

KIC 011294471

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})
011294471-01	OBS	No	505.680511	413.727513	280.1	23.826	12.9	14.2	1.18	5794	2.21	0.94

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011294471-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—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.

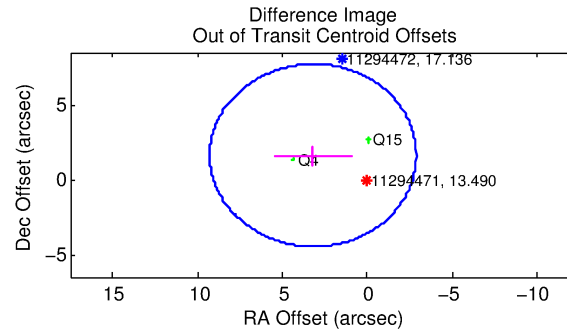
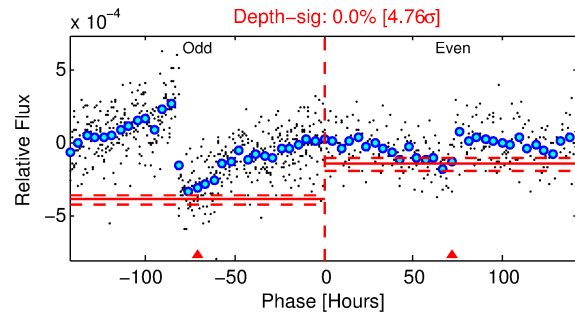
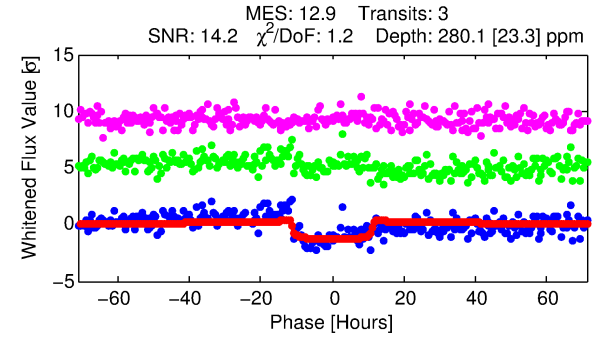
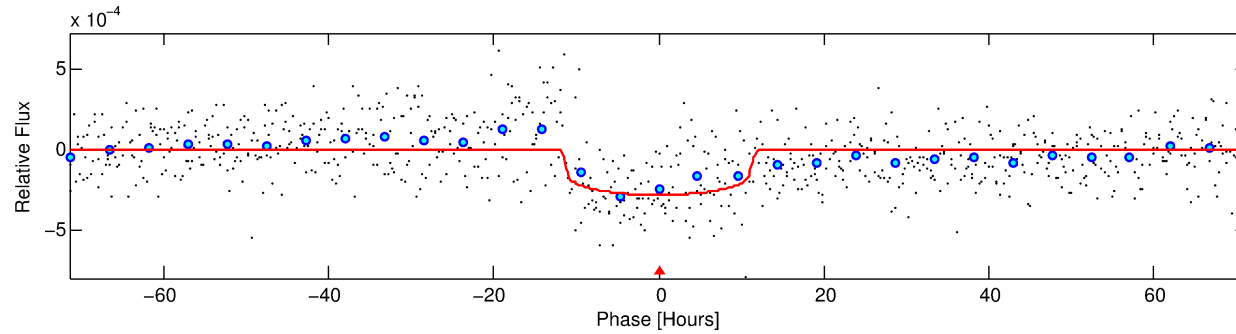
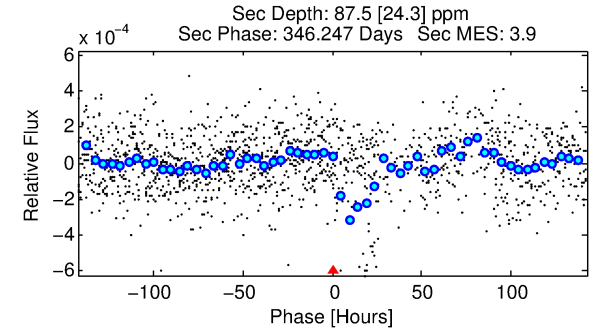
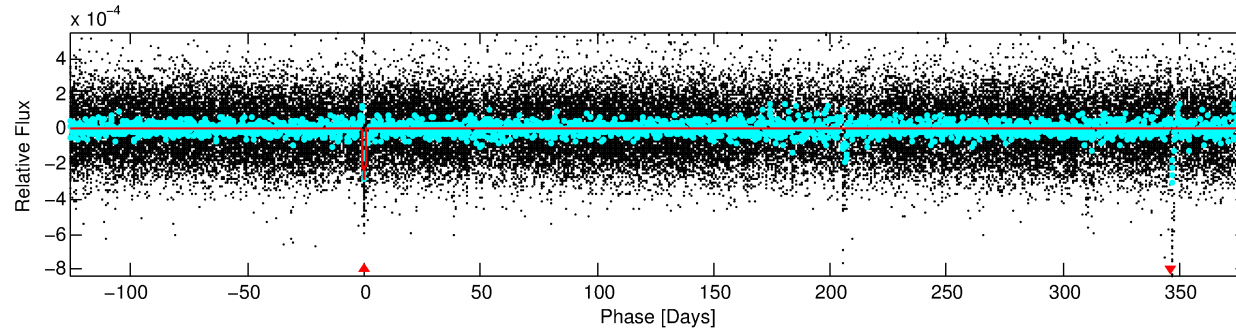
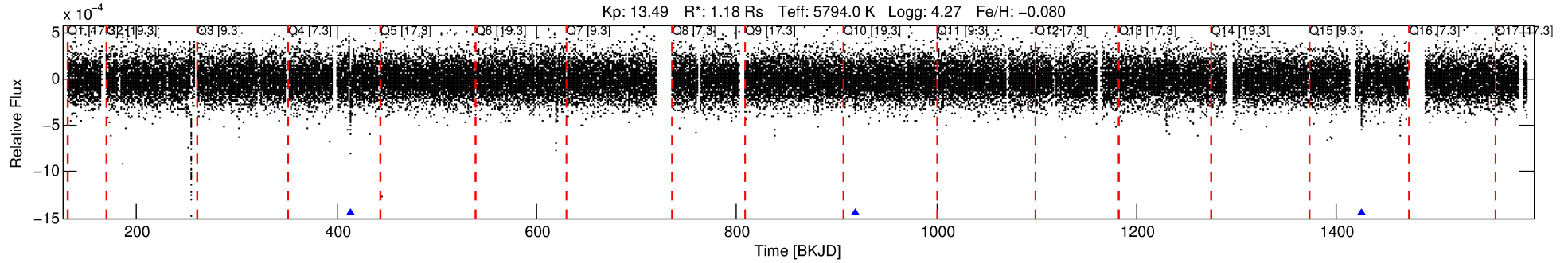
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011294471-01

No Significant Match Found

DV One-Page Summary

KIC: 11294471 Candidate: 1 of 1 Period: 505.681 d



DV Fit Results:

Period = 505.68051 [0.01904] d
Epoch = 413.7275 [0.0276] BKJD
Rp/R* = 0.0172 [0.0023]
a/R* = 97.97 [58.33]
b = 0.82 [0.24]
Seff = 0.94 [0.35]
Teq = 251 [23] K
Rp = 2.20 [0.68] Re
a = 1.2184 [0.2896] AU
Ag = 14698.46 [7691.76] [1.91σ]
Teffp = 4277 [430] K [9.34σ]

