

KIC 011601972

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})
011601972-01	OBS	5919.01	290.196153	264.878511	276.7	13.906	8.7	8.8	1.40	6238	2.52	3.21

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011601972-01	OBS	FP	0.18	1	0	0	0	INDIV_TRANS_SKYE—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.

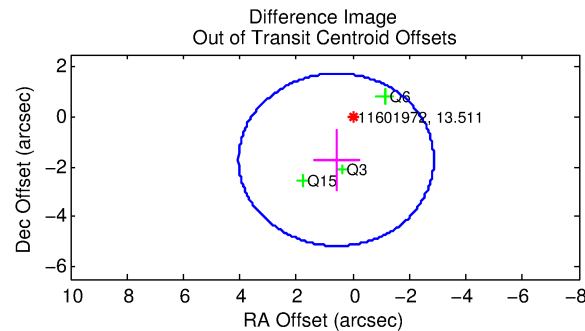
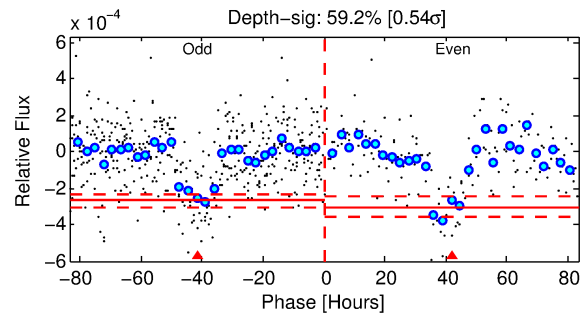
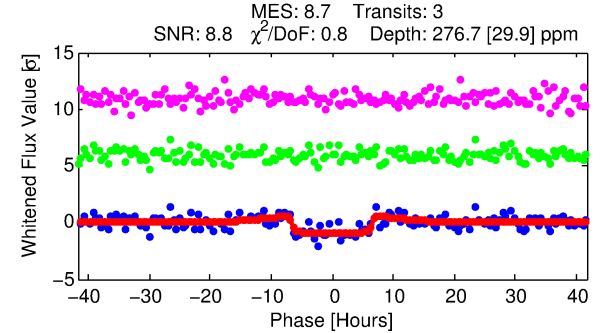
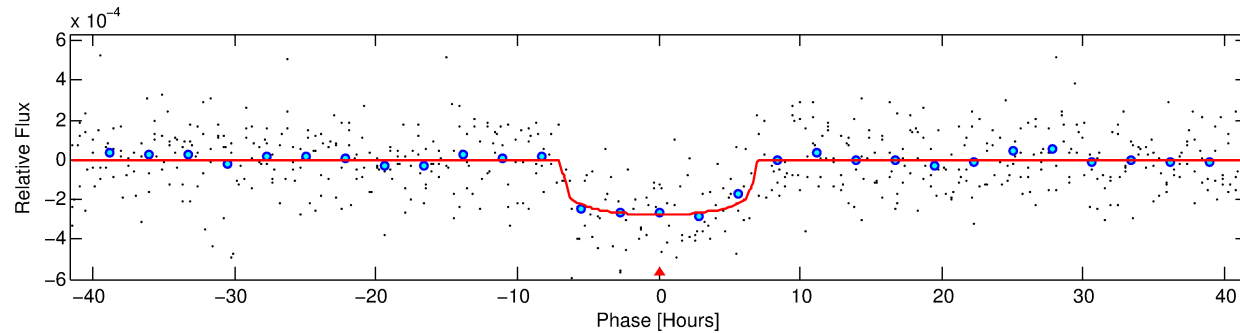
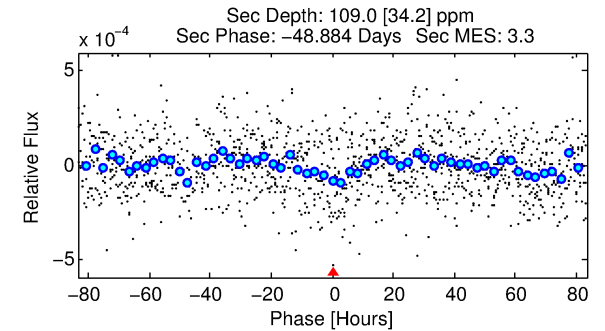
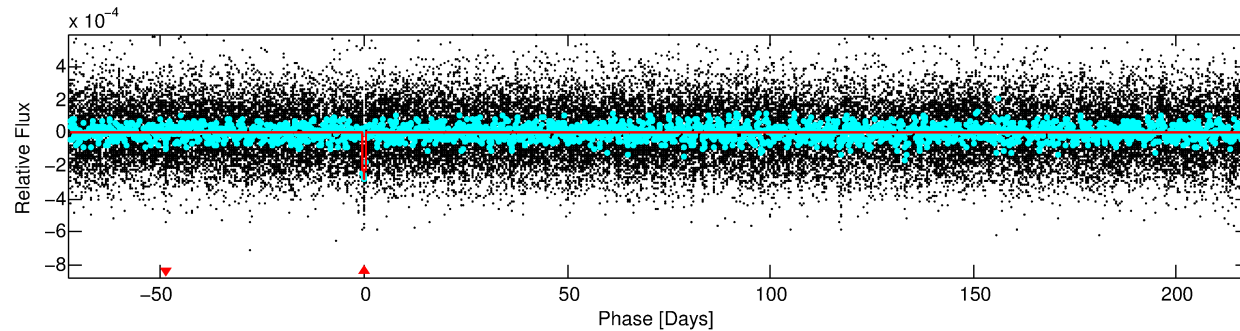
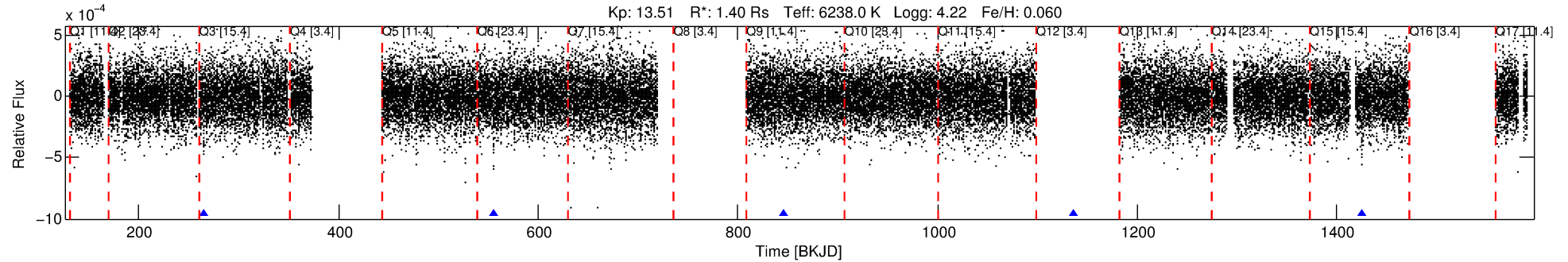
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011601972-01

No Significant Match Found

DV One-Page Summary

KIC: 11601972 Candidate: 1 of 1 Period: 290.196 d
KOI: K05919.01 Corr: 0.997



DV Fit Results:

Period = 290.19615 [0.00452] d
Epoch = 264.8785 [0.0118] BKJD
Rp/R* = 0.0165 [0.0046]
a/R* = 111.75 [154.20]
b = 0.74 [0.86]
Seff = 3.21 [1.29]
Teq = 341 [34] K
Rp = 2.52 [1.08] Re
a = 0.9124 [0.2404] AU
Ag = 7851.75 [5823.64] [1.35σ]
Teffp = 4967 [819] K [5.64σ]

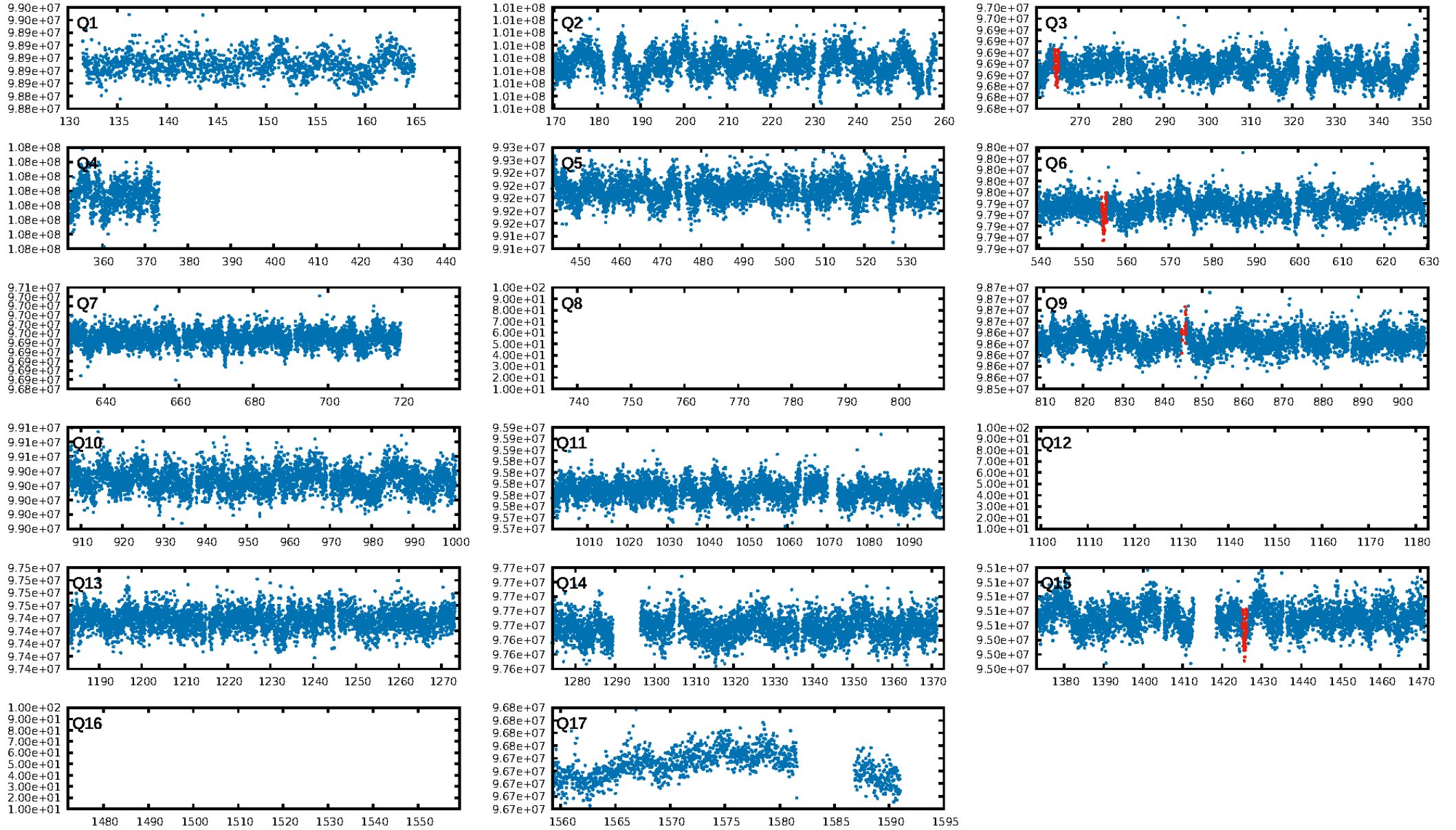
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 95.6%
ModelChiSquareGof-sig: 99.9%
Bootstrap-pfa: 5.63e-16
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -6.984
Centroid-sig: 73.9%
Centroid-so: 0.832 arcsec [0.68σ]
OotOffset-rm: 1.821 arcsec [1.58σ]
KicOffset-rm: 1.651 arcsec [1.41σ]
OotOffset-st: 1/2/0/0 [3]
KicOffset-st: 1/2/0/0 [3]
DiffImageQuality-fgm: 0.67 [2/3]
DiffImageOverlap-fno: 1.00 [3/3]

