

KIC 011081697

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})
011081697-01	OBS	No	508.498794	534.981733	511.2	9.567	8.4	7.9	1.81	5676	4.42	2.31

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011081697-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS—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.

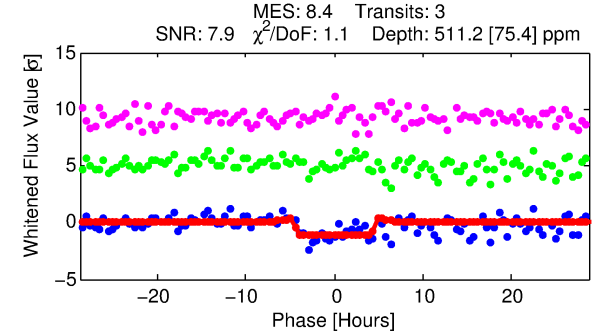
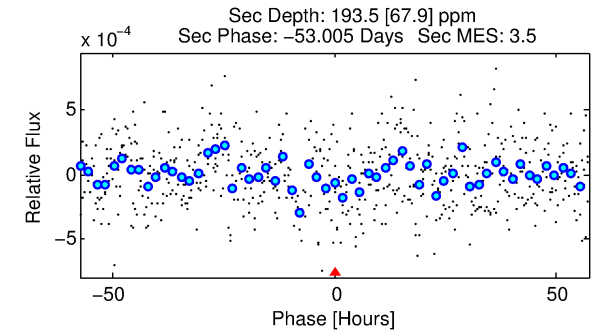
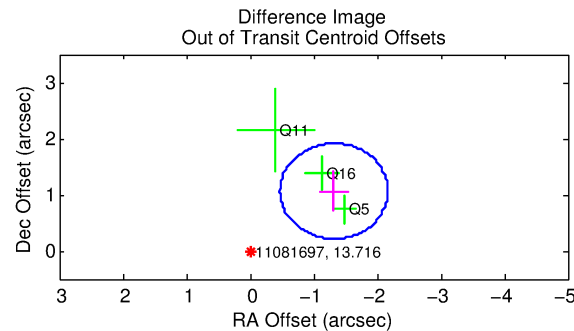
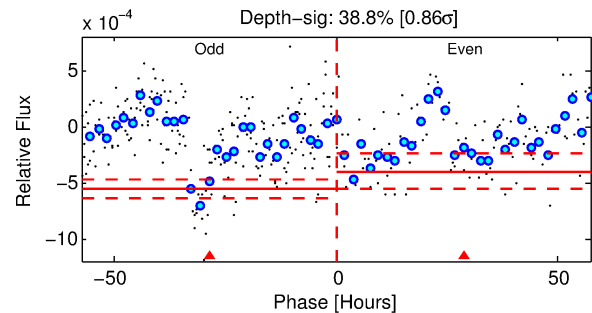
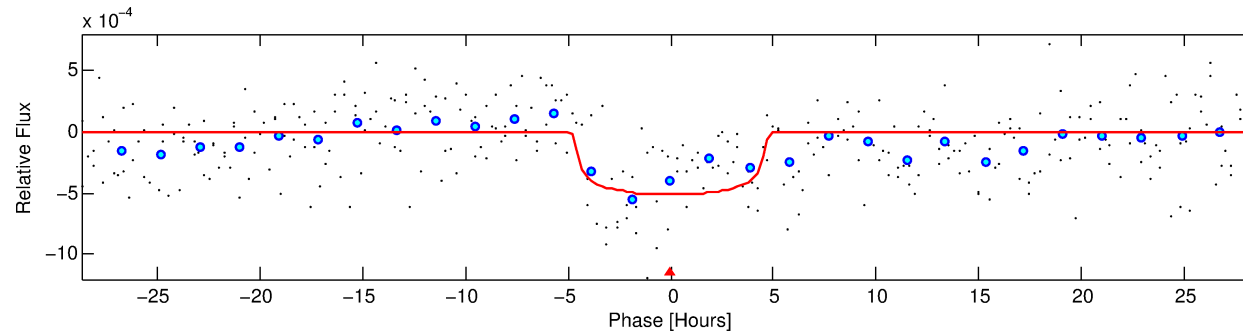
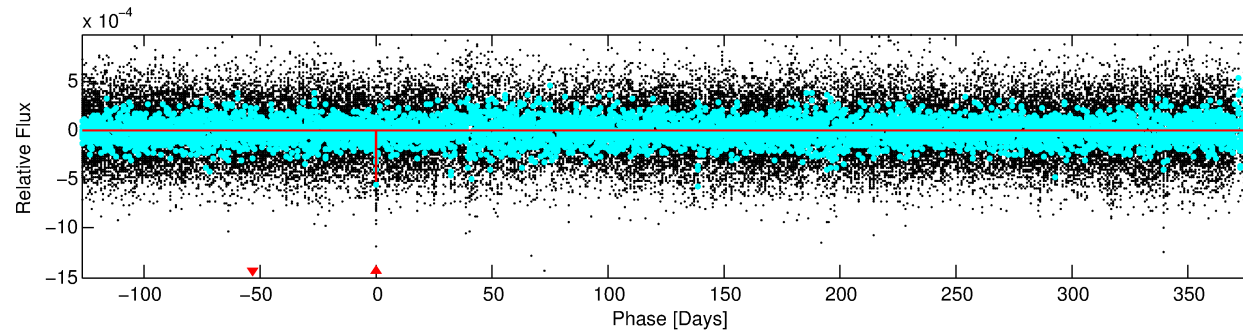
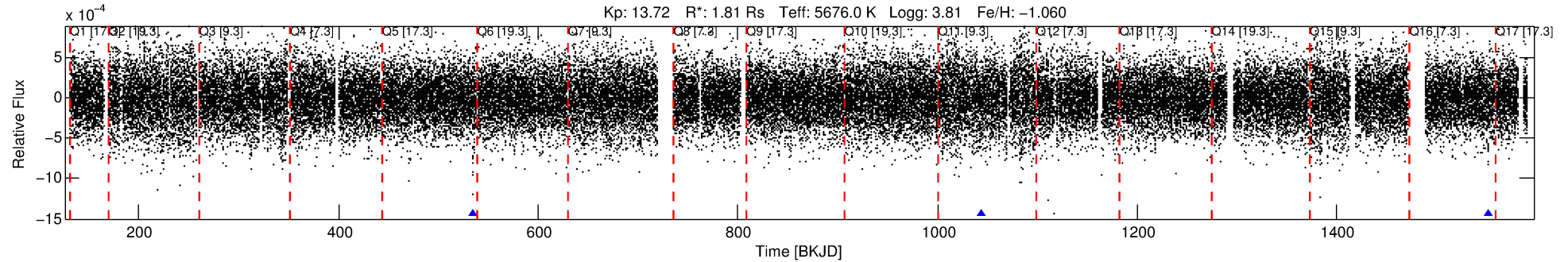
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011081697-01

No Significant Match Found

DV One-Page Summary

KIC: 11081697 Candidate: 1 of 1 Period: 508.499 d



DV Fit Results:

Period = 508.49879 [0.01328] d
Epoch = 534.9817 [0.0125] BKJD
Rp/R* = 0.0224 [0.0070]
a/R* = 289.98 [440.71]
b = 0.73 [0.98]
Seff = 2.32 [3.15]
Teq = 315 [107] K
Rp = 4.42 [3.06] Re
a = 1.1477 [0.8781] AU
Ag = 7186.02 [11015.67] [0.65 σ]
Teffp = 4478 [821] K [5.03 σ]