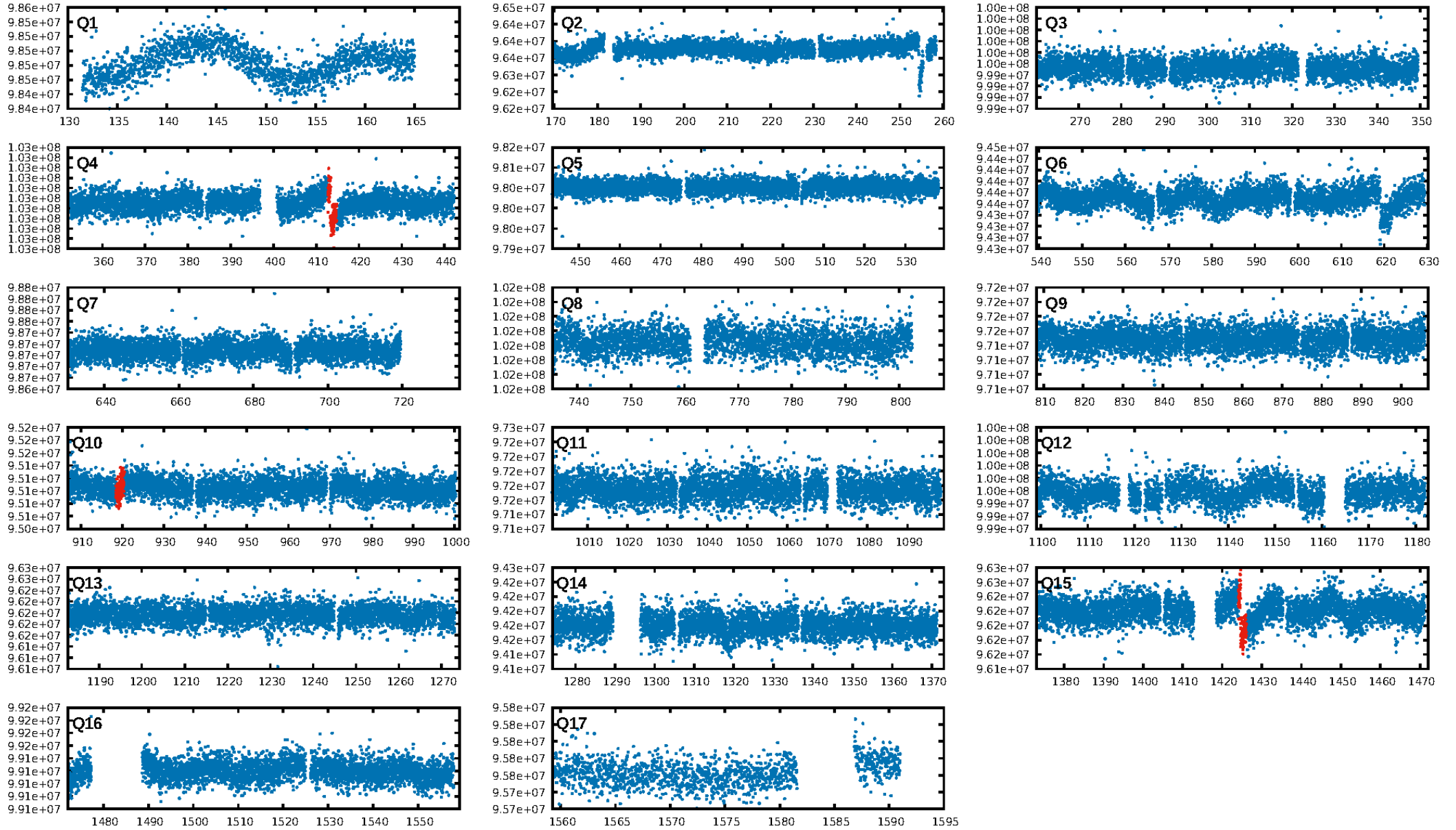
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 75.5%
Bootstrap-pfa: 1.14e-36
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 1.25
Centroid-sig: 0.0%
Centroid-so: 2.318 arcsec [3.53σ]
OotOffset-rm: 3.573 arcsec [1.76σ]
KicOffset-rm: 3.669 arcsec [1.84σ]
OotOffset-st: 0/1/1/0 [2]
KicOffset-st: 0/1/1/0 [2]
DiffImageQuality-fgm: 0.50 [1/2]
DiffImageOverlap-fno: 1.00 [3/3]

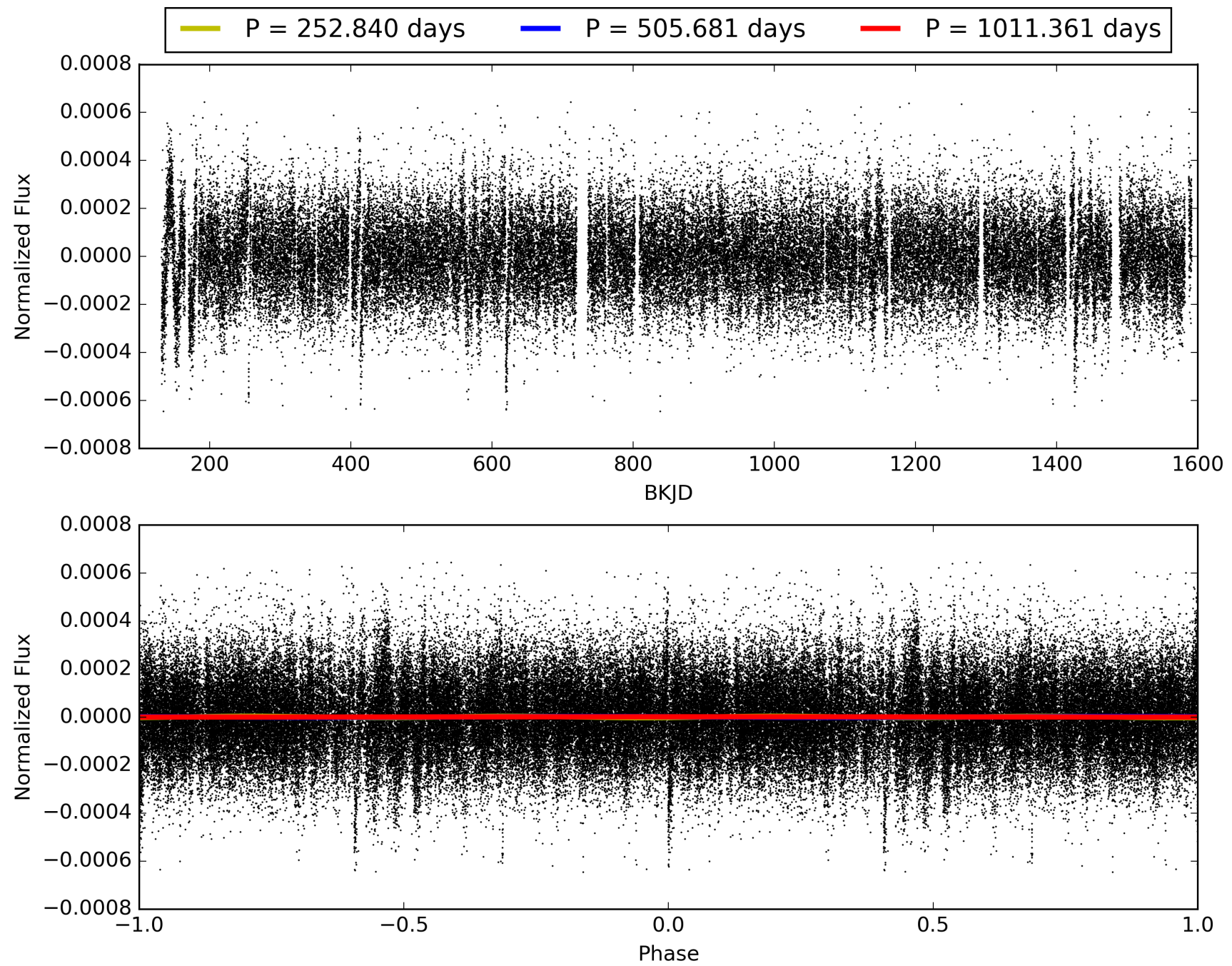
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 21:52:58 Z

