

KIC 011146247

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})
011146247-01	OBS	No	449.182470	422.383793	1534.3	21.475	7.4	6.6	0.87	5448	4.16	0.48

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011146247-01	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_MARSHALL—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS—HALO_GHOST

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

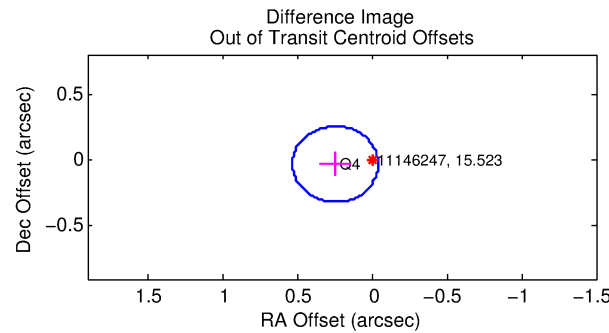
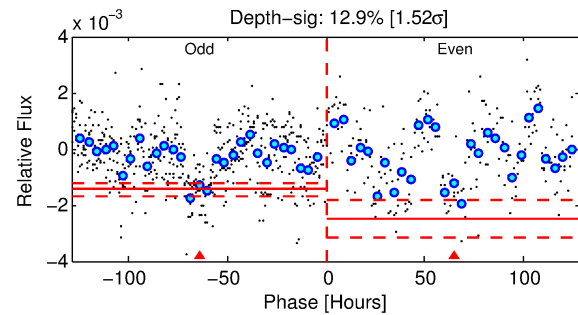
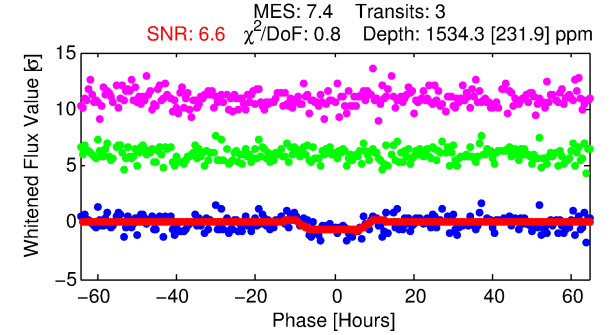
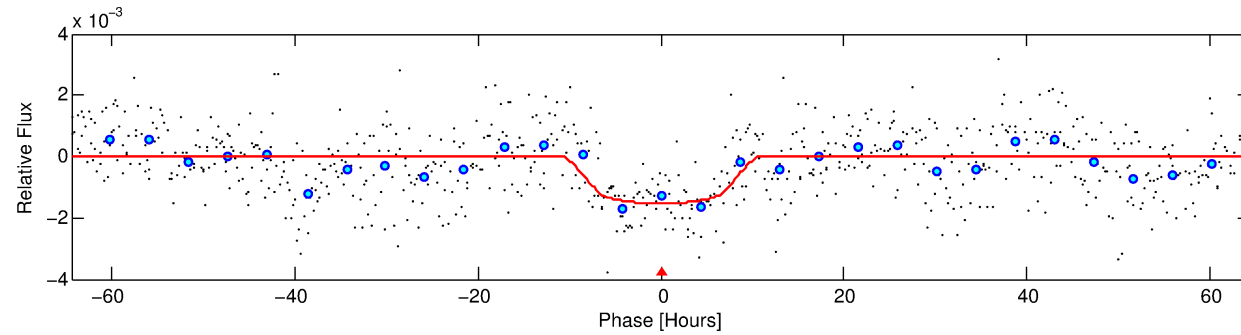
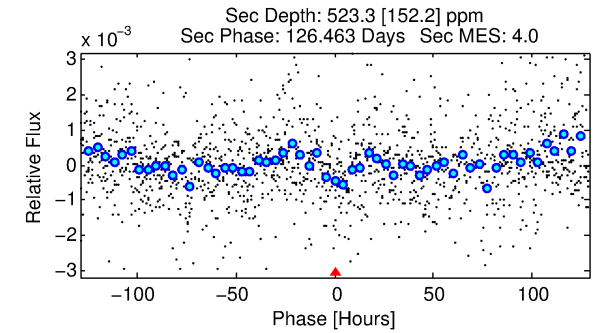
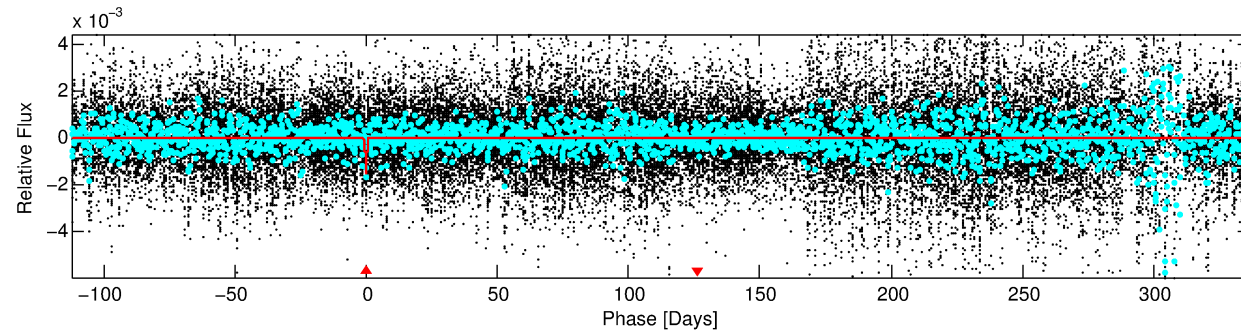
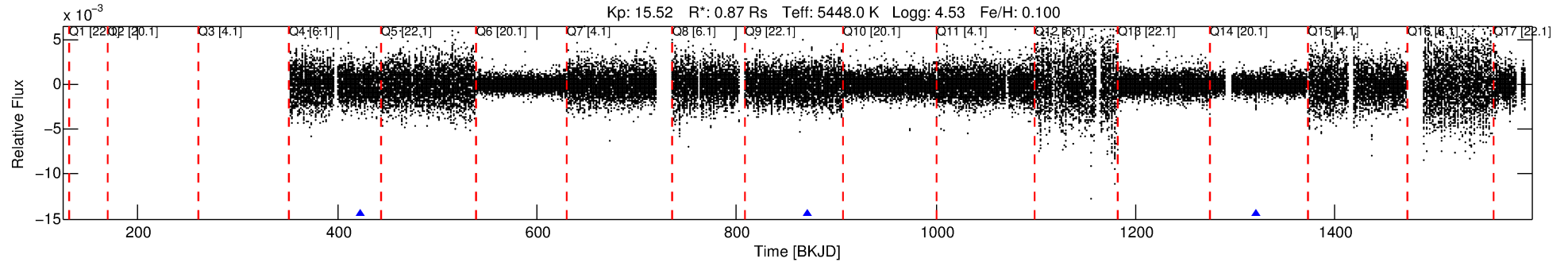
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011146247-01

No Significant Match Found

DV One-Page Summary

KIC: 11146247 Candidate: 1 of 1 Period: 449.182 d



DV Fit Results:

Period = 449.18247 [0.03634] d
Epoch = 422.3838 [0.0655] BKJD
Rp/R* = 0.0439 [0.0044]
a/R* = 80.94 [17.82]
b = 0.91 [0.04]
Seff = 0.48 [0.15]
Teq = 212 [17] K
Rp = 4.16 [1.04] Re
a = 1.1186 [0.2186] AU
Ag = 20778.50 [9450.81] [2.20σ]
Teffp = 3935 [371] K [10.03σ]