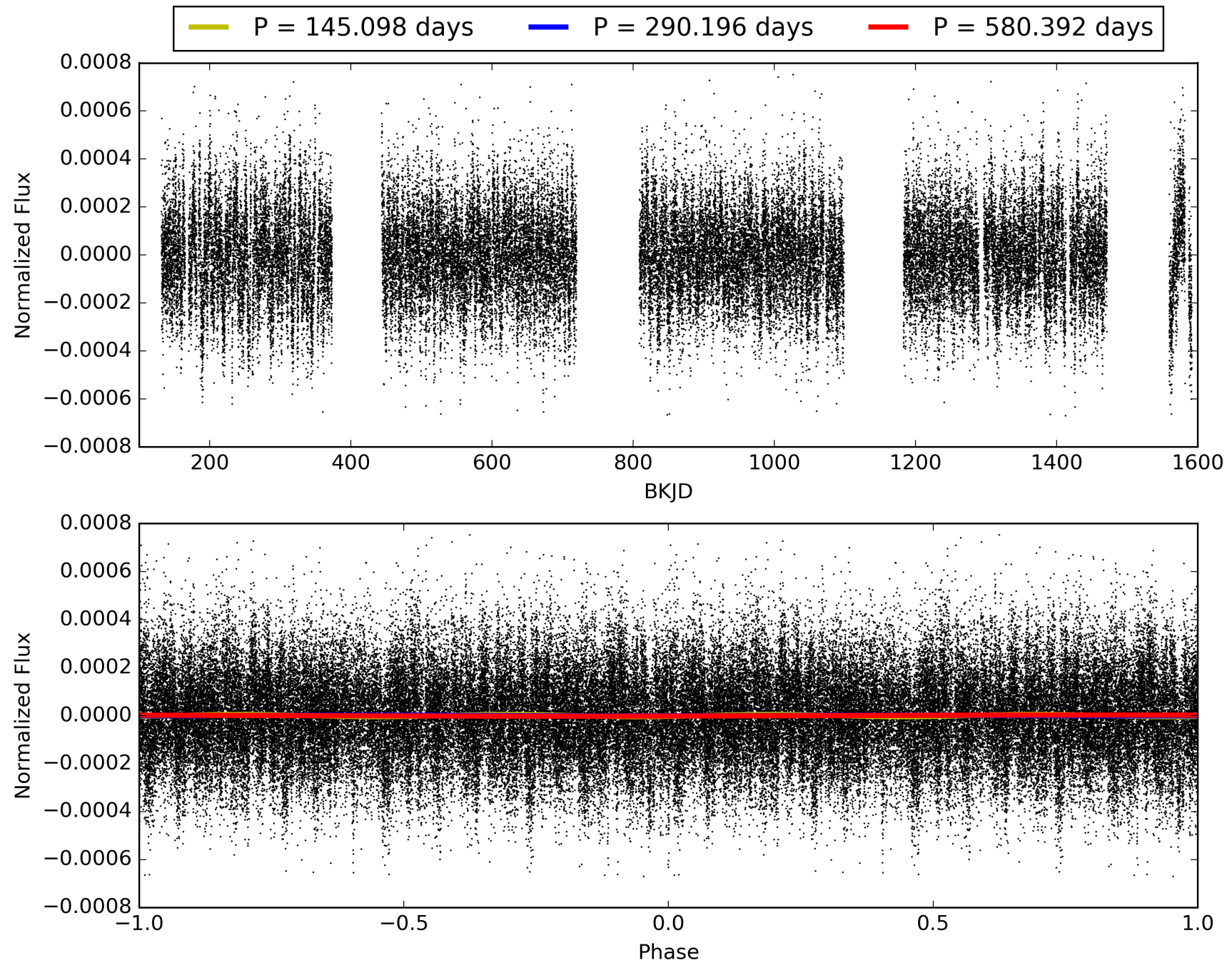
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 23:18:51 Z

