

KIC 006069674

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})
006069674-01	OBS	7761.01	495.707757	450.036461	435.3	4.729	7.6	7.7	1.95	6054	4.72	2.81

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006069674-01	OBS	FP	0.25	1	0	0	0	MOD_NONUNIQ_ALT—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.

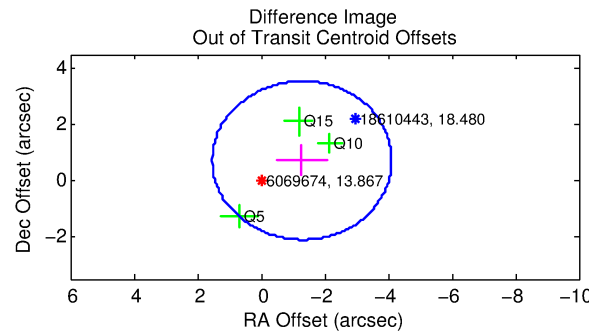
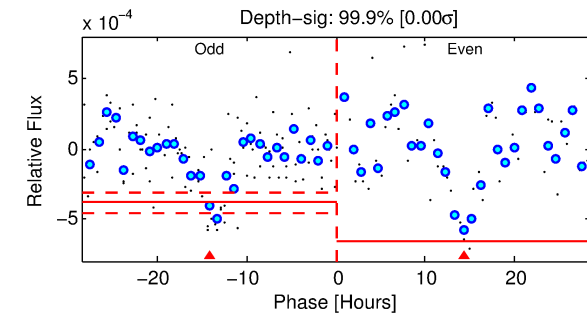
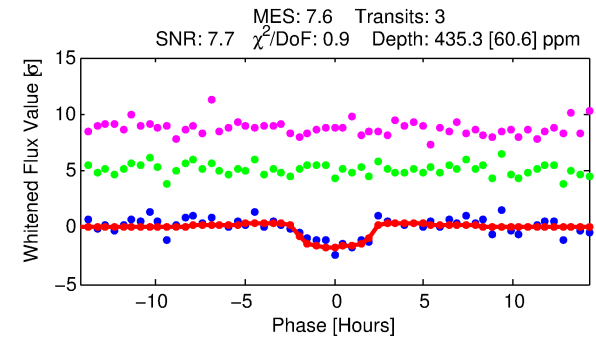
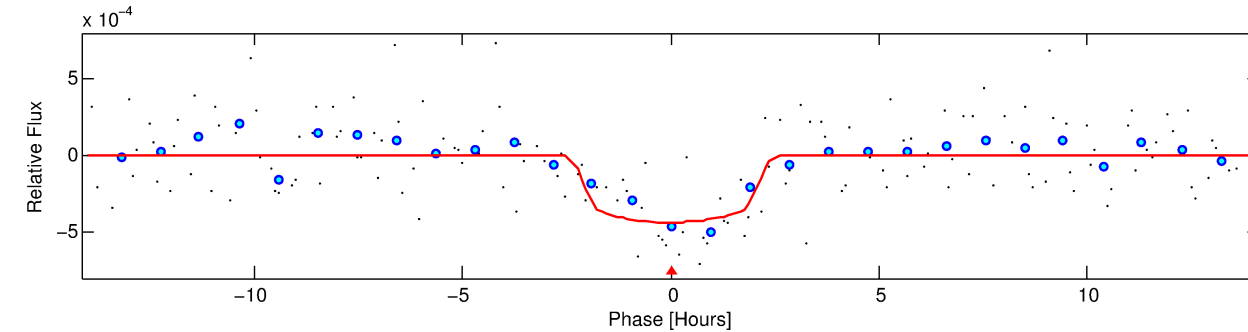
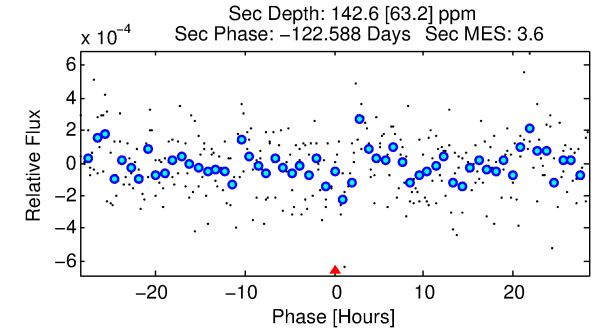
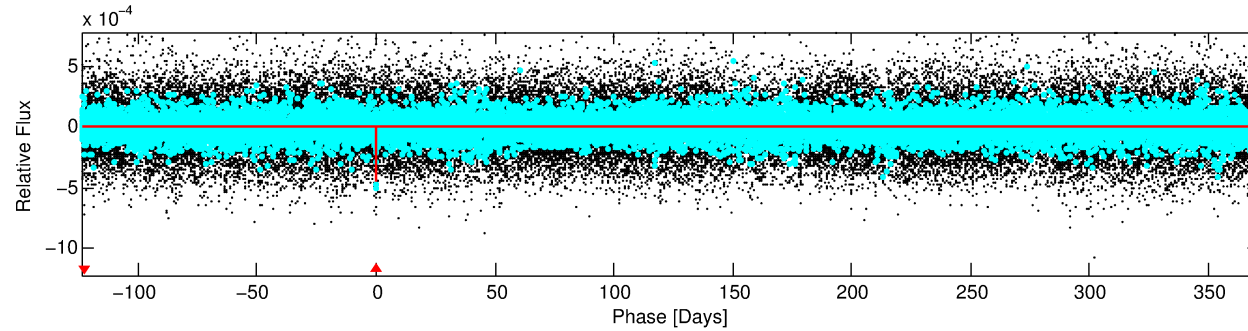
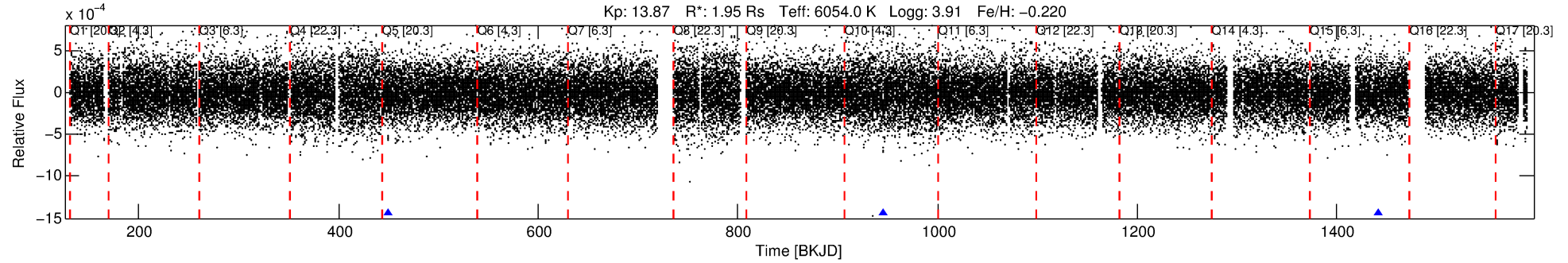
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006069674-01

No Significant Match Found

DV One-Page Summary

KIC: 6069674 Candidate: 1 of 1 Period: 495.708 d



DV Fit Results:

Period = 495.70776 [0.00723] d
Epoch = 450.0365 [0.0097] BKJD
Rp/R* = 0.0221 [0.0102]
a/R* = 417.27 [961.52]
b = 0.88 [0.61]
Seff = 2.81 [2.24]
Teq = 330 [66] K
Rp = 4.72 [3.06] Re
a = 1.2783 [0.6044] AU
Ag = 5763.70 [7429.34] [0.78σ]
Teffp = 4447 [1146] K [3.59σ]