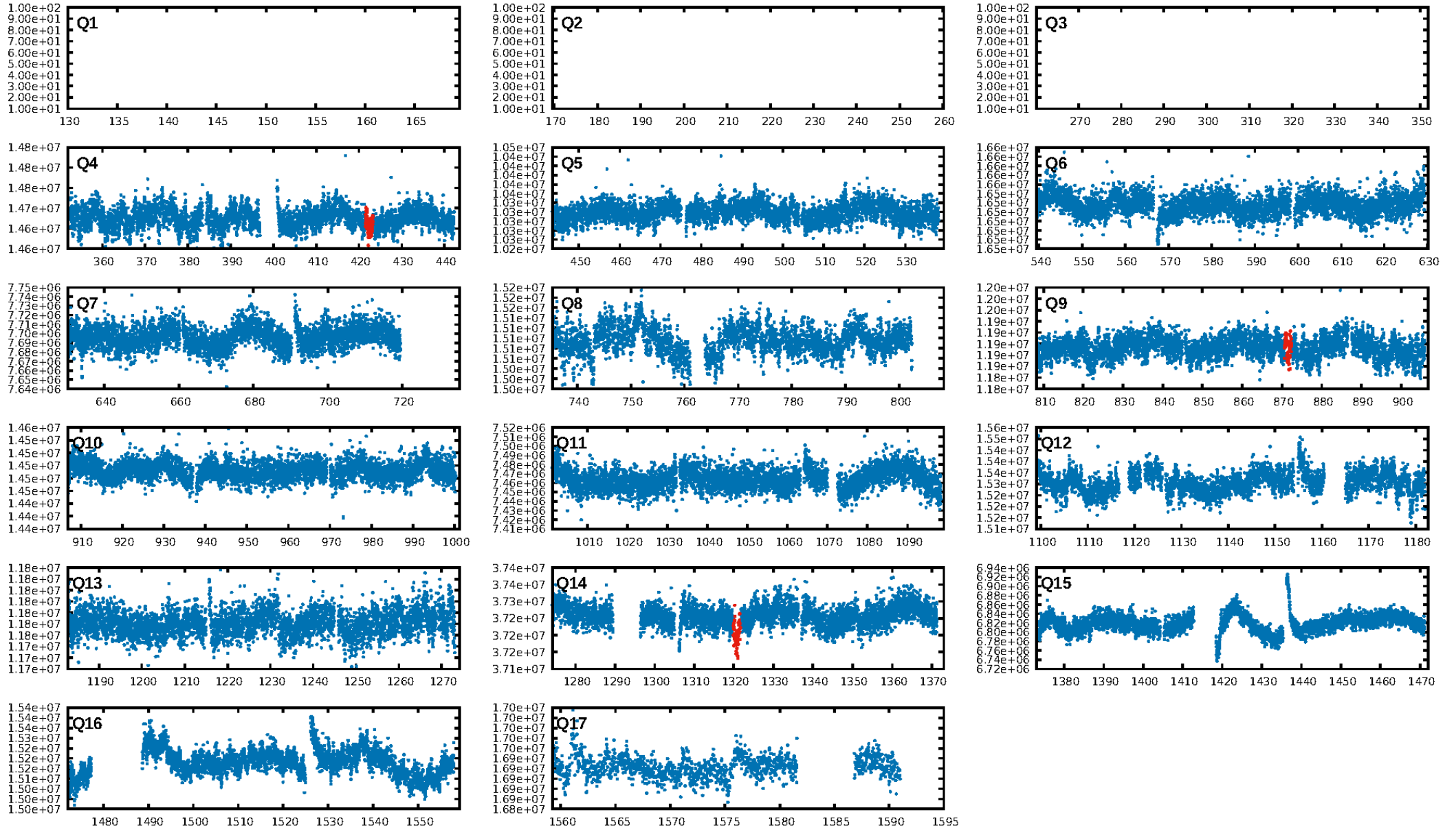
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 96.3%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.39e-08
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -0.1535
Centroid-sig: 15.3%
Centroid-so: 4.343 arcsec [9.32σ]
OotOffset-rm: 0.246 arcsec [2.57σ]
OotOffset-st: 0/0/1/0 [1]
KicOffset-rm: 6.515 arcsec [36.18σ]
KicOffset-st: 0/0/1/1 [2]
DiffImageQuality-fgm: 1.00 [2/2]
DiffImageOverlap-fno: 1.00 [3/3]

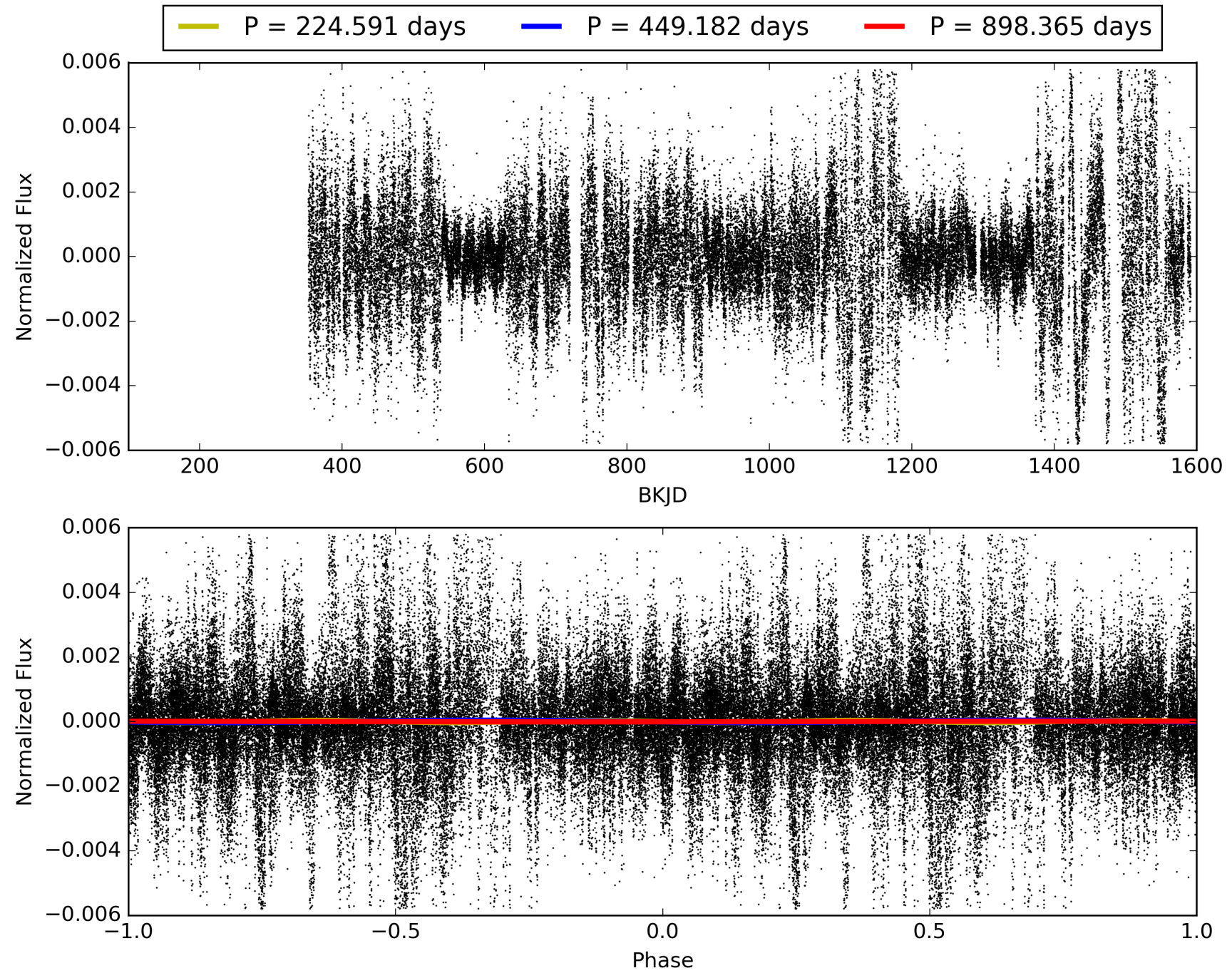
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 19:58:04 Z

