

KIC 005361145

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})
005361145-01	OBS	No	363.493369	450.369348	42.3	3.101	7.8	6.5	2.96	9705	2.27	41.85

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005361145-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS—CENT_SATURATED

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

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

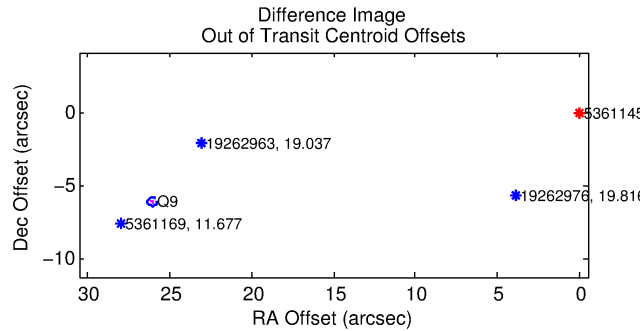
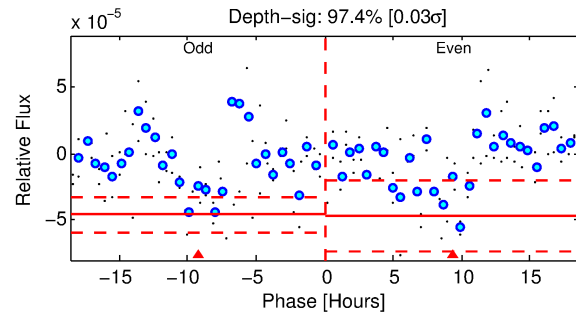
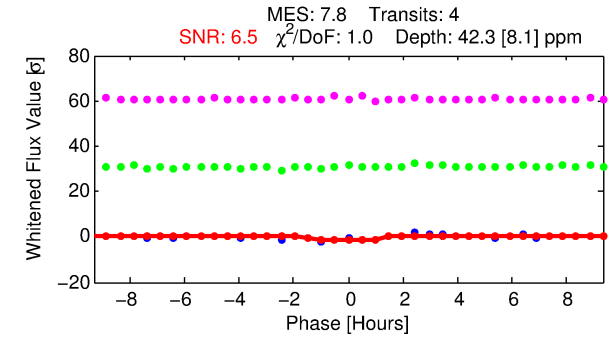
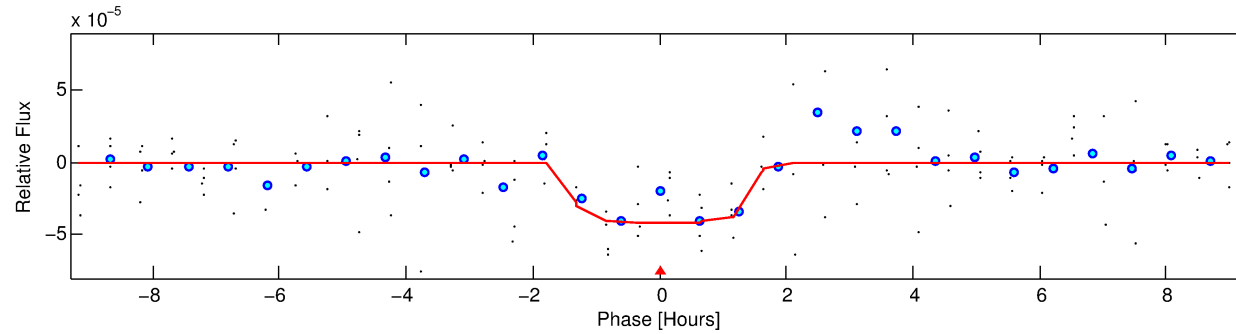
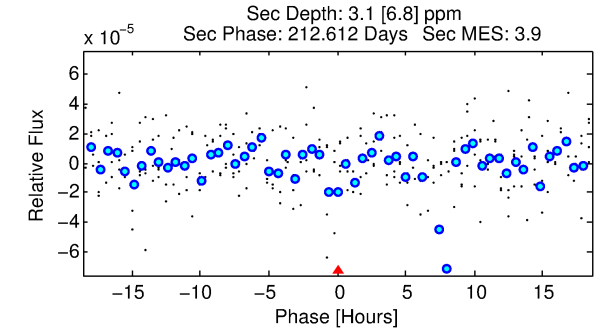
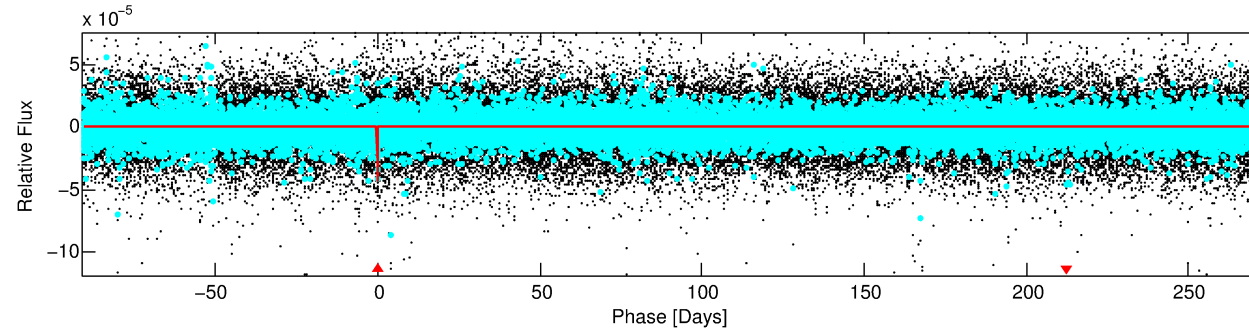
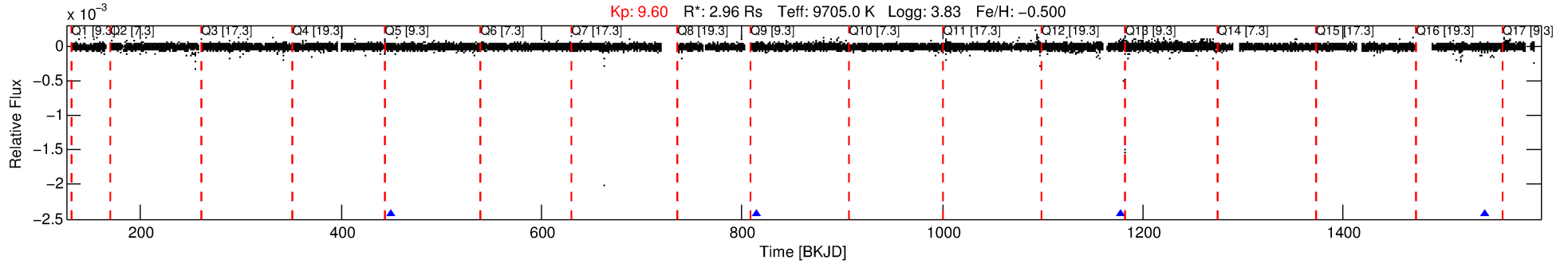
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005361145-01