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

TCE 011601972-01, PDC Light Curves

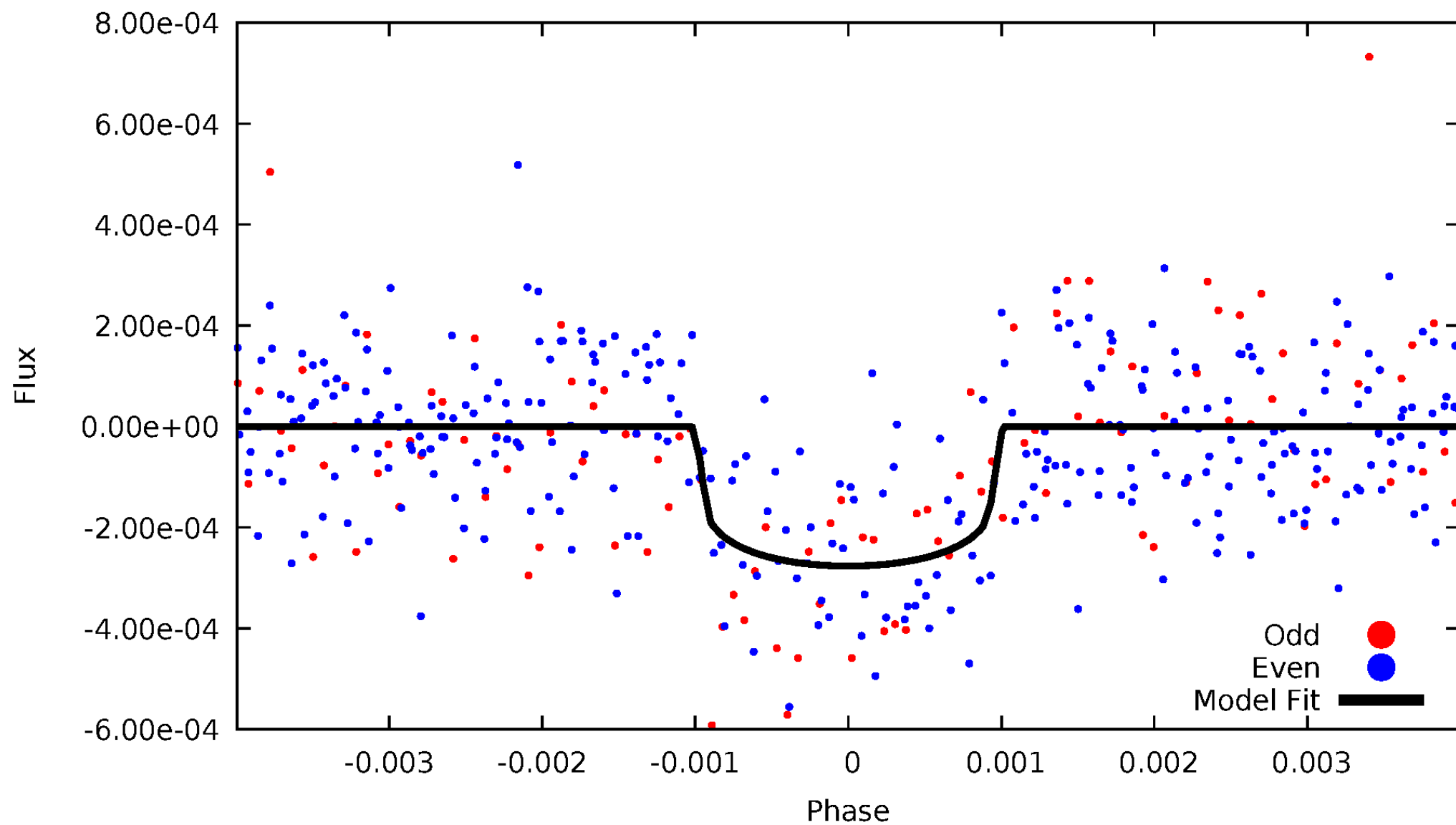


TCE 011601972-01



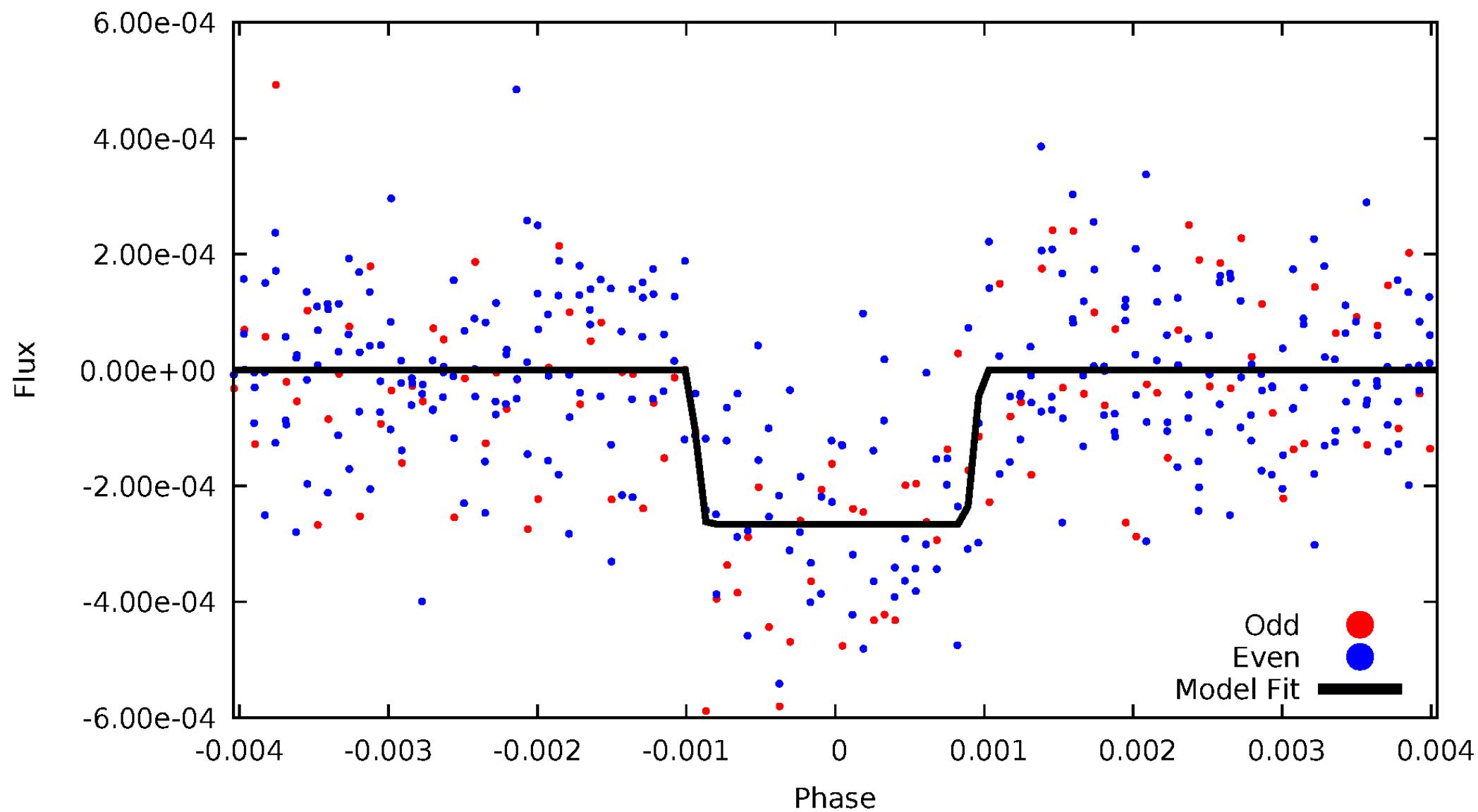
DV Odd/Even

TCE 011601972-01

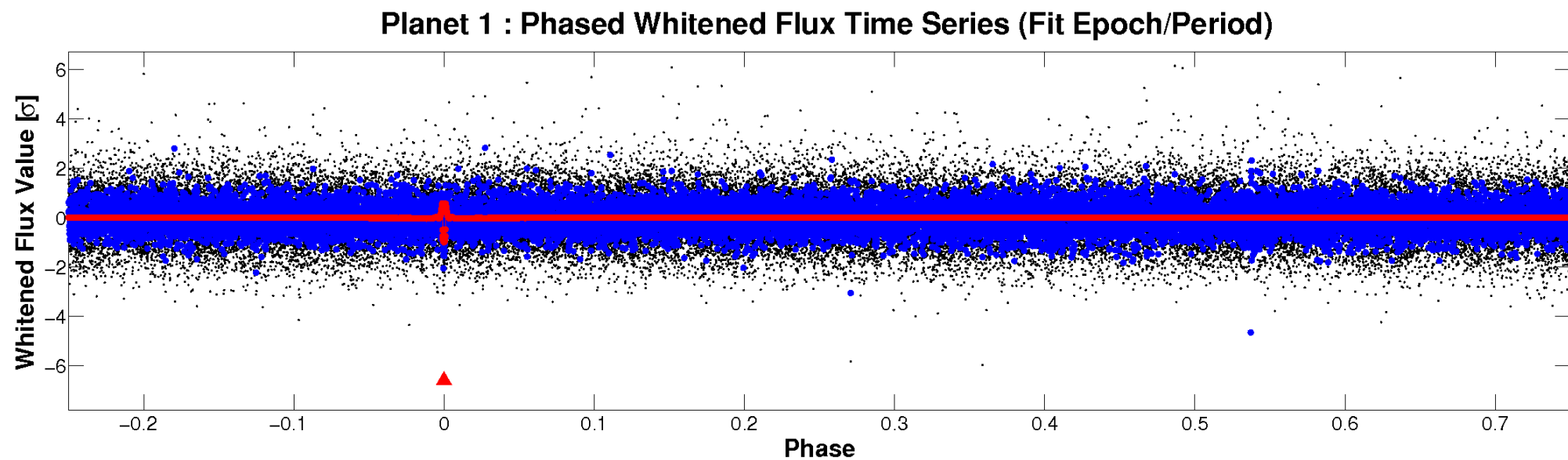
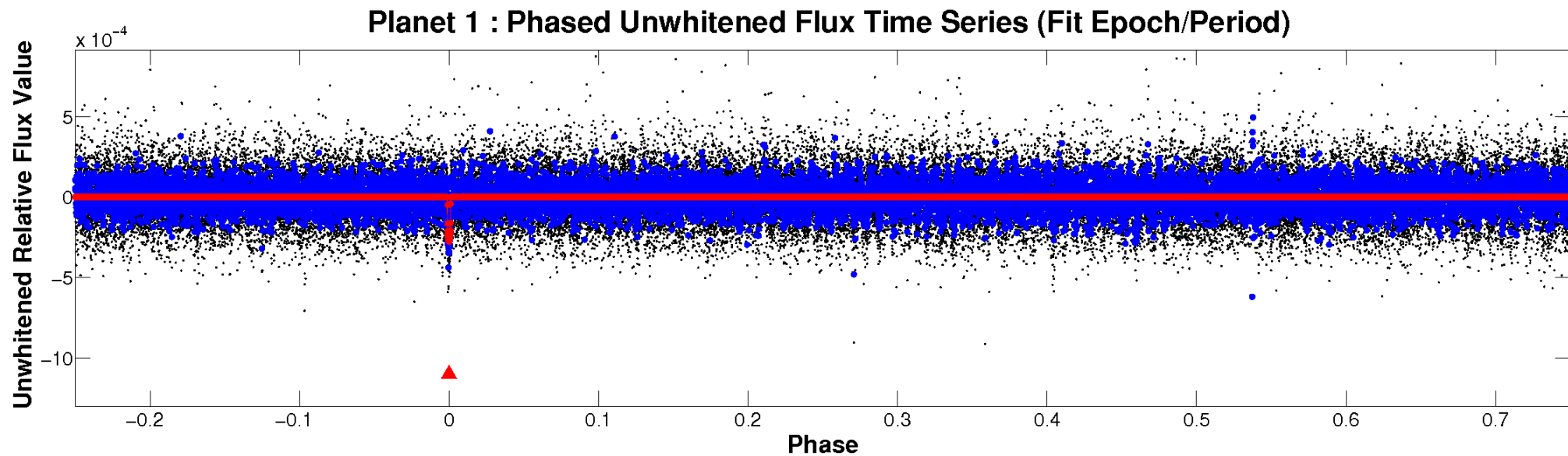


