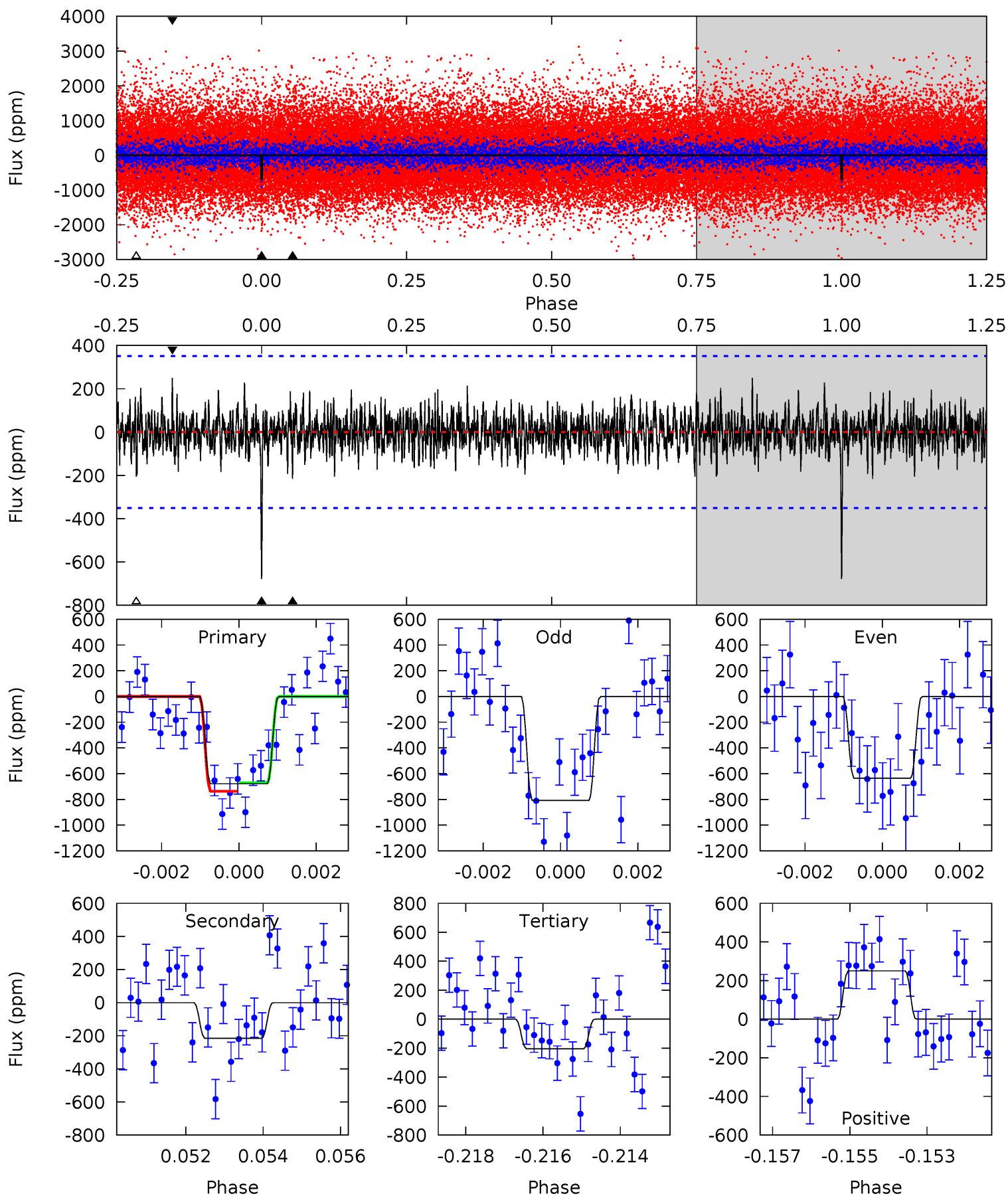
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.5	3.66	3.54	3.90	5.31	3.06	1.14	6.94	6.58	0.12	-0.24	1.03	0.99	0.27	0.64



Alt Model-Shift Uniqueness Test

008489260-01, P = 130.232105 Days, E = 88.062726 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.3	3.28	3.12	3.80	5.33	3.10	1.00	7.19	6.51	0.17	-0.51	1.28	0.96	0.27	0.50



Stellar Parameters For KIC 008489260

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$\rho_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5616^{+166}_{-183}	$4.529^{+0.036}_{-0.192}$	$0.160^{+0.200}_{-0.300}$	$0.903^{+0.251}_{-0.084}$	$1.006^{+0.085}_{-0.113}$	$1.922^{+0.370}_{-0.975}$
	+3%/-3%	+1%/-4%	+125%/-188%	+28%/-9%	+8%/-11%	+19%/-51%
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 008489260-01 / KOI 7889.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-230 ± 63	$3.18^{+2.61}_{-2.11}$	475^{+32}_{-22}	4141^{+2605}_{-746}	2952^{+23383}_{-2090}
Alt.	-216 ± 66	$3.41^{+2.87}_{-2.12}$	474^{+35}_{-23}	4016^{+1998}_{-758}	2474^{+14535}_{-1766}