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

TCE 011294471-01, PDC Light Curves

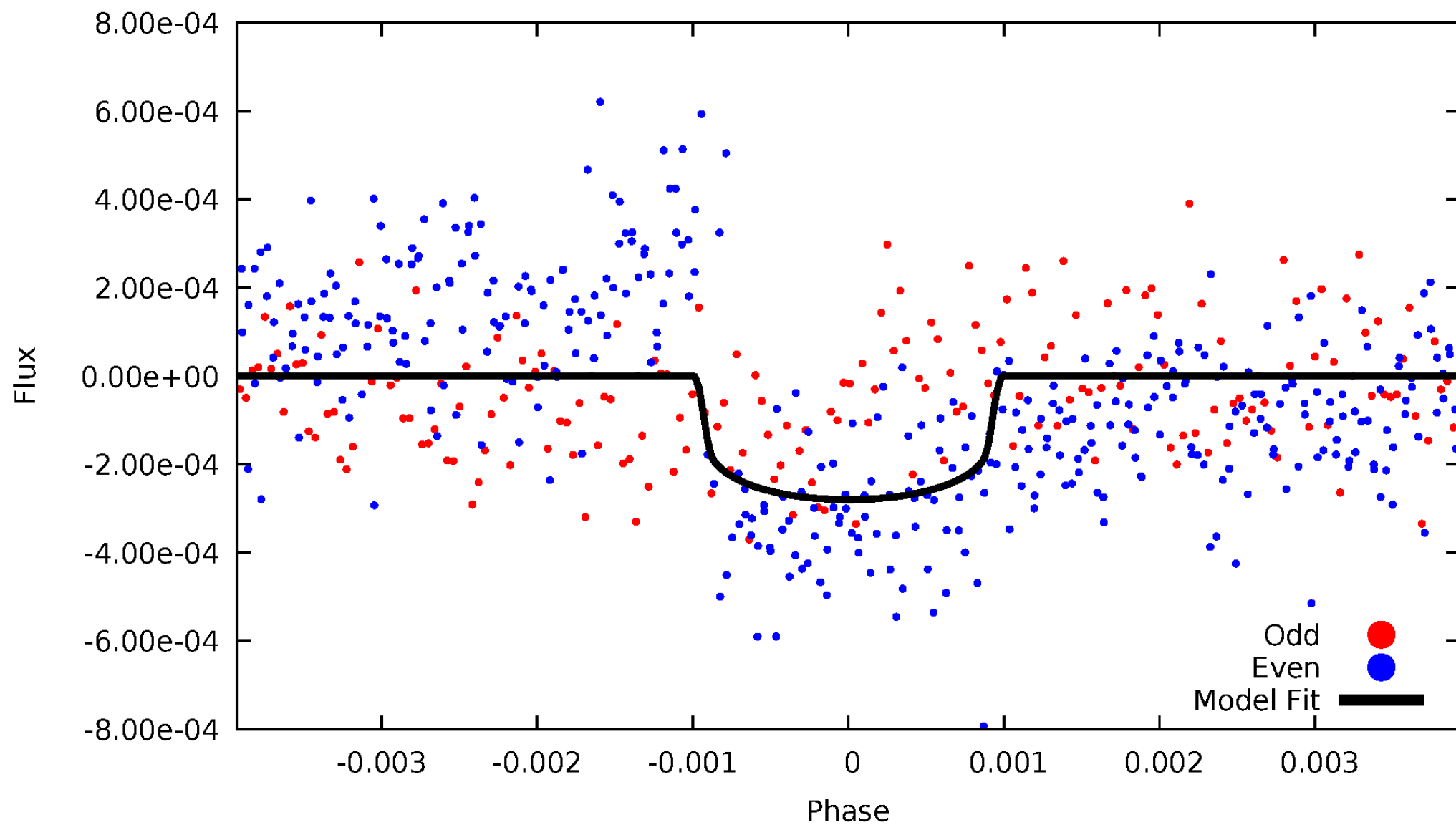


TCE 011294471-01



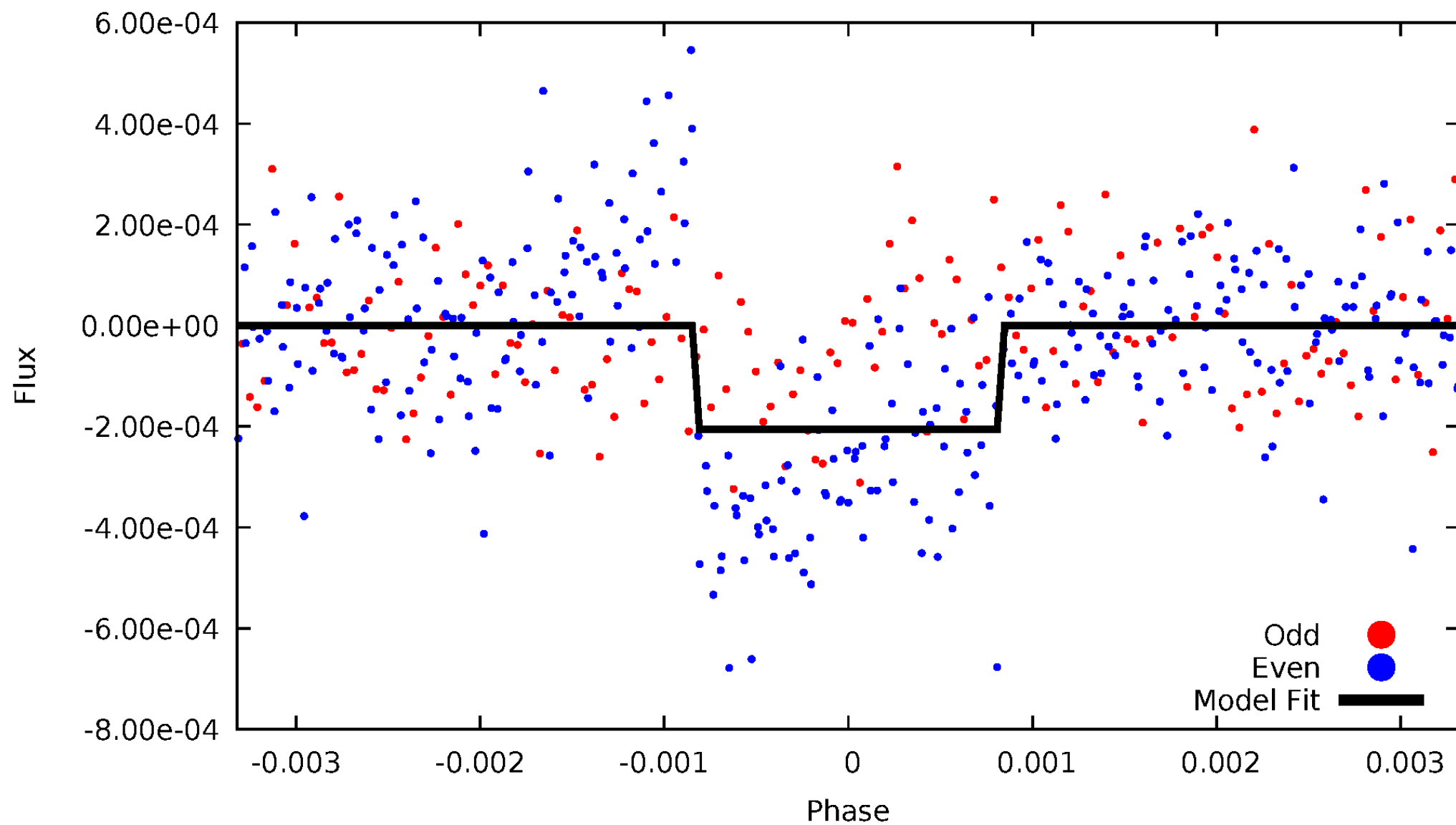
DV Odd/Even

TCE 011294471-01

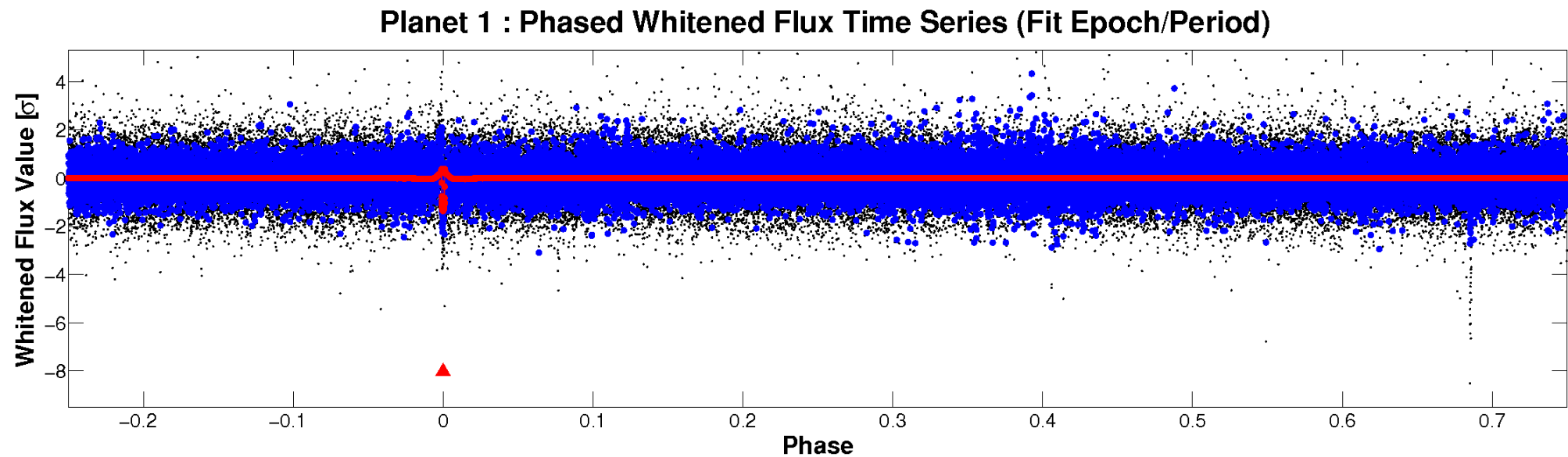
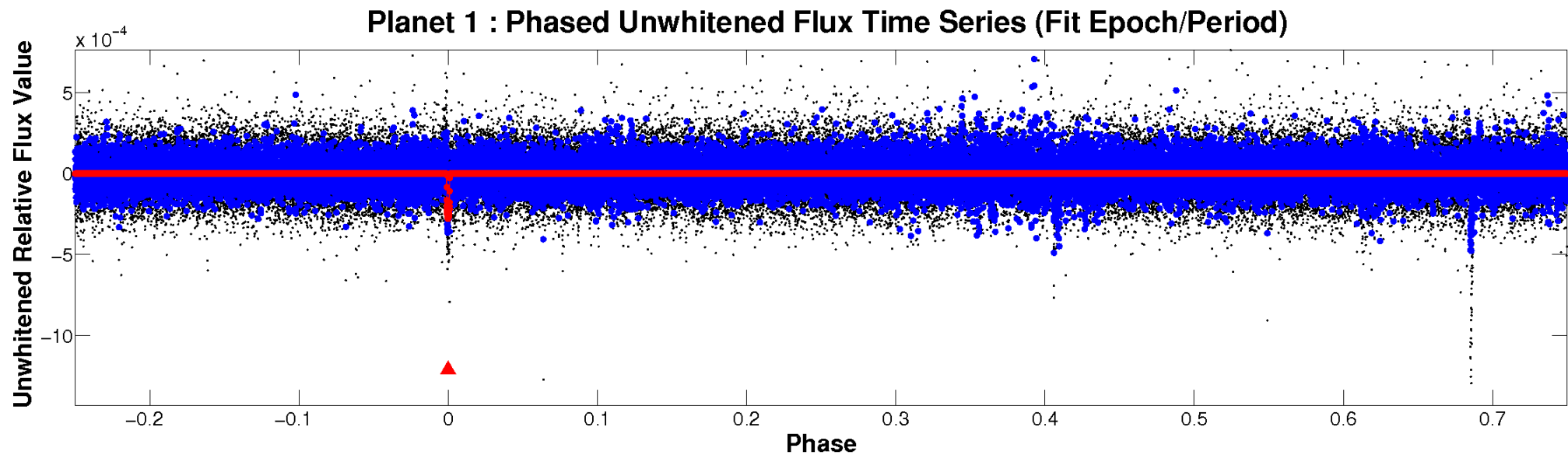


ALT Odd/Even