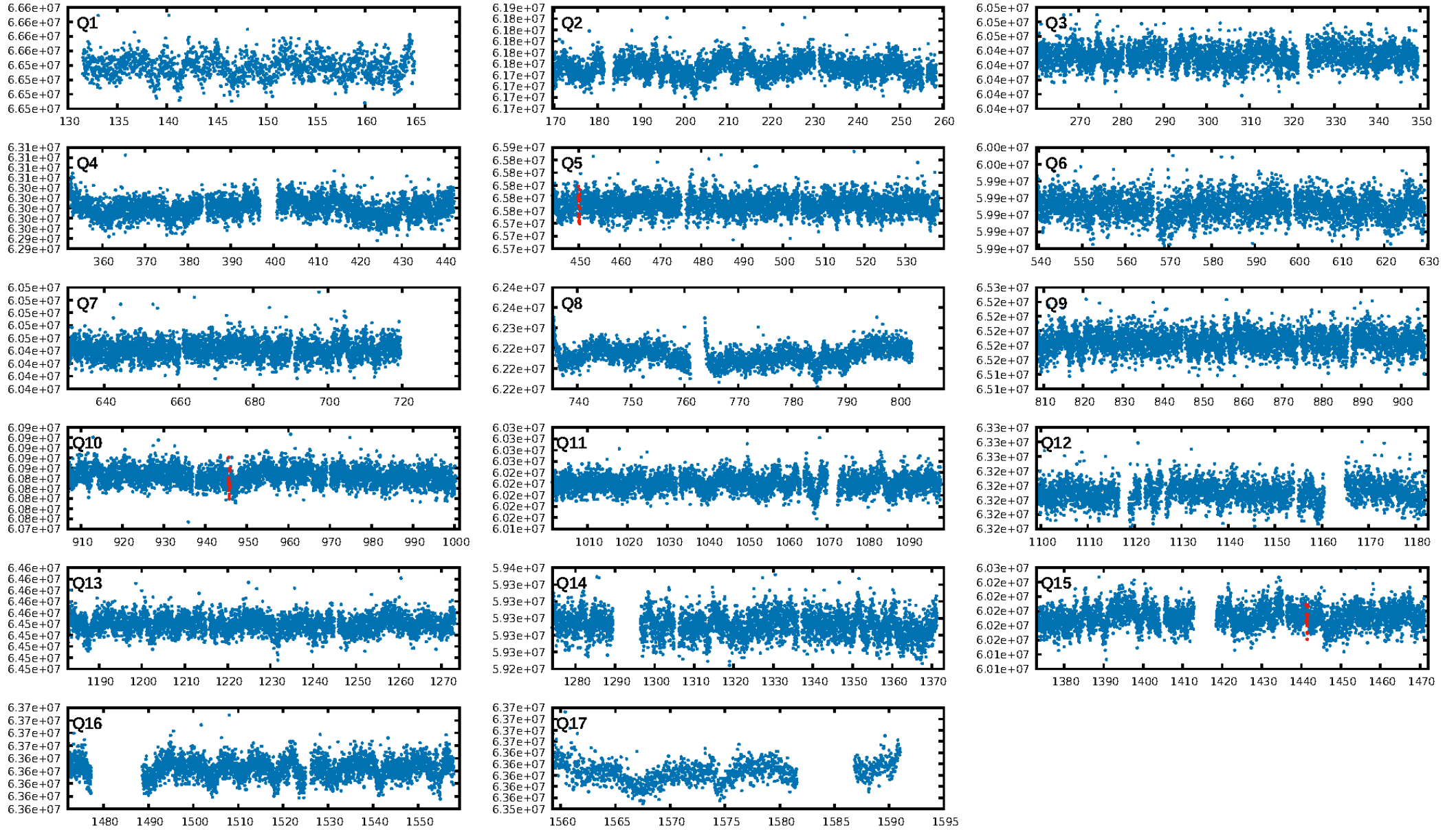
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 53.1%
ModelChiSquareGof-sig: 98.4%
Bootstrap-pfa: 1.08e-14
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 11.93
Centroid-sig: 63.4%
Centroid-so: 1.015 arcsec [0.54σ]
OotOffset-rm: 1.475 arcsec [1.57σ]
KicOffset-rm: 1.416 arcsec [1.53σ]
OotOffset-st: 1/1/0/1 [3]
KicOffset-st: 1/1/0/1 [3]
DiffImageQuality-fgm: 0.67 [2/3]
DiffImageOverlap-fno: 1.00 [3/3]

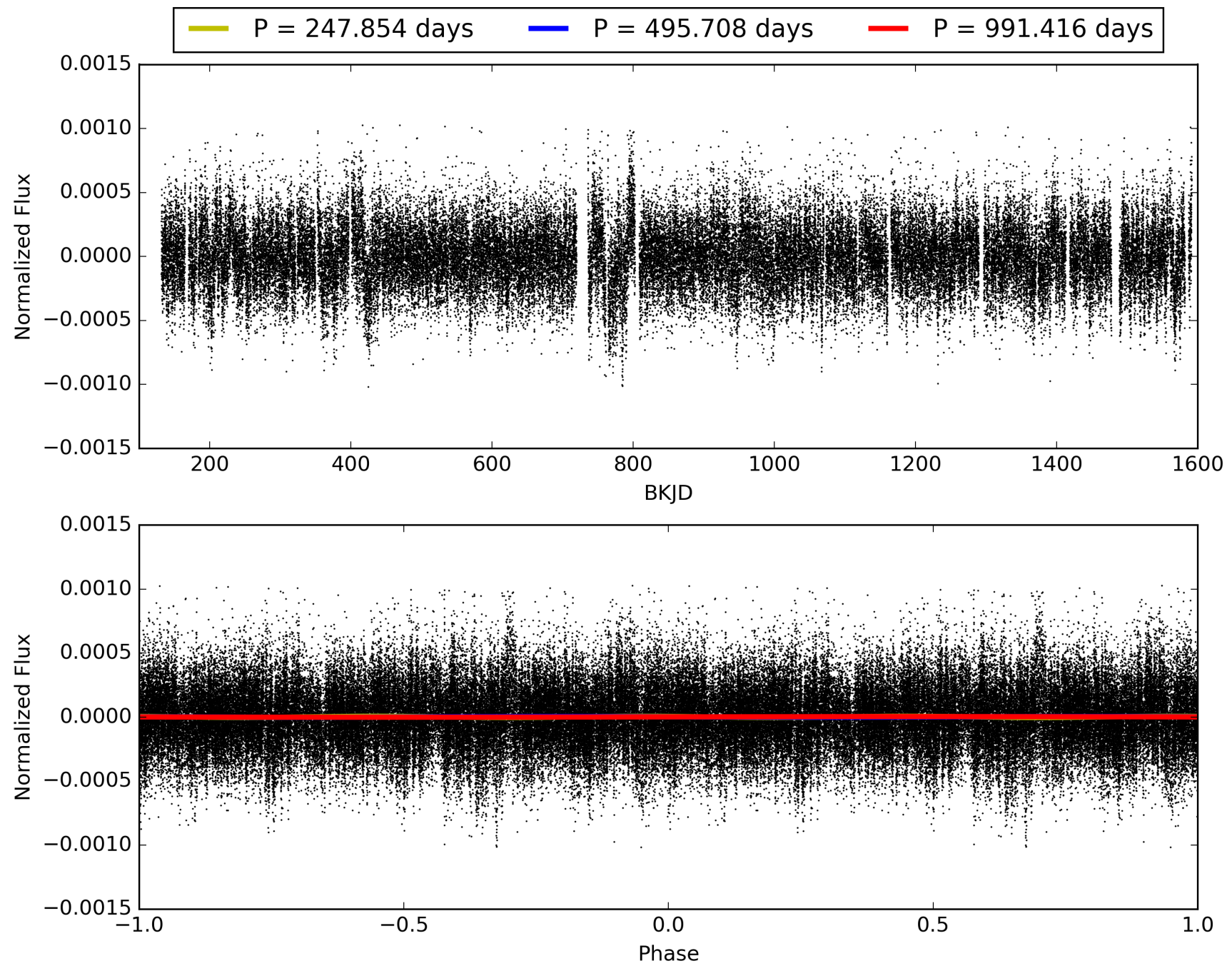
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 07:46:47 Z