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

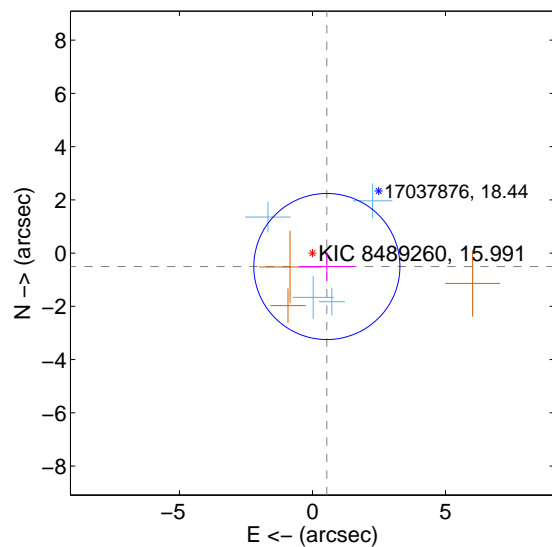
Supplemental centroid analysis for 008489260-01. Kepler magnitude: 15.99. Transit SNR 7.60

There are 4 quarters with good PRF difference image offsets

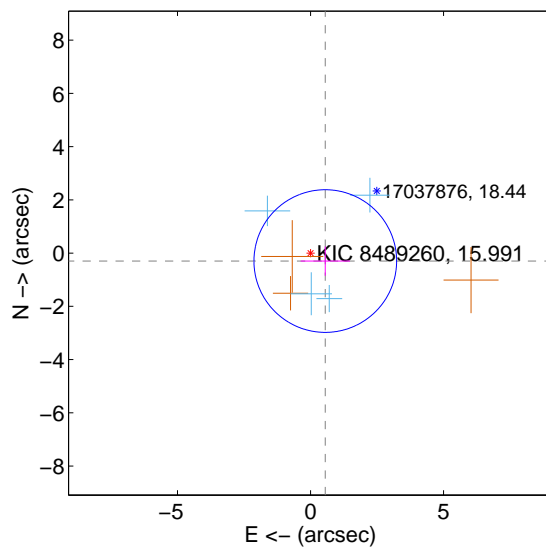
The direct PRF centroid is offset from the target star catalog position by about 0.43 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.740 ± 0.915	0.81	-0.542 ± 1.048	-0.504 ± 0.552
PRF-fit source offset from KIC position	0.630 ± 0.893	0.71	-0.554 ± 0.926	-0.299 ± 0.552
photometric centroid source offset	2.70 ± 1.62	1.66	-2.66 ± 1.63	0.46 ± 1.55

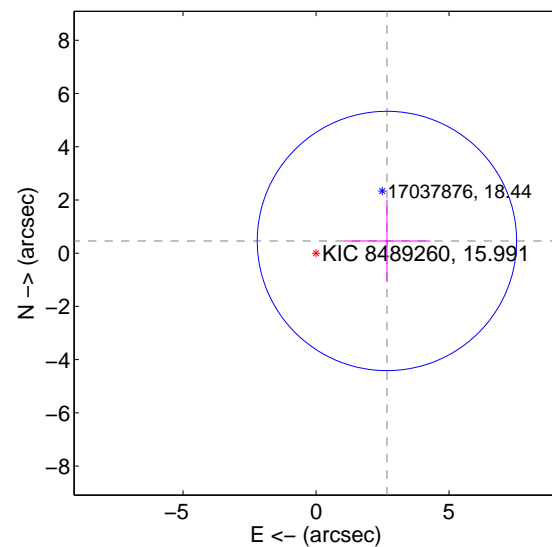
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