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

TCE 011146247-01, PDC Light Curves

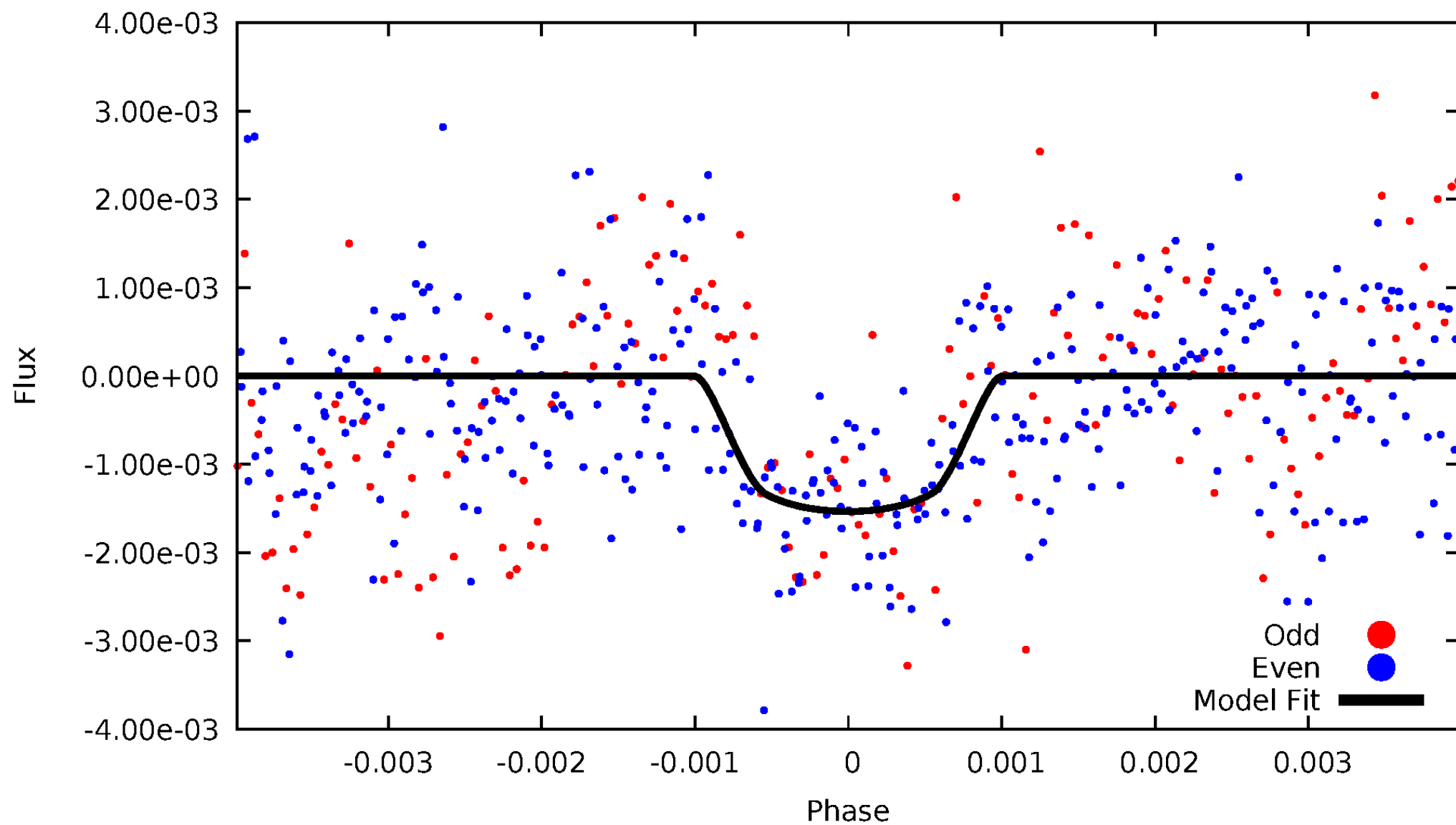


TCE 011146247-01



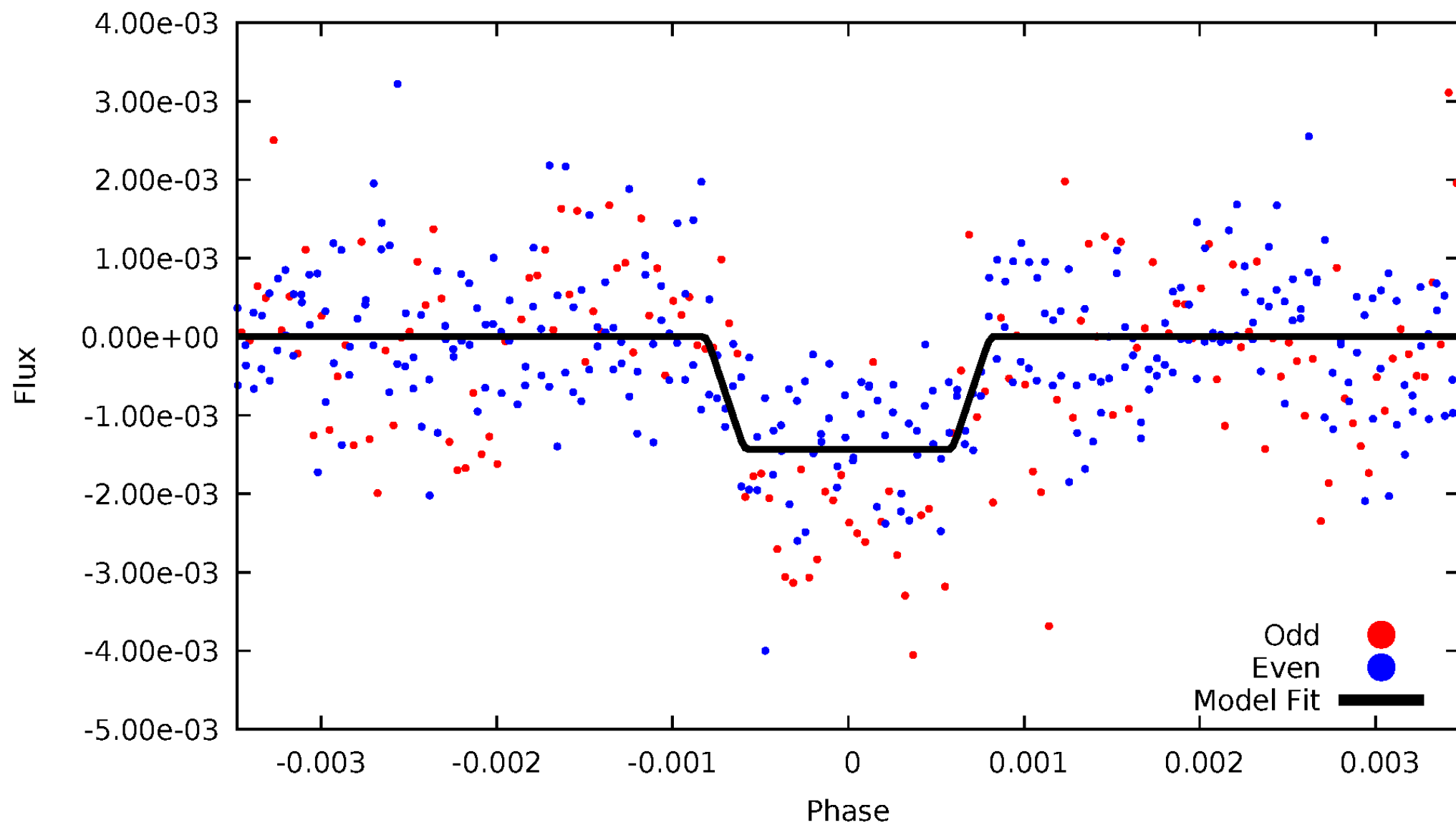
DV Odd/Even

TCE 011146247-01



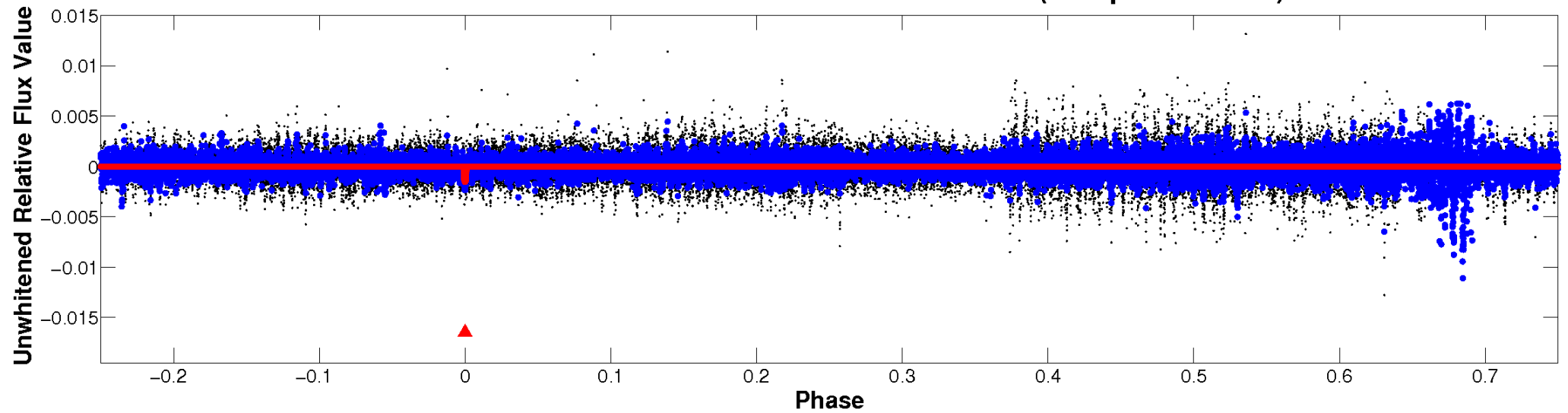
ALT Odd/Even

TCE 011146247-01

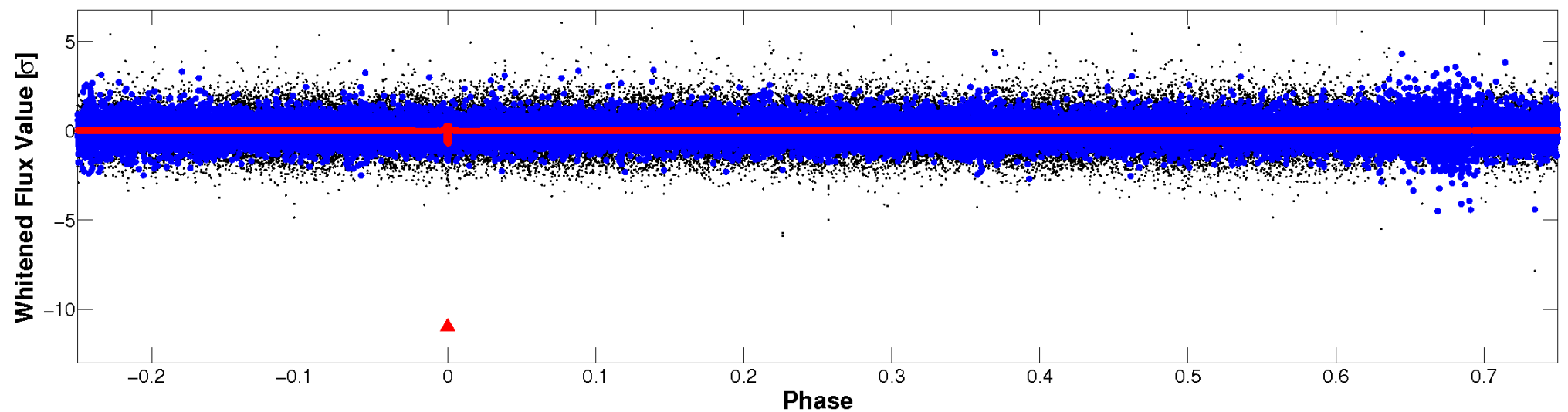


Non-Whitened Vs. Whitened Light Curve