No Significant Match Found

DV One-Page Summary

KIC: 5361145 Candidate: 1 of 1 Period: 363.493 d



DV Fit Results:

Period = 363.49337 [0.00659] d
Epoch = 450.3693 [0.0105] BKJD
Rp/R* = 0.0070 [0.0066]
a/R* = 334.10 [2586.66]
b = 0.94 [1.05]
Seff = 41.85 [36.46]
Teq = 649 [141] K
Rp = 2.27 [2.41] Re
a = 1.2899 [0.6096] AU
Ag = 548.70 [1643.68] [0.33 σ]
Teff = 4853 [3552] K [1.18 σ]

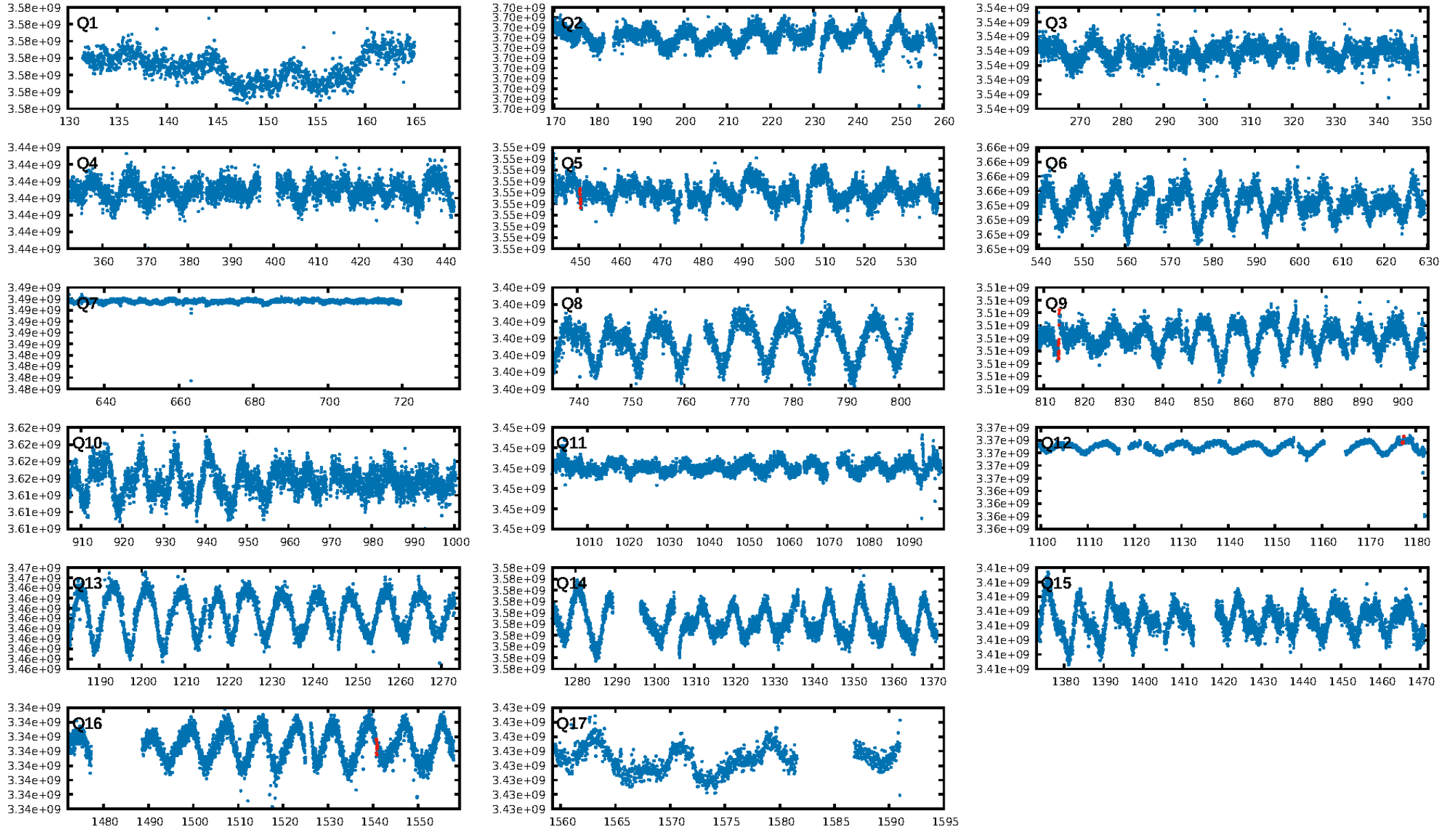
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 20.9%
ModelChiSquareGof-sig: 97.5%
Bootstrap-pfa: 3.99e-10
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: N/A
Centroid-sig: 0.5%
Centroid-so: 10.715 arcsec [2.10 σ]
OotOffset-rm: 26.749 arcsec [283.02 σ]
KicOffset-rm: 29.184 arcsec [308.95 σ]
OotOffset-st: 0/0/0/1 [1]
KicOffset-st: 0/0/0/1 [1]
DiffImageQuality-fgm: 1.00 [1/1]
DiffImageOverlap-fno: 1.00 [3/3]