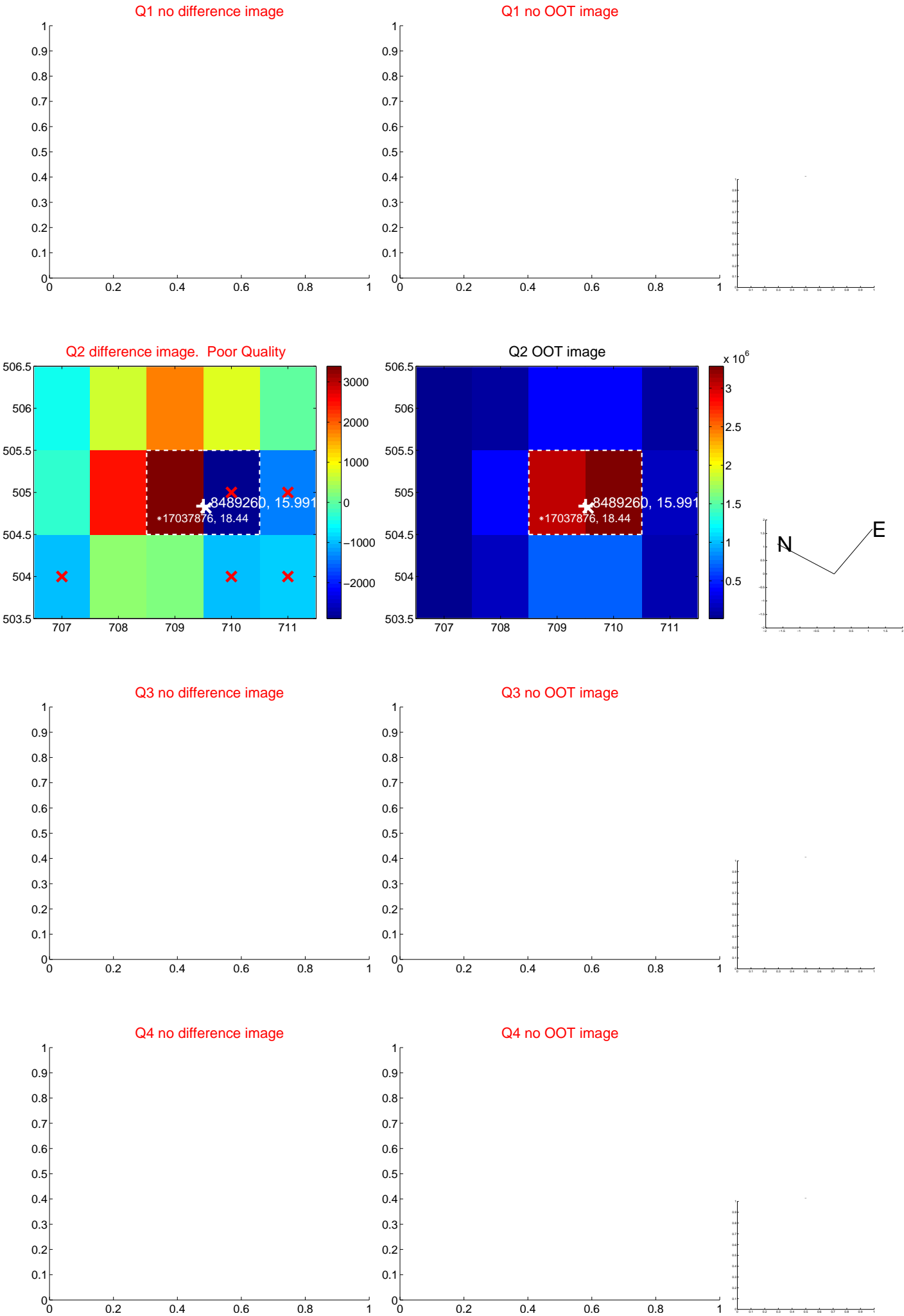


offset from photometric centroids

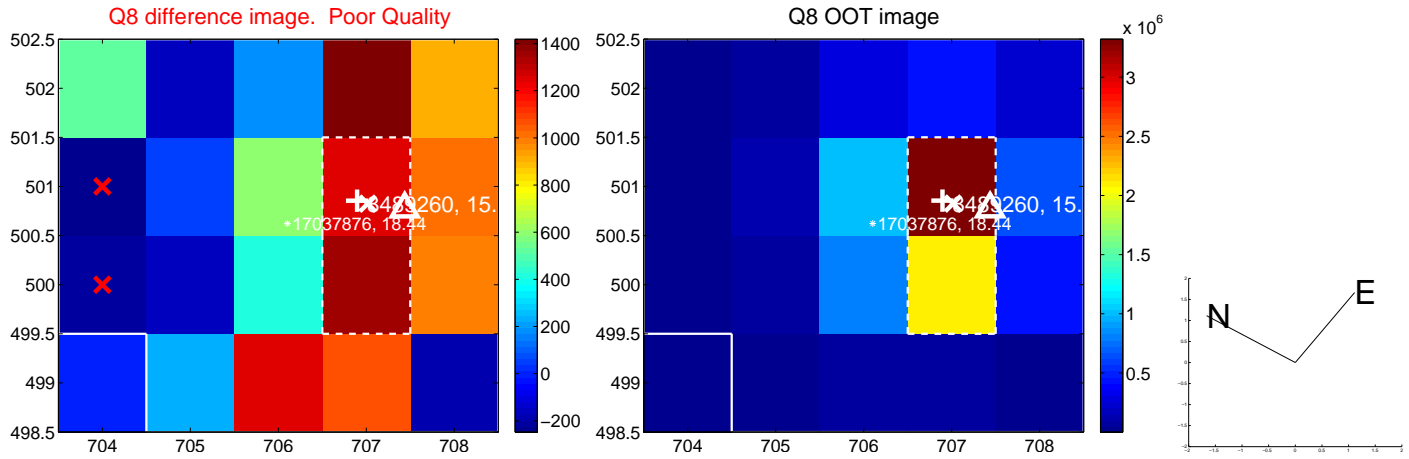