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



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



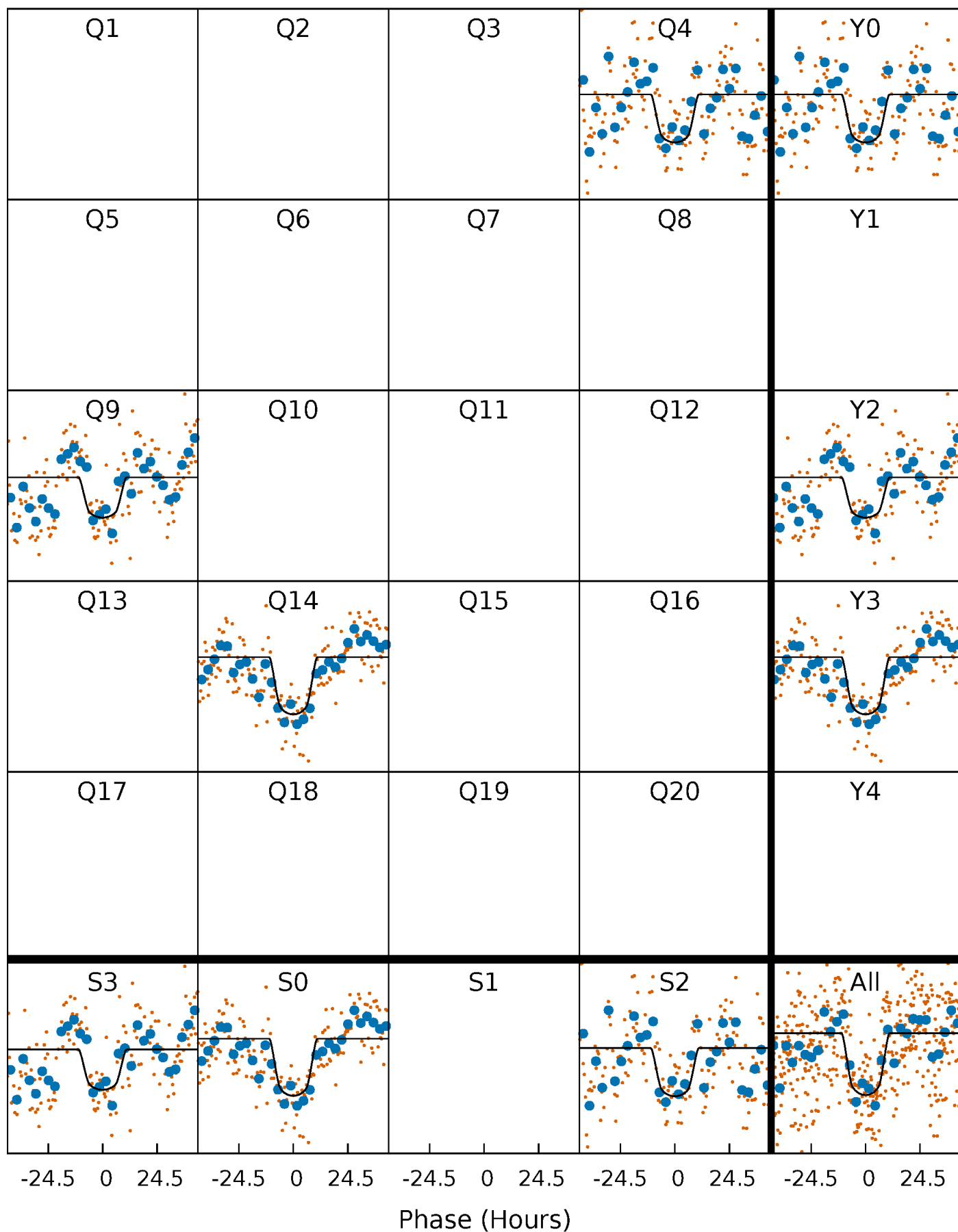
PDC Quarter-Phased Transit Curves

TCE 011146247-01 P=449.182470 Days $T_0=422.383793$ (BKJD)



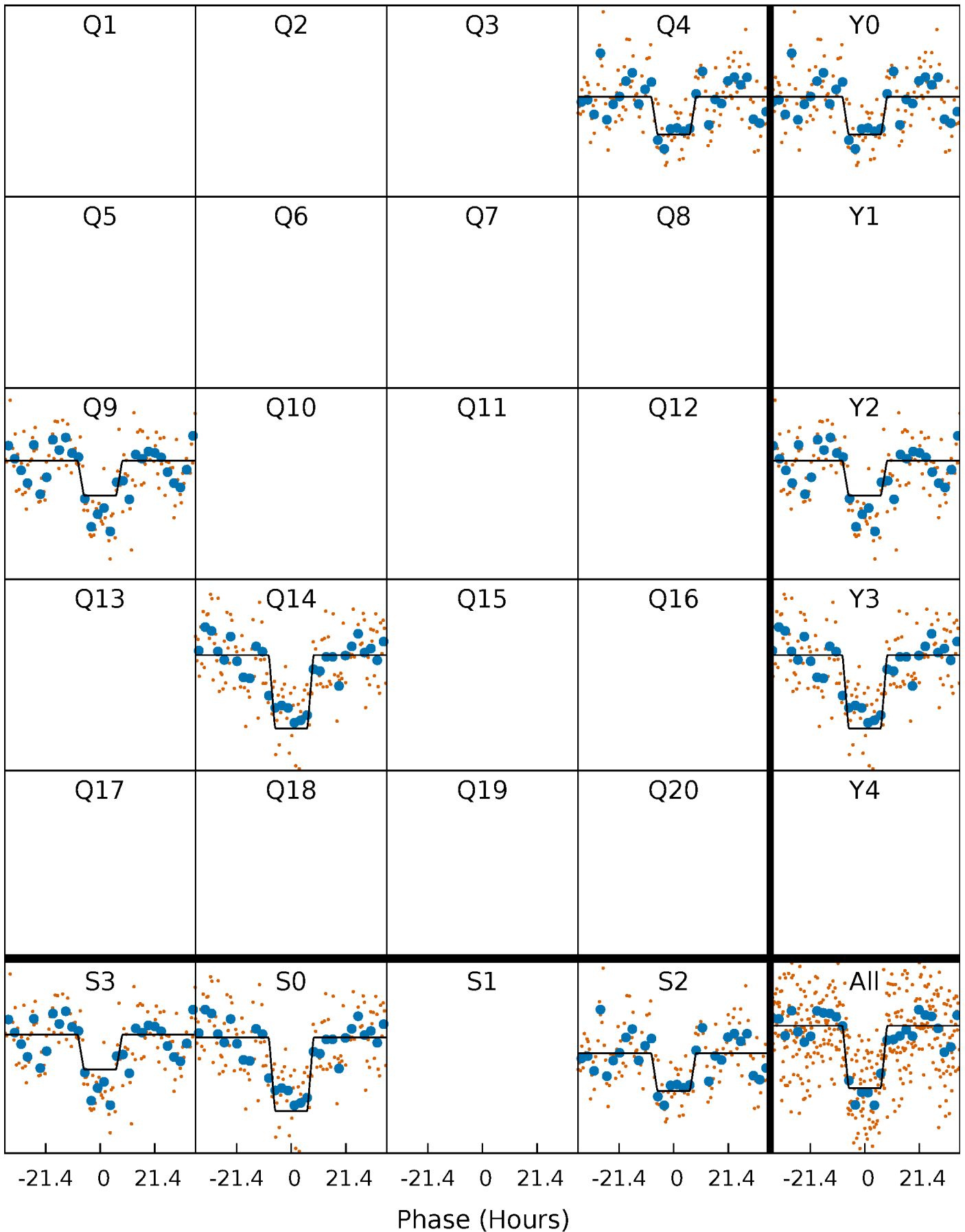
DV Quarter-Phased Transit Curves

TCE 011146247-01 P=449.182470 Days $T_0=422.383793$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