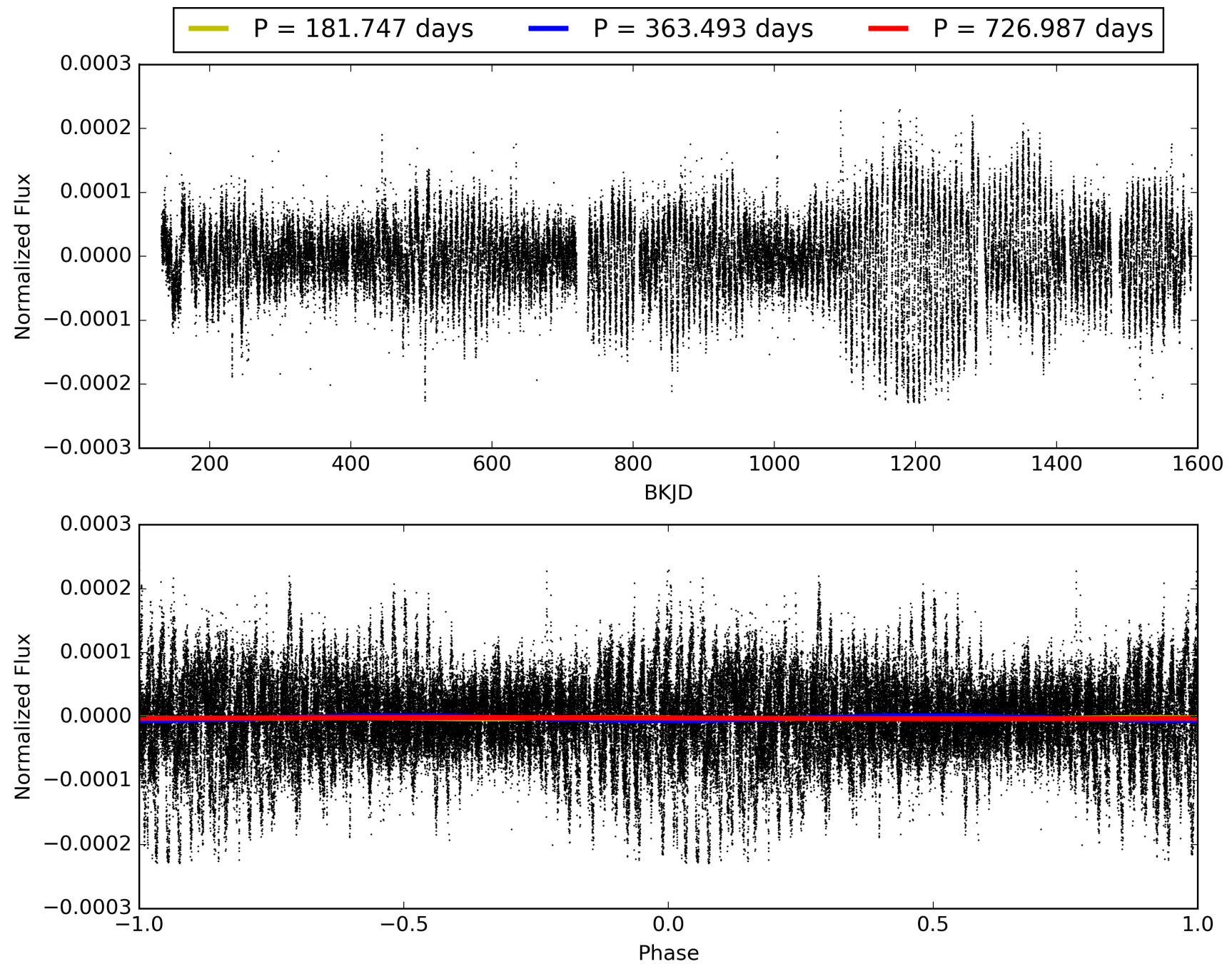
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 07:17:27 Z