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

TCE 006069674-01, PDC Light Curves

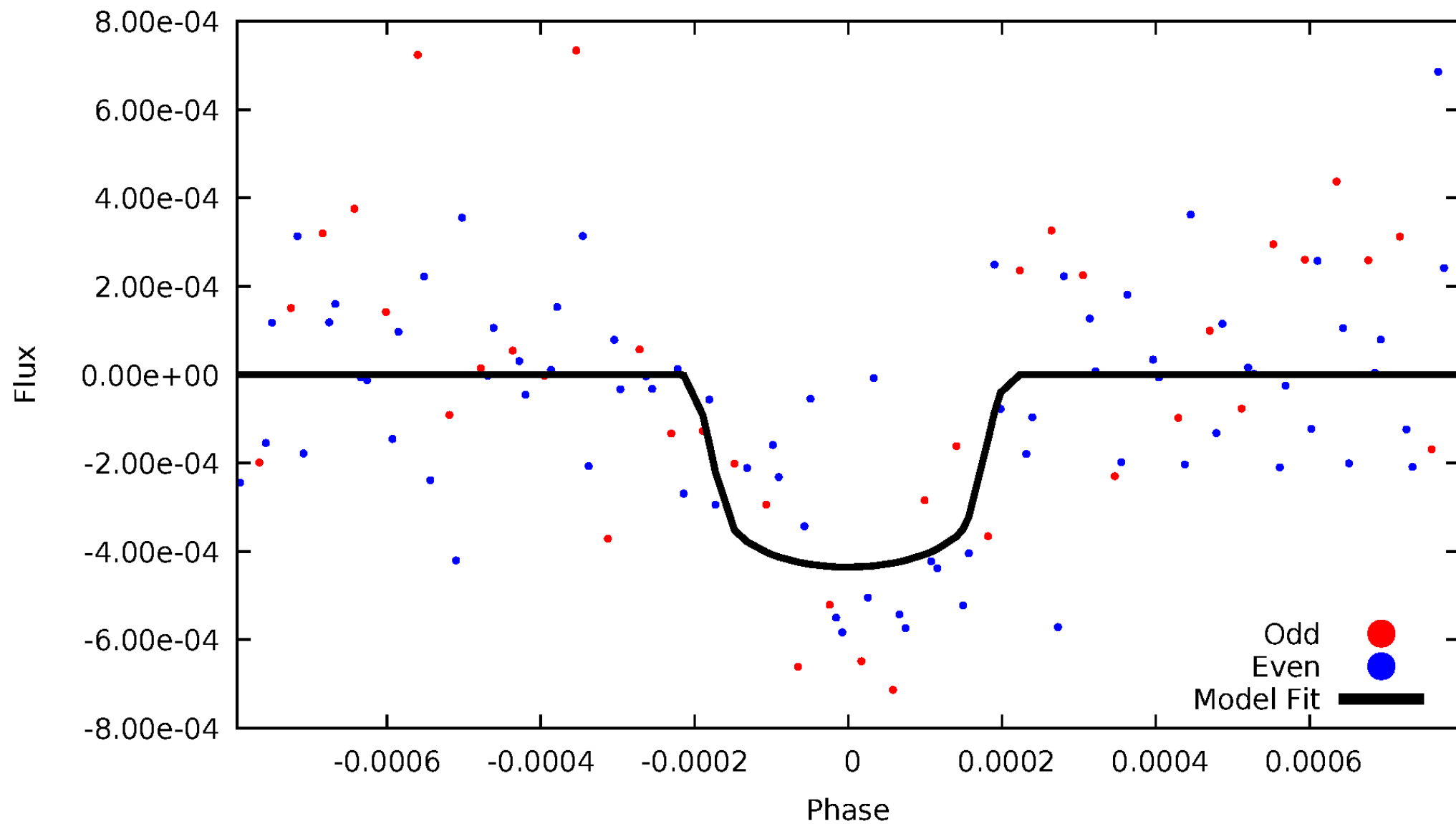


TCE 006069674-01



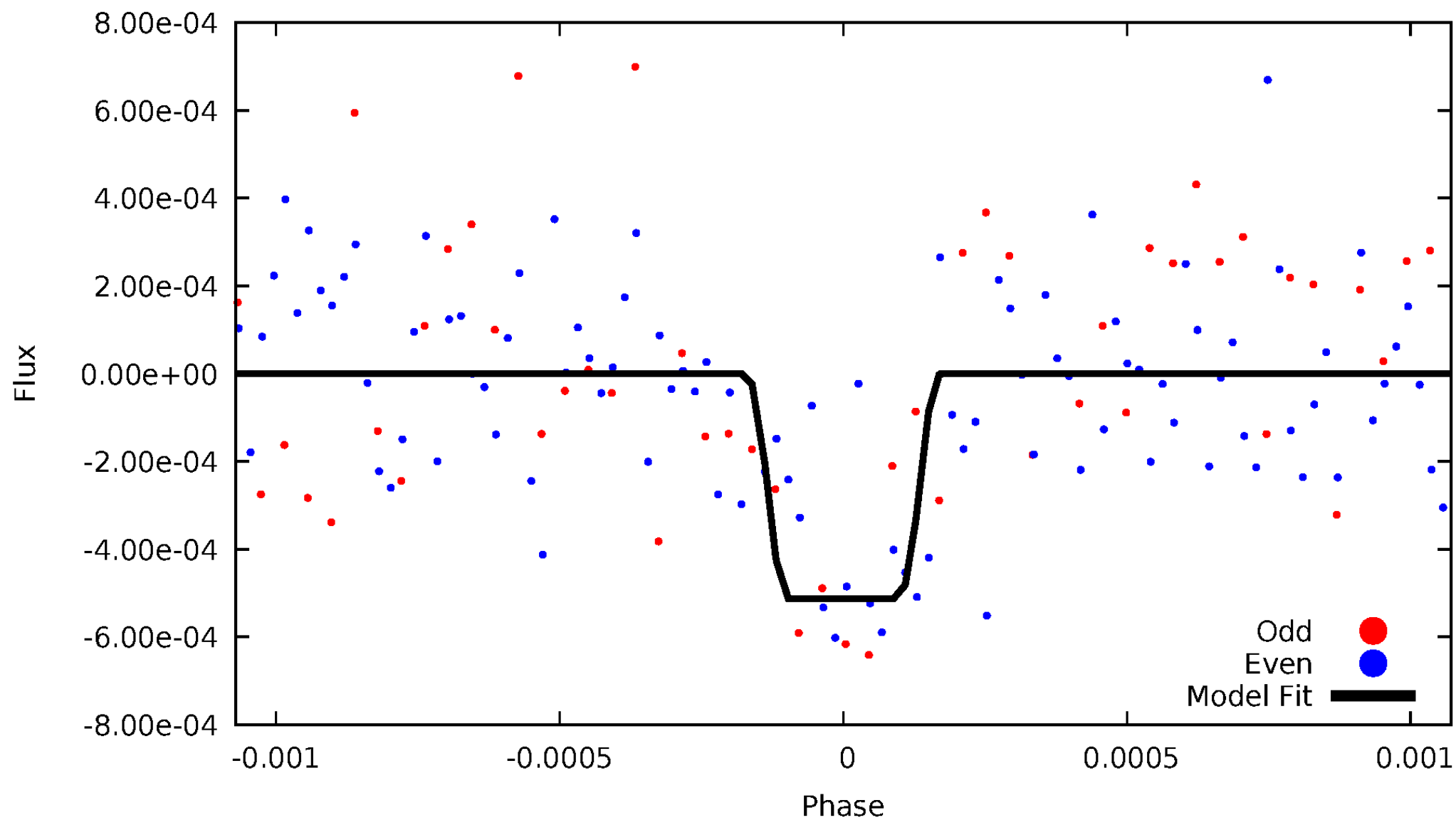
DV Odd/Even

TCE 006069674-01

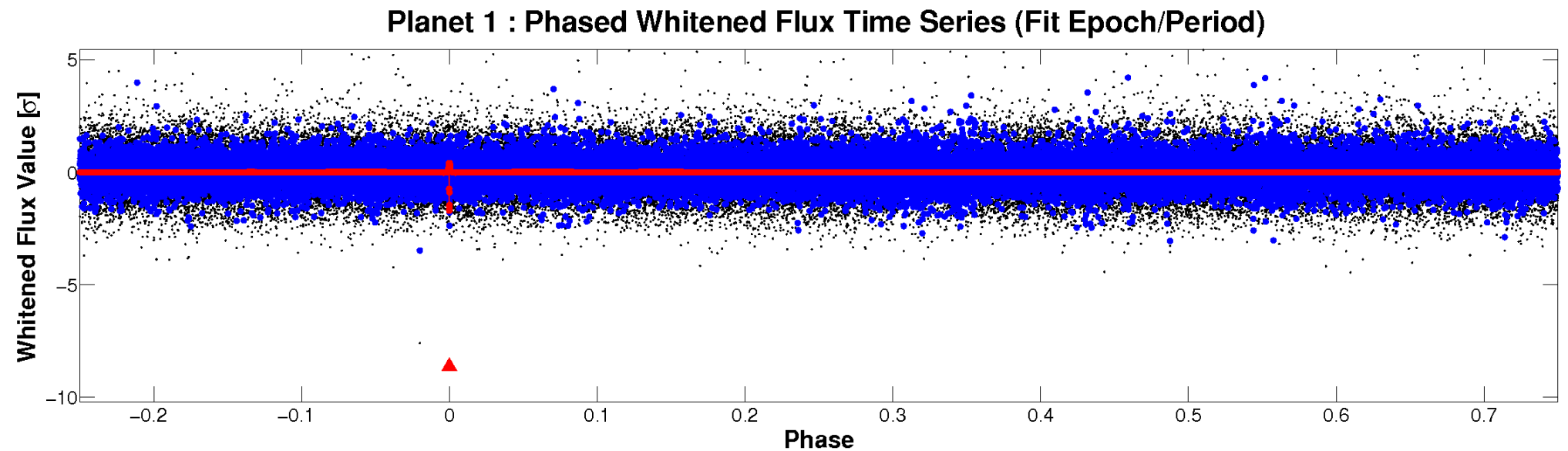
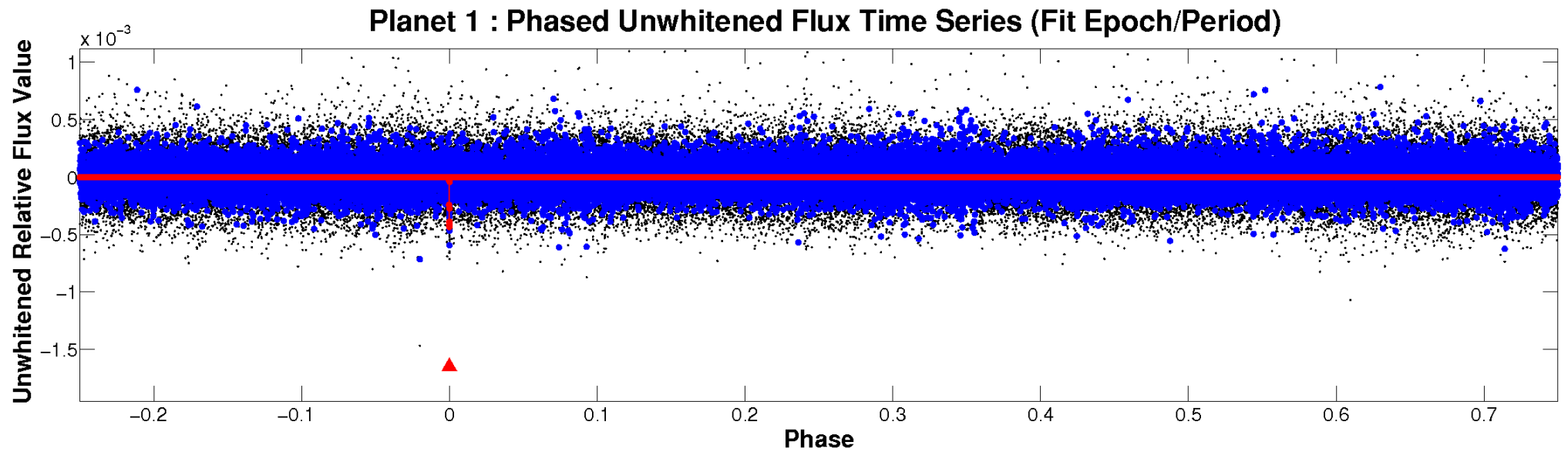