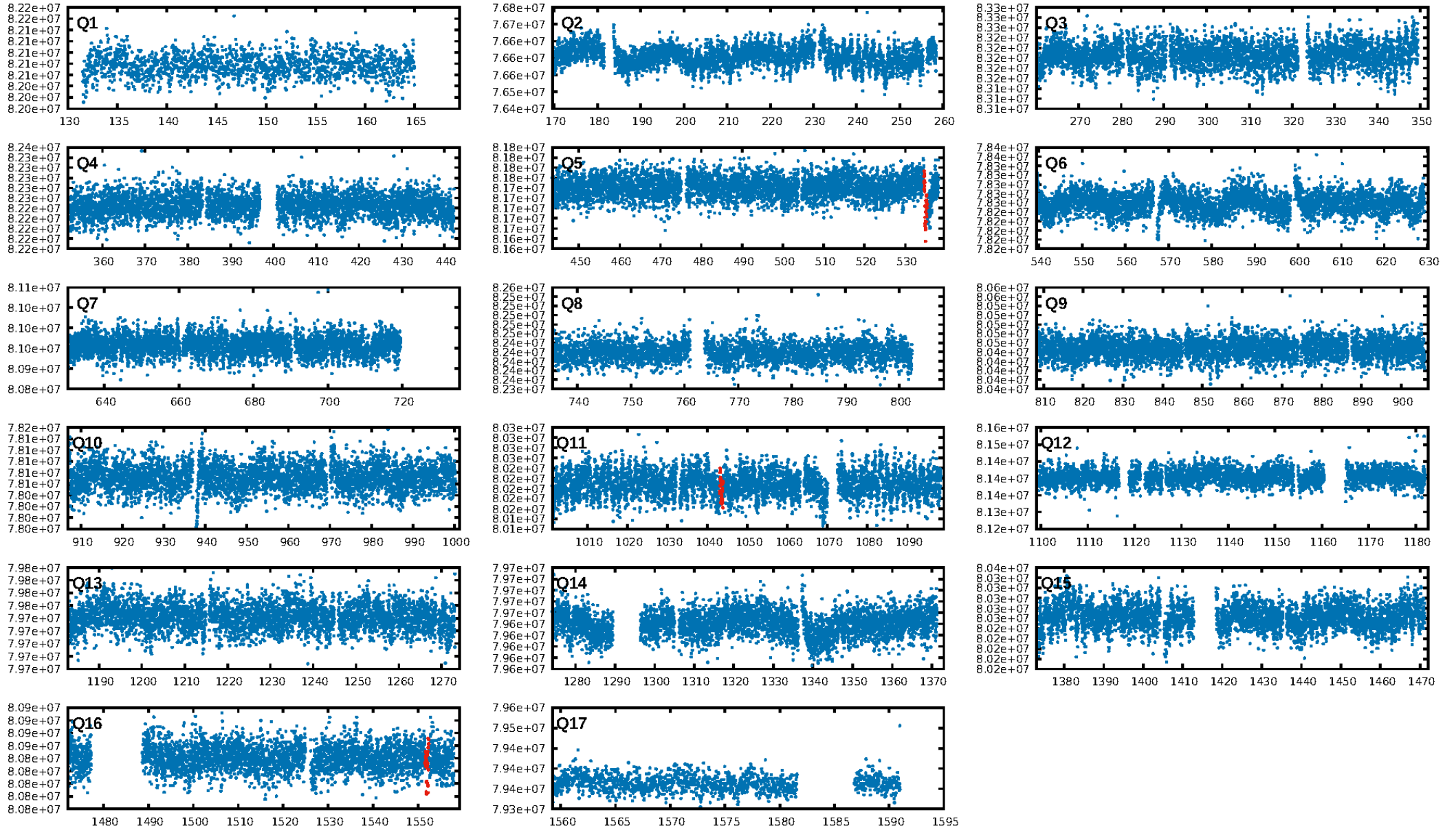
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 2.7%
ModelChiSquareGof-sig: 93.3%
Bootstrap-pfa: 6.97e-18
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 4.285
Centroid-sig: 2.9%
Centroid-so: 1.458 arcsec [1.76 σ]
OotOffset-rm: 1.694 arcsec [5.99 σ]
OotOffset-st: 0/1/1/1 [3]
KicOffset-rm: 0.740 arcsec [1.45 σ]
KicOffset-st: 0/1/1/1 [3]
DiffImageQuality-fgm: 1.00 [3/3]
DiffImageOverlap-fno: 1.00 [3/3]

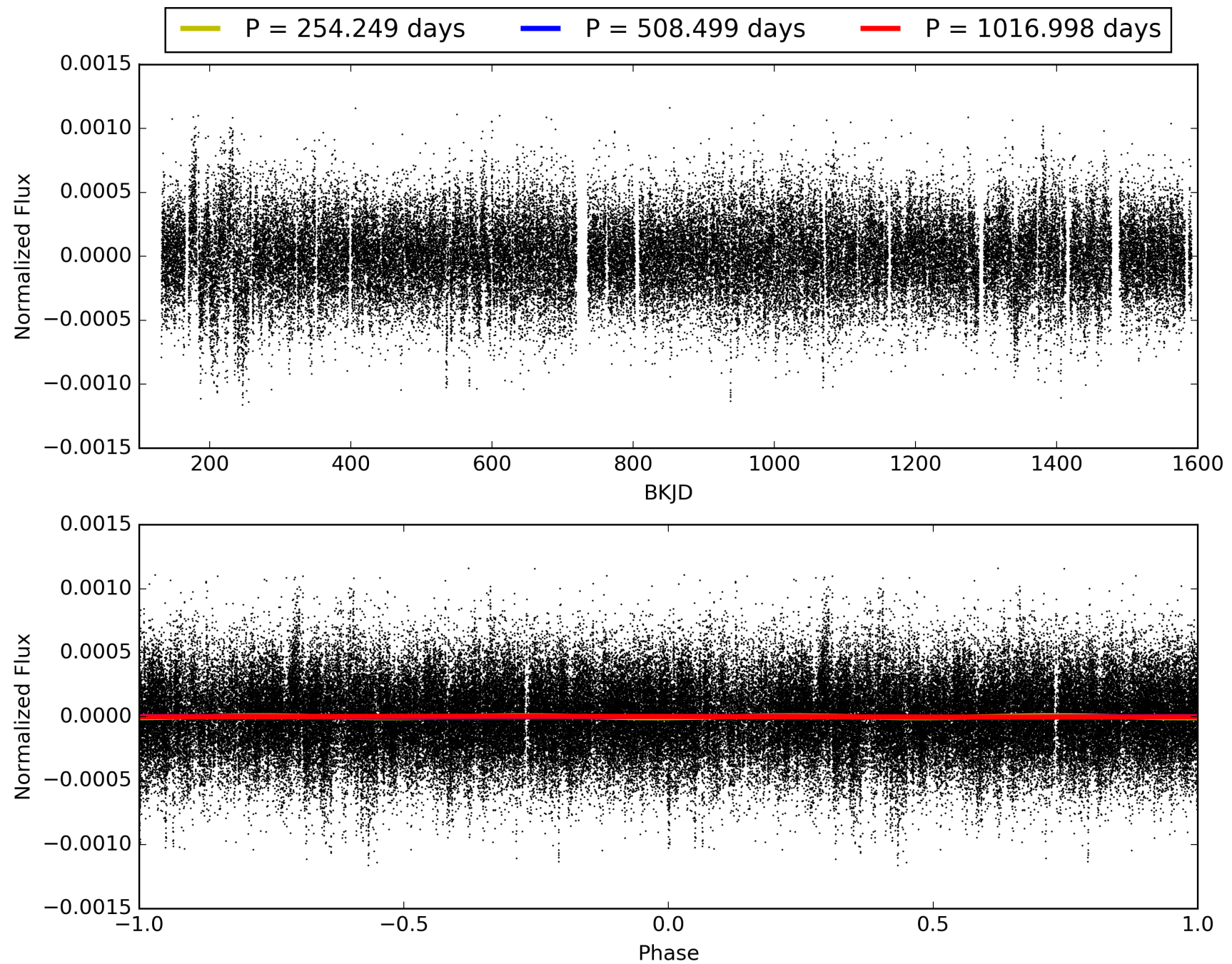
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 20:32:56 Z