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

TCE 005361145-01, PDC Light Curves

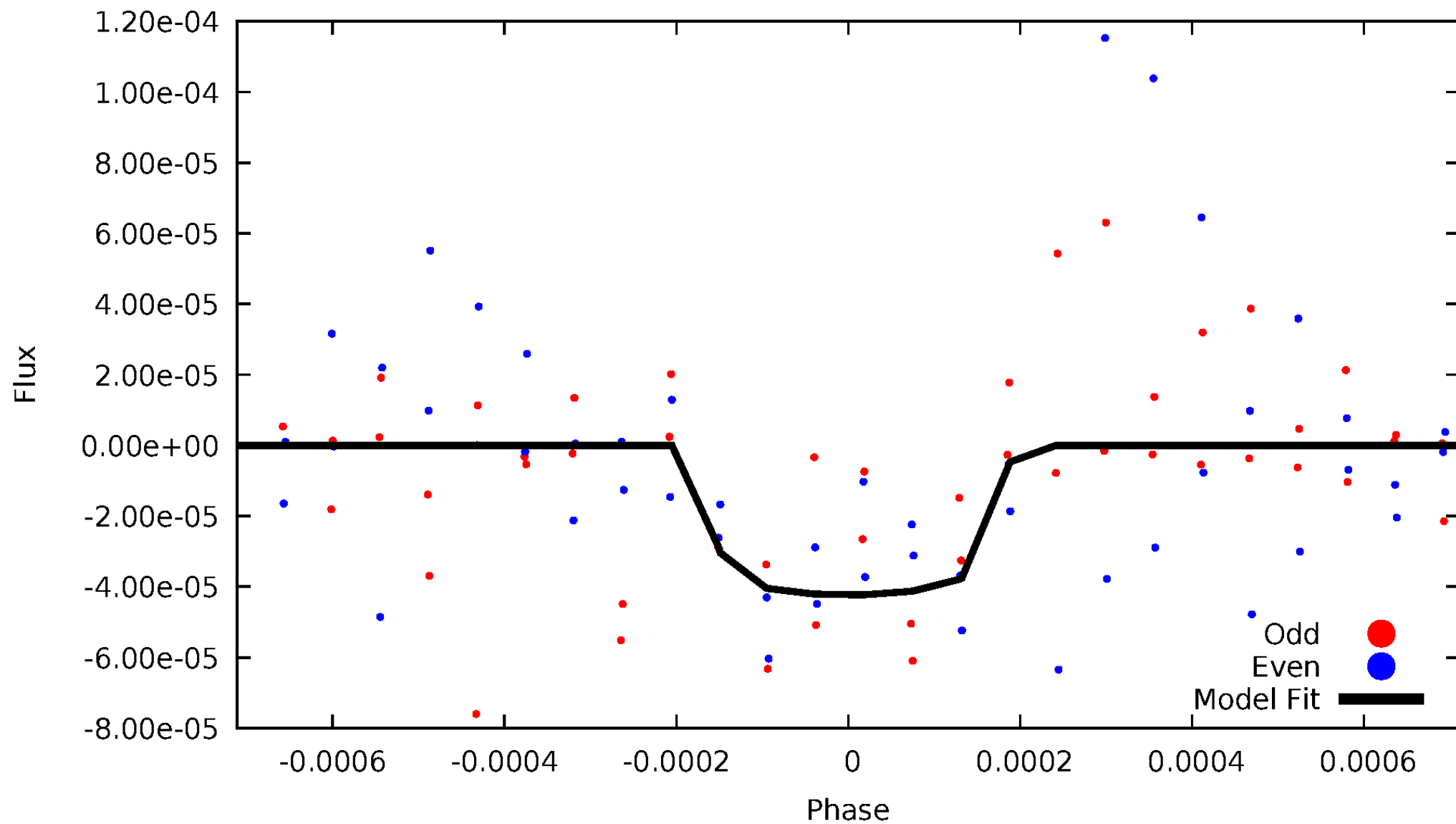


TCE 005361145-01



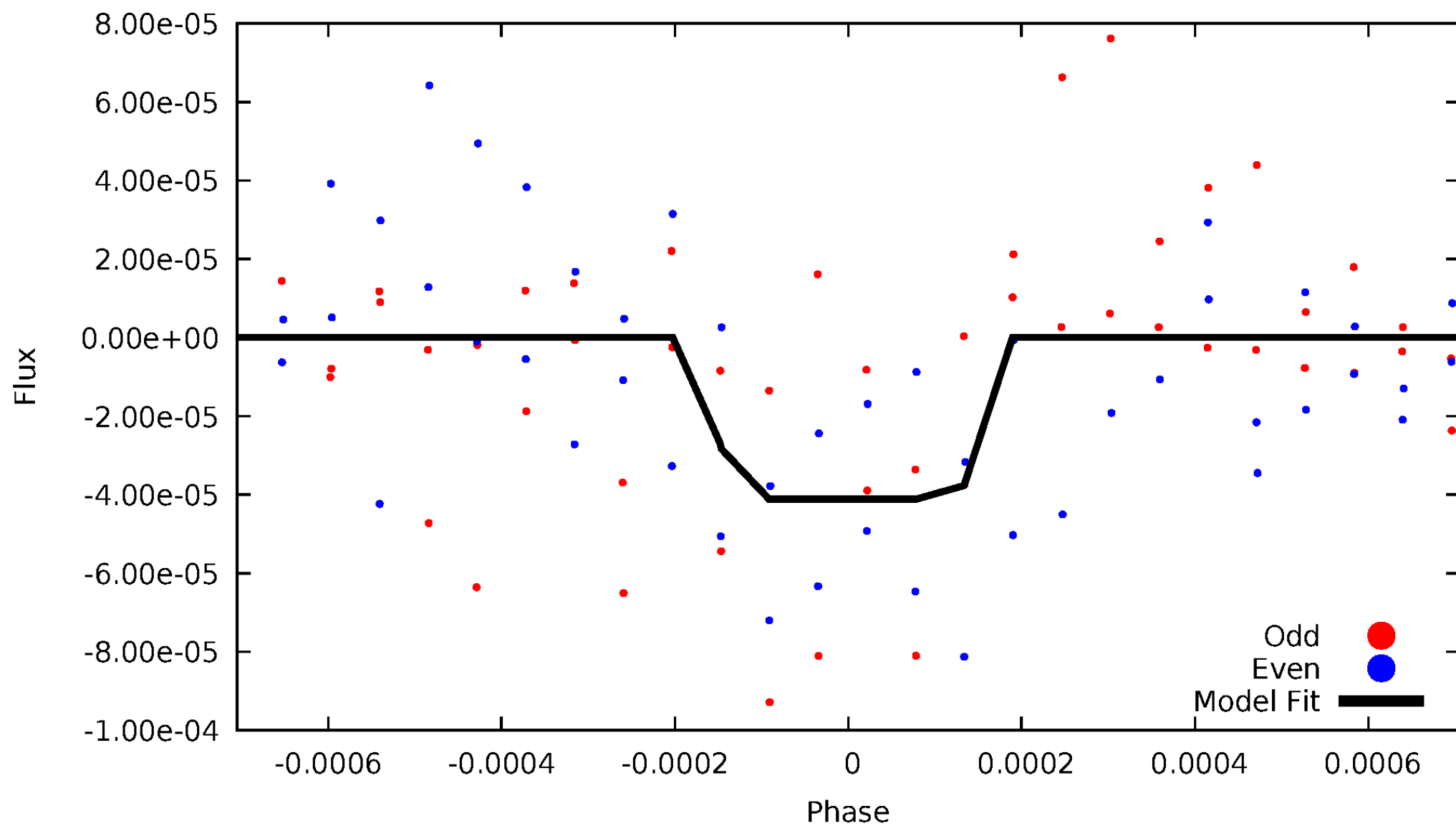
DV Odd/Even

TCE 005361145-01



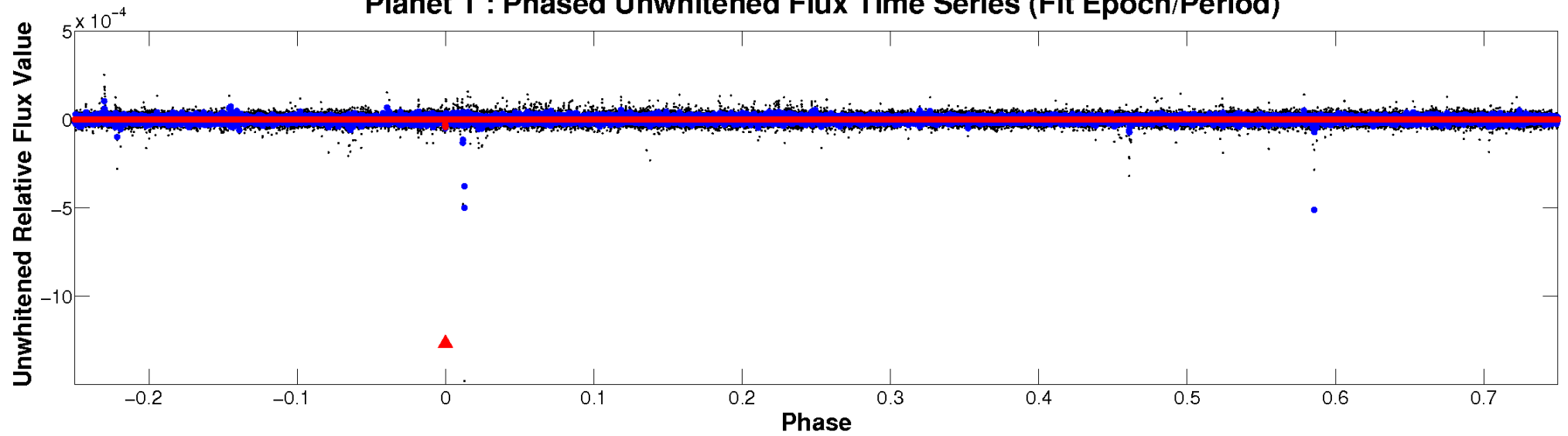