TCE 011294471-01



Non-Whitened Vs. Whitened Light Curve



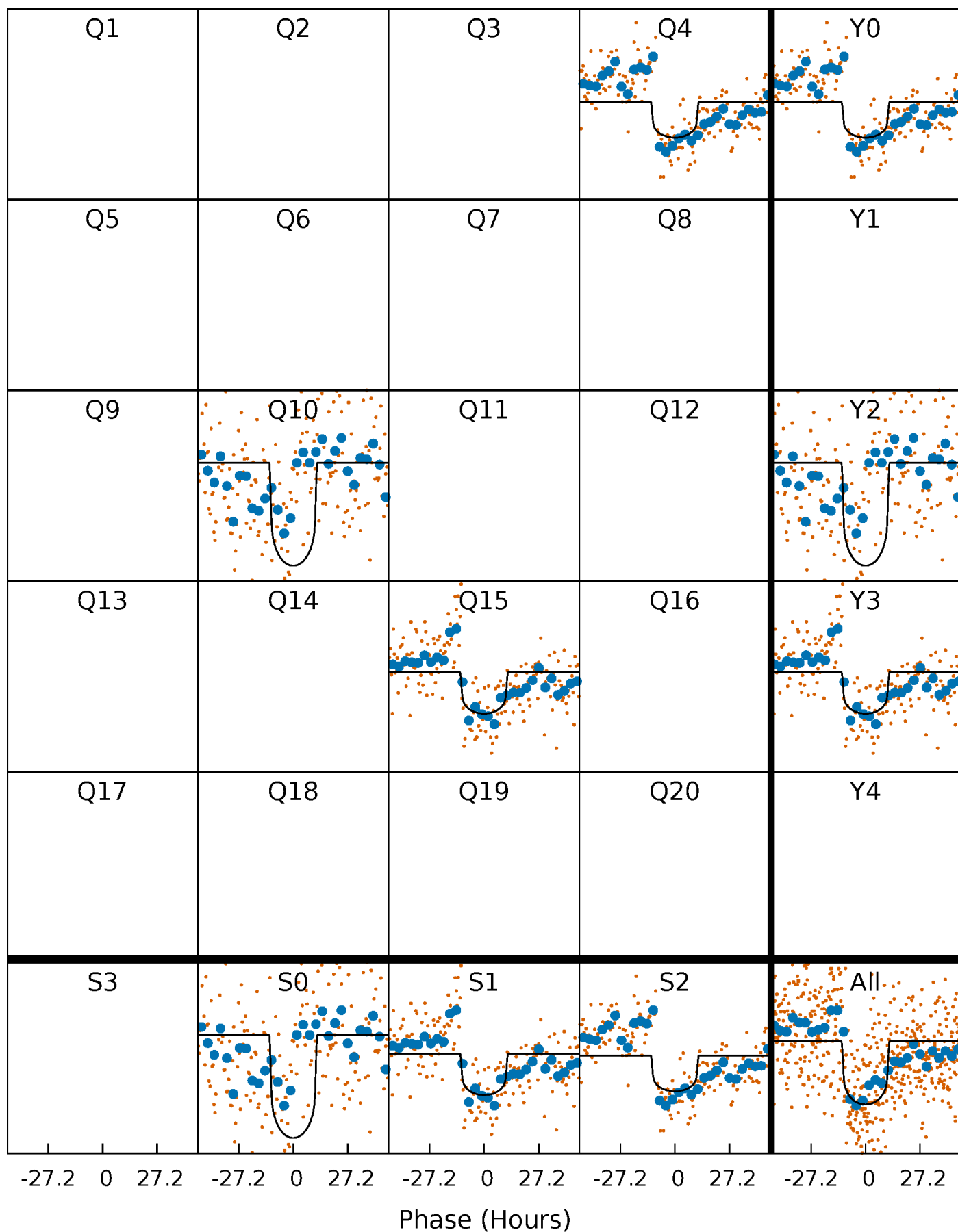
PDC Quarter-Phased Transit Curves

TCE 011294471-01 P=505.680511 Days $T_0=413.727513$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 011294471-01 P=505.680511 Days $T_0=413.727513$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