ALT Odd/Even

TCE 006069674-01

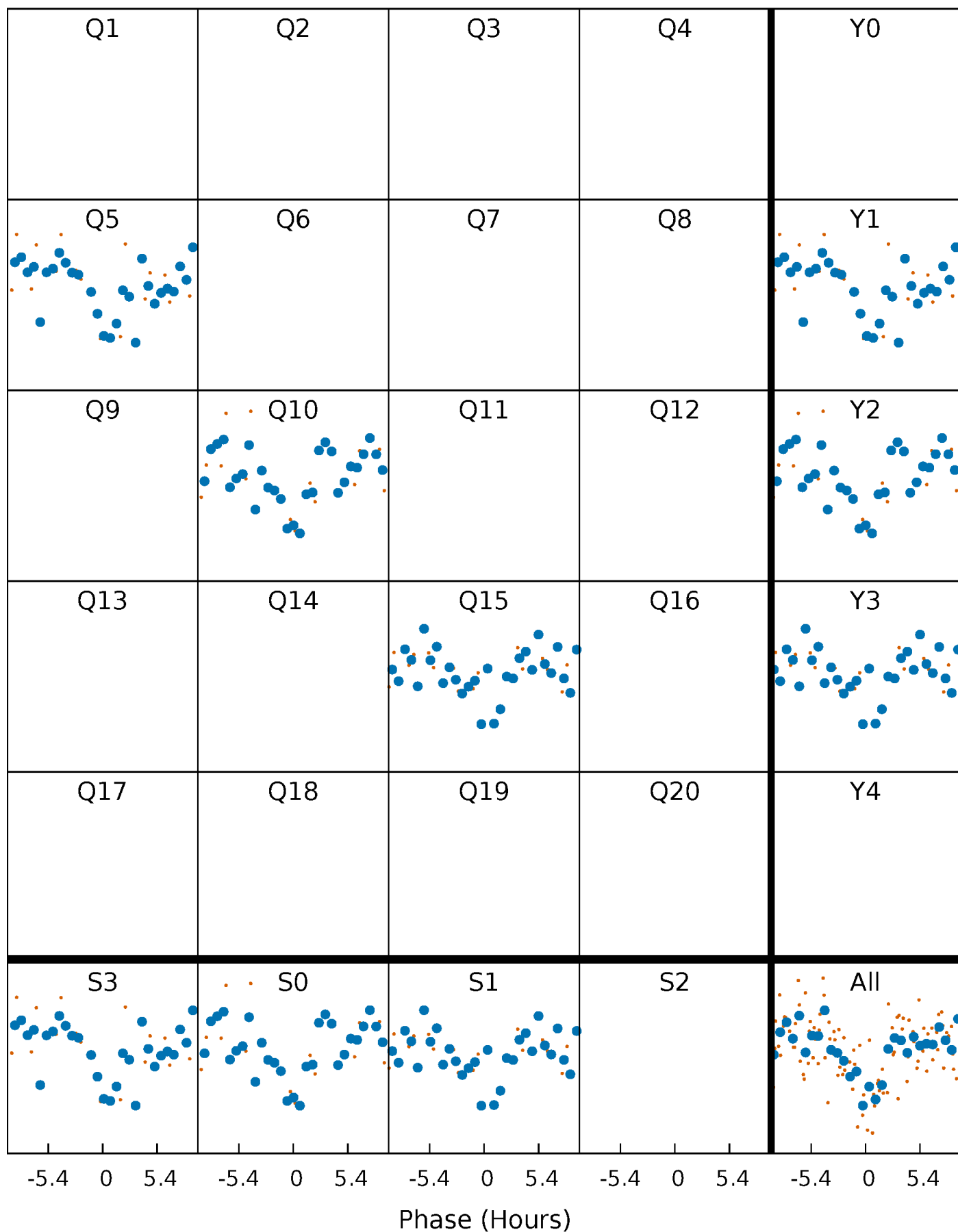


Non-Whitened Vs. Whitened Light Curve



PDC Quarter-Phased Transit Curves

TCE 006069674-01 P=495.707757 Days $T_0=450.036461$ (BKJD)



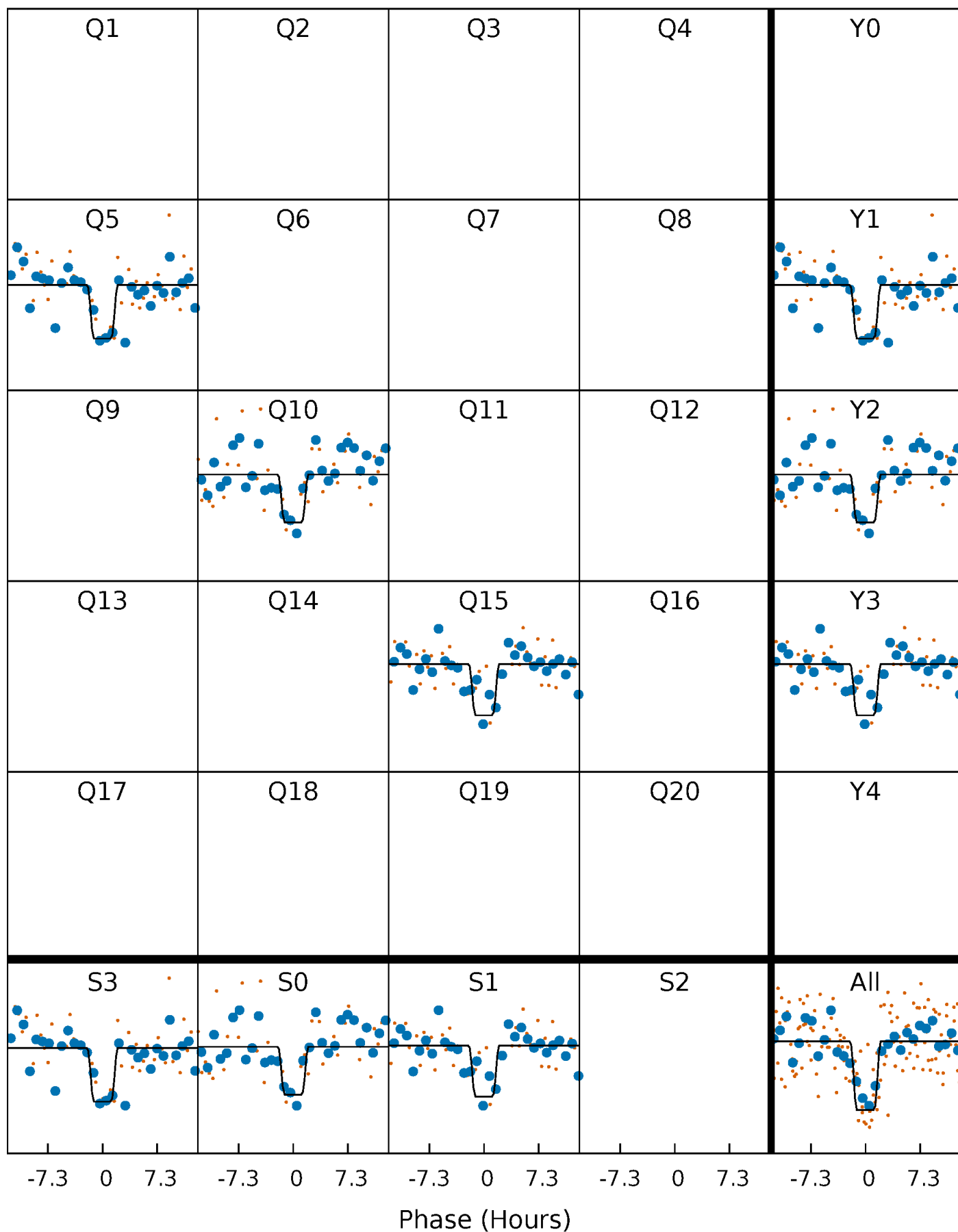
DV Quarter-Phased Transit Curves

TCE 006069674-01 P=495.707757 Days $T_0=450.036461$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