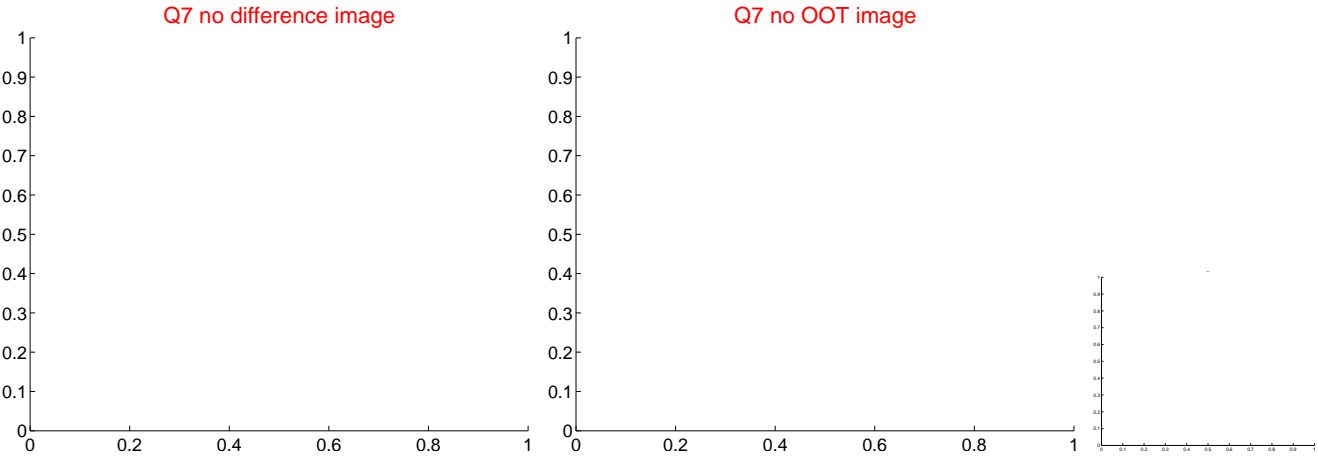
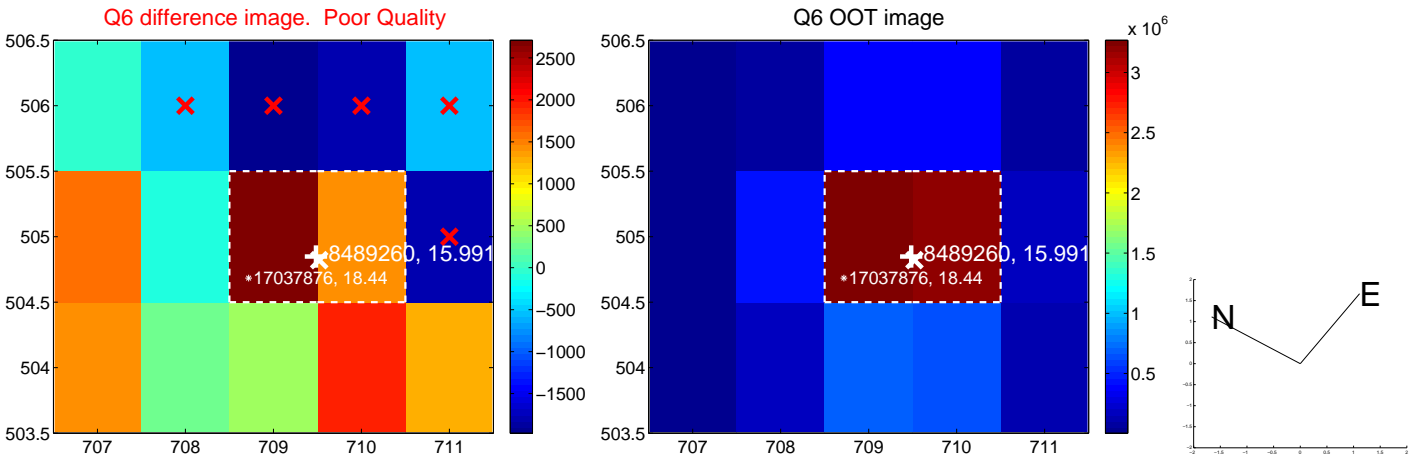
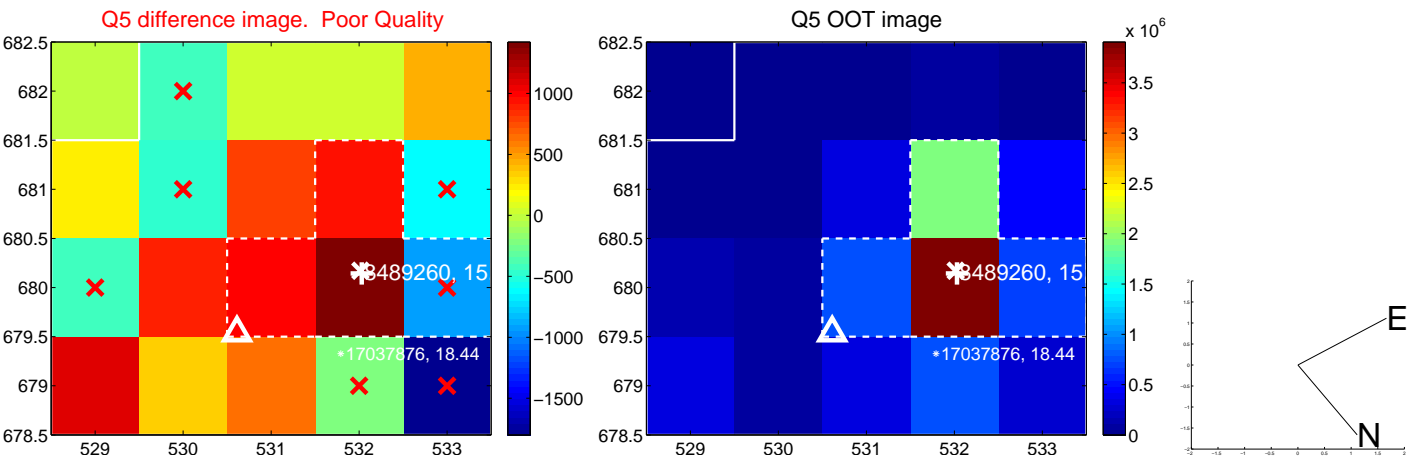