ALT Odd/Even

TCE 011601972-01

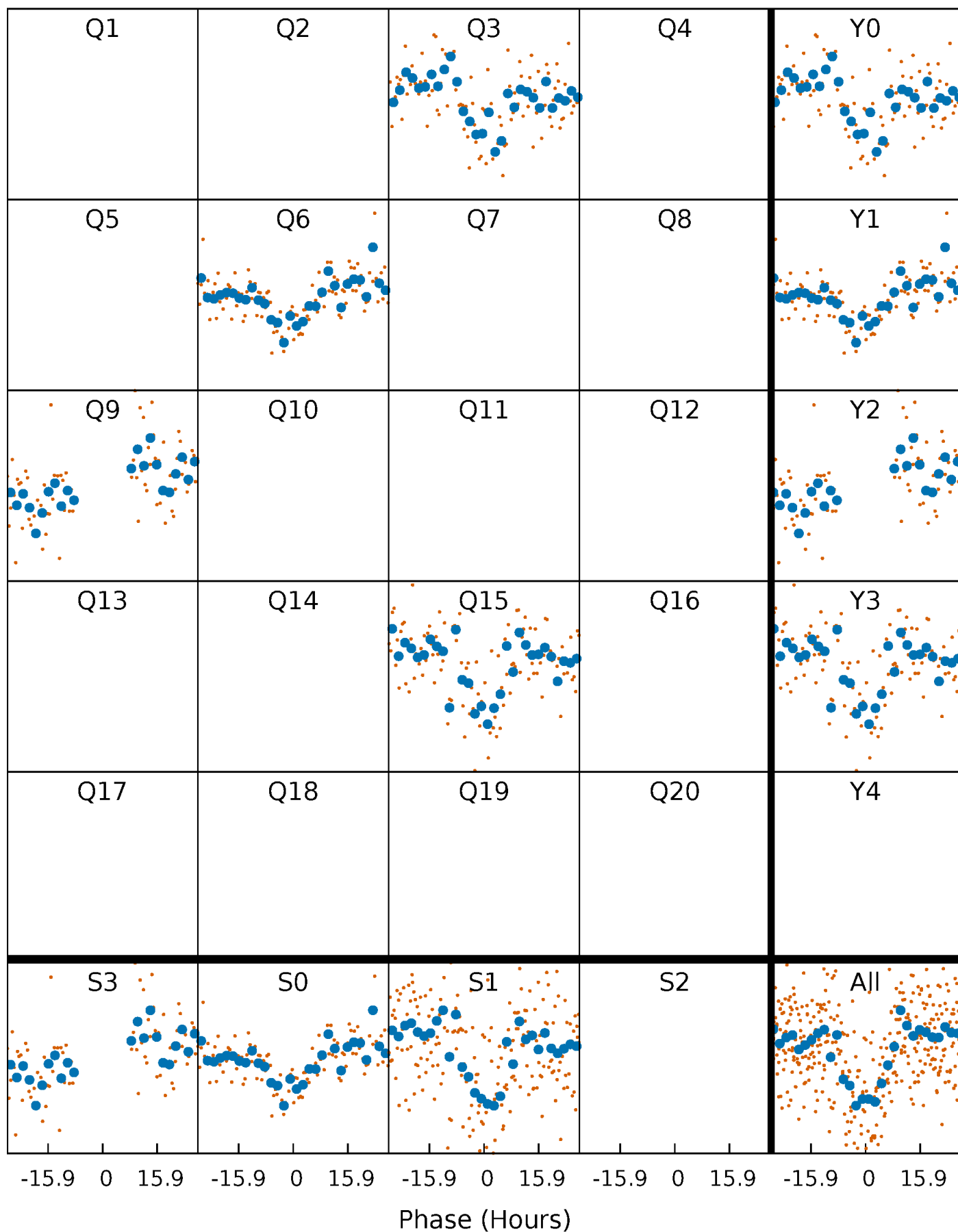


Non-Whitened Vs. Whitened Light Curve



PDC Quarter-Phased Transit Curves

TCE 011601972-01 P=290.196153 Days $T_0=264.878511$ (BKJD)



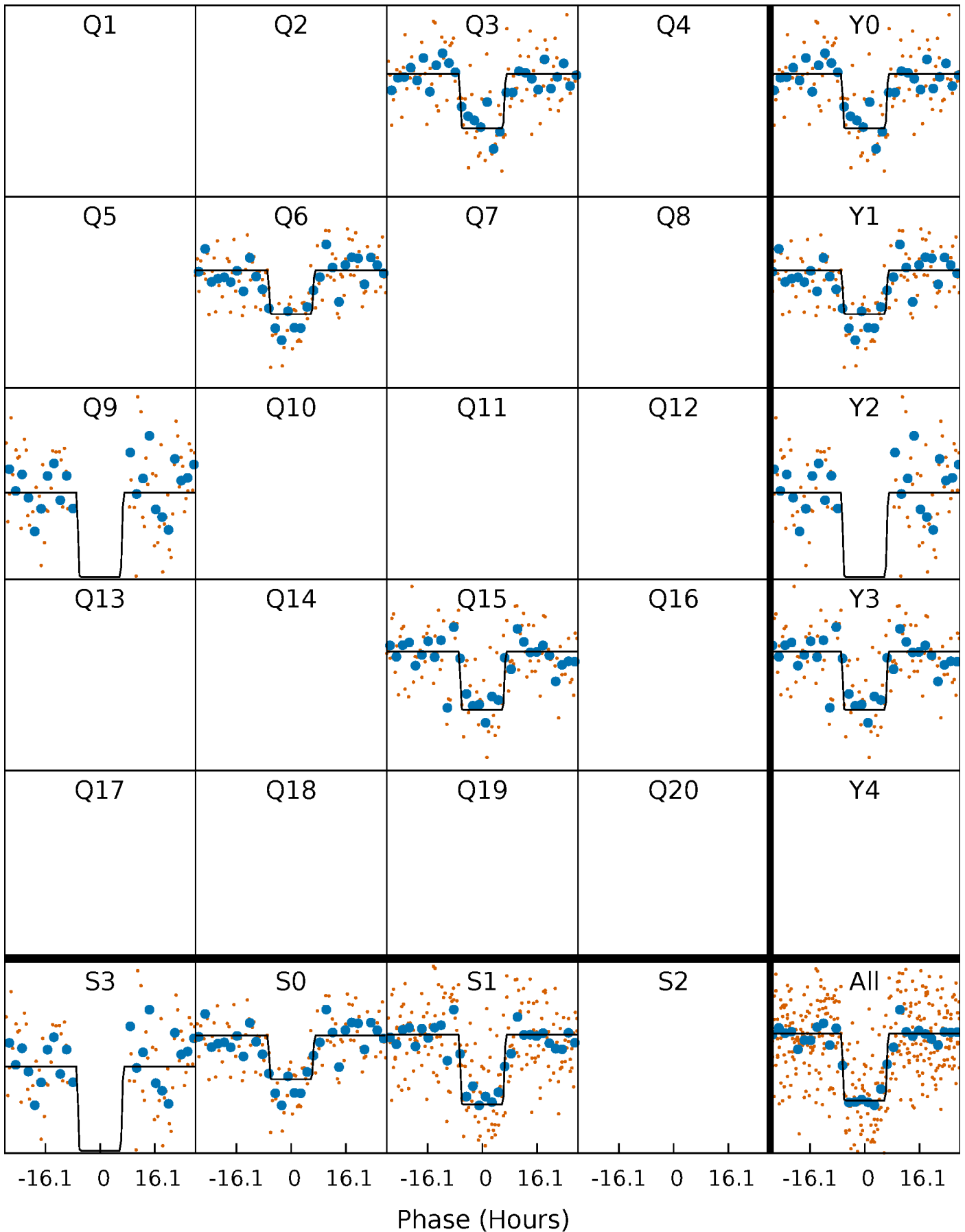
DV Quarter-Phased Transit Curves

TCE 011601972-01 P=290.196153 Days $T_0=264.878511$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

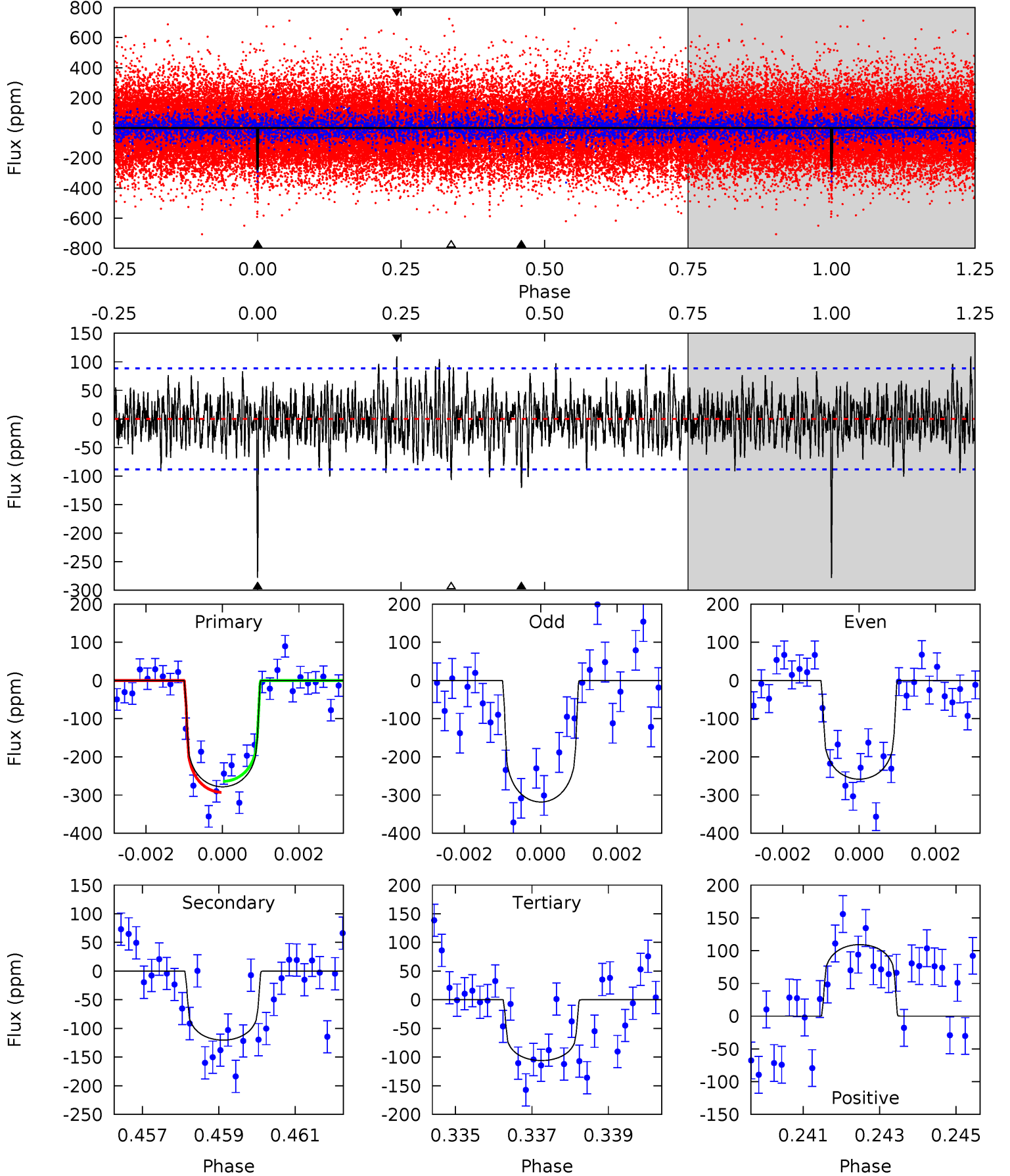
TCE 011601972-01 P=290.197419 Days $T_0=264.869996$ (BKJD)