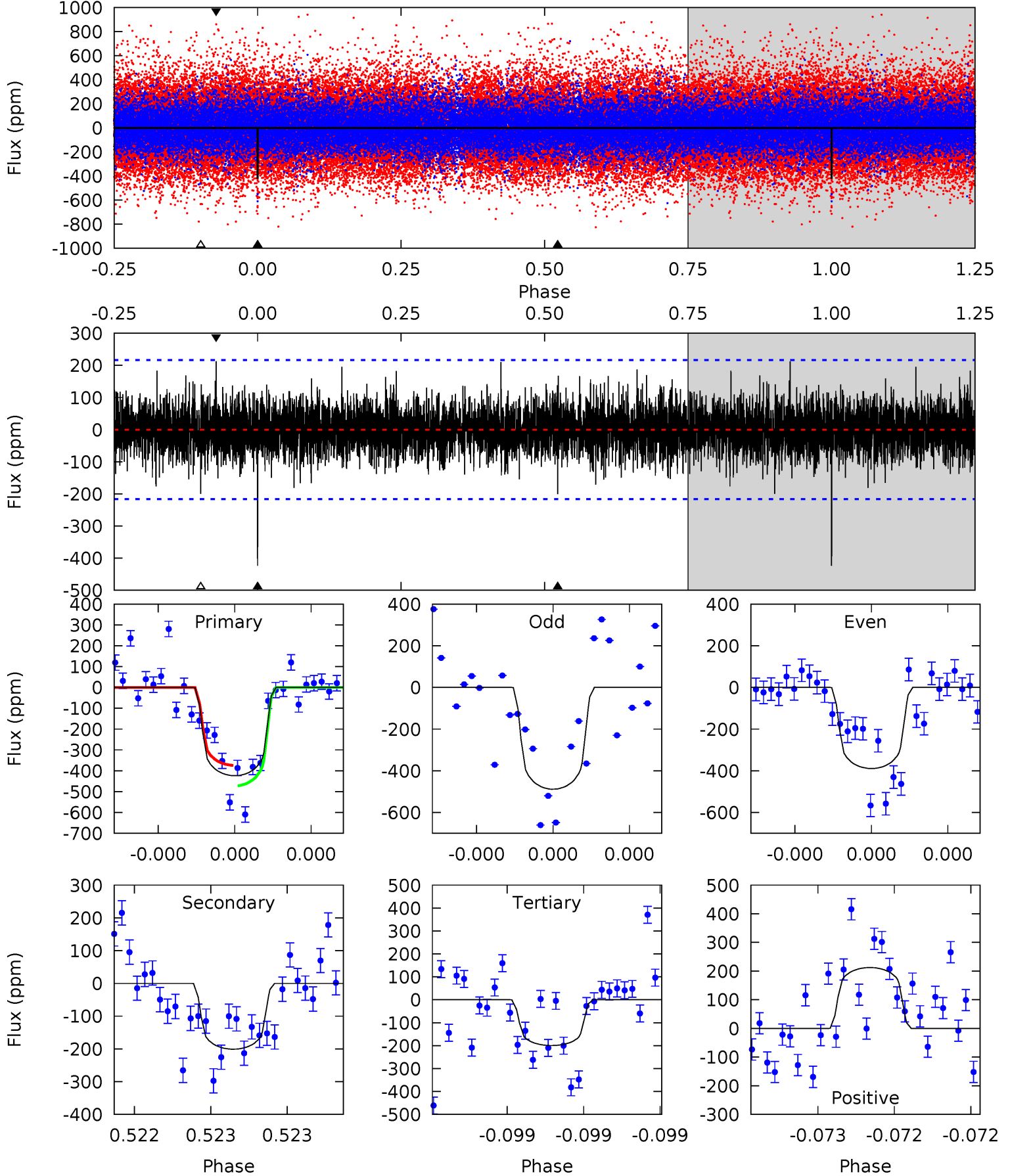
TCE 006069674-01 P=495.704543 Days $T_0=450.046101$ (BKJD)



DV Model-Shift Uniqueness Test

006069674-01, P = 495.707757 Days, E = 450.036461 Days

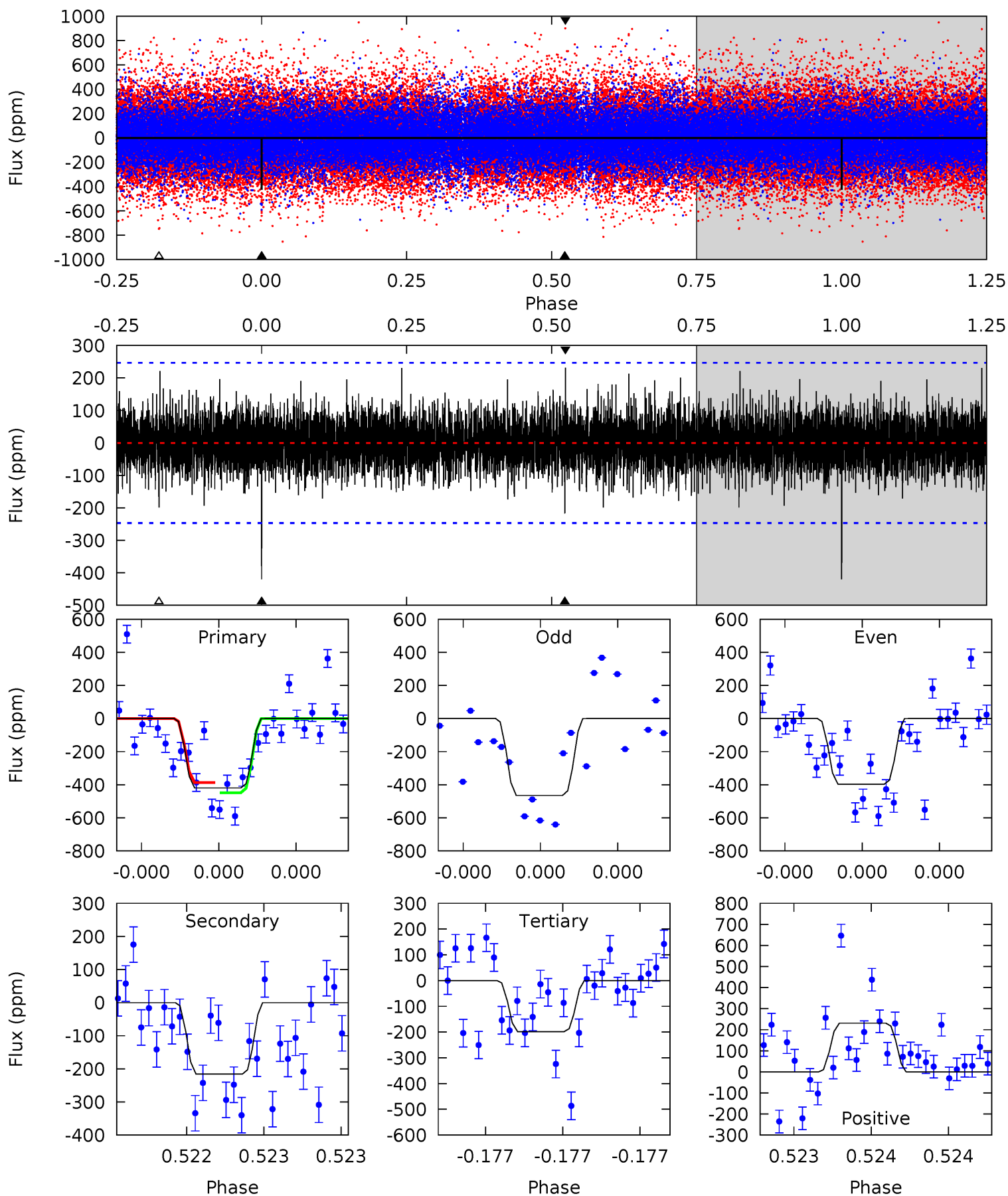
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.0	5.20	5.17	5.50	5.61	3.53	1.30	5.80	5.47	0.03	-0.30	1.23	0.96	0.33	1.27



Alt Model-Shift Uniqueness Test

006069674-01, P = 495.704543 Days, E = 450.046101 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.62	4.95	4.56	5.30	5.66	3.61	1.23	5.06	4.32	0.39	-0.35	0.74	0.94	0.36	0.69



Stellar Parameters For KIC 006069674

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6054^{+201}_{-201}	$3.911^{+0.472}_{-0.118}$	$-0.220^{+0.300}_{-0.300}$	$1.953^{+0.479}_{-0.890}$	$1.135^{+0.178}_{-0.218}$	$0.214^{+0.922}_{-0.093}$
	+3%/-3%	+12%/-3%	+136%/-136%	+25%/-46%	+16%/-19%	+430%/-44%
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 006069674-01 / KOI 7761.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-201 ± 39	$4.31^{+2.36}_{-2.00}$	446^{+38}_{-54}	4868^{+1523}_{-668}	9765^{+23334}_{-5832}
Alt.	-216 ± 44	$4.12^{+2.40}_{-1.82}$	448^{+36}_{-55}	4999^{+1640}_{-727}	11148^{+27436}_{-6633}