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

TCE 011081697-01, PDC Light Curves

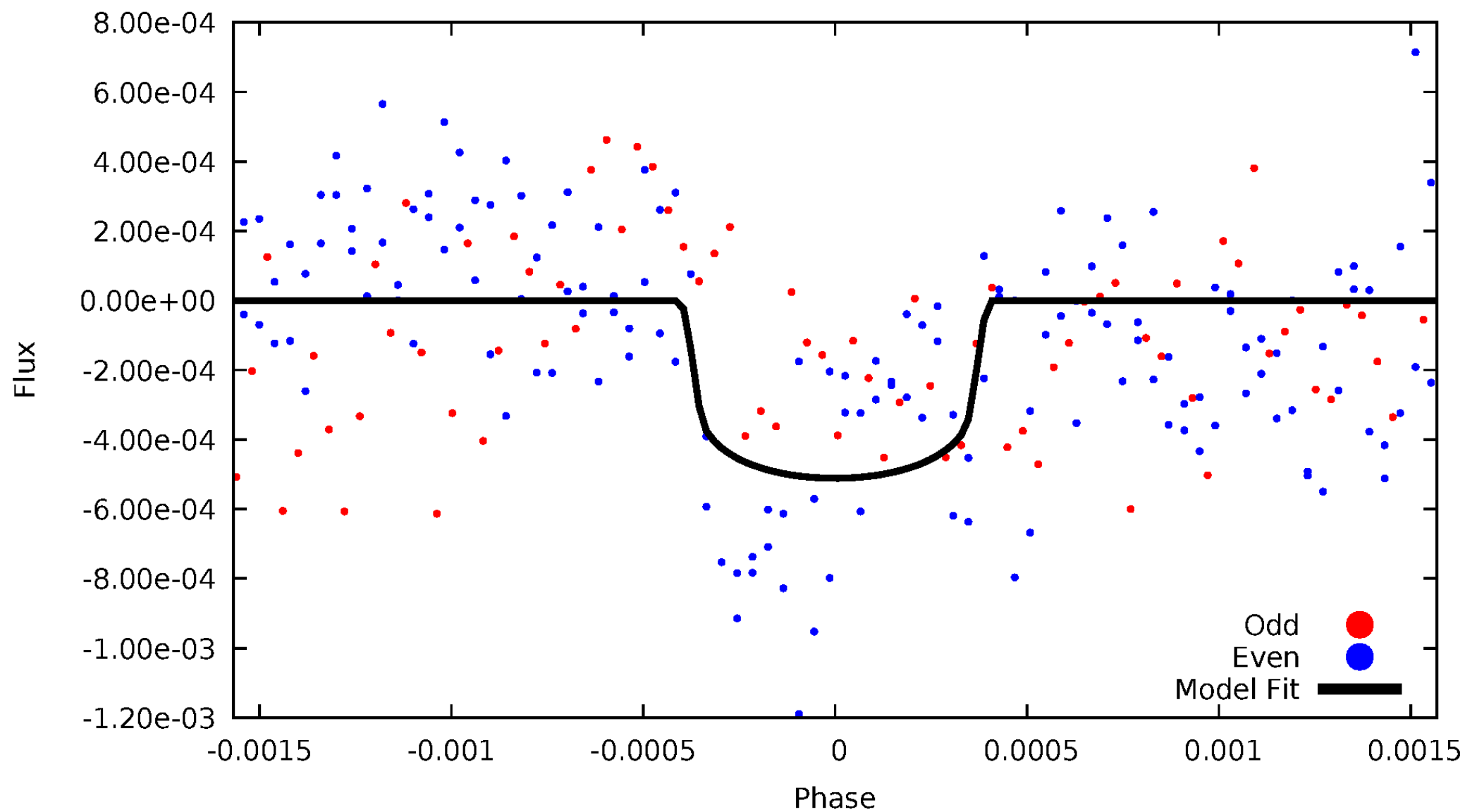


TCE 011081697-01



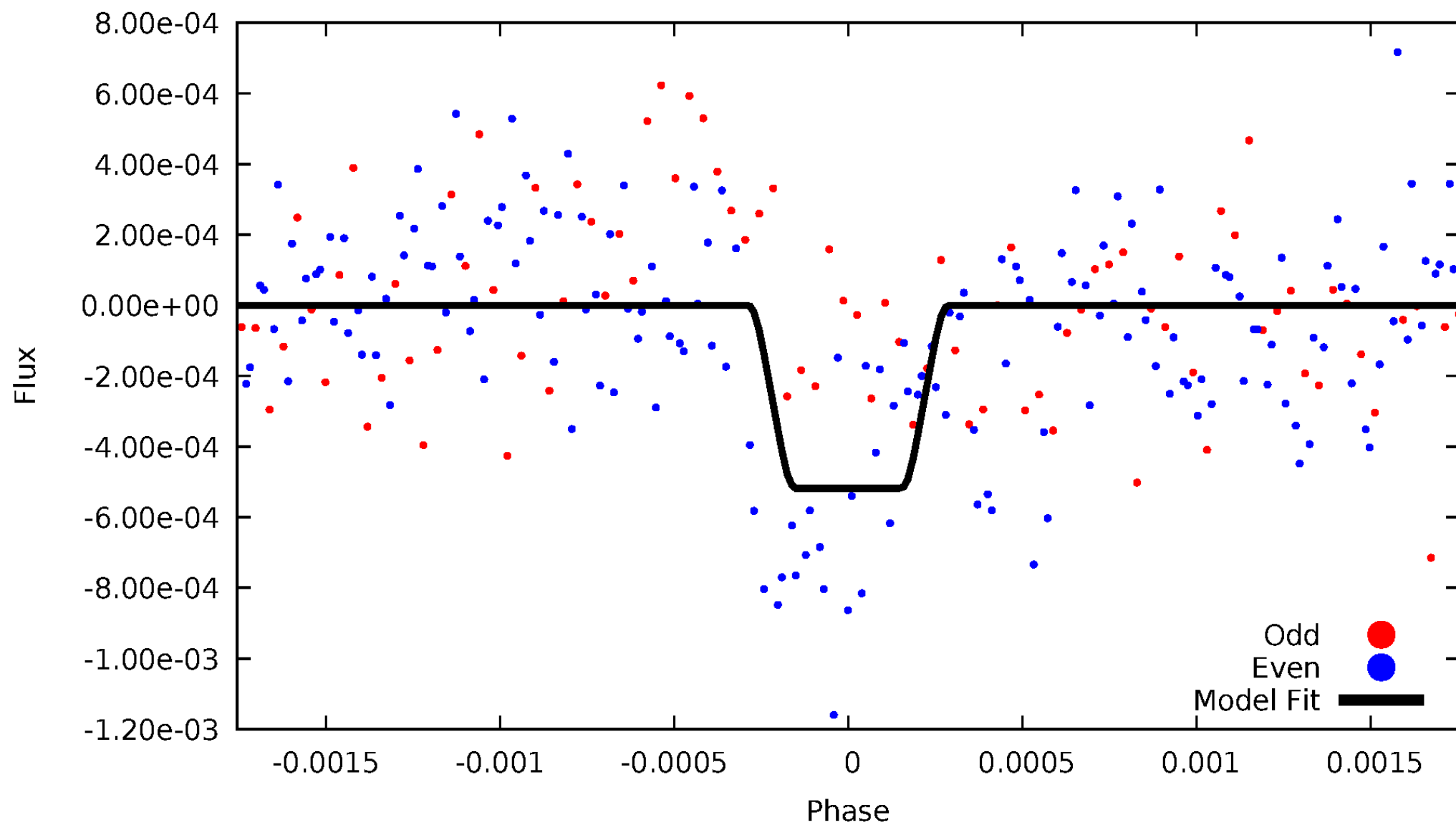
DV Odd/Even

TCE 011081697-01



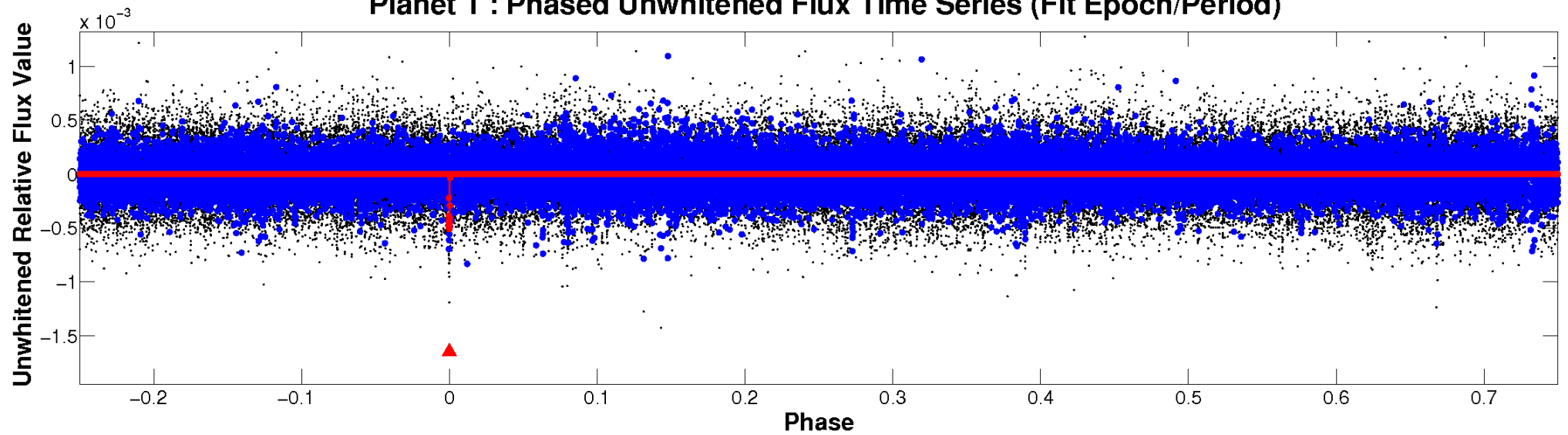
ALT Odd/Even

TCE 011081697-01

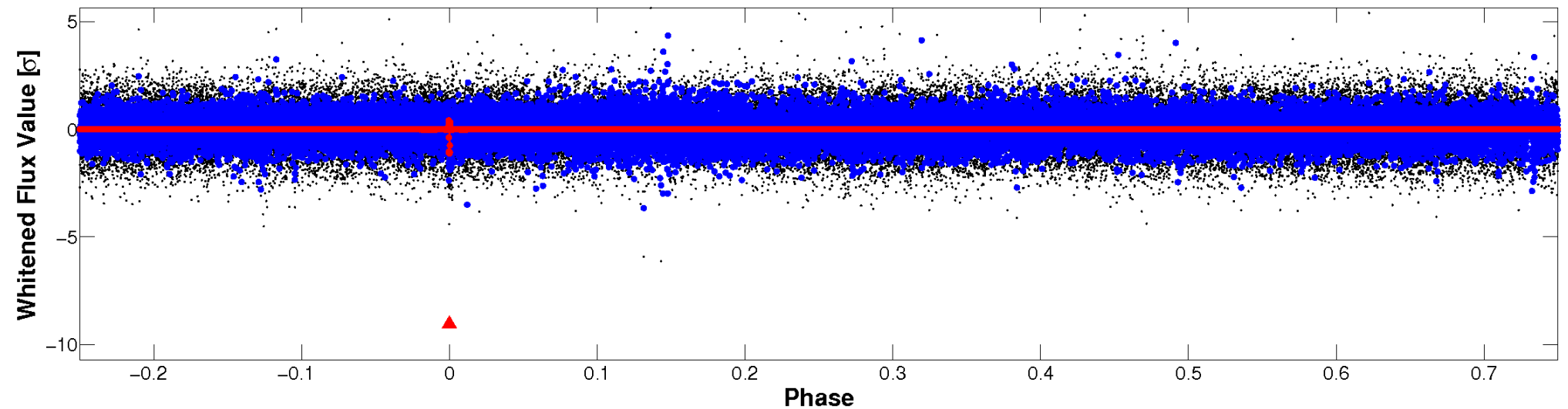


Non-Whitened Vs. Whitened Light Curve

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

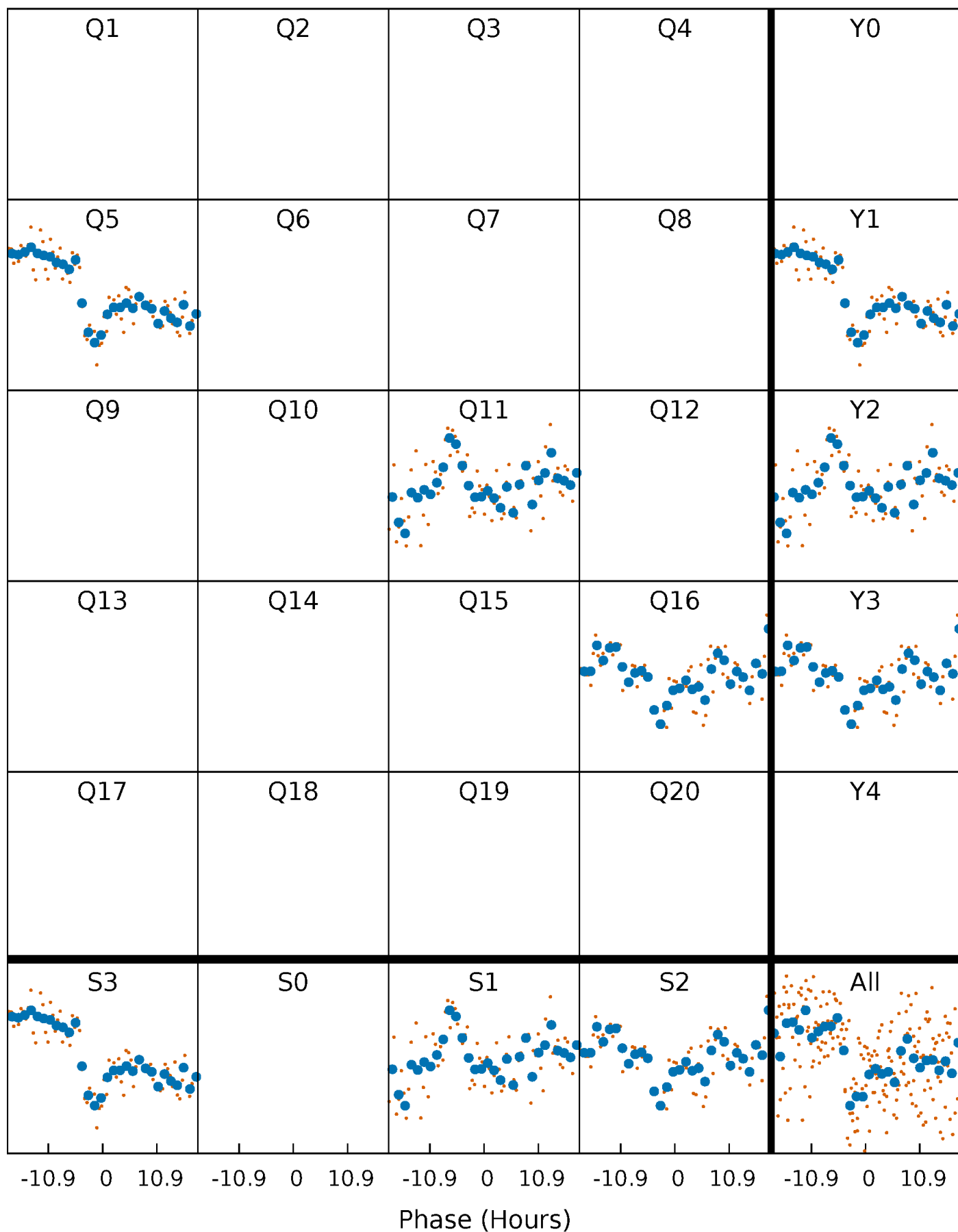