DV Model-Shift Uniqueness Test

011601972-01, P = 290.196153 Days, E = 264.878511 Days

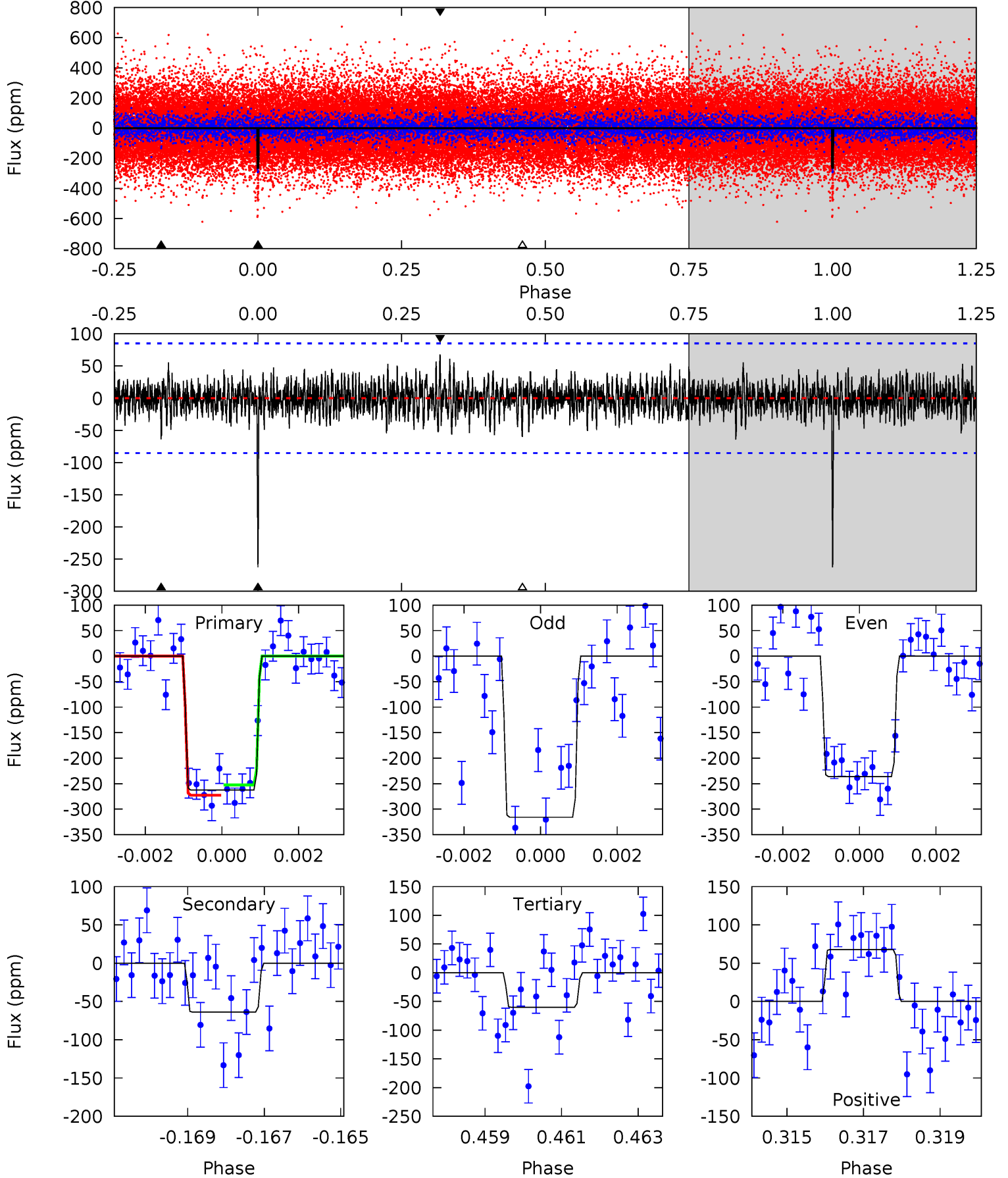
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
16.8	7.25	6.39	6.58	5.32	3.08	1.96	10.4	10.2	0.86	0.67	1.70	1.05	0.28	0.87



Alt Model-Shift Uniqueness Test

011601972-01, P = 290.197419 Days, E = 264.869996 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
16.4	4.00	3.76	4.24	5.33	3.09	1.12	12.7	12.2	0.24	-0.25	2.36	1.08	0.21	0.63



Stellar Parameters For KIC 011601972

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6238^{+195}_{-239}	$4.224^{+0.162}_{-0.198}$	$0.060^{+0.250}_{-0.300}$	$1.403^{+0.453}_{-0.302}$	$1.204^{+0.182}_{-0.182}$	$0.614^{+0.566}_{-0.310}$
	+3%/-4%	+4%/-5%	+417%/-500%	+32%/-22%	+15%/-15%	+92%/-50%
Source	PHO54	PHO54	PHO54	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 011601972-01 / KOI 5919.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-120 ± 17	$2.48^{+0.85}_{-0.74}$	475^{+38}_{-30}	5192^{+902}_{-602}	9223^{+8341}_{-4307}
Alt.	-64 ± 16	$2.53^{+0.85}_{-0.73}$	478^{+39}_{-32}	4523^{+671}_{-470}	4464^{+4827}_{-2125}

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

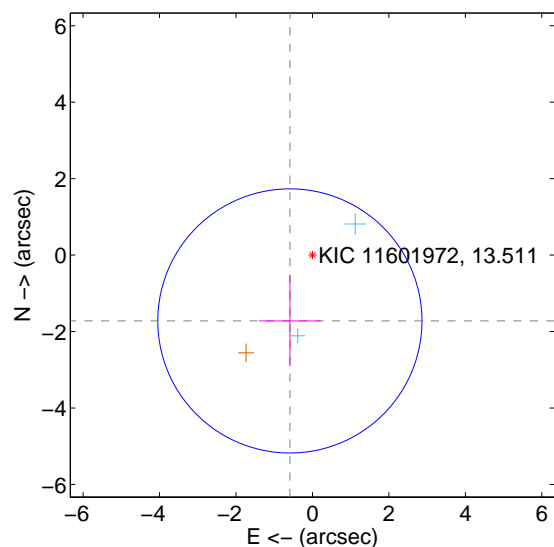
Supplemental centroid analysis for 011601972-01. Kepler magnitude: 13.51. Transit SNR 8.77

There are 2 quarters with good PRF difference image offsets

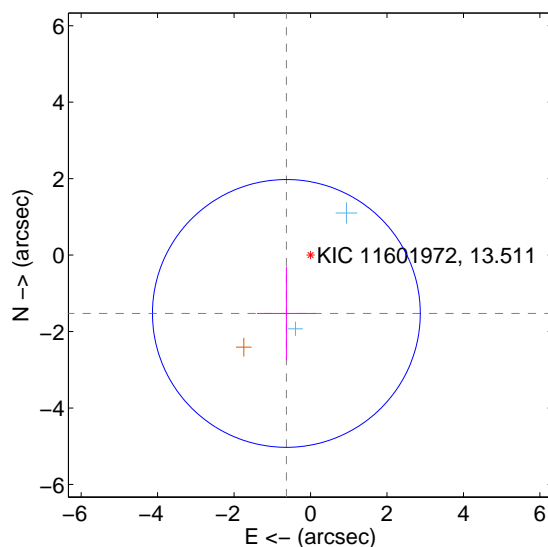
The direct PRF centroid is offset from the target star catalog position by about 0.15 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.821 ± 1.152	1.58	0.590 ± 0.806	-1.722 ± 1.186
PRF-fit source offset from KIC position	1.651 ± 1.167	1.41	0.632 ± 0.769	-1.526 ± 1.223
photometric centroid source offset	0.83 ± 1.23	0.68	-0.60 ± 1.11	0.58 ± 1.34

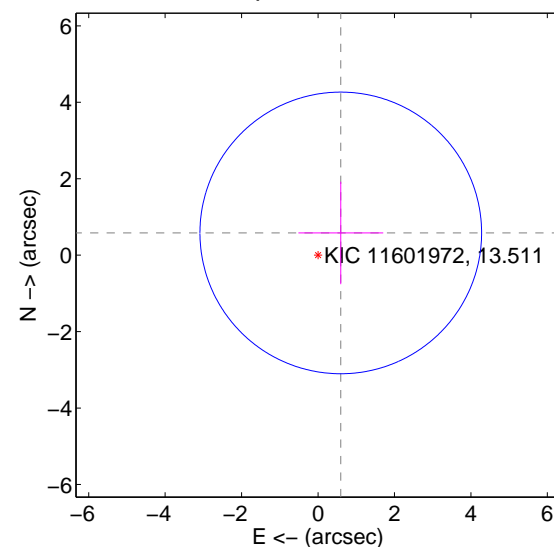
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position



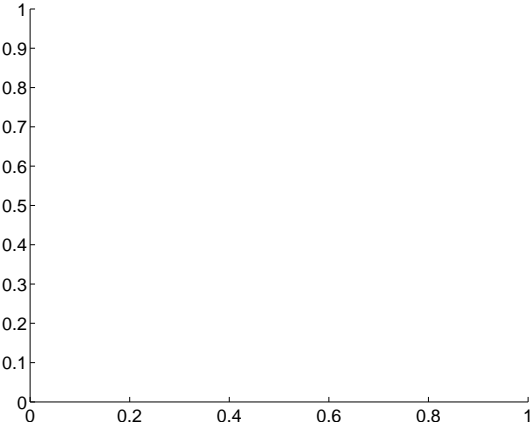
offset from photometric centroids



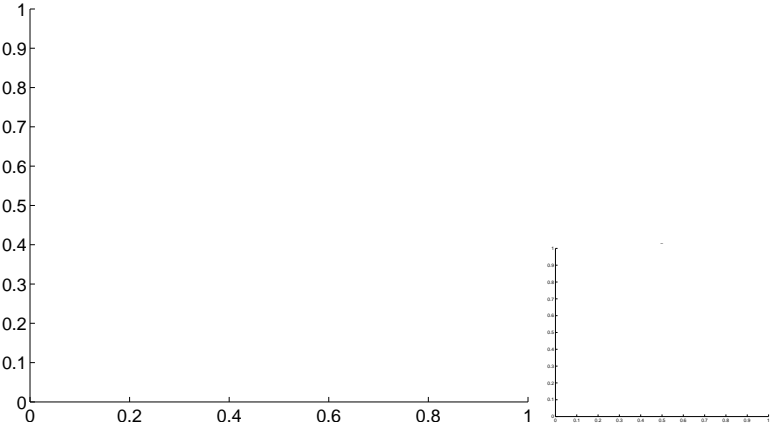
Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