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

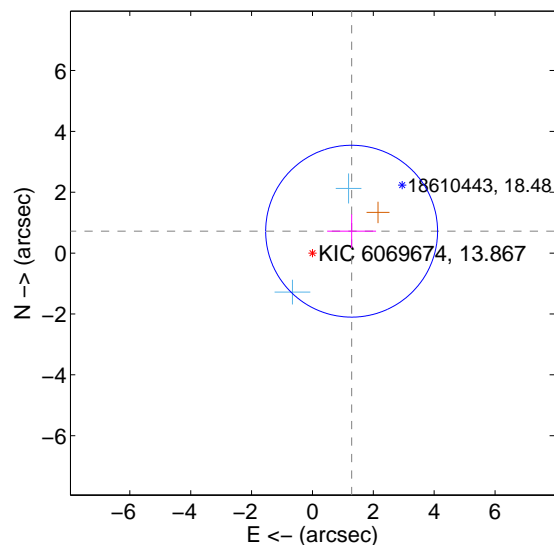
Supplemental centroid analysis for 006069674-01. Kepler magnitude: 13.87. Transit SNR 7.72

There are 2 quarters with good PRF difference image offsets

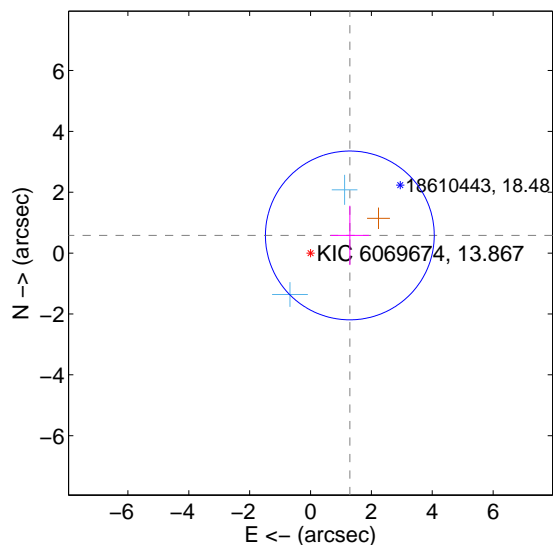
The direct PRF centroid is offset from the target star catalog position by about 0.08 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.475 ± 0.941	1.57	-1.287 ± 0.805	0.720 ± 0.553
PRF-fit source offset from KIC position	1.416 ± 0.924	1.53	-1.292 ± 0.631	0.581 ± 0.974
photometric centroid source offset	1.02 ± 1.87	0.54	0.97 ± 1.89	0.28 ± 1.69

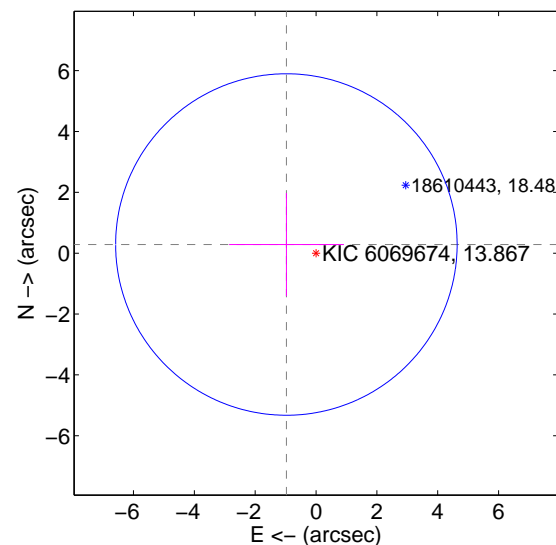
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position



offset from photometric centroids

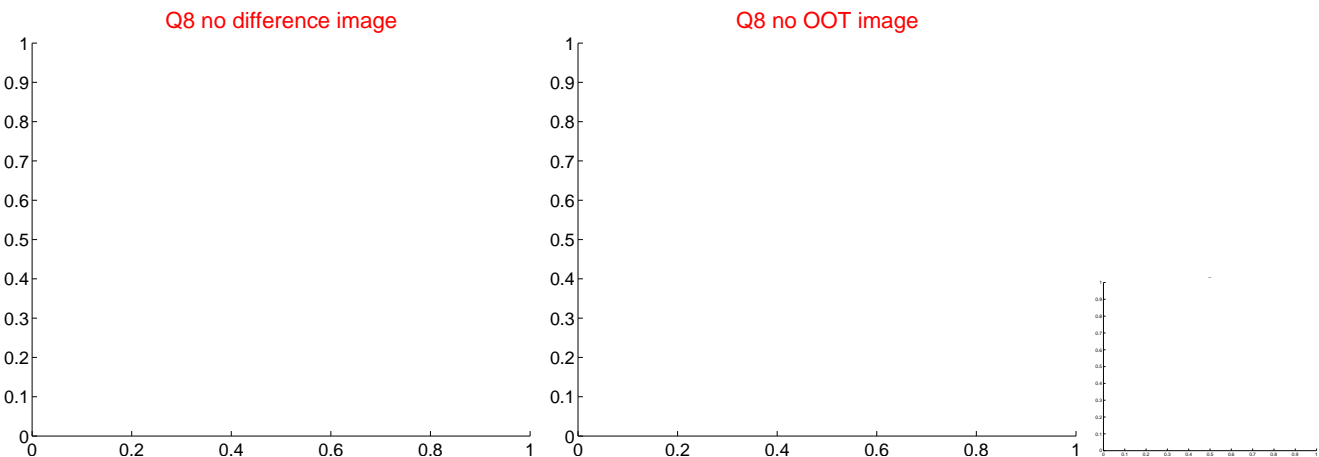
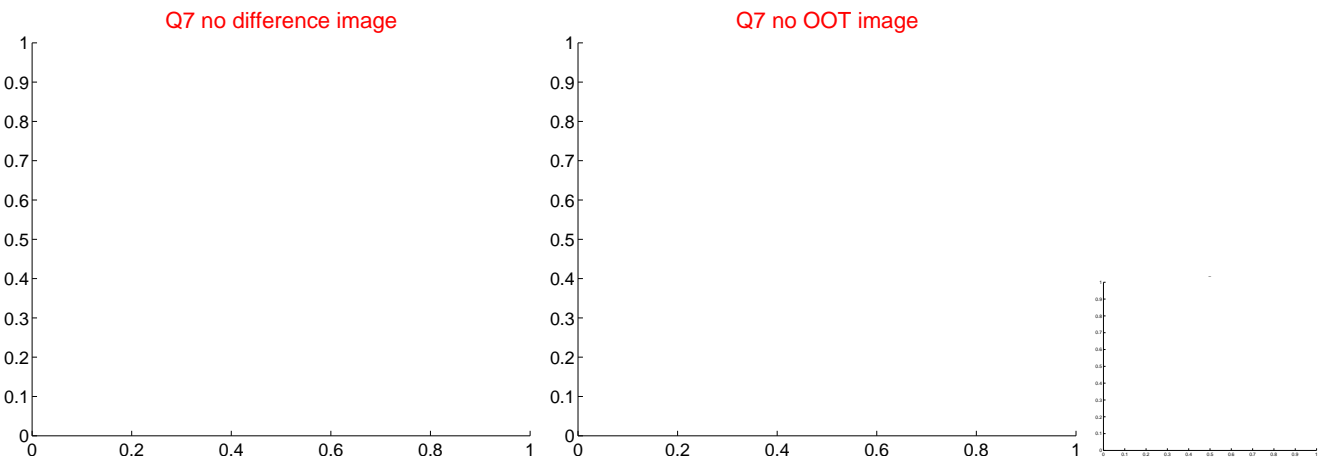
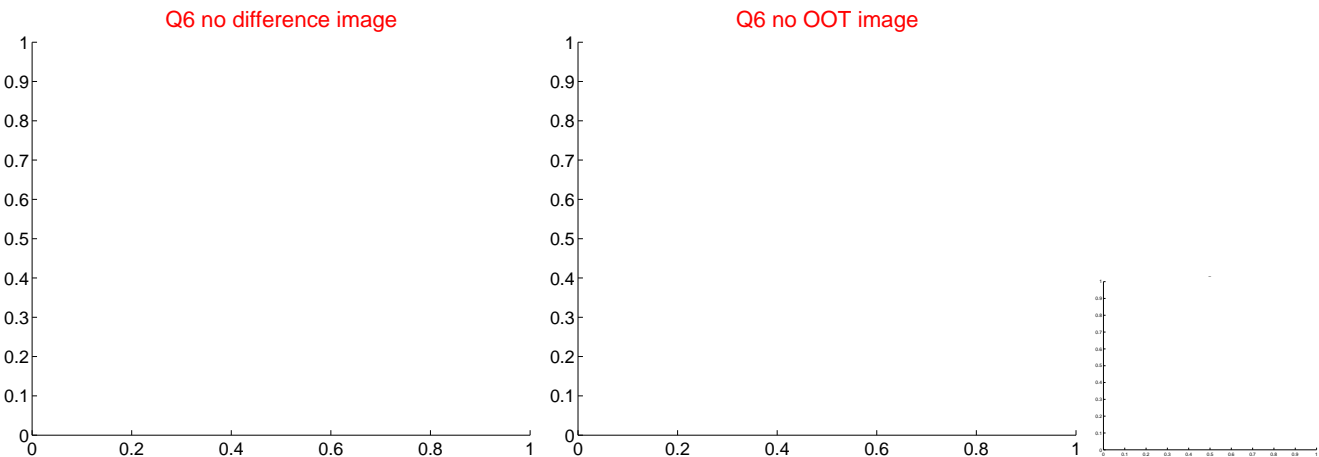
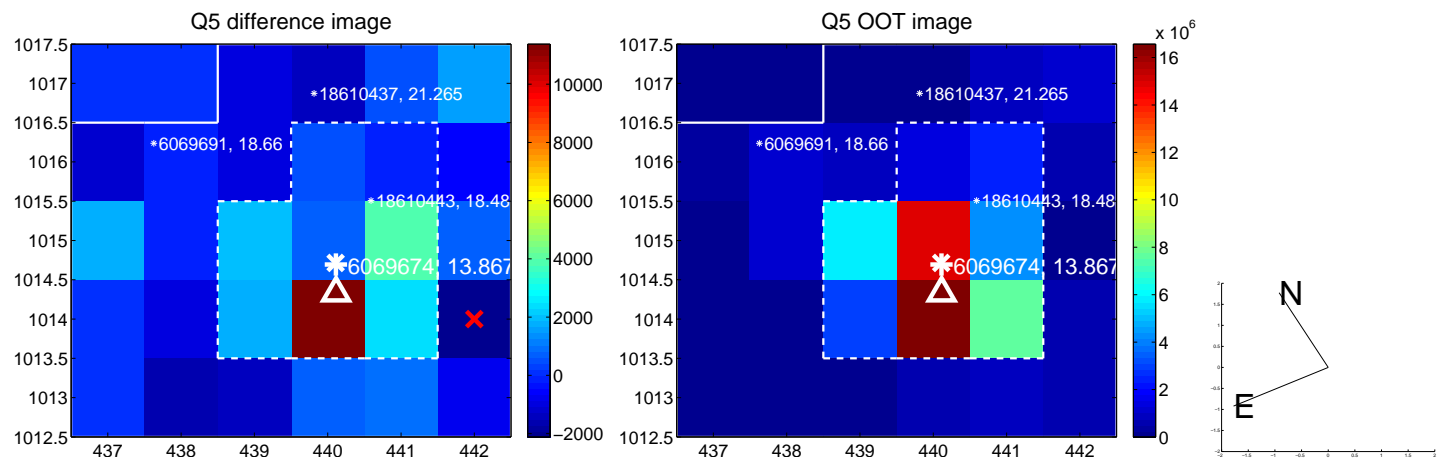