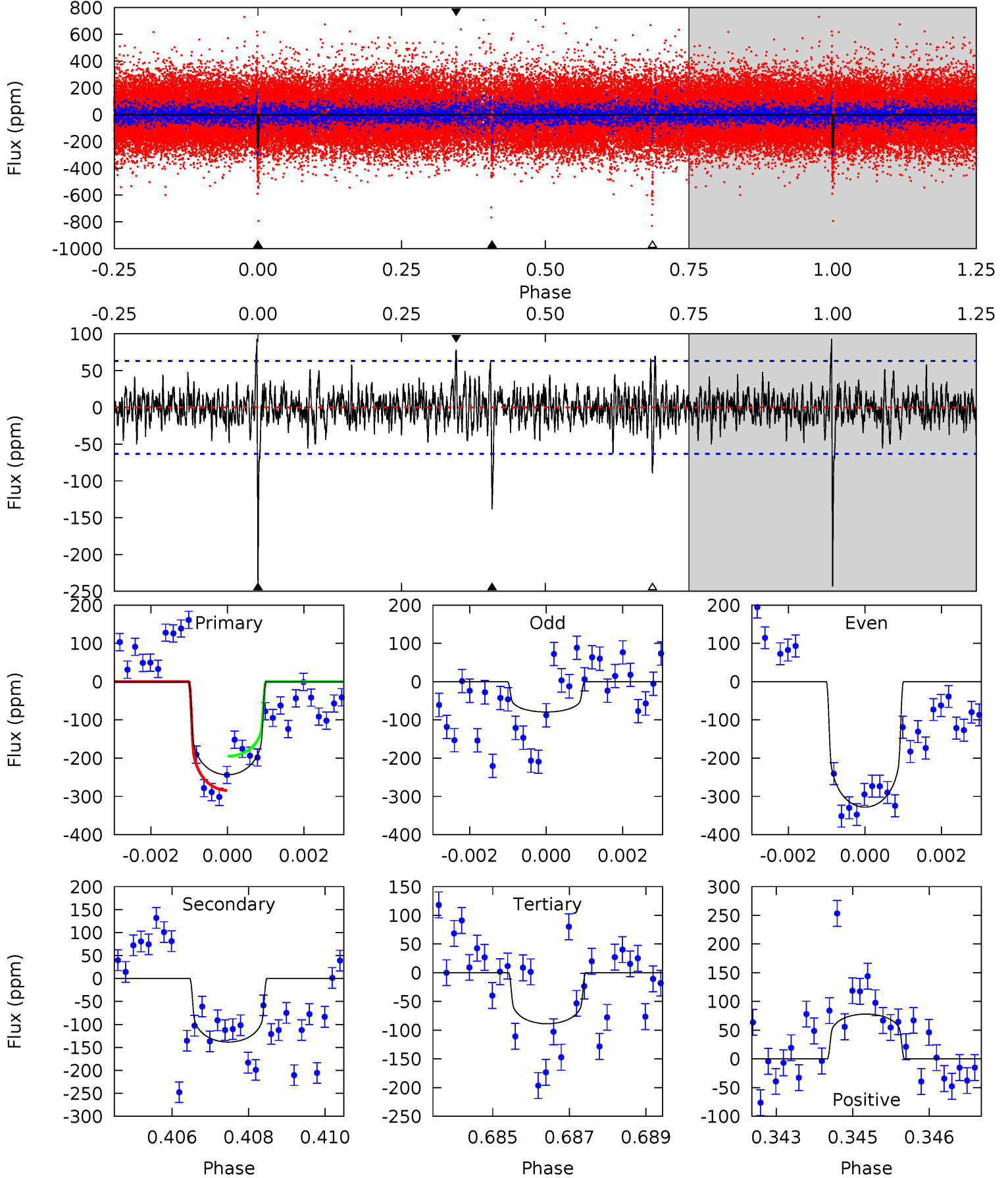
TCE 011294471-01 P=505.642065 Days $T_0=413.759081$ (BKJD)



DV Model-Shift Uniqueness Test

011294471-01, P = 505.680511 Days, E = 413.727513 Days

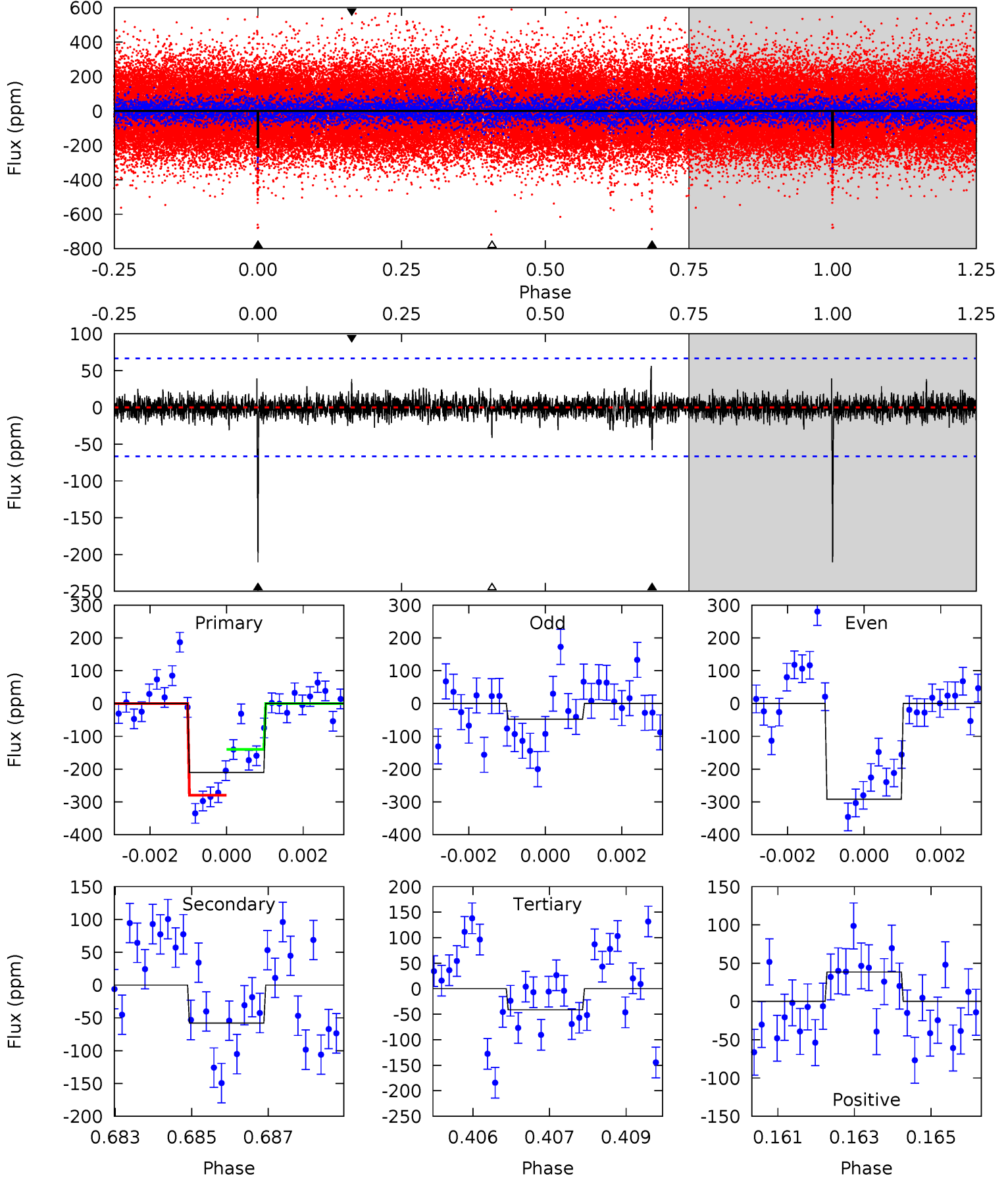
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
20.5	11.7	7.50	6.59	5.33	3.09	1.52	13.0	14.0	4.18	5.09	10.0	0.77	0.28	3.75