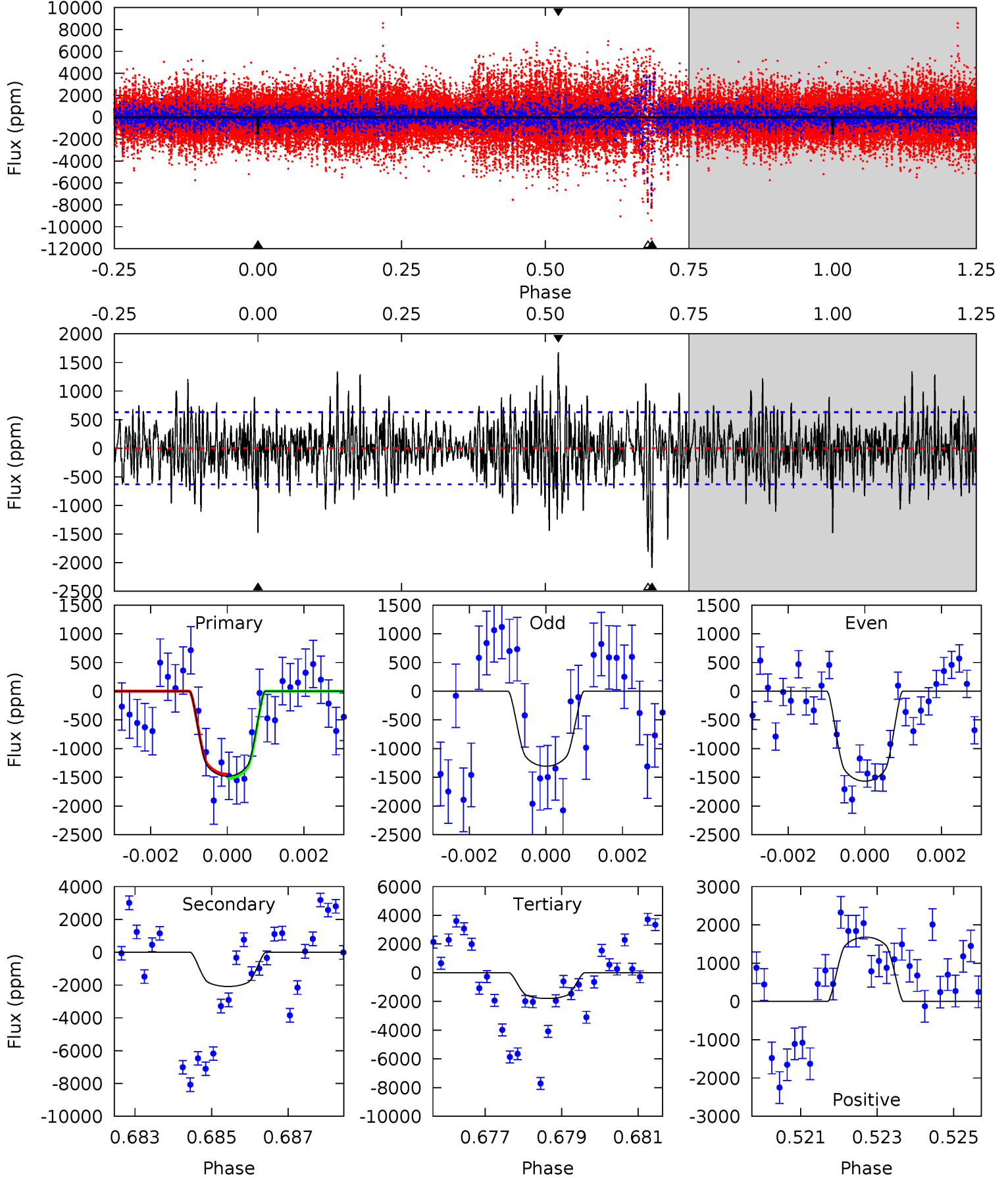
TCE 011146247-01 P=449.225005 Days $T_0=422.348742$ (BKJD)



DV Model-Shift Uniqueness Test

011146247-01, P = 449.182470 Days, E = 422.383793 Days

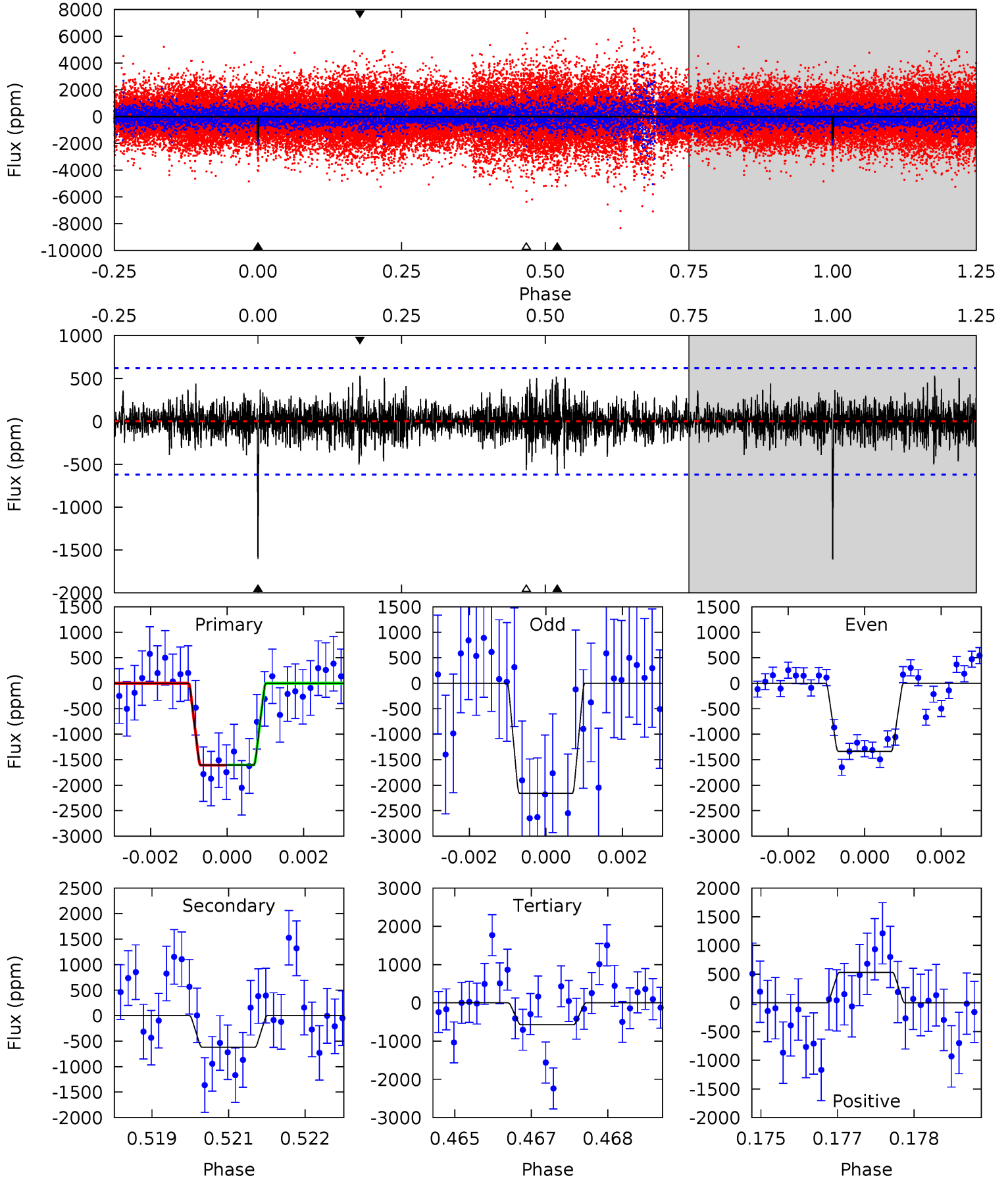
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.5	17.7	15.2	14.2	5.32	3.09	3.29	-2.64	-1.67	2.47	3.45	1.06	1.08	0.45	0.32



Alt Model-Shift Uniqueness Test

011146247-01, P = 449.225005 Days, E = 422.348742 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.9	5.35	4.90	4.58	5.36	3.15	1.16	8.96	9.28	0.45	0.77	3.42	1.09	0.25	0.03



Stellar Parameters For KIC 011146247

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5448^{+180}_{-180}	$4.525^{+0.053}_{-0.158}$	$0.100^{+0.250}_{-0.300}$	$0.870^{+0.200}_{-0.086}$	$0.926^{+0.082}_{-0.090}$	$1.978^{+0.425}_{-0.874}$
	+3%/-3%	+1%/-3%	+250%/-300%	+23%/-10%	+9%/-10%	+22%/-44%
Source	KIC0	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 011146247-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-2087 ± 118	$4.28^{+0.64}_{-0.54}$	301^{+17}_{-14}	5562^{+353}_{-319}	77307^{+22114}_{-17751}
Alt.	-619 ± 116	$3.73^{+0.59}_{-0.52}$	300^{+18}_{-13}	4547^{+328}_{-284}	30564^{+11458}_{-9089}