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

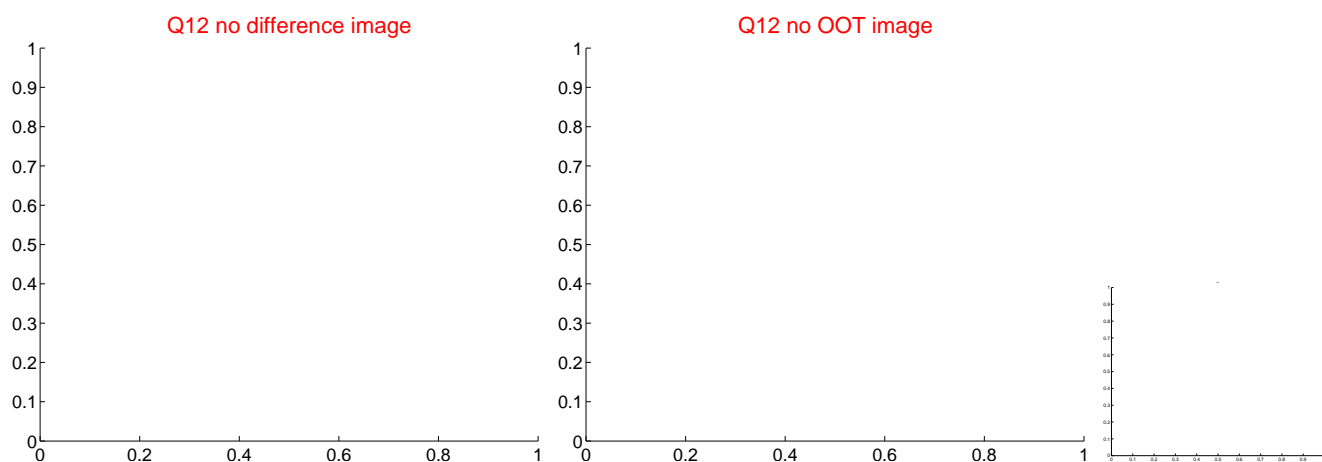
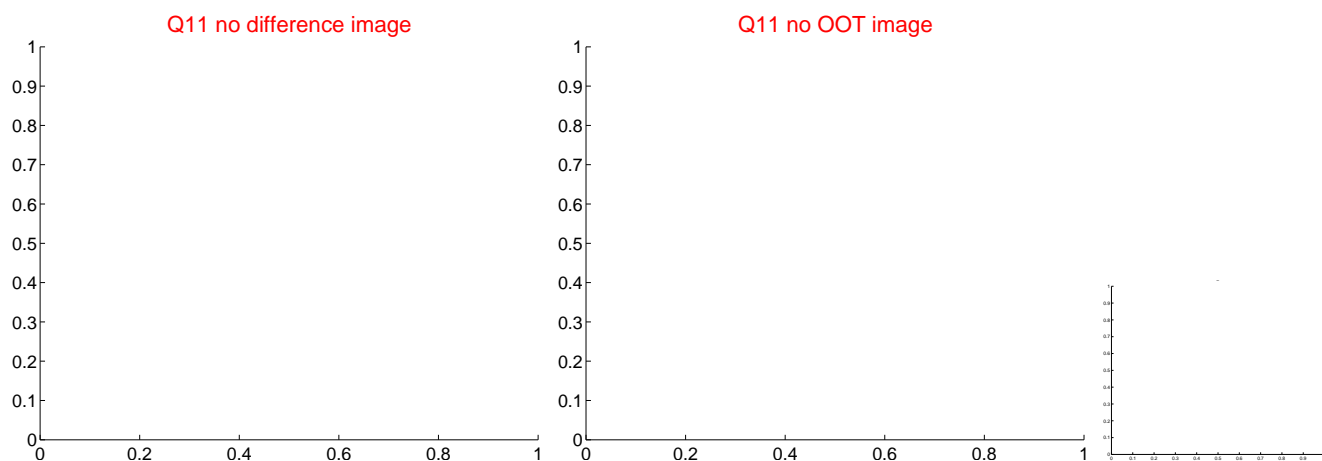
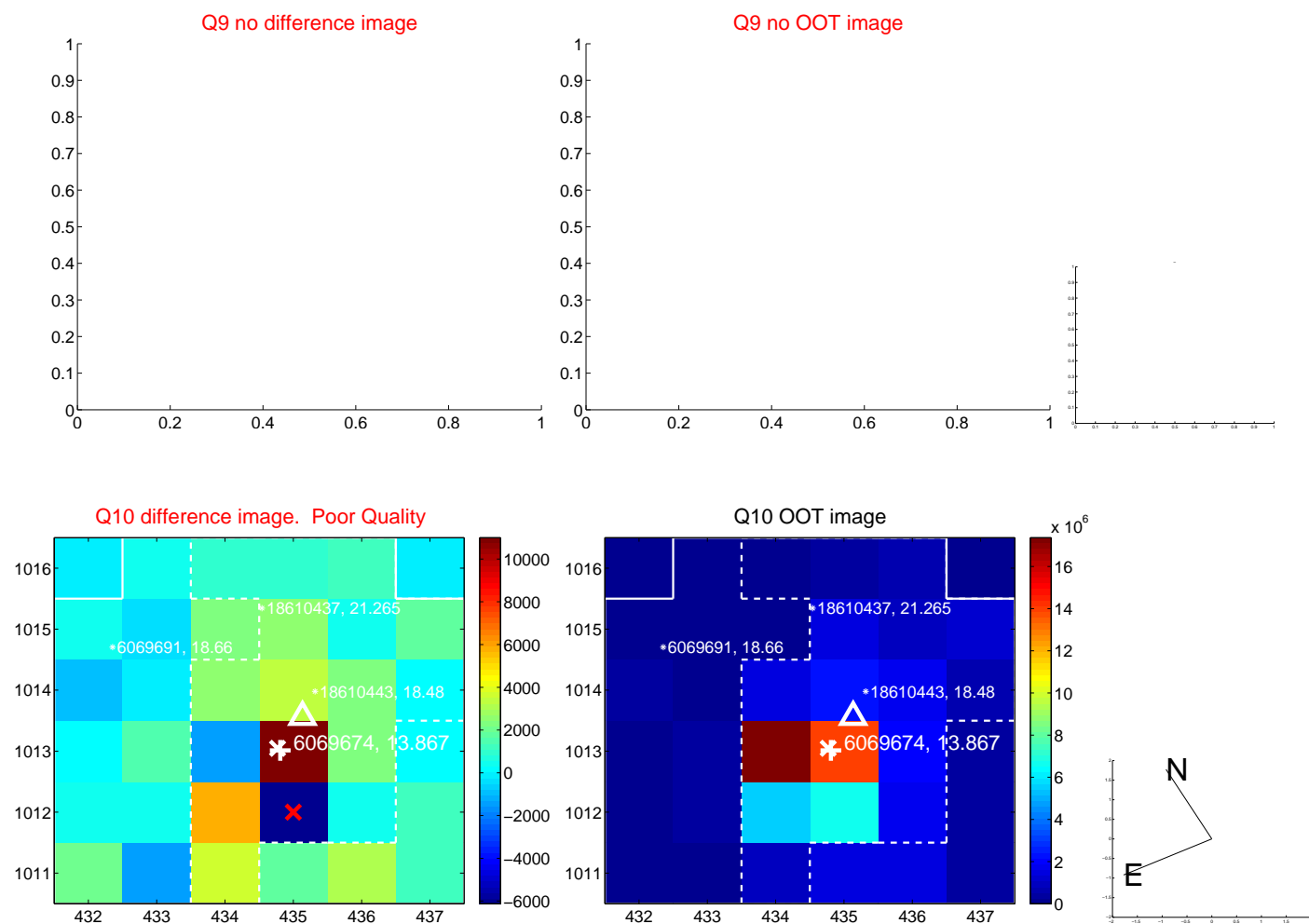
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