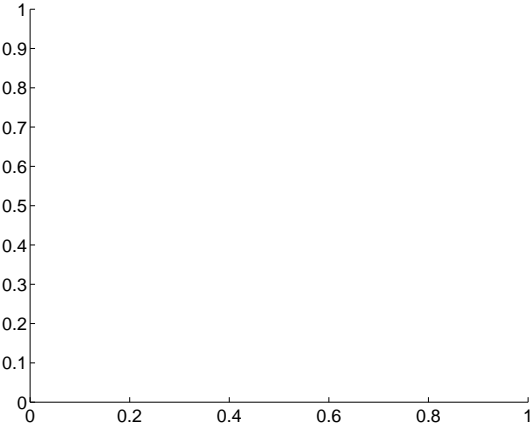
Q1 no difference image



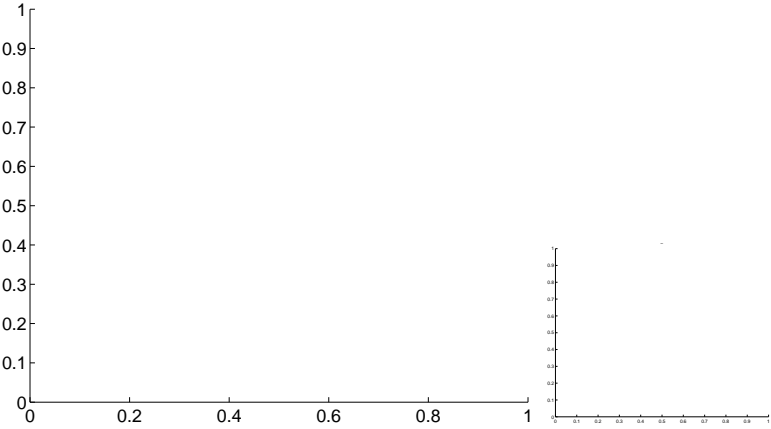
Q1 no OOT image



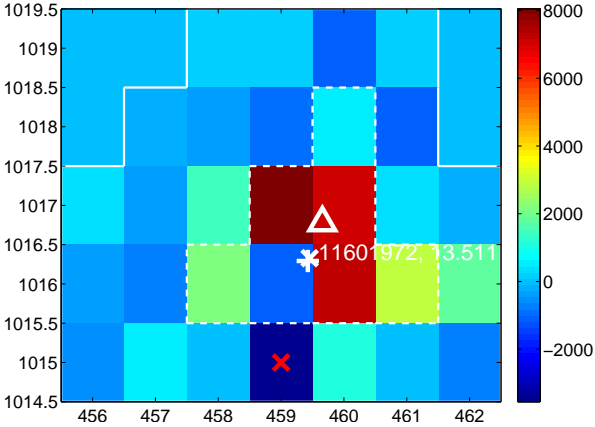
Q2 no difference image



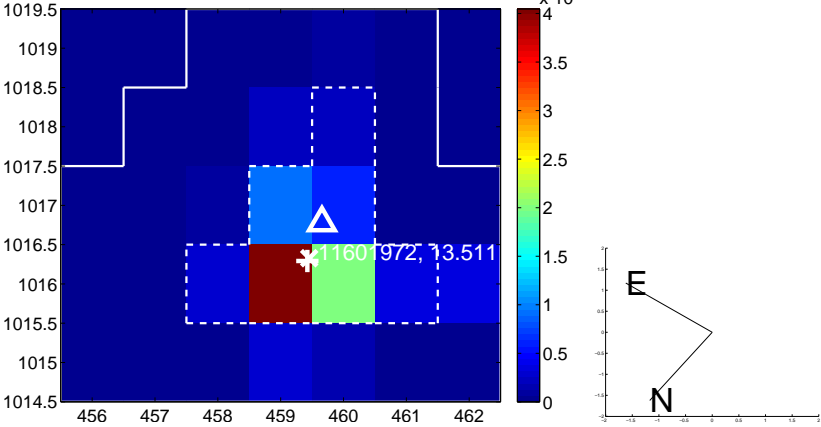
Q2 no OOT image



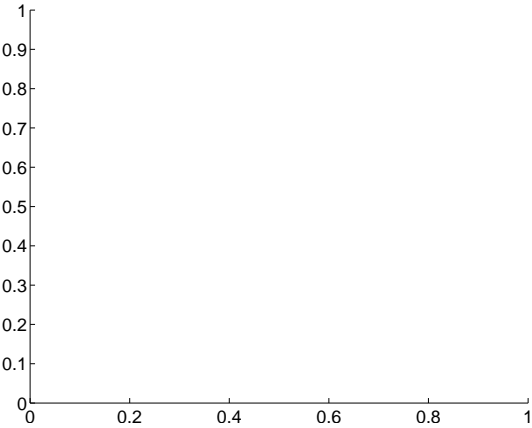
Q3 difference image



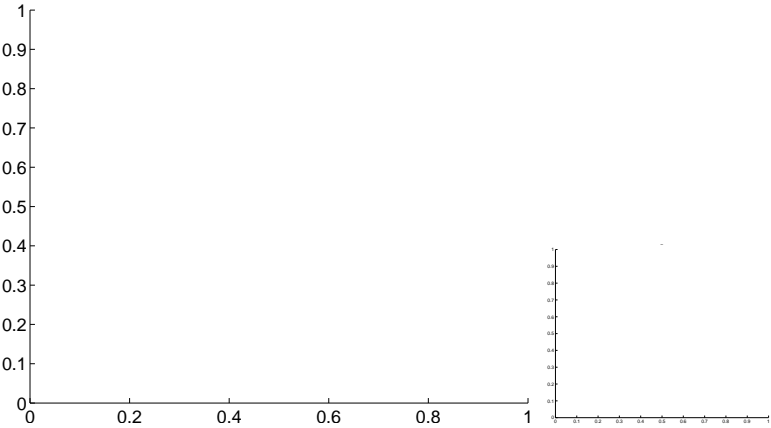
Q3 OOT image



Q4 no difference image

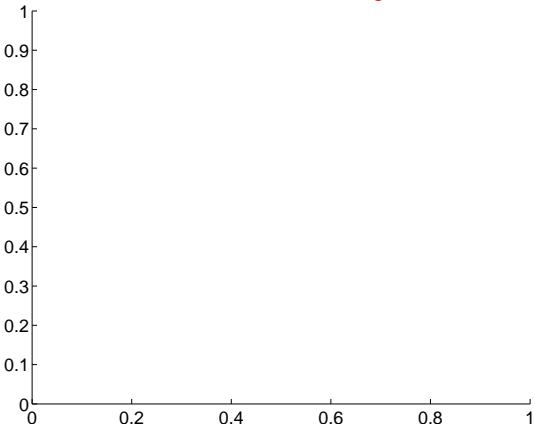


Q4 no OOT image

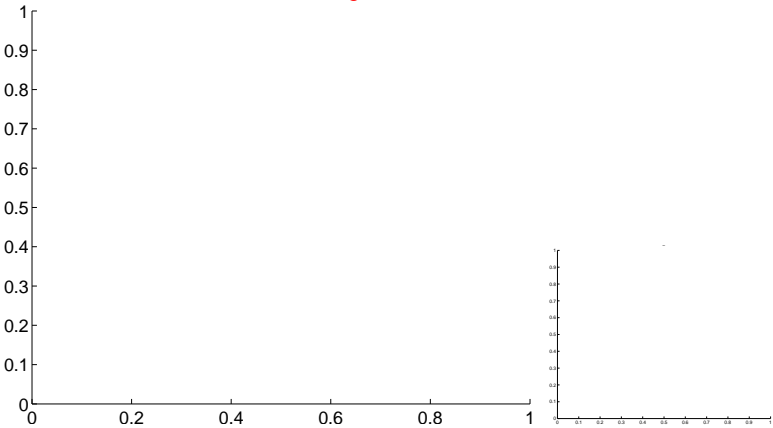


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