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

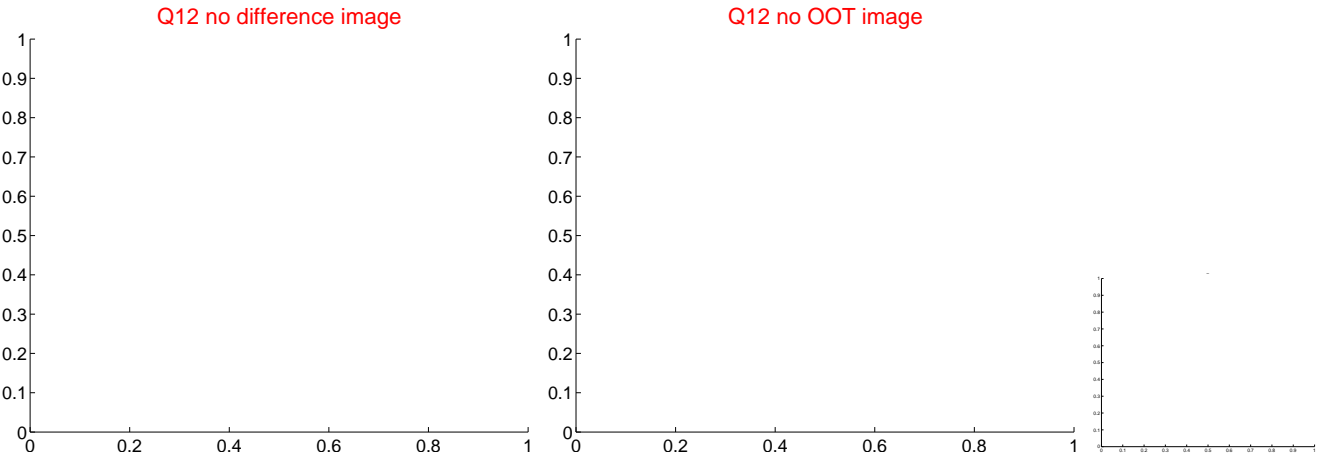
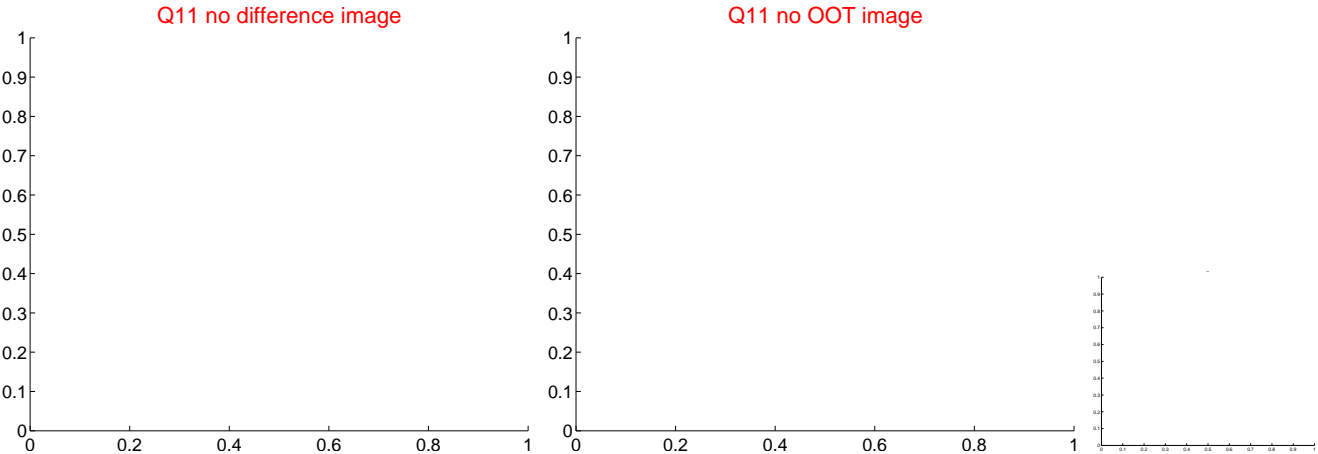
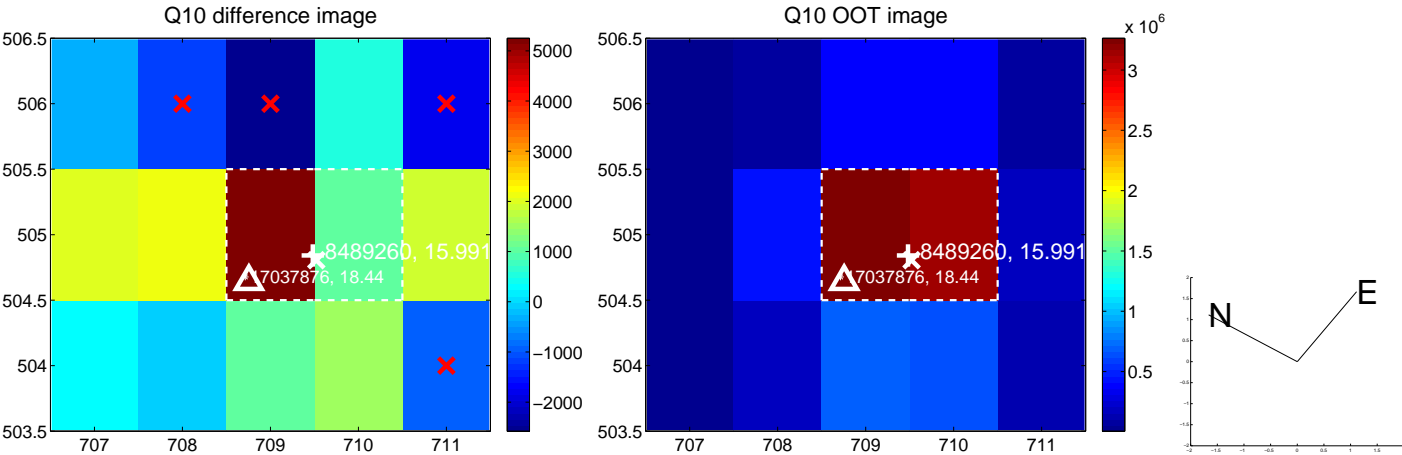
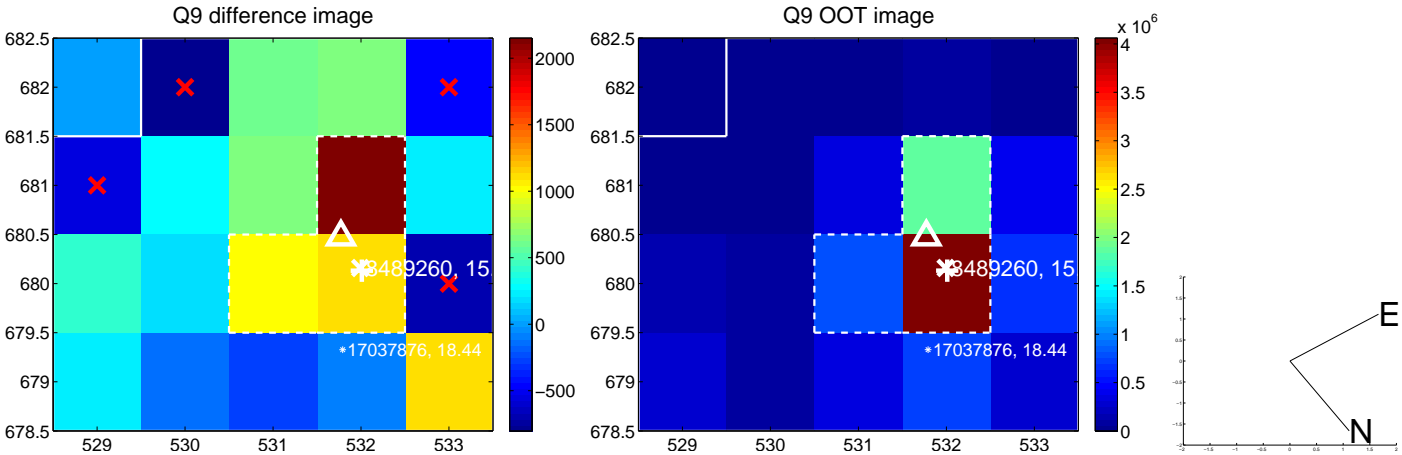
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