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



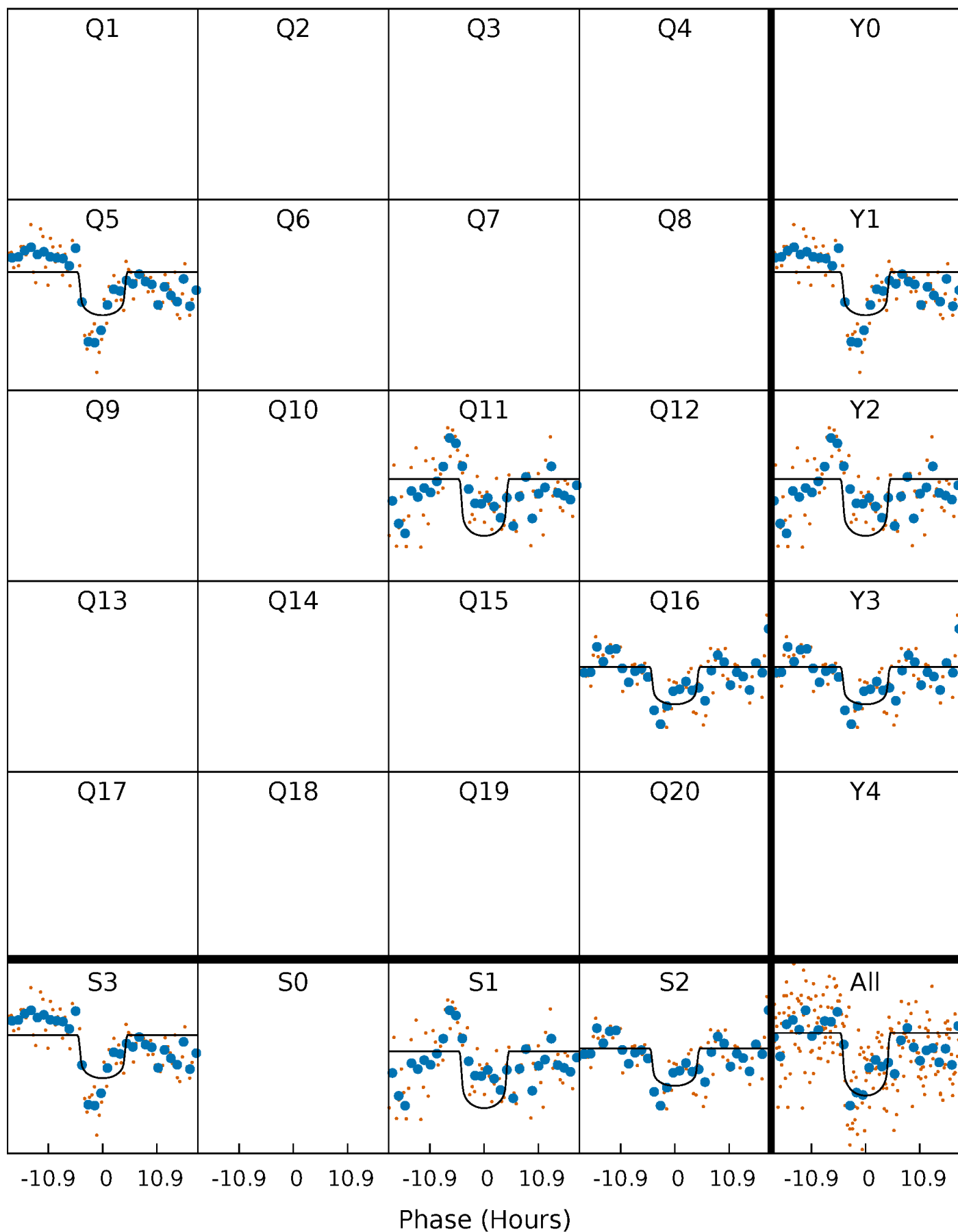
PDC Quarter-Phased Transit Curves

TCE 011081697-01 $P=508.498794$ Days $T_0=534.981733$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 011081697-01 P=508.498794 Days $T_0=534.981733$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

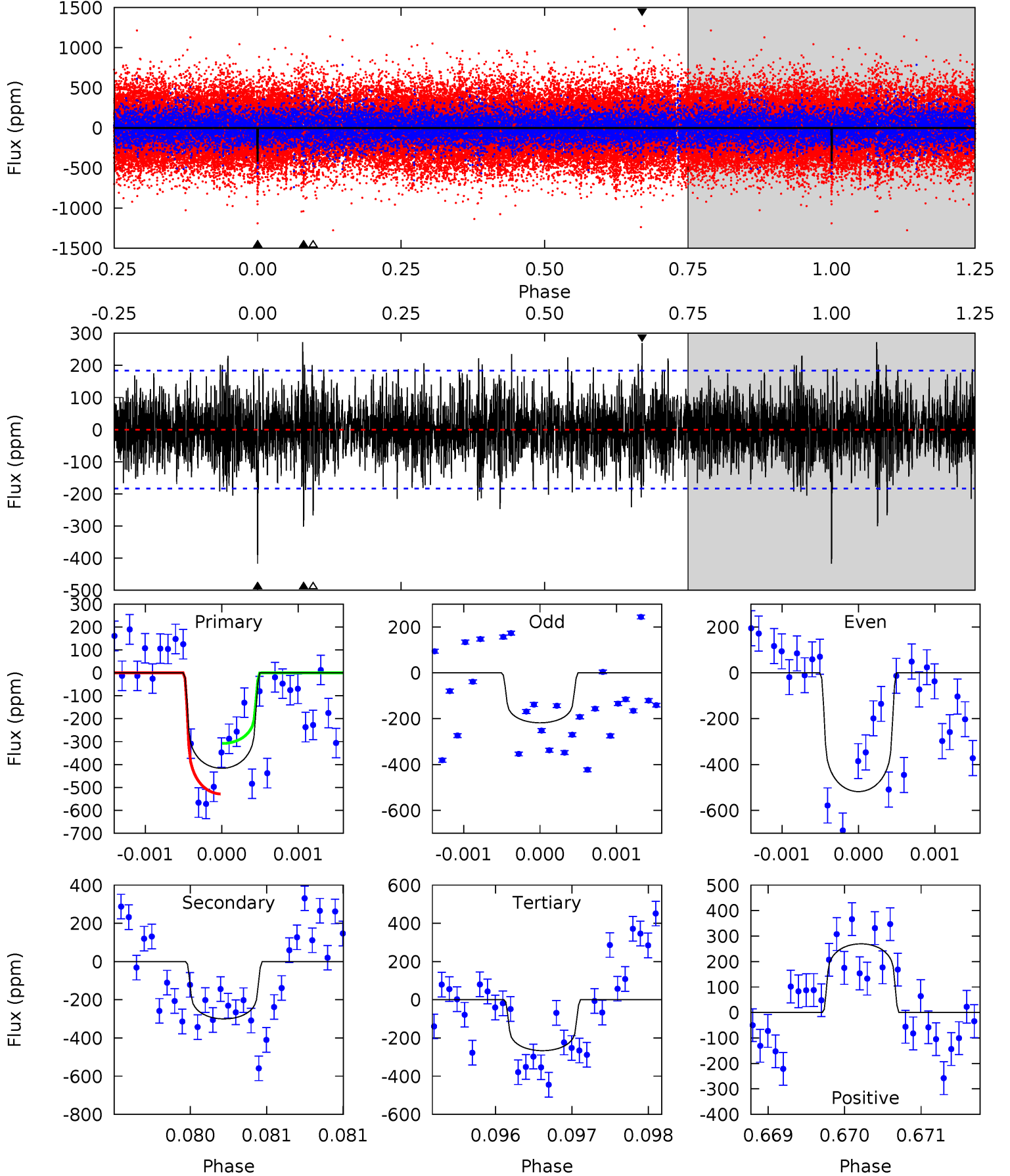
TCE 011081697-01 $P=508.495952$ Days $T_0=534.954738$ (BKJD)