Alt Model-Shift Uniqueness Test

011294471-01, P = 505.642065 Days, E = 413.759081 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
16.9	4.67	3.33	3.09	5.36	3.14	0.67	13.6	13.8	1.33	1.57	9.32	0.83	0.21	5.61



Stellar Parameters For KIC 011294471

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$\rho_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5794^{+144}_{-158}	$4.271^{+0.195}_{-0.175}$	$-0.080^{+0.300}_{-0.300}$	$1.177^{+0.326}_{-0.267}$	$0.944^{+0.136}_{-0.091}$	$0.815^{+0.880}_{-0.362}$
	+2%/-3%	+5%/-4%	+375%/-375%	+28%/-23%	+14%/-10%	+108%/-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 011294471-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-138 ± 12	$2.19^{+0.50}_{-0.39}$	350^{+29}_{-25}	4896^{+331}_{-289}	23540^{+12360}_{-7894}
Alt.	-58 ± 12	$1.85^{+0.43}_{-0.37}$	351^{+25}_{-26}	4404^{+346}_{-305}	14158^{+8158}_{-5449}

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

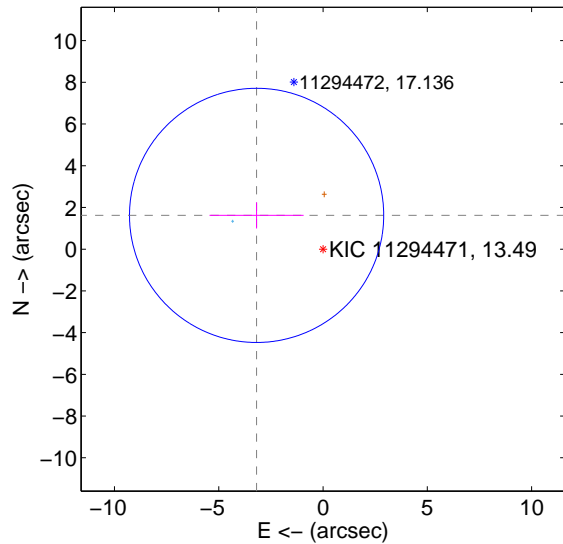
Supplemental centroid analysis for 011294471-01. Kepler magnitude: 13.49. Transit SNR 14.23

There are 1 quarters with good PRF difference image offsets

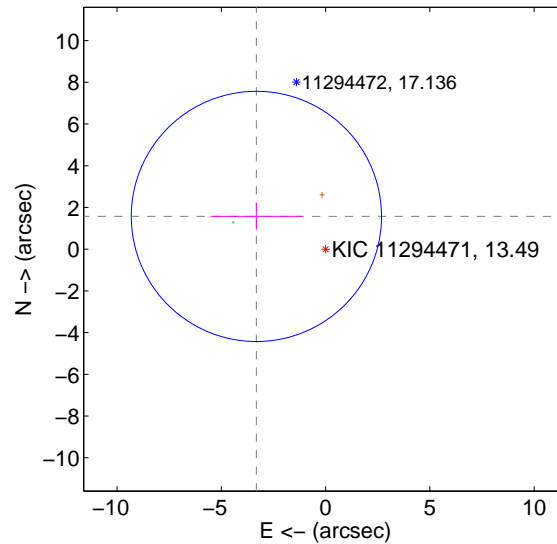
The direct PRF centroid is offset from the target star catalog position by about 0.23 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.573 ± 2.031	1.76	3.184 ± 2.256	1.620 ± 0.629
PRF-fit source offset from KIC position	3.669 ± 1.999	1.84	3.316 ± 2.191	1.570 ± 0.645
photometric centroid source offset	2.32 ± 0.66	3.53	1.34 ± 0.70	1.89 ± 0.63

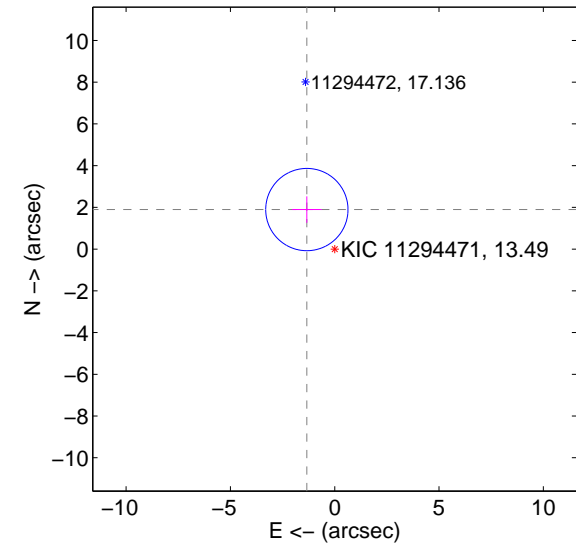
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

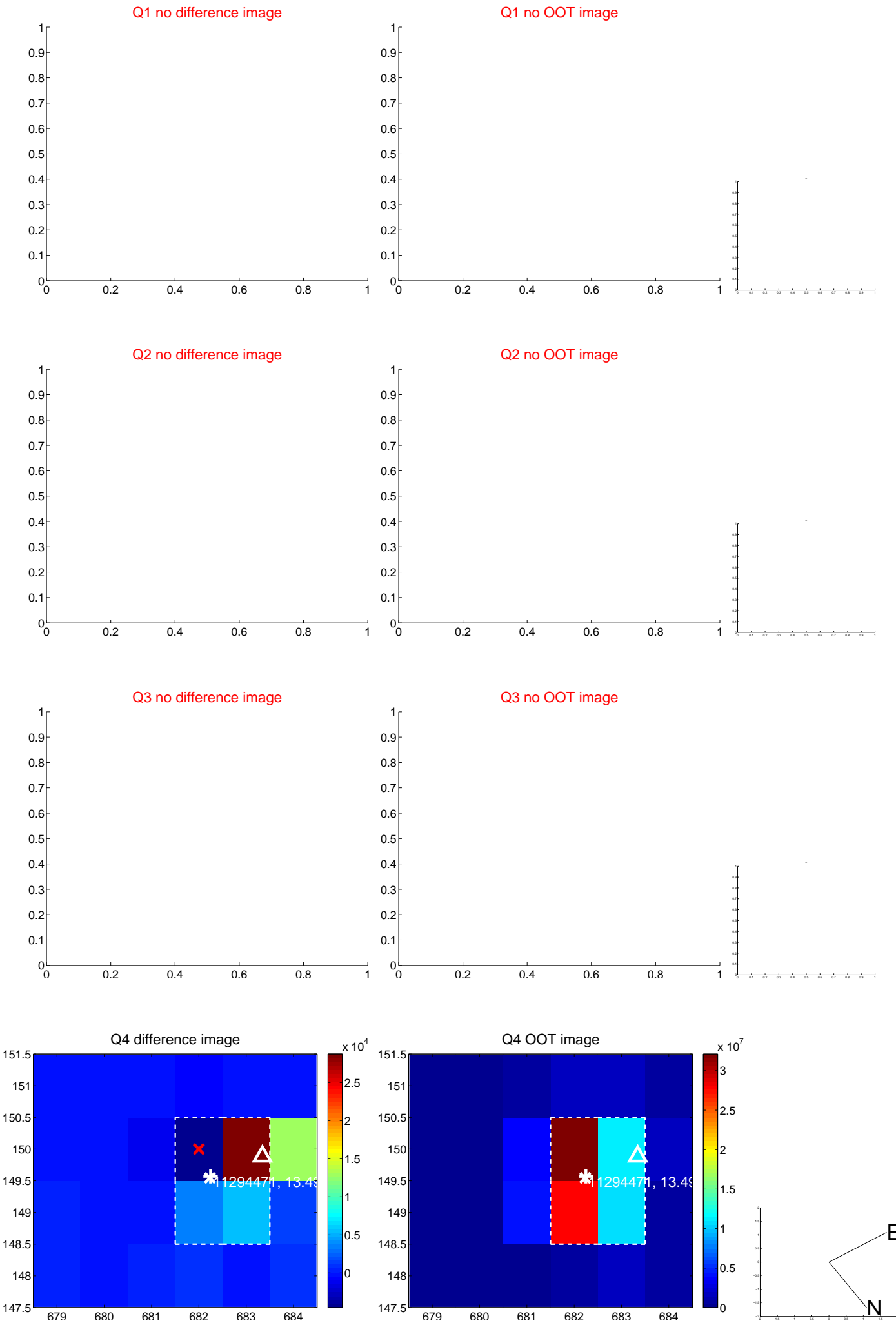


offset from photometric centroids



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.