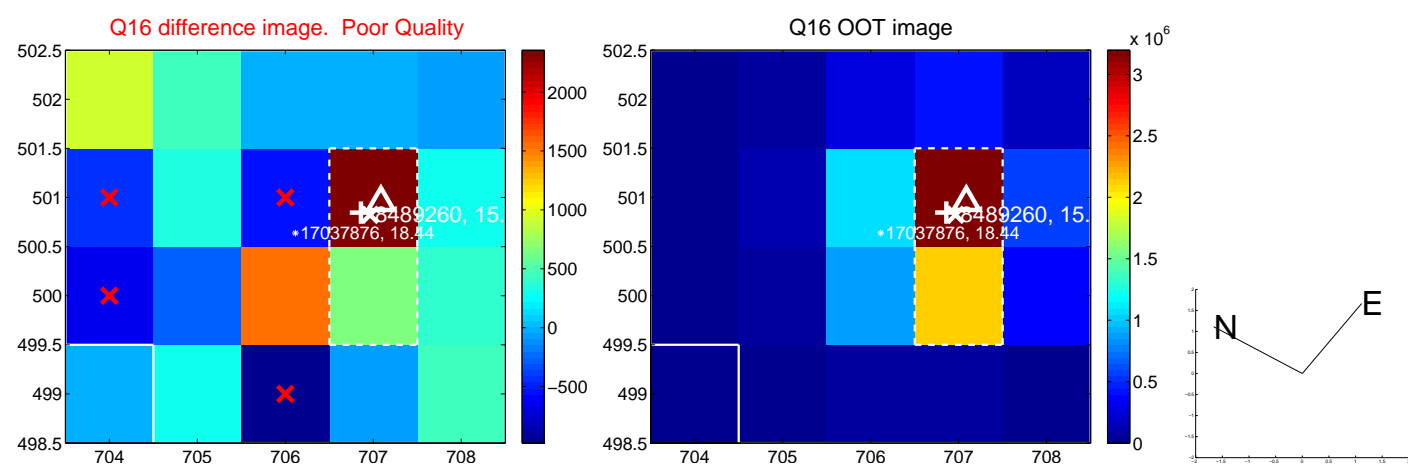
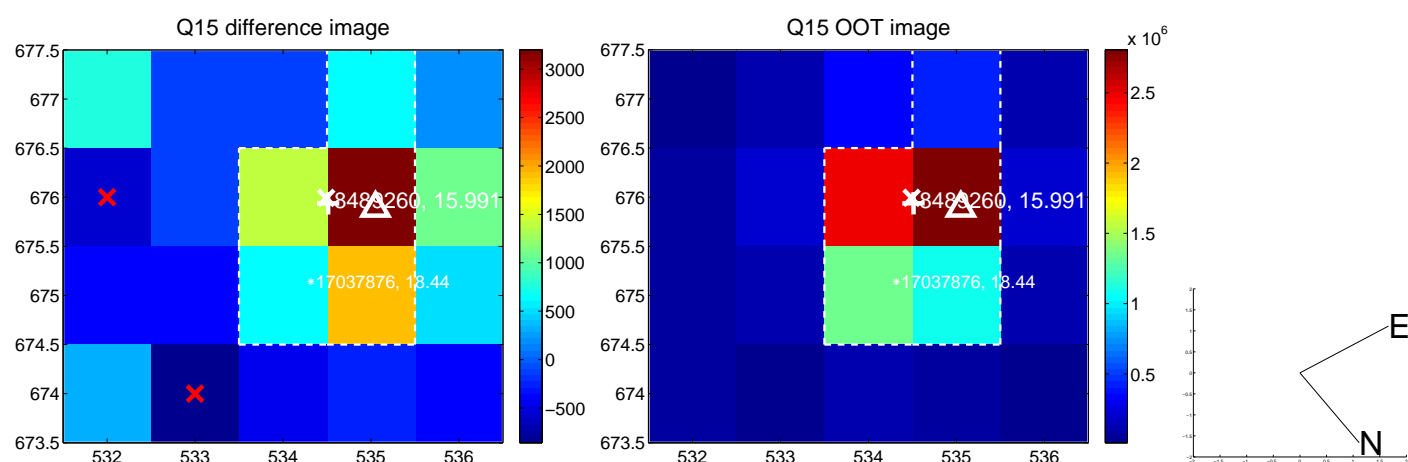
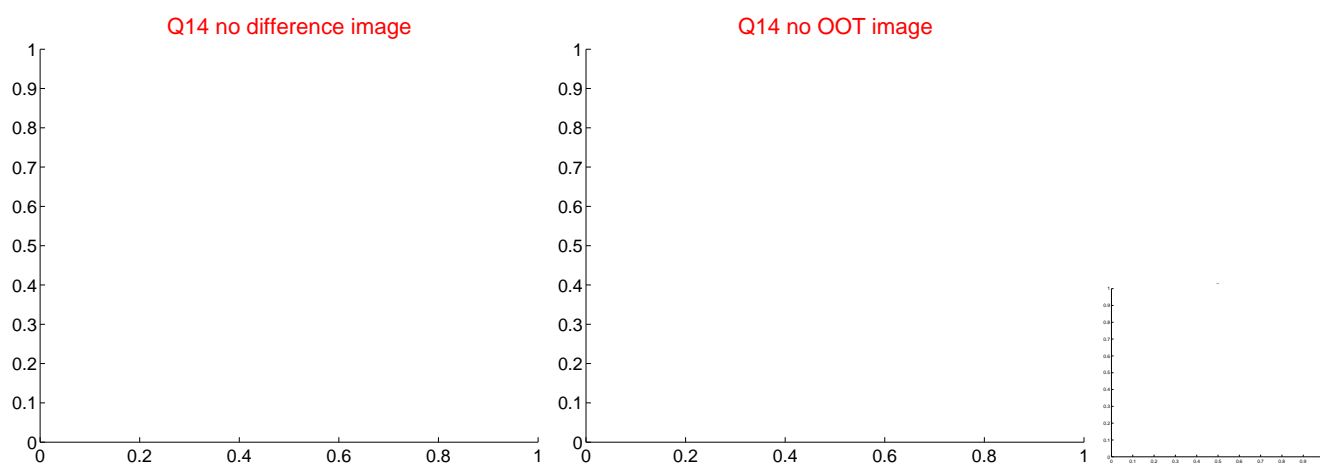