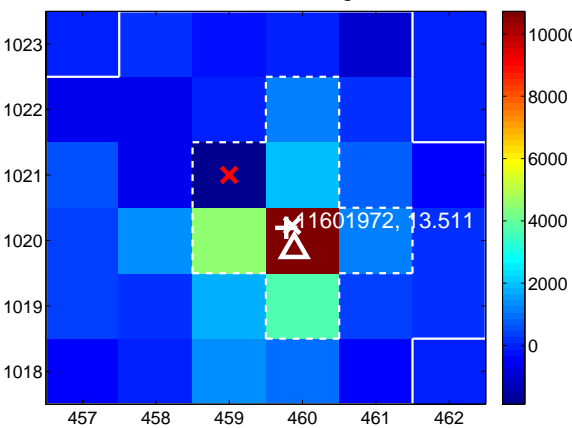
Q5 no difference image



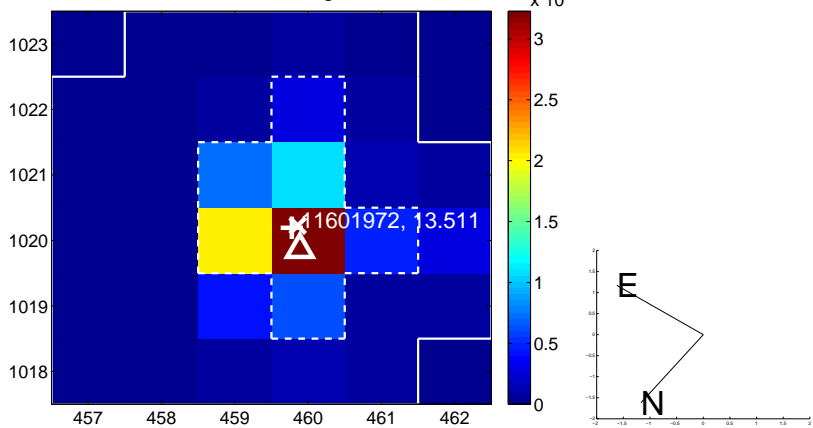
Q5 no OOT image



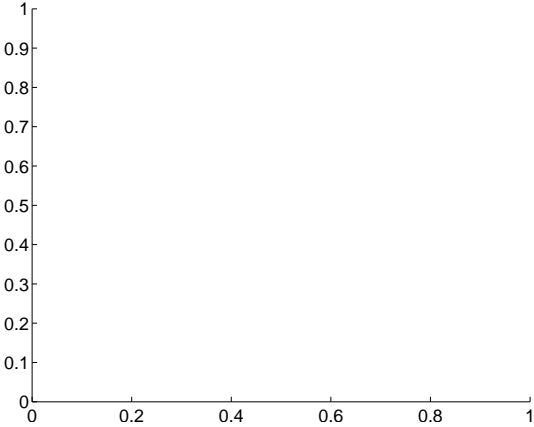
Q6 difference image



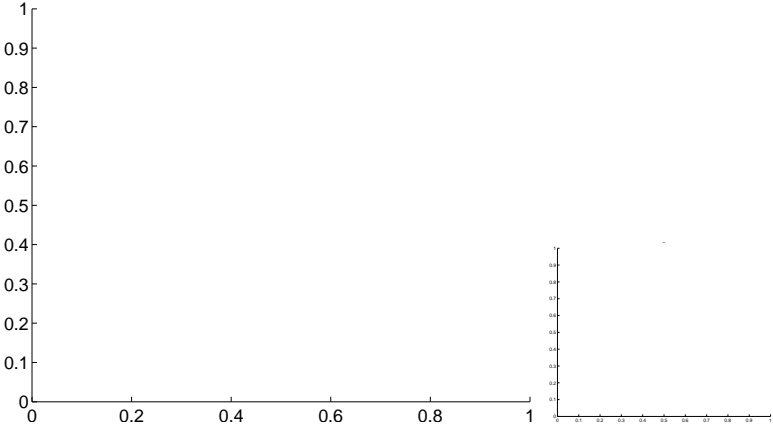
Q6 OOT image



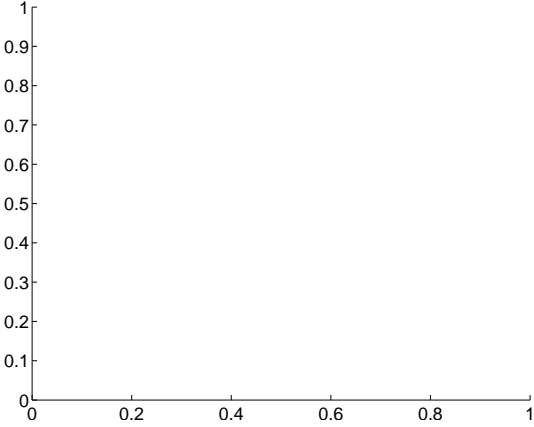
Q7 no difference image



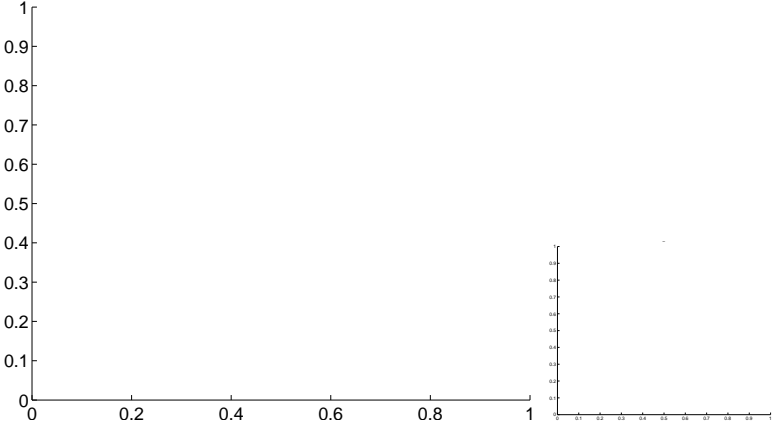
Q7 no OOT image



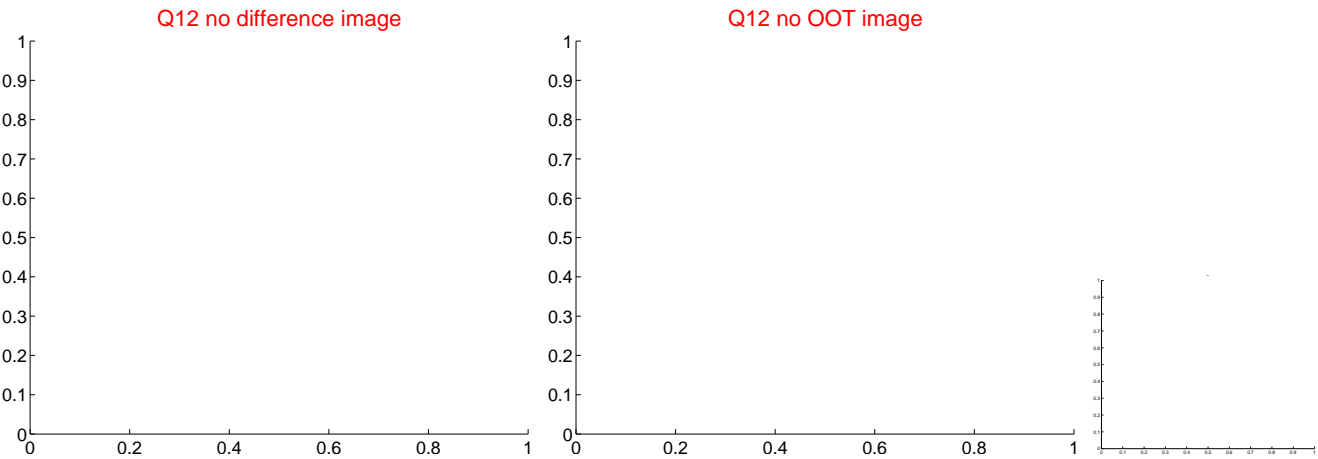
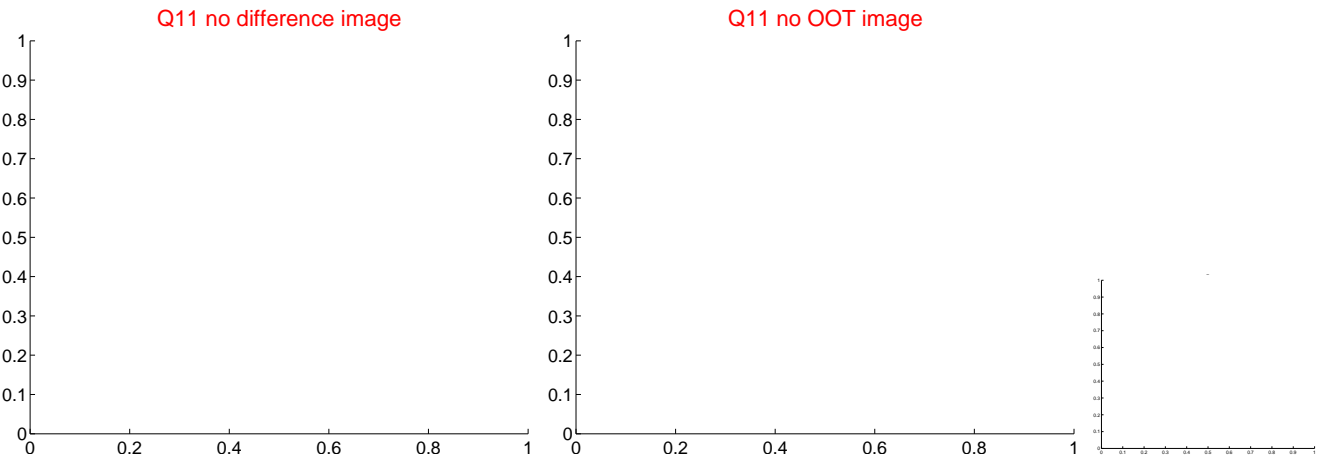
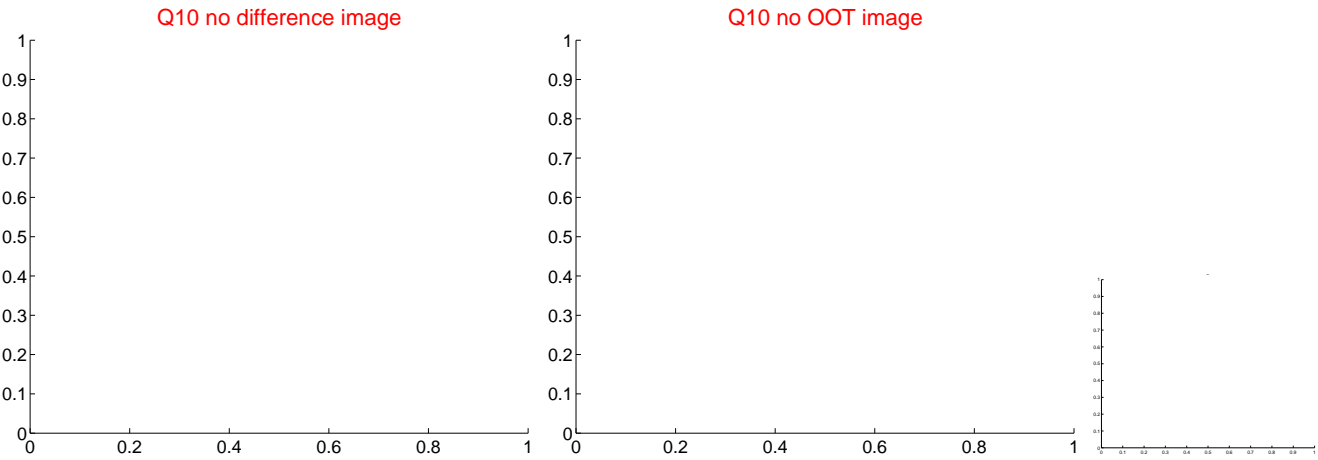
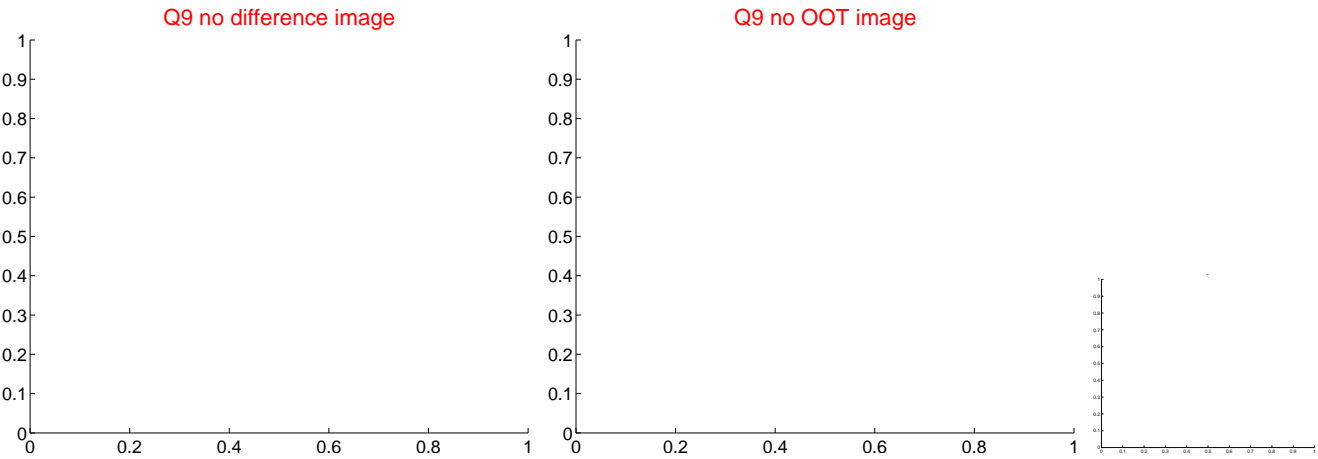
Q8 no difference image