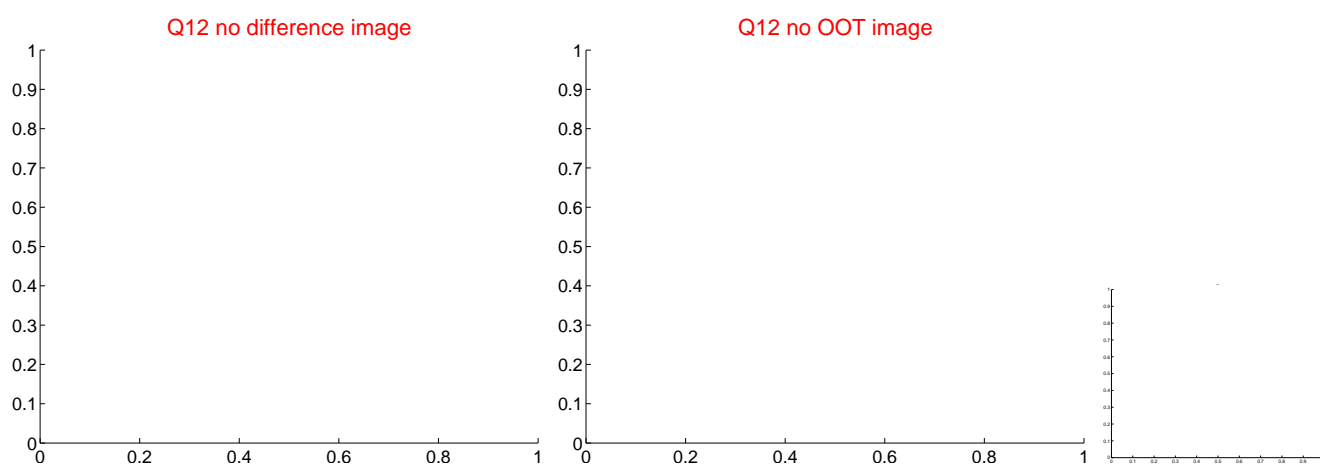
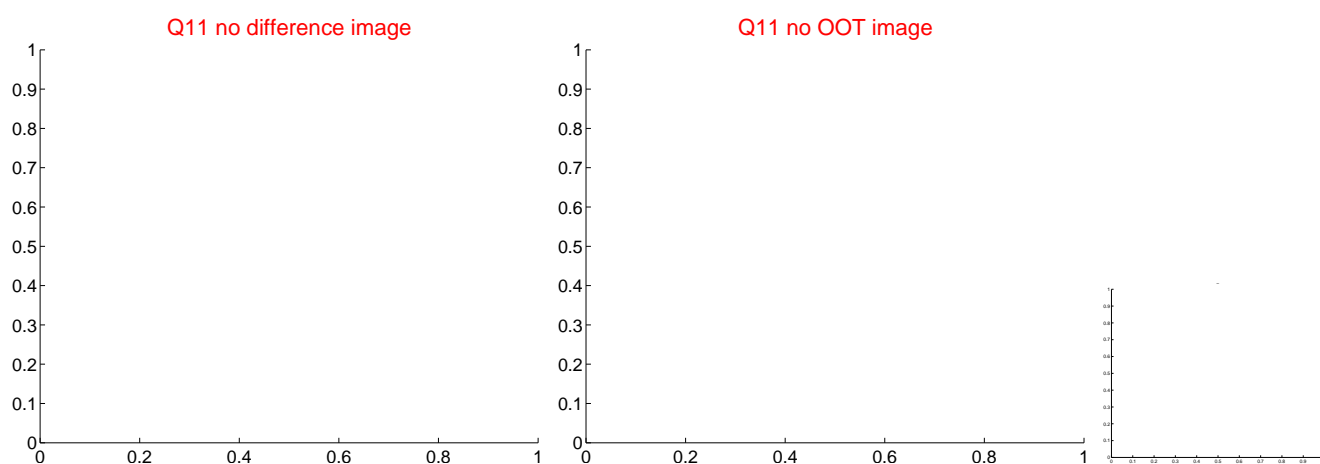
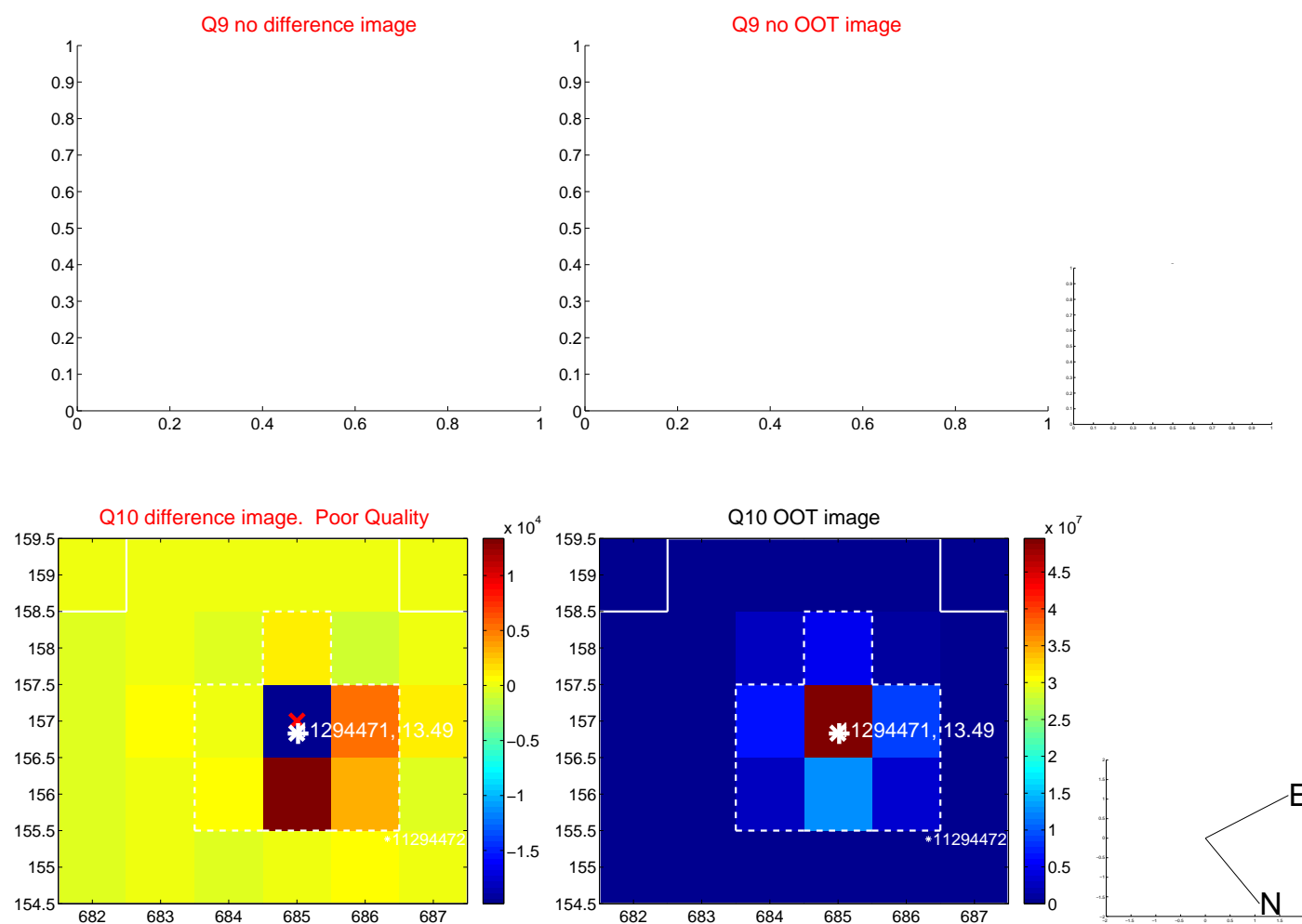
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