ALT Odd/Even

TCE 005361145-01

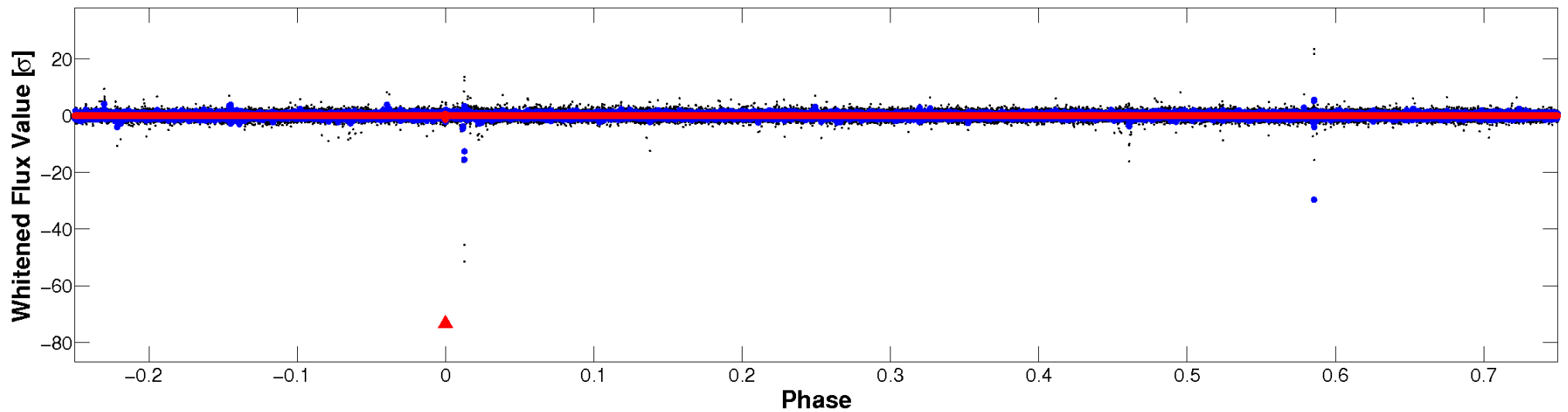


Non-Whitened Vs. Whitened Light Curve

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

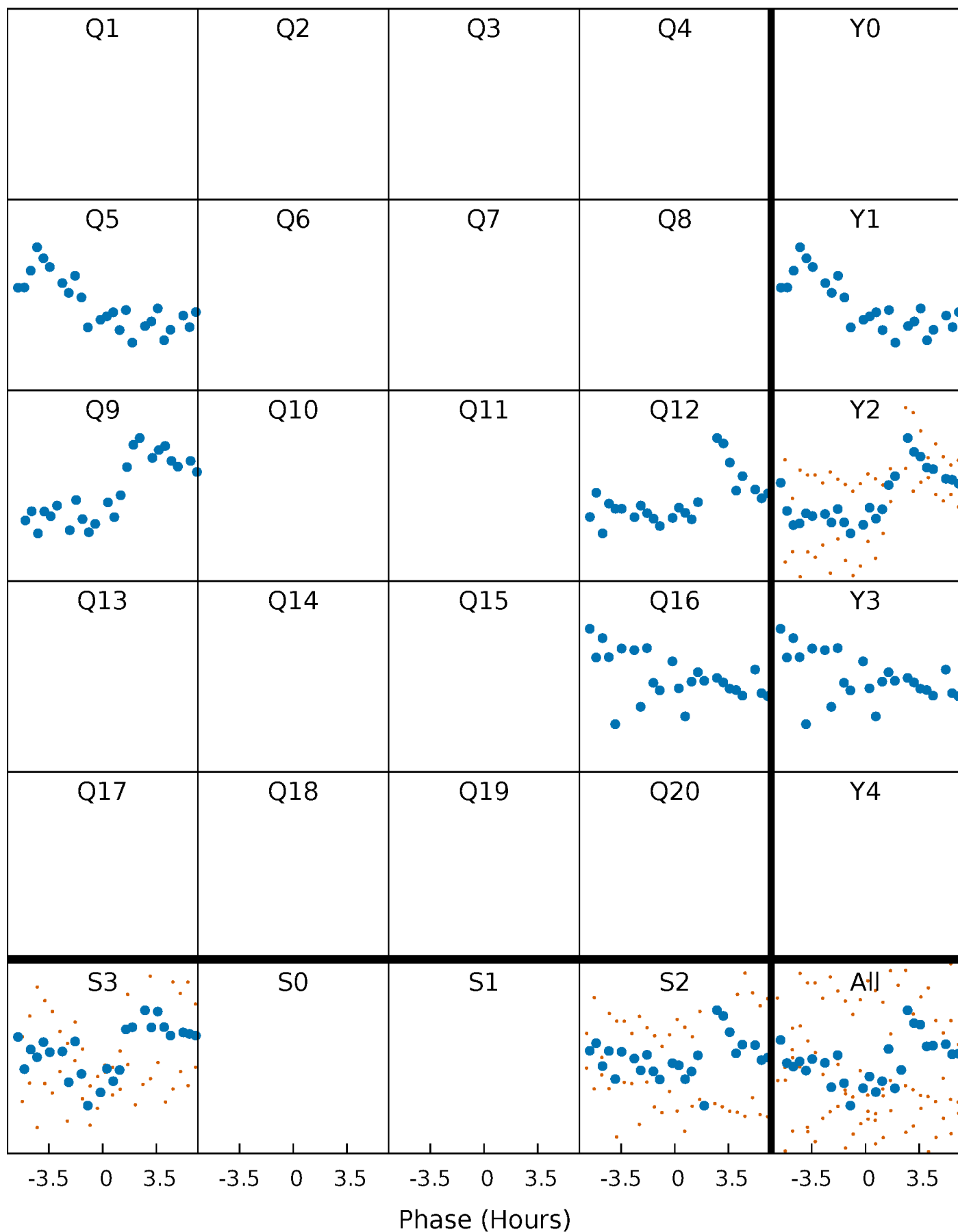


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