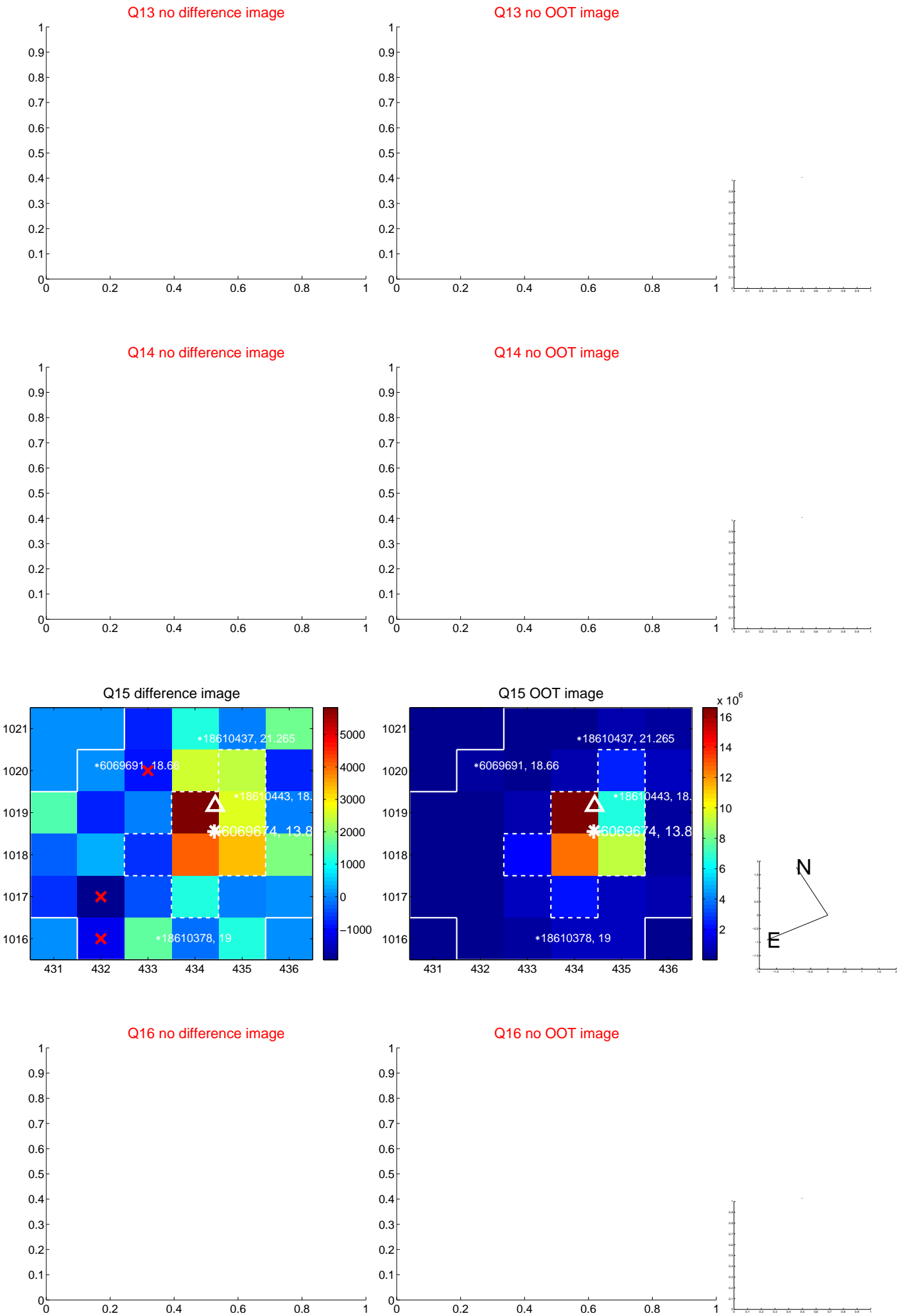
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



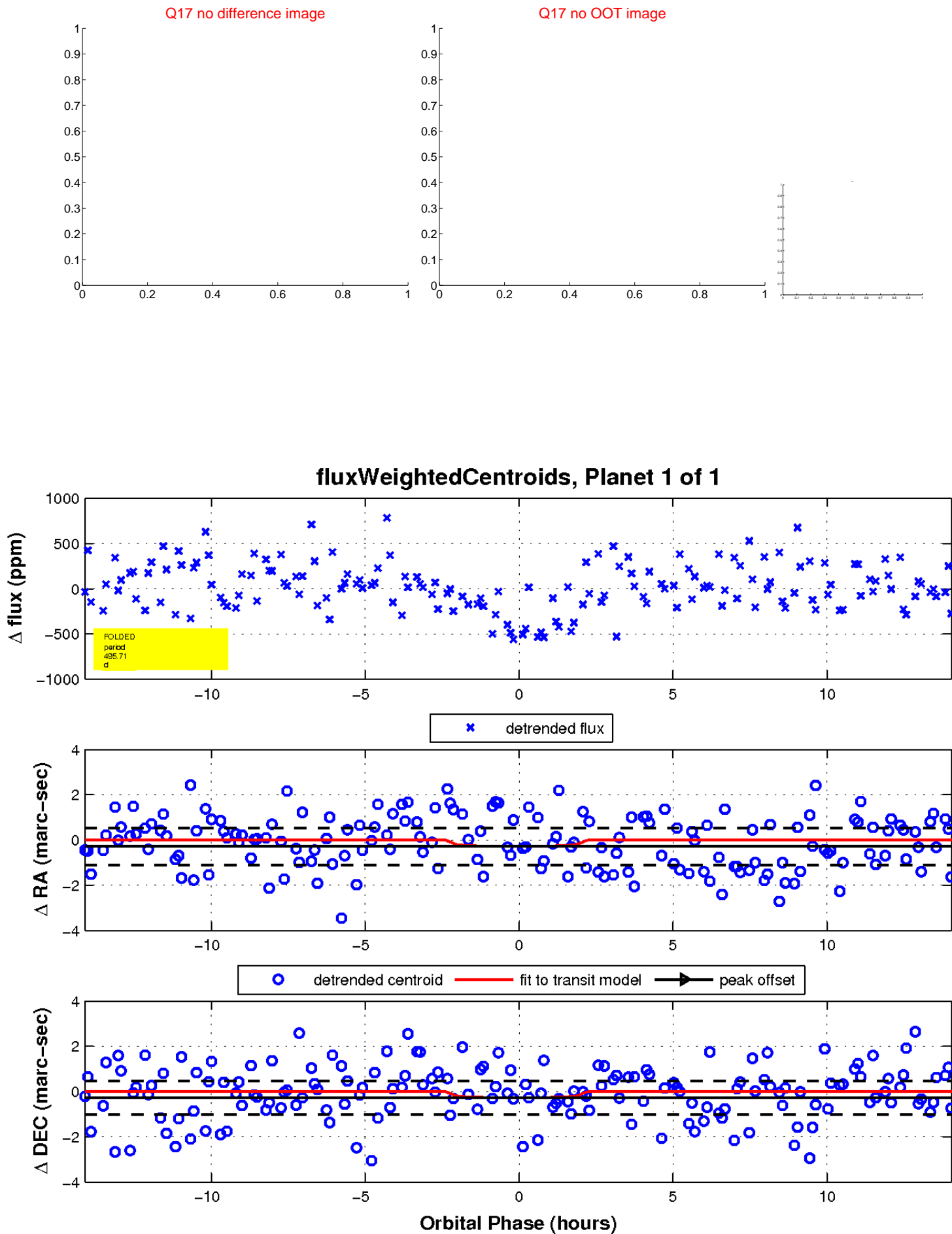
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



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



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



UKIRT Image

Declination