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 $A_{\text{obs}} \gg 1.0$

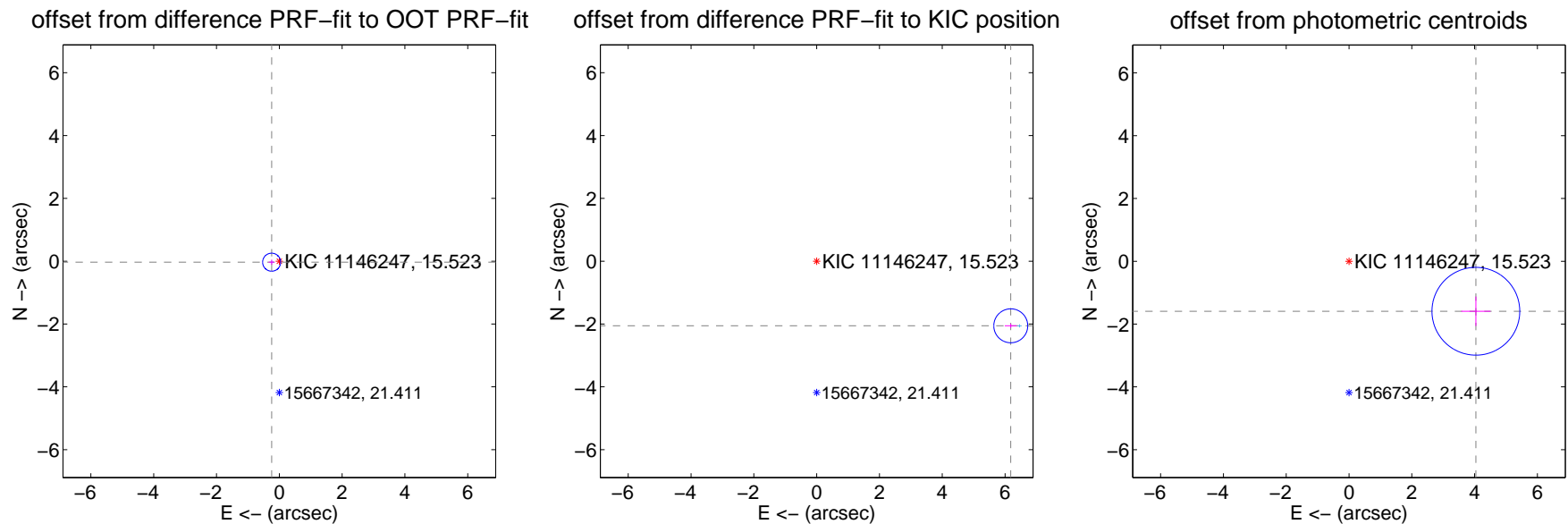
DV Centroid Data

Supplemental centroid analysis for 011146247-01. Kepler magnitude: 15.52. Transit SNR 6.56

There are 2 quarters with good PRF difference image offsets

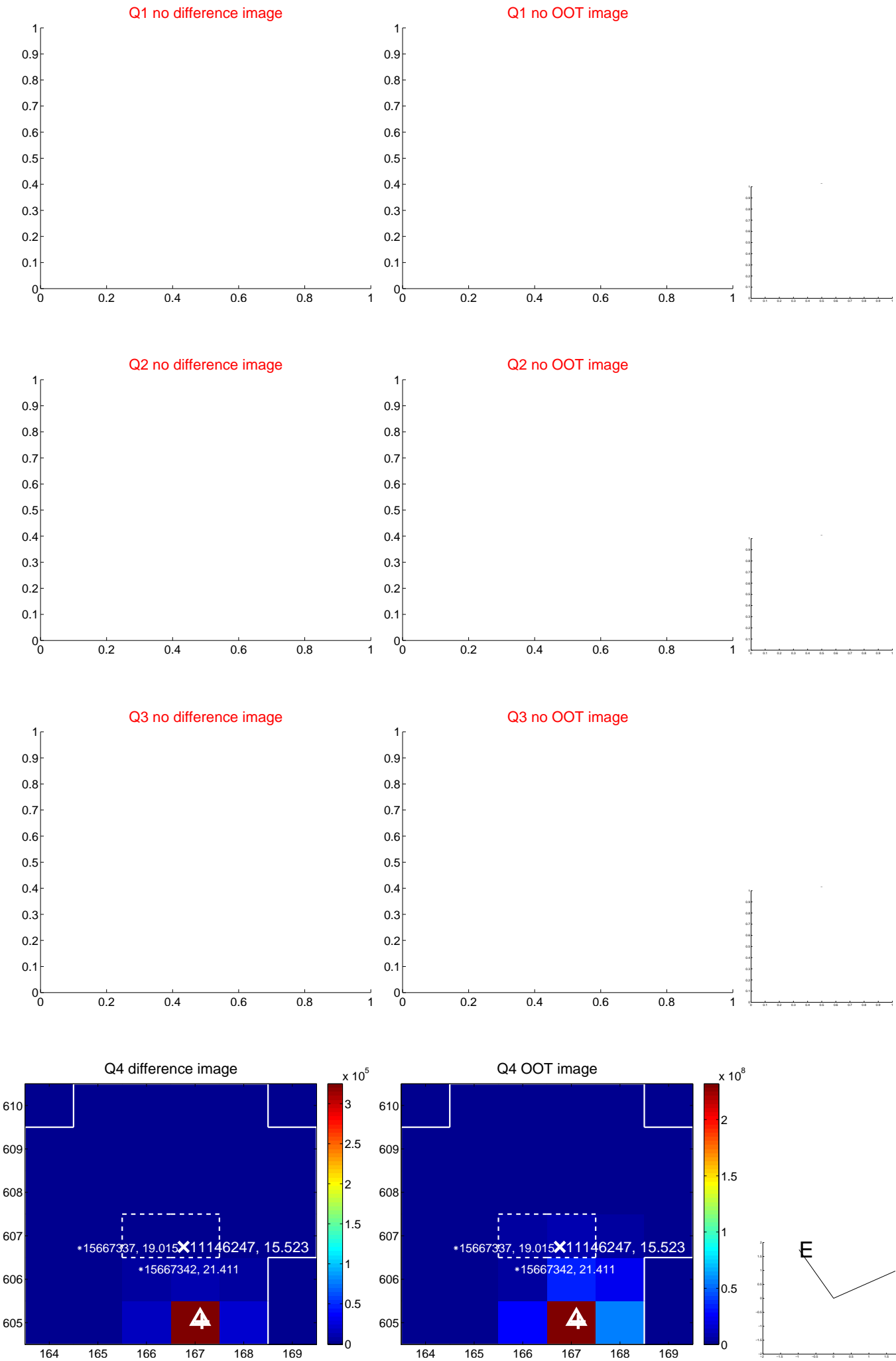
The OOT PRF centroid is offset from the target star catalog position by about 7.01 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.246 ± 0.096	2.57	0.244 ± 0.096	-0.032 ± 0.082
PRF-fit source offset from KIC position	6.515 ± 0.180	36.18	-6.181 ± 0.188	-2.057 ± 0.067
photometric centroid source offset	4.34 ± 0.47	9.32	-4.04 ± 0.47	-1.59 ± 0.47



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.