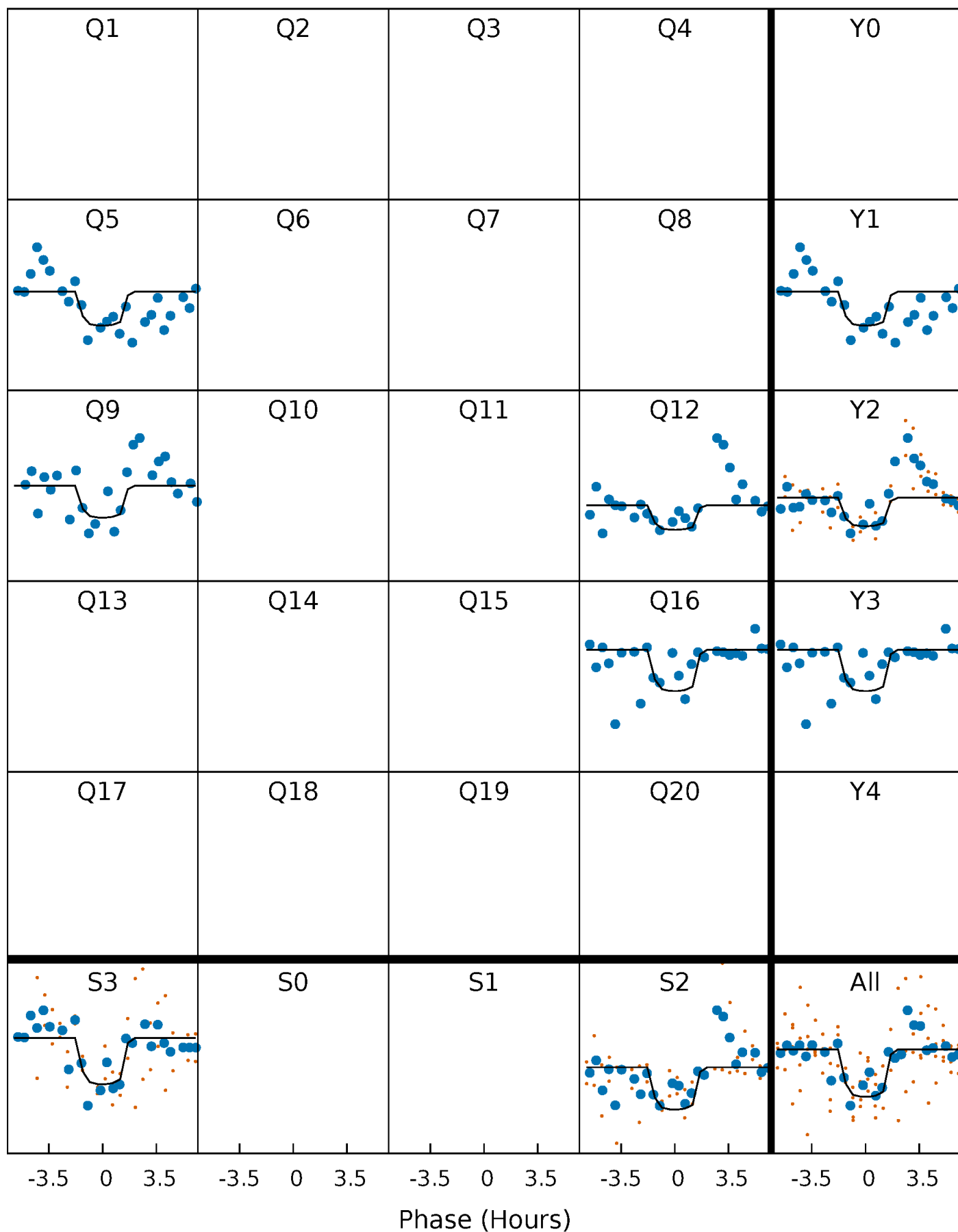
PDC Quarter-Phased Transit Curves

TCE 005361145-01 P=363.493369 Days $T_0=450.369348$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 005361145-01 P=363.493369 Days $T_0=450.369348$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