DV Model-Shift Uniqueness Test

011081697-01, $P = 508.498794$ Days, $E = 26.482939$ Days

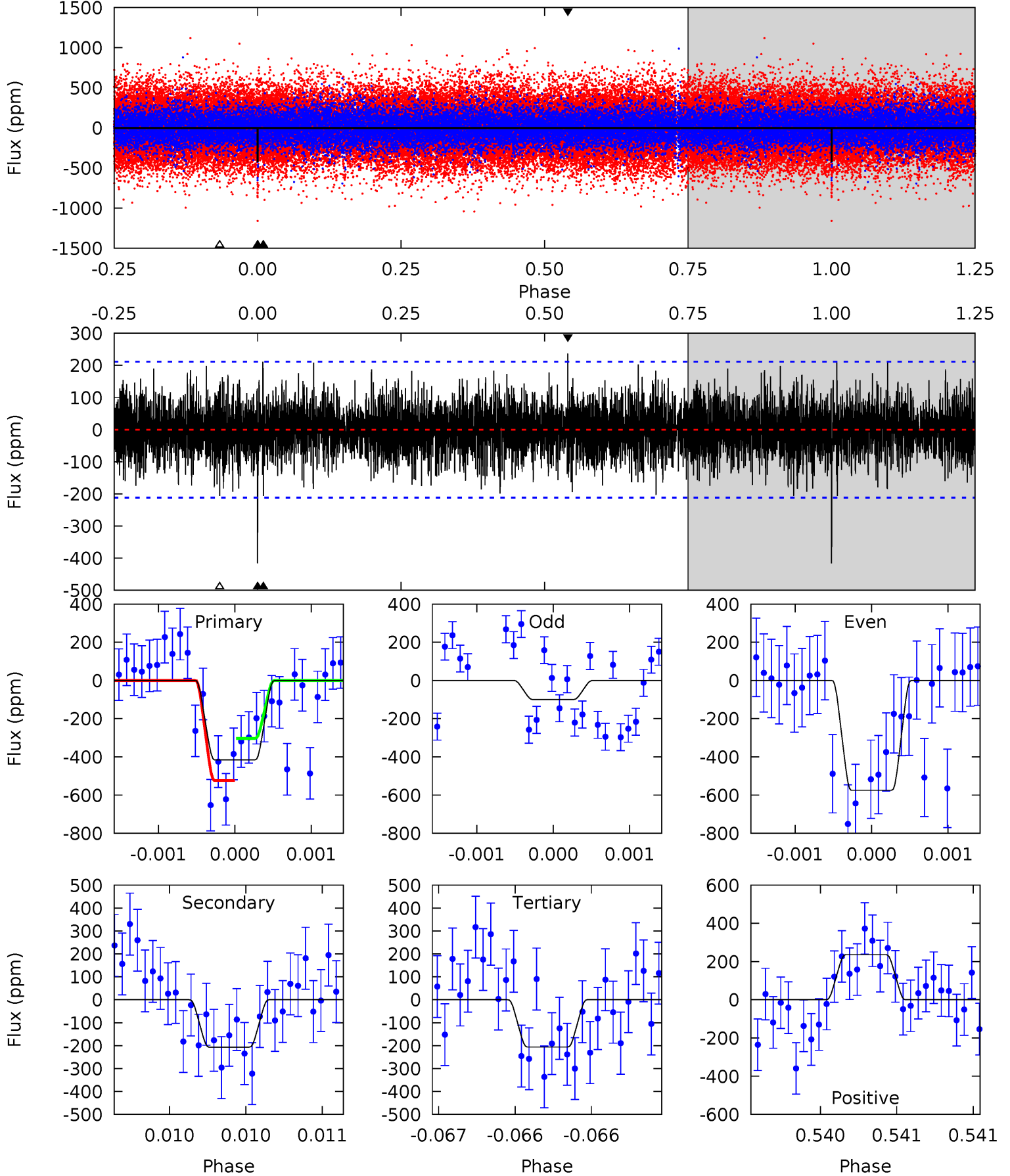
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.4	8.97	7.96	8.05	5.49	3.35	2.13	4.48	4.39	1.01	0.92	4.23	0.93	0.40	3.29



Alt Model-Shift Uniqueness Test

011081697-01, P = 508.495952 Days, E = 26.458786 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.9	5.42	5.42	6.20	5.55	3.45	1.59	5.51	4.72	0.01	-0.78	5.94	0.92	0.36	2.89



Stellar Parameters For KIC 011081697

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5676^{+205}_{-171}	$3.814^{+0.840}_{-0.280}$	$-1.060^{+0.400}_{-0.250}$	$1.811^{+1.119}_{-1.119}$	$0.780^{+0.142}_{-0.088}$	$0.185^{+2.877}_{-0.130}$
	+4%/-3%	+22%/-7%	+38%/-24%	+62%/-62%	+18%/-11%	+1556%/-70%
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 011081697-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-300 ± 33	$3.95^{+2.15}_{-1.70}$	421^{+67}_{-80}	5050^{+1032}_{-551}	14100^{+29690}_{-8146}
Alt.	-206 ± 38	$3.99^{+2.01}_{-1.65}$	419^{+62}_{-70}	4643^{+788}_{-488}	9302^{+19056}_{-5187}

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

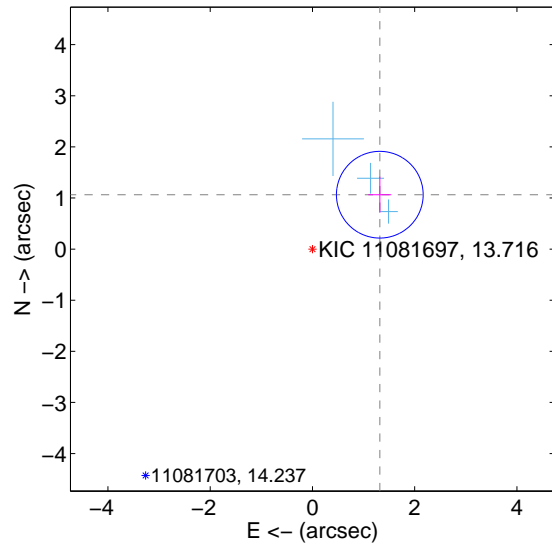
Supplemental centroid analysis for 011081697-01. Kepler magnitude: 13.72. Transit SNR 7.87

There are 3 quarters with good PRF difference image offsets

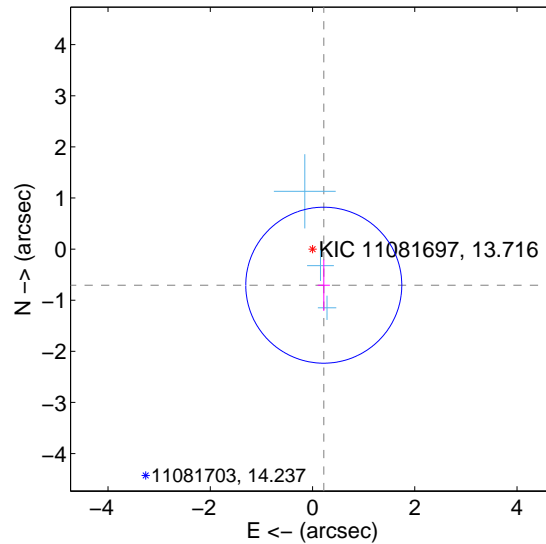
The direct PRF centroid is offset from the target star catalog position by about 1.97 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.694 ± 0.283	5.99	-1.318 ± 0.225	1.064 ± 0.353
PRF-fit source offset from KIC position	0.740 ± 0.509	1.45	-0.220 ± 0.120	-0.706 ± 0.502
photometric centroid source offset	1.46 ± 0.83	1.76	-1.03 ± 0.81	-1.03 ± 0.84