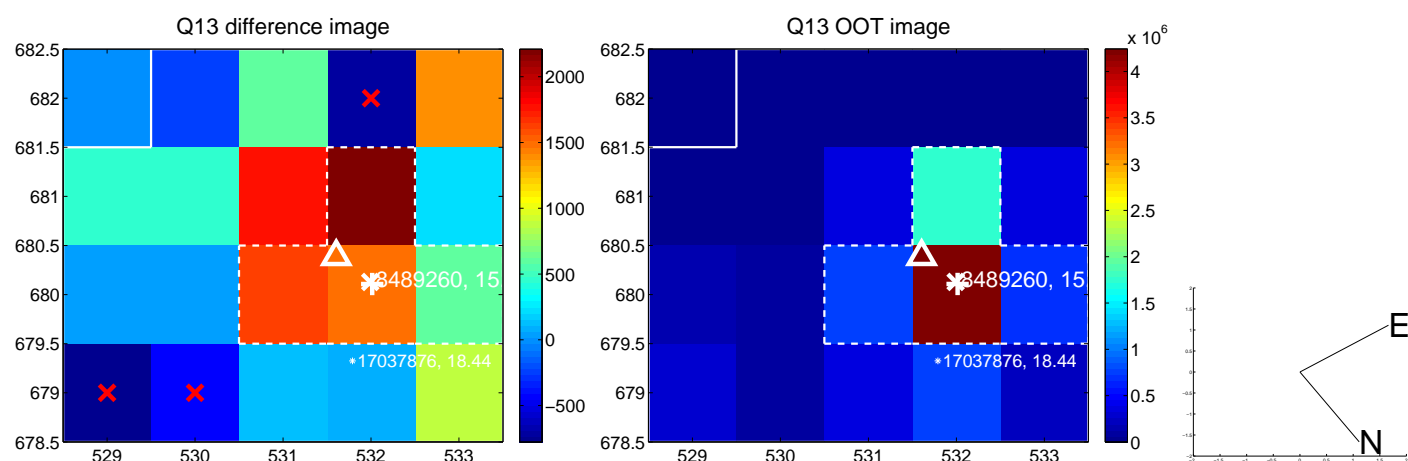
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