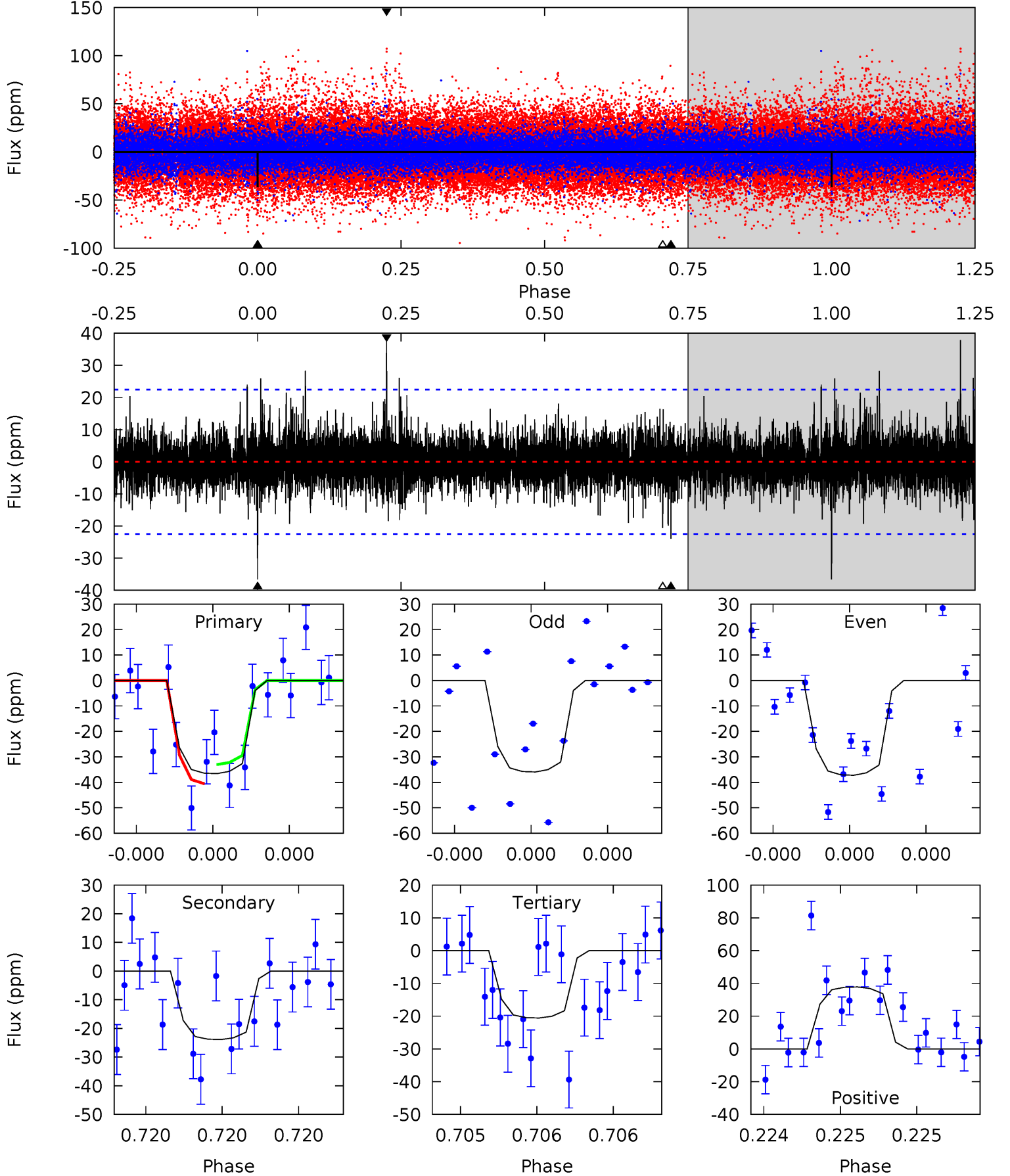
TCE 005361145-01 P=363.493186 Days $T_0=450.368374$ (BKJD)