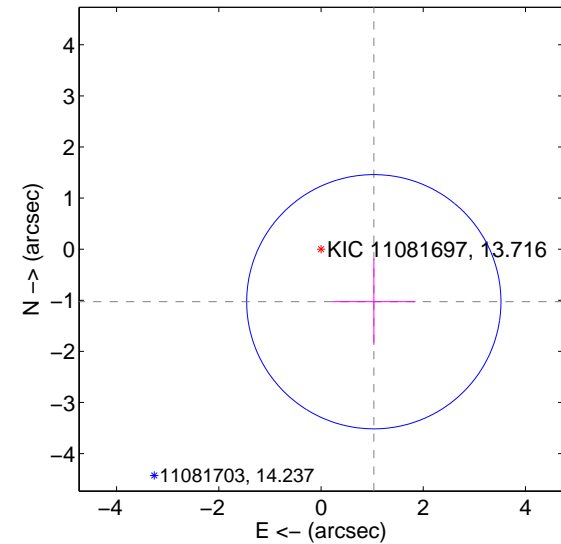
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

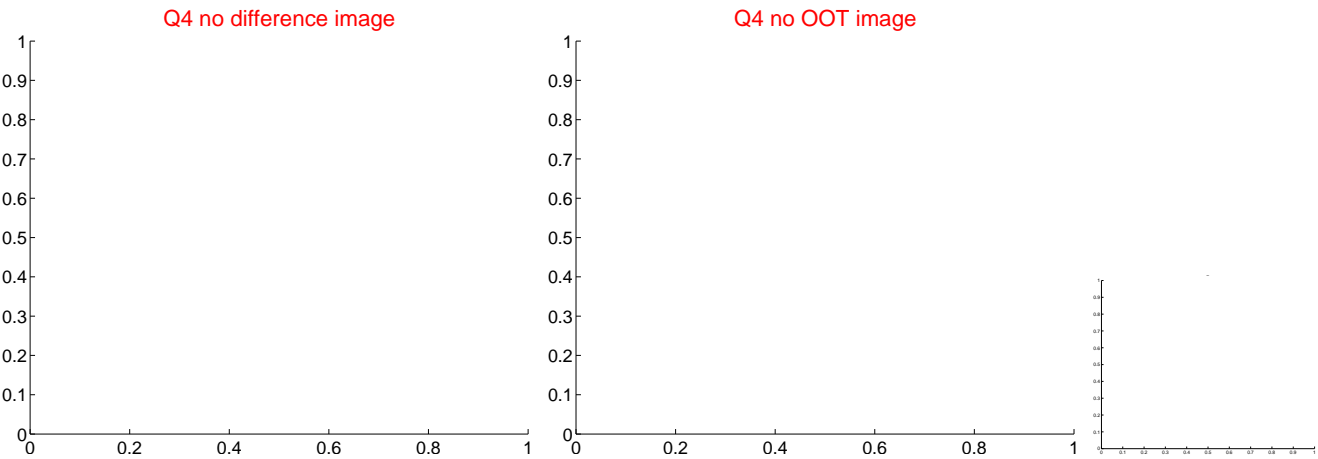
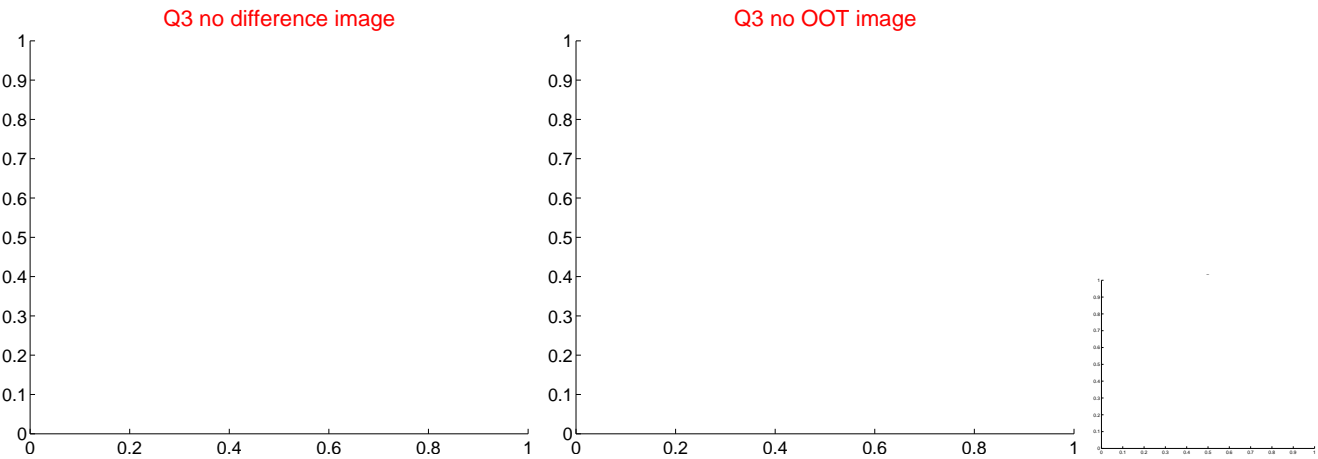
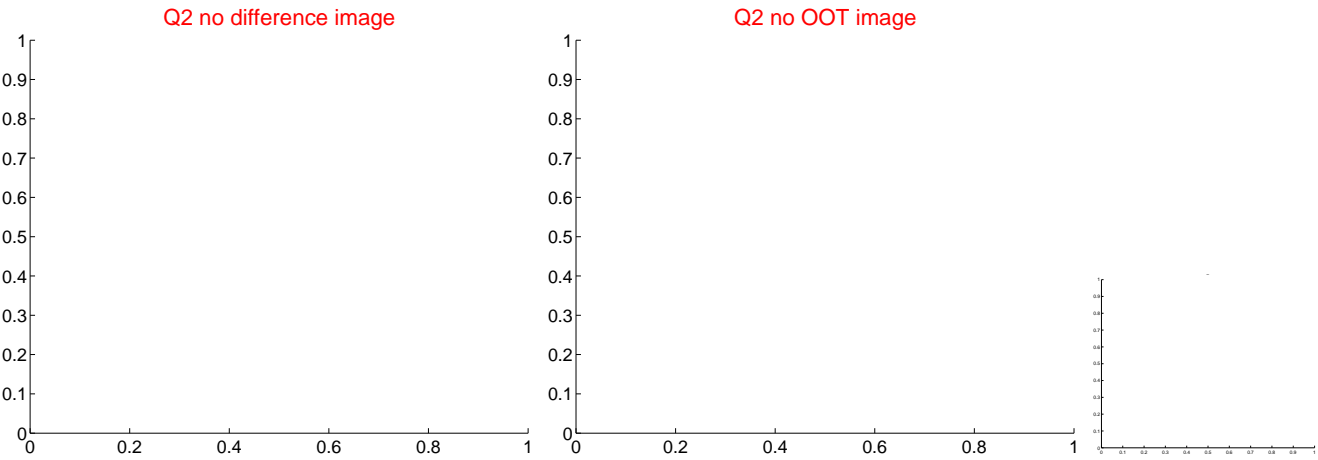
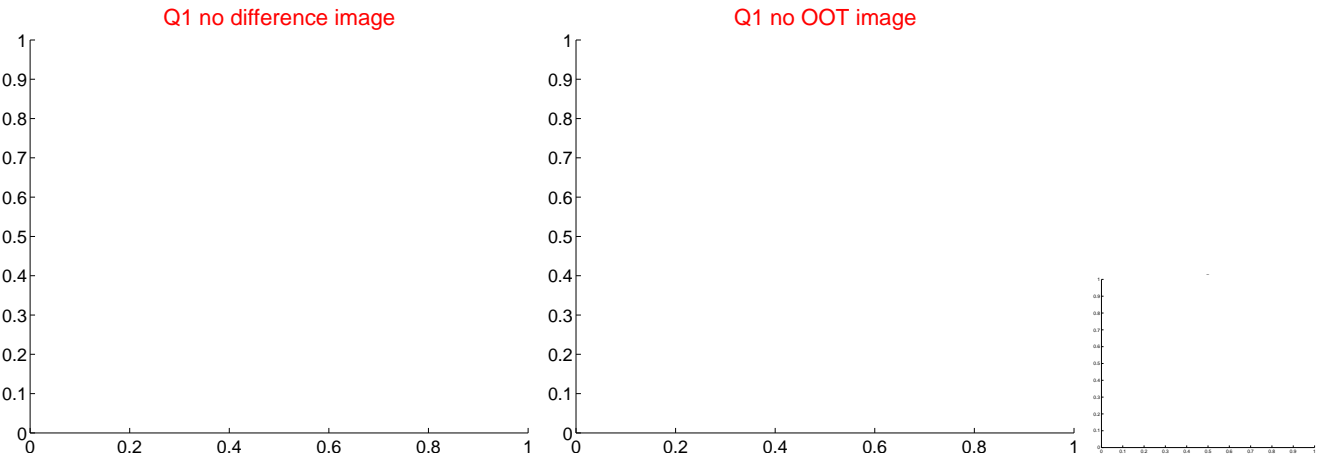