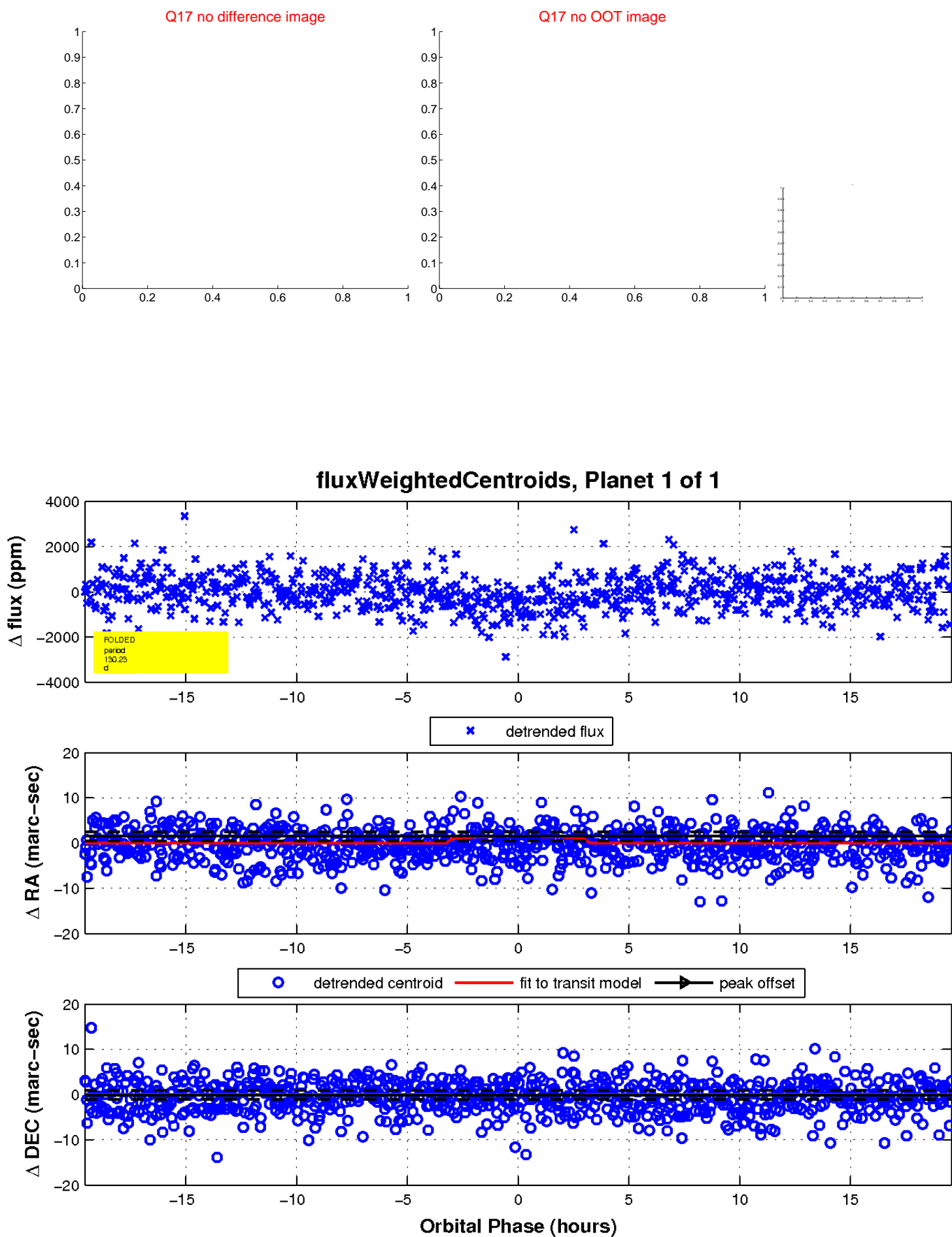
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