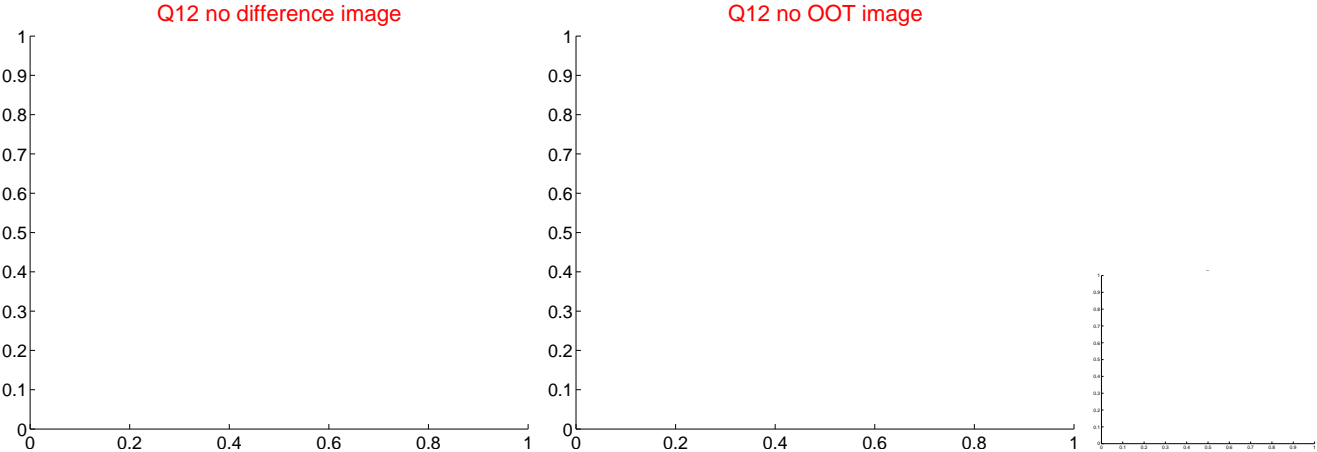
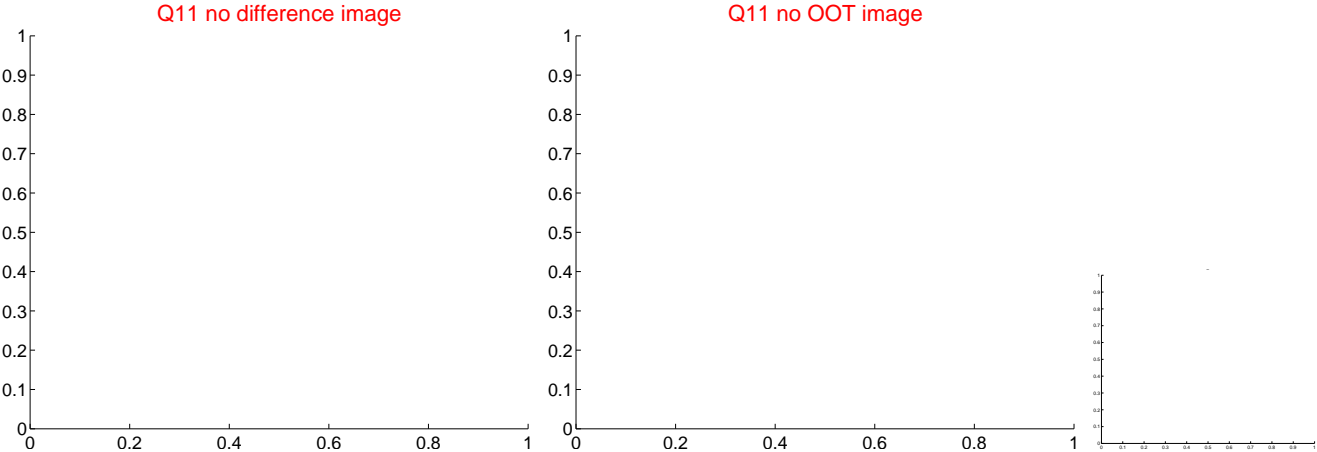
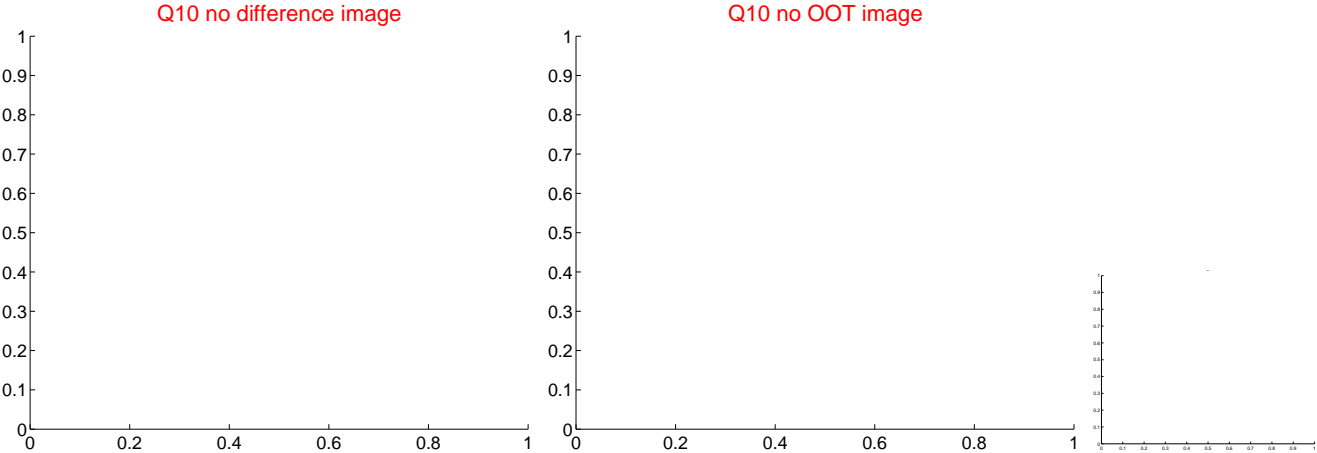
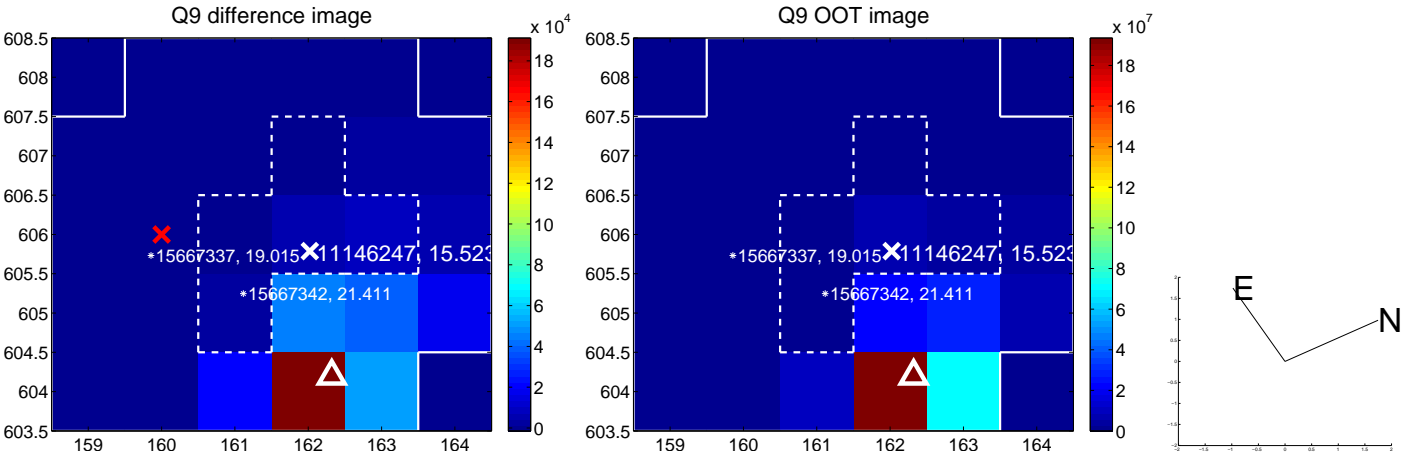
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