offset from photometric centroids

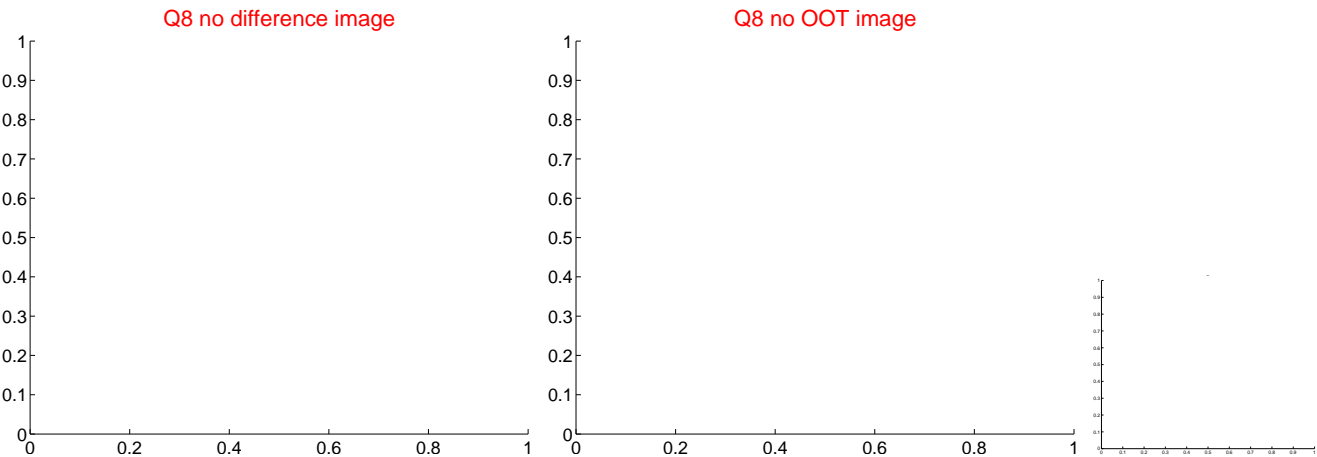
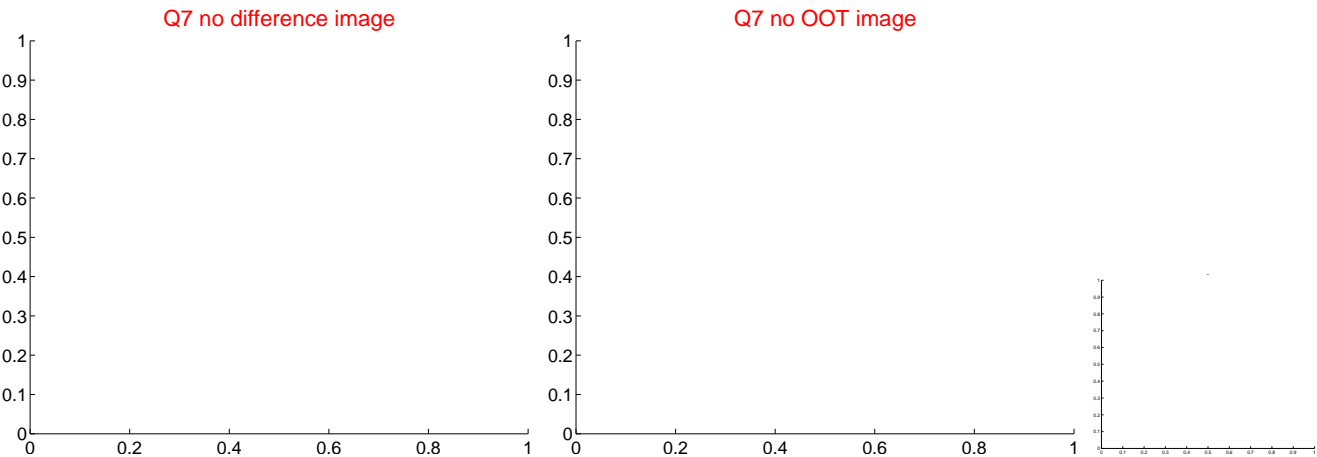
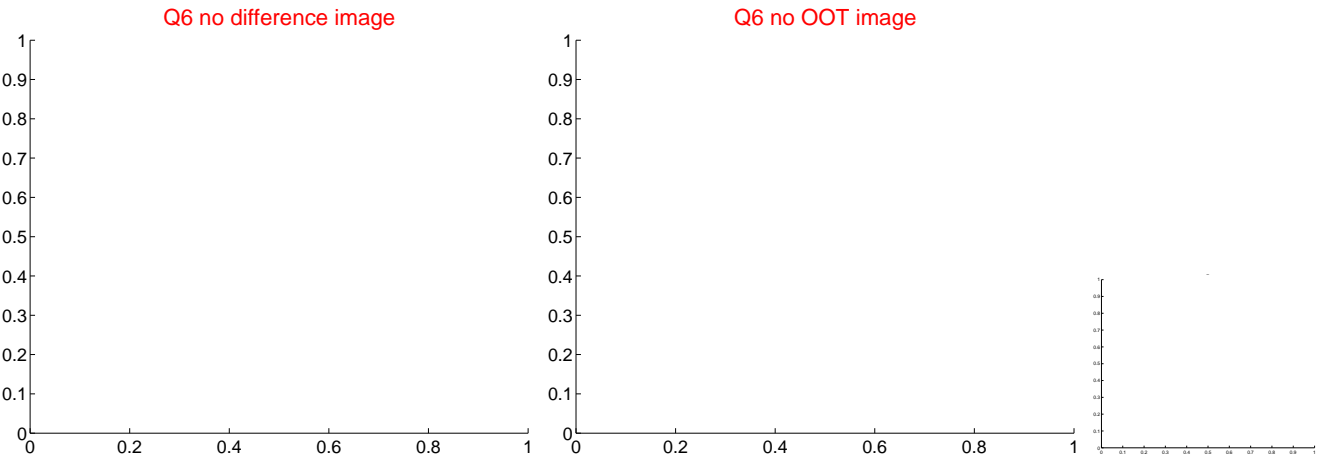
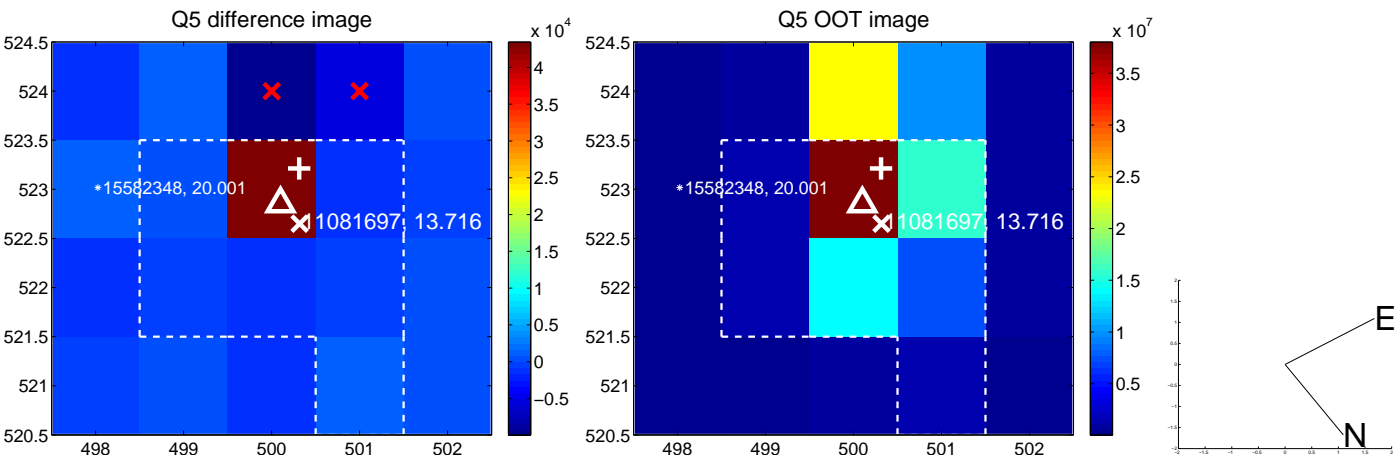


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

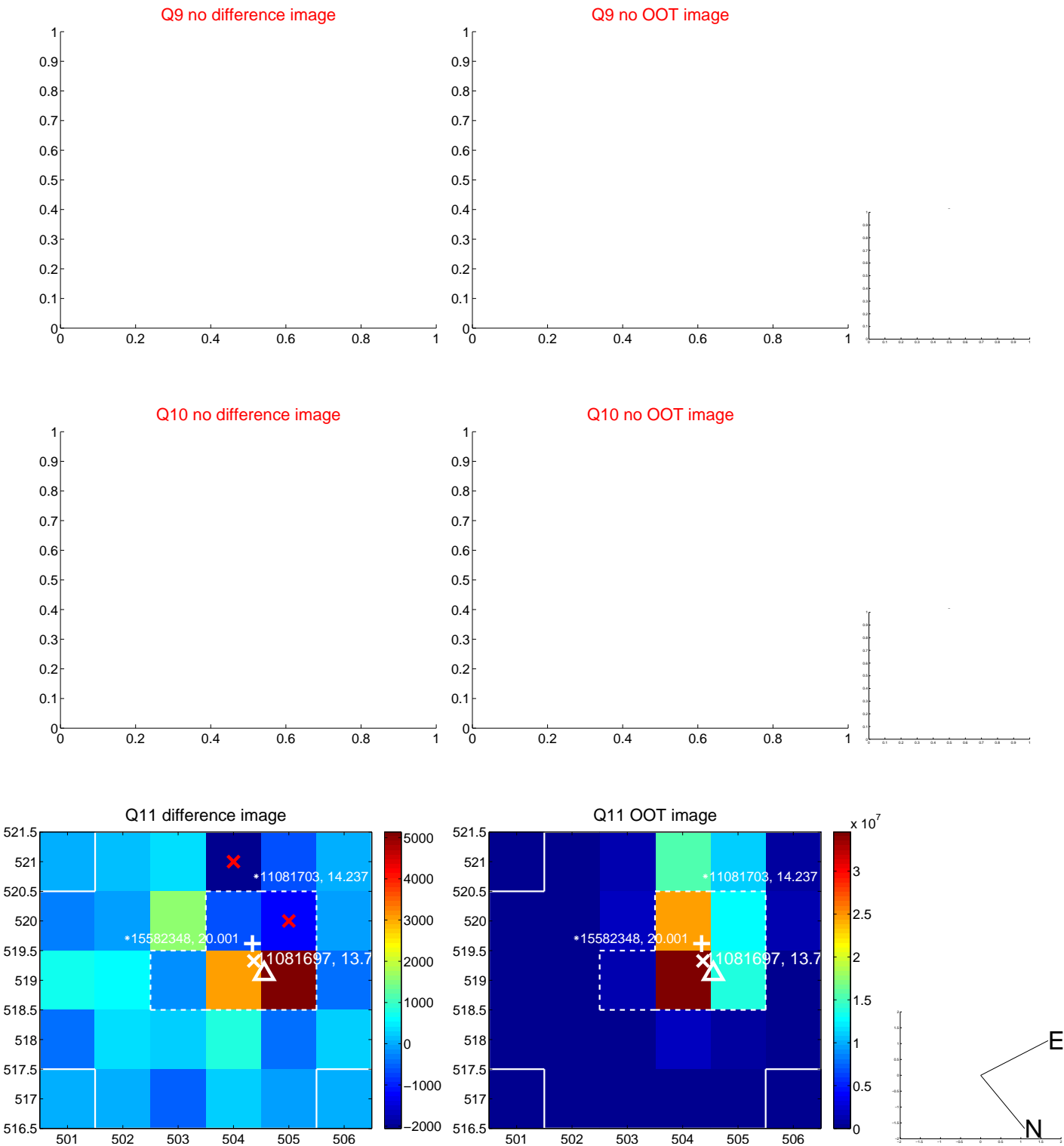
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