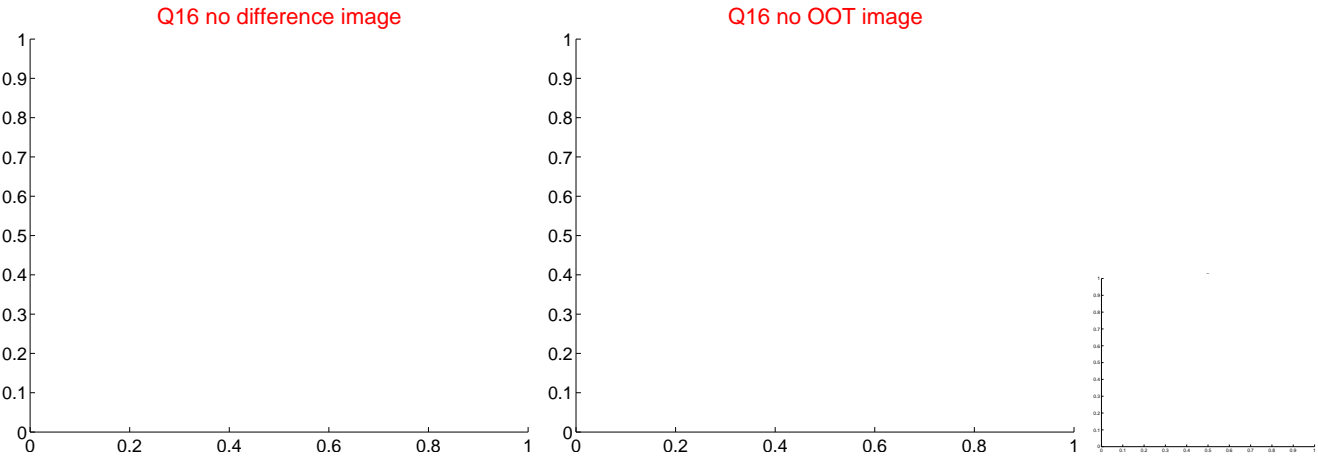
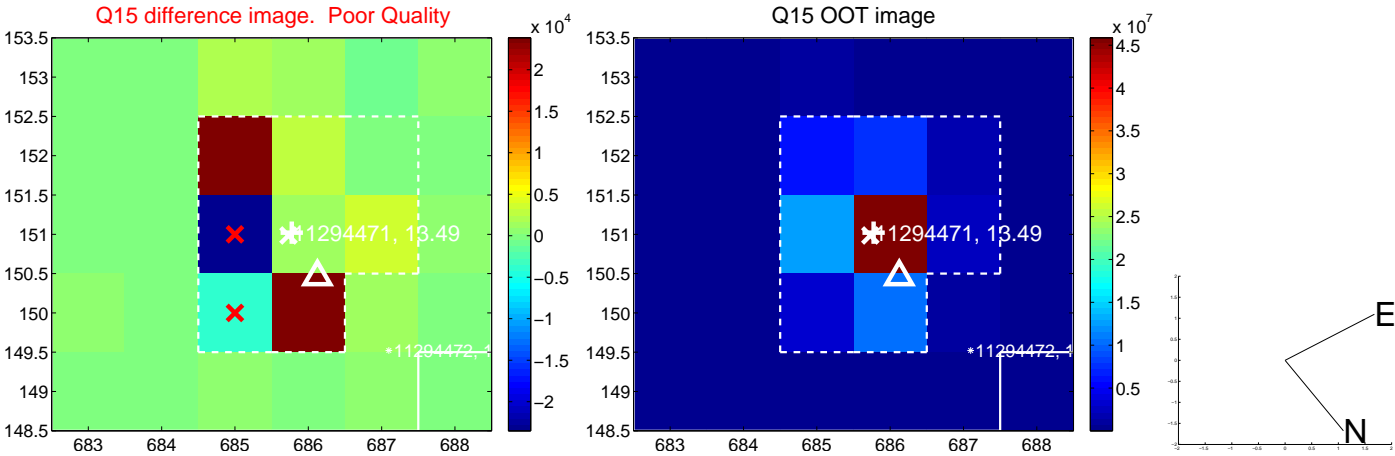
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



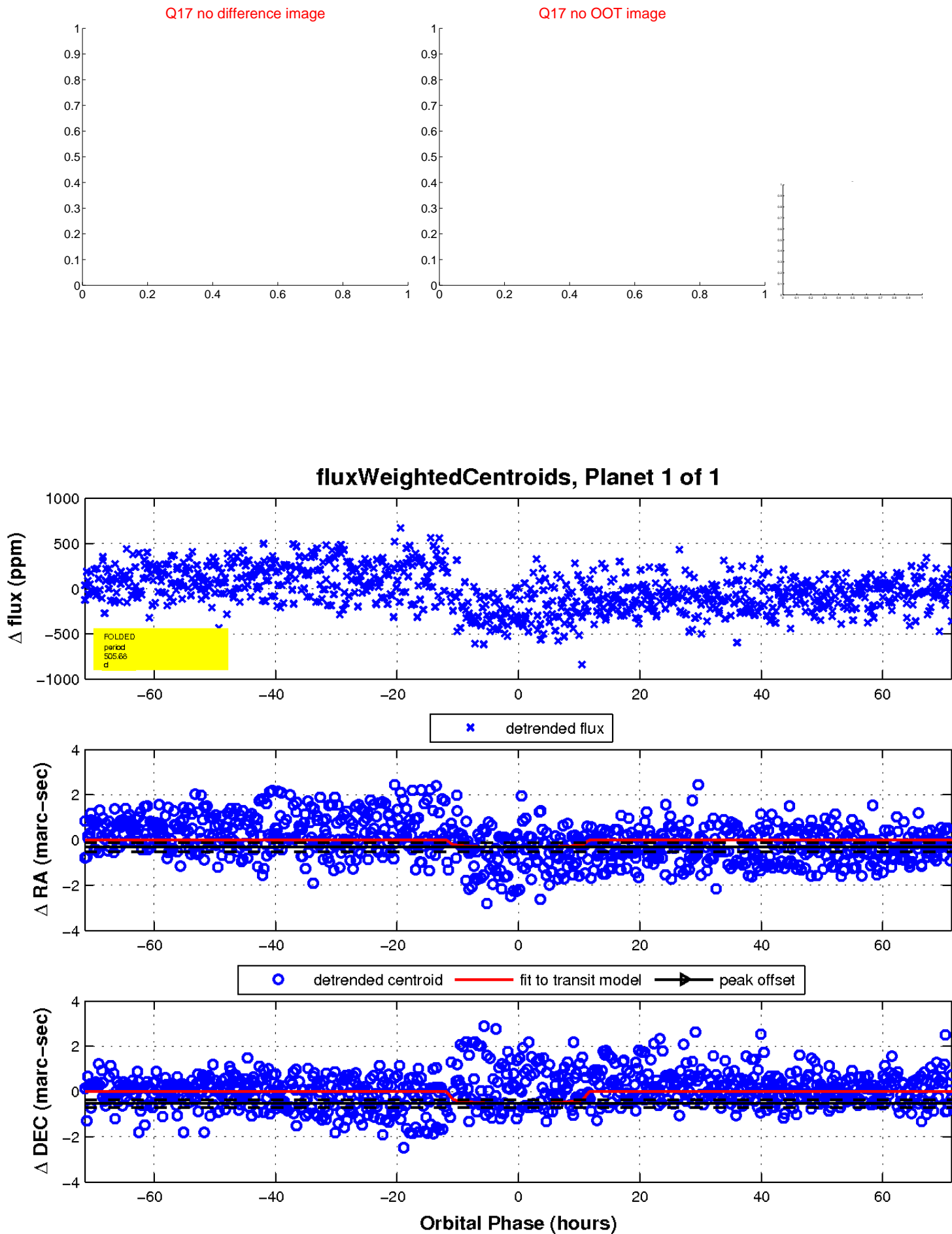
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



white ×: 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