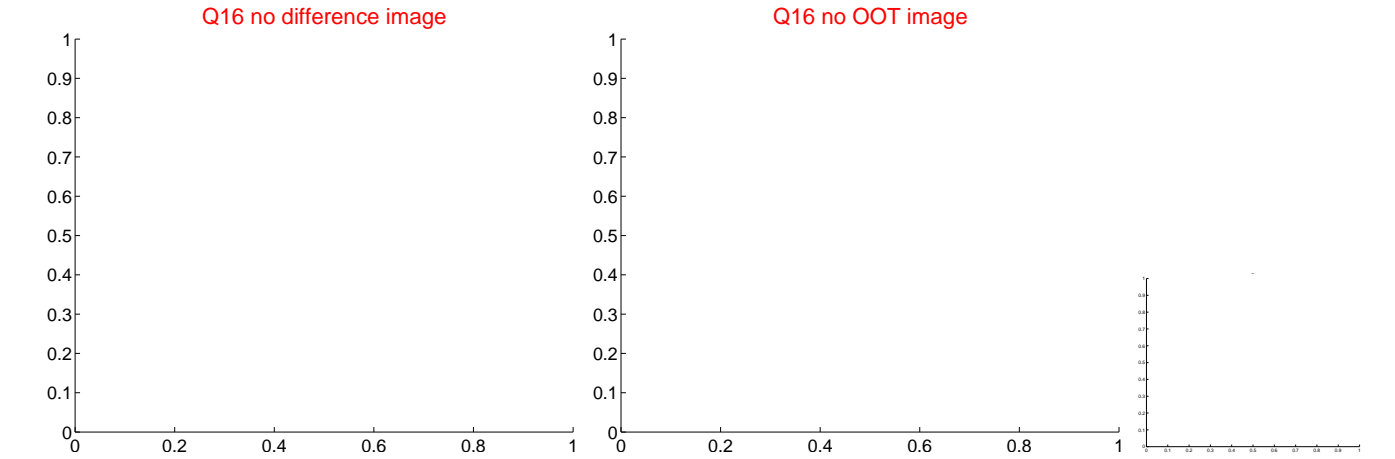
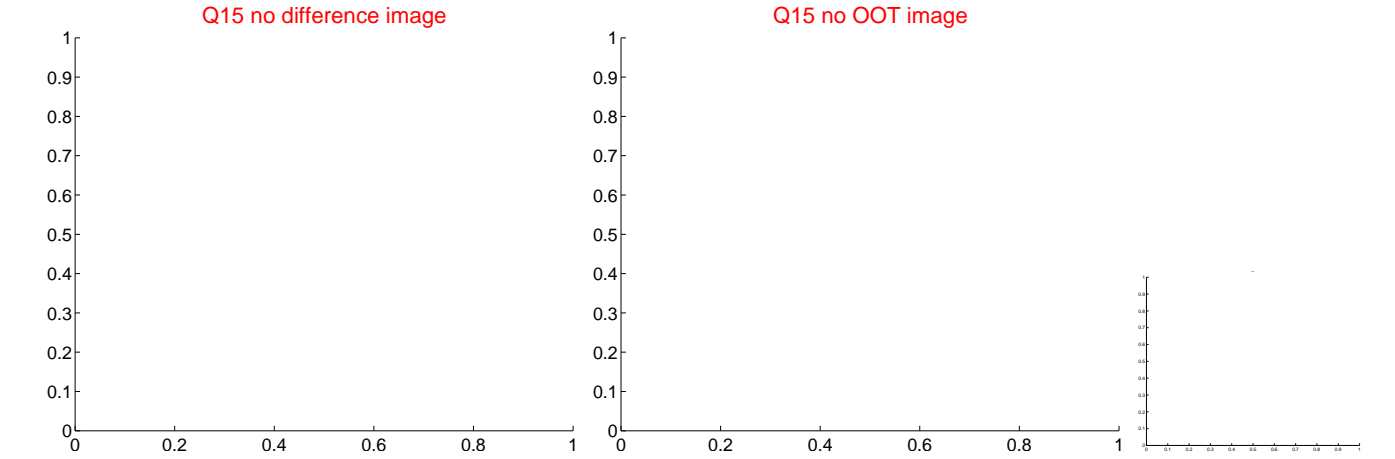
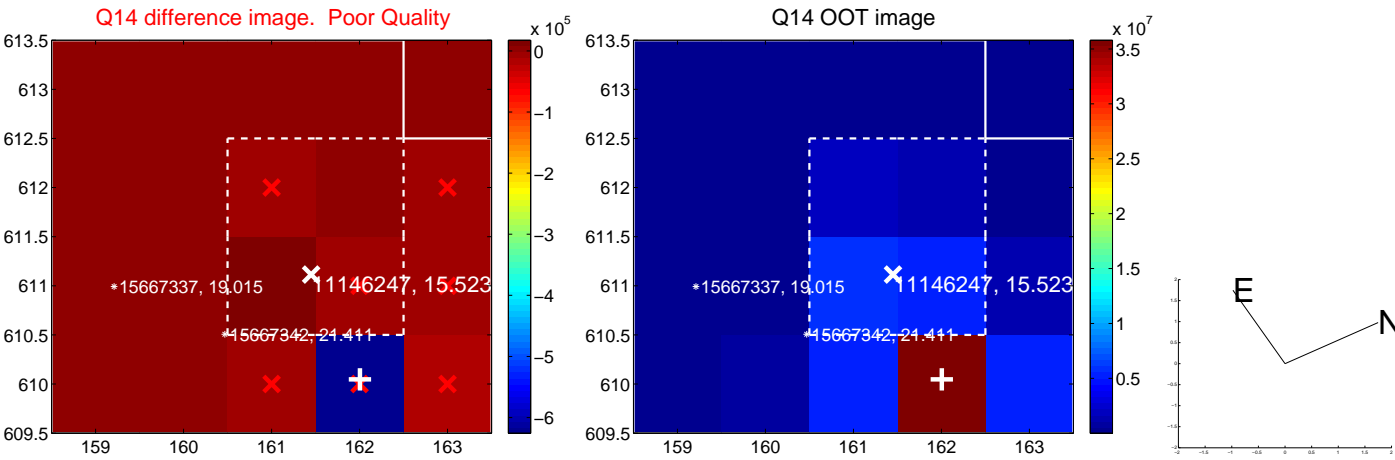
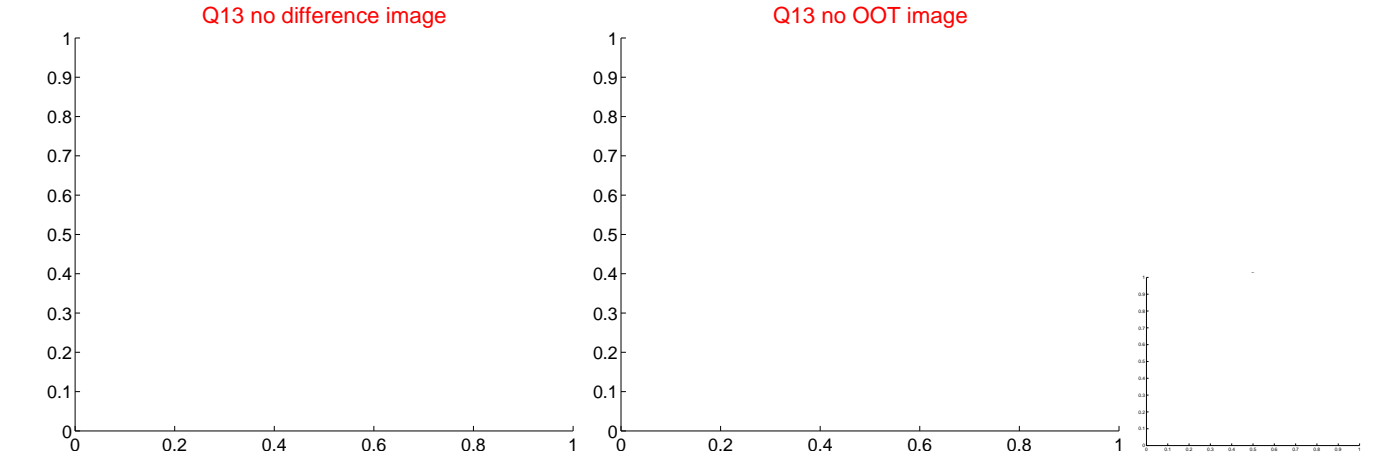
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



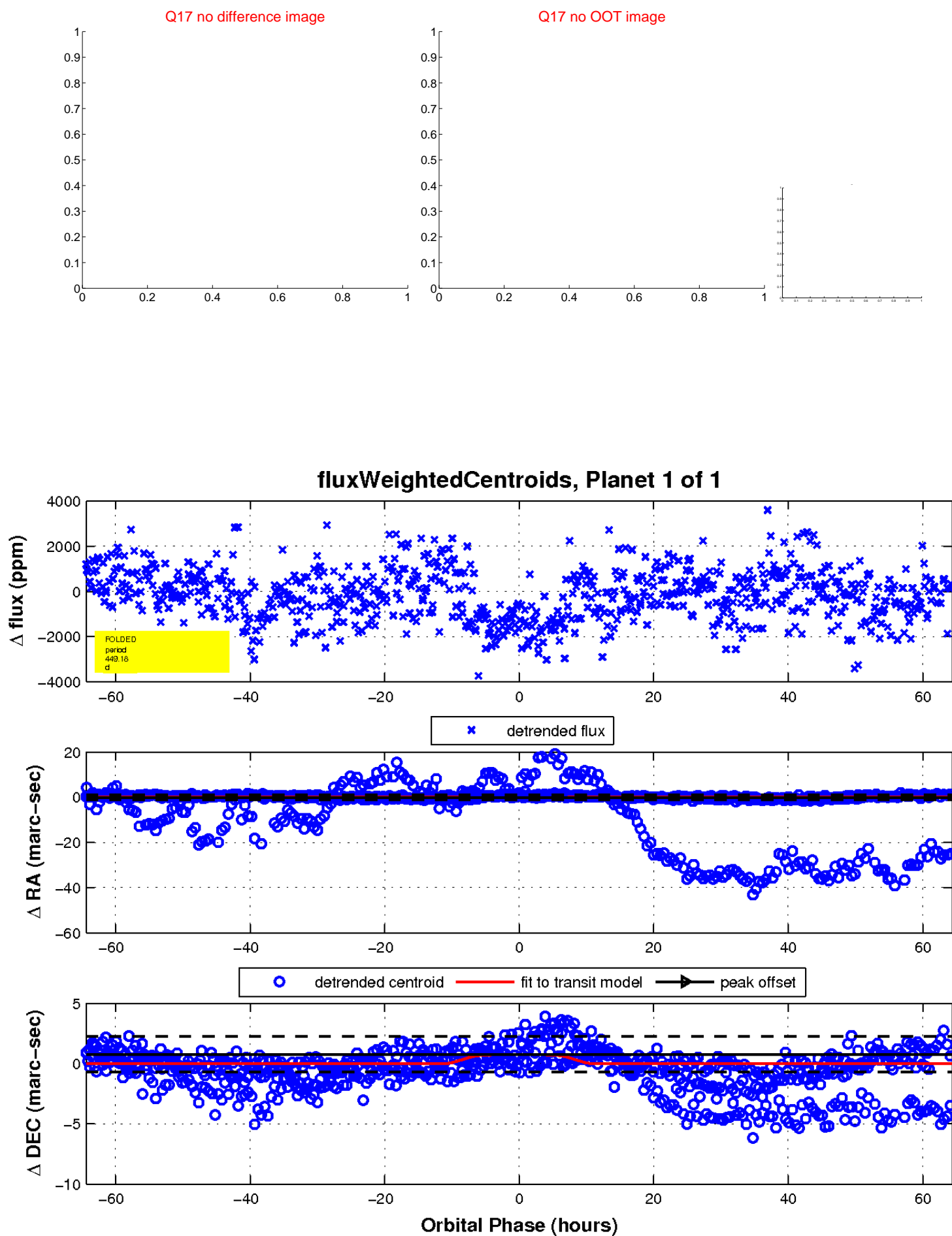
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