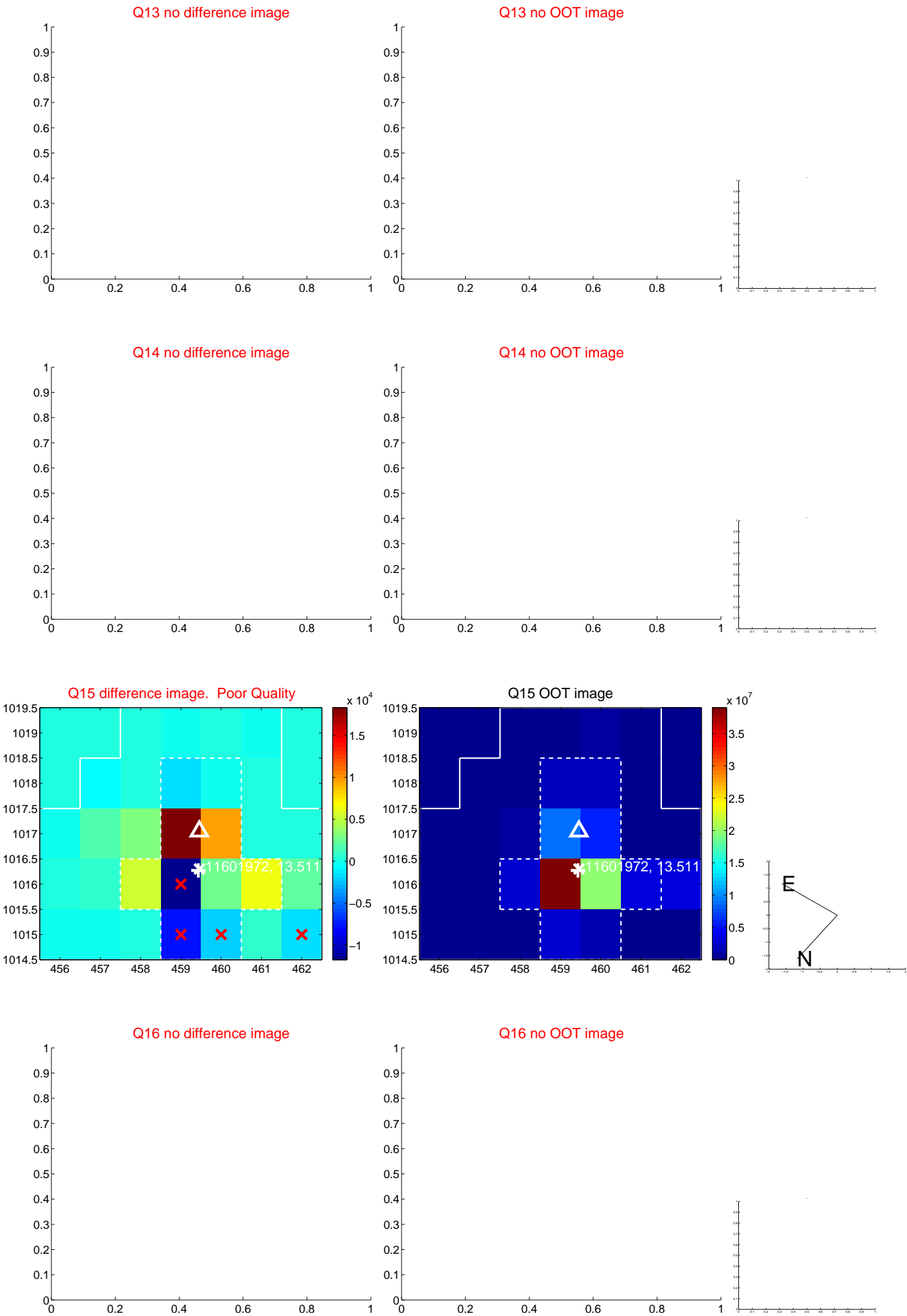
Q8 no OOT image



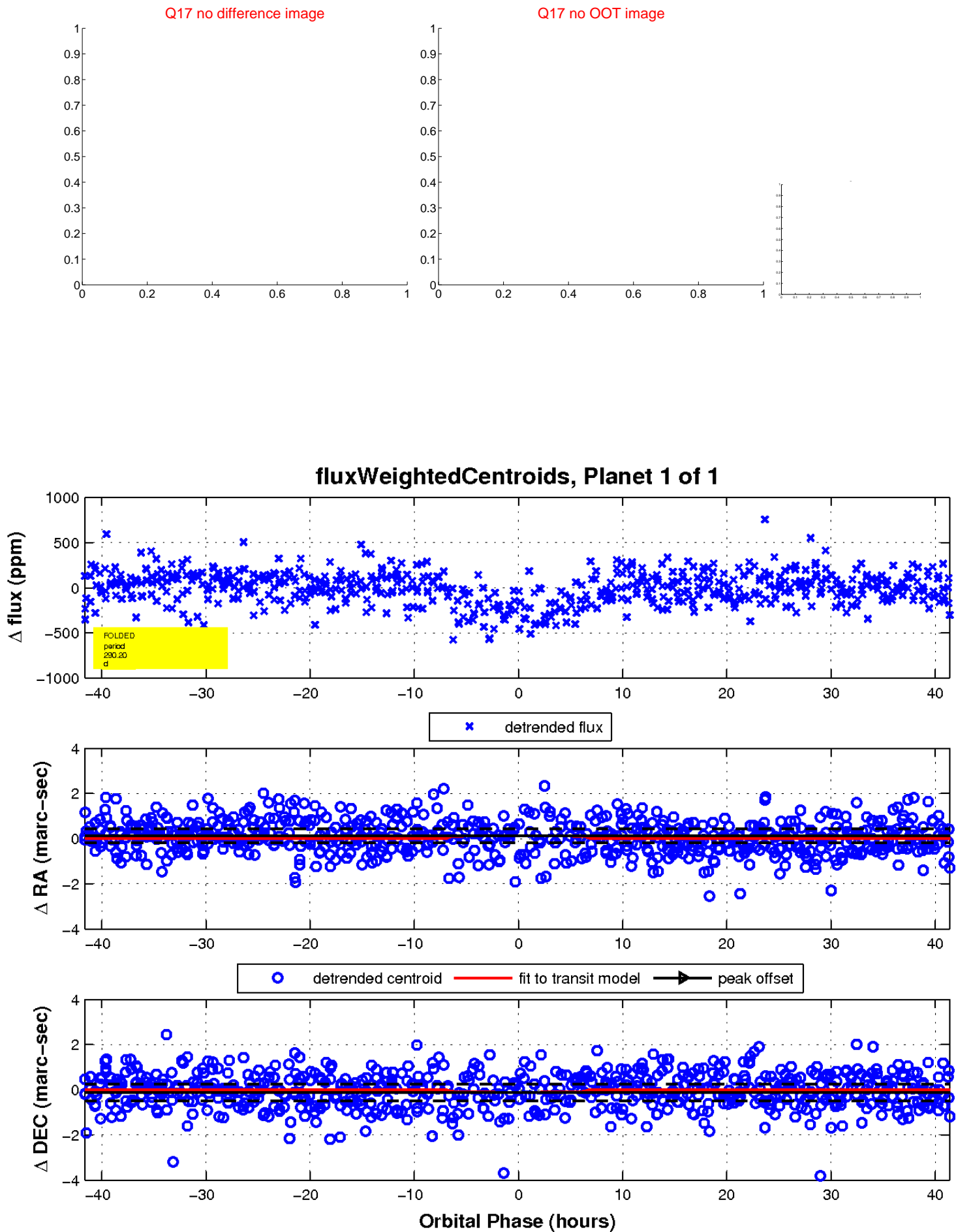
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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UKIRT Image

Declination