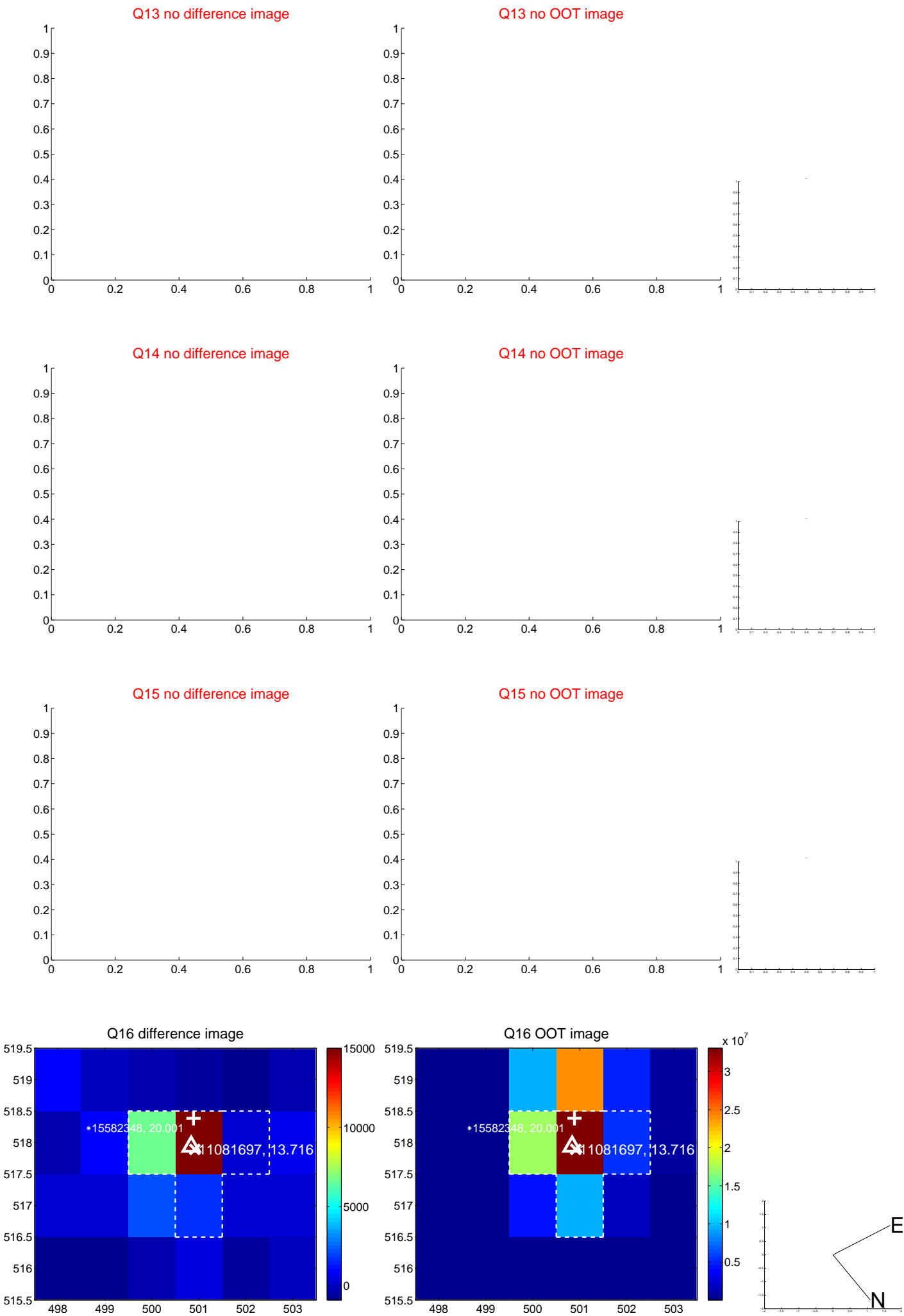
white \times : KIC target position; $+$: OOT centroid; Δ : difference centroid. red \times : large negative pixel value.



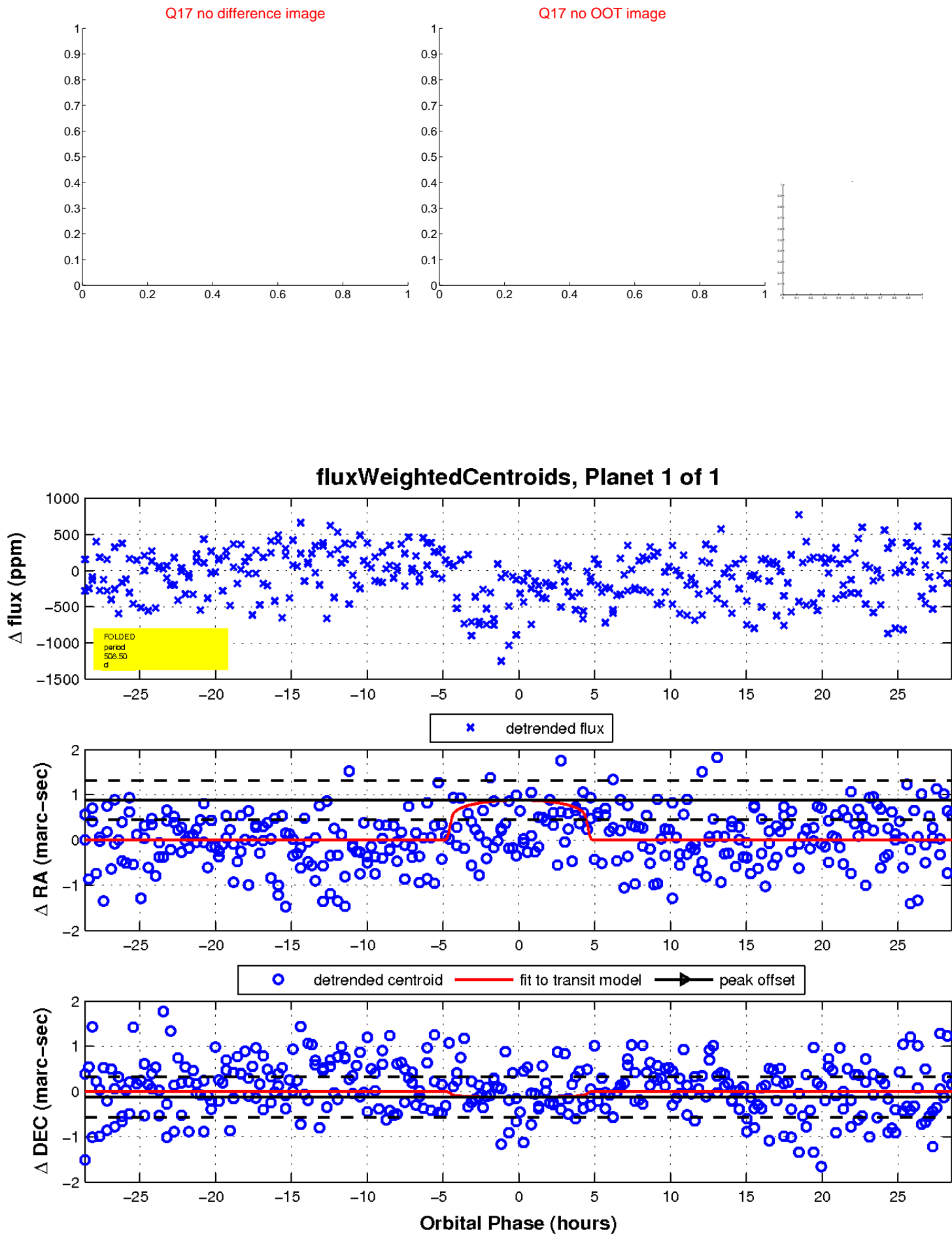
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white ×: 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.



UKIRT Image

Declination