DV Model-Shift Uniqueness Test

005361145-01, $P = 363.493369$ Days, $E = 86.875979$ Days

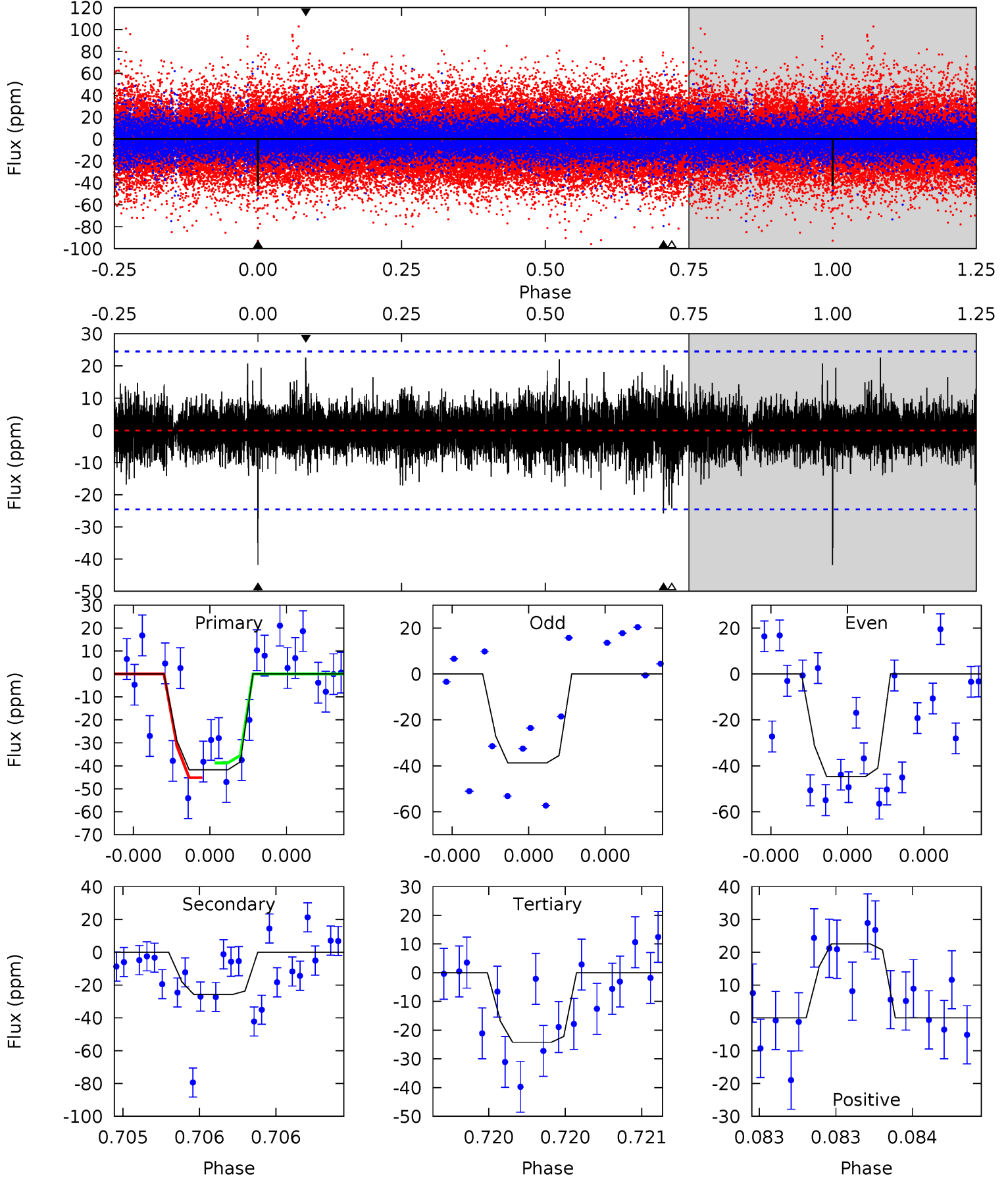
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.17	5.99	5.16	9.48	5.64	3.58	1.28	4.01	-0.31	0.83	-3.49	0.16	0.99	0.51	0.94



Alt Model-Shift Uniqueness Test

005361145-01, P = 363.493186 Days, E = 86.875188 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.59	5.92	5.57	5.19	5.64	3.59	1.11	4.02	4.41	0.35	0.74	0.68	0.93	0.35	0.74



Stellar Parameters For KIC 005361145

	$T_{\text{eff}}(K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	9705^{+511}_{-1023}	$3.831^{+0.450}_{-0.079}$	$-0.500^{+0.100}_{-0.050}$	$2.960^{+0.477}_{-1.432}$	$2.163^{+0.245}_{-0.573}$	$0.117^{+0.526}_{-0.030}$
	+5%/-11%	+12%/-2%	+20%/-10%	+16%/-48%	+11%/-26%	+447%/-25%
Source	SPE68	SPE68	SPE68	DSEP		

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

Secondary Eclipse Parameters for KIC 005361145-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-24 ± 4	$2.26^{+1.92}_{-1.45}$	858^{+95}_{-127}	6954^{+7153}_{-1767}	4088^{+28823}_{-2862}
Alt.	-26 ± 4	$2.11^{+1.82}_{-1.36}$	856^{+91}_{-122}	7209^{+9164}_{-1790}	5162^{+34912}_{-3618}

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

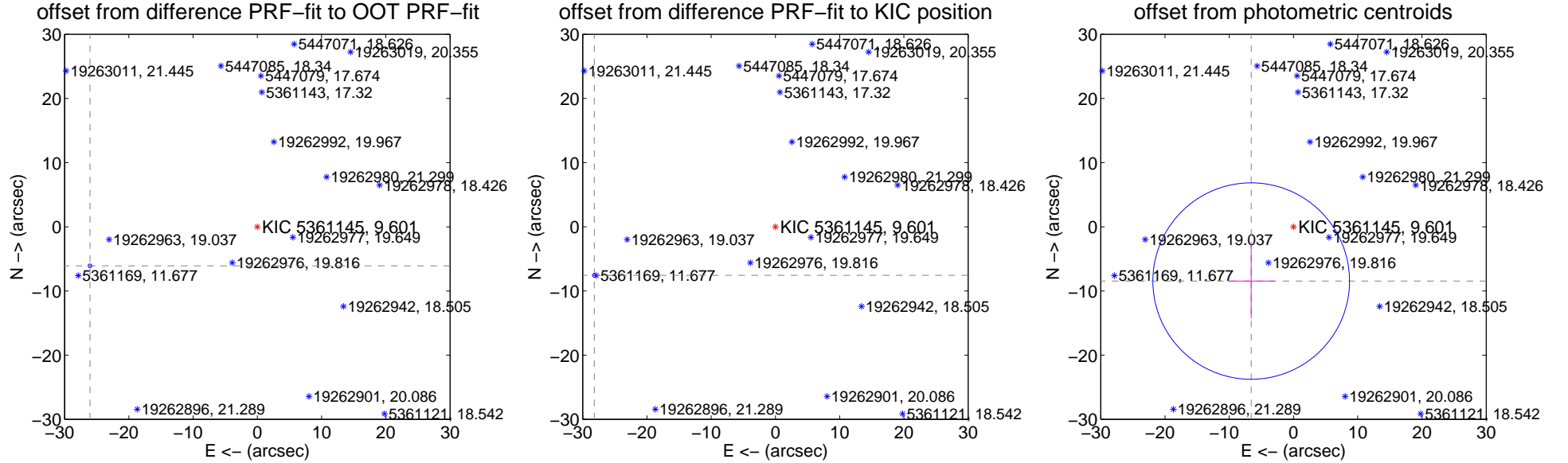
DV Centroid Data

Supplemental centroid analysis for 005361145-01. **Kepler magnitude: 9.60.** Transit SNR 6.54

There are 1 quarters with good PRF difference image offsets

The OOT PRF centroid is offset from the target star catalog position by about 2.60 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	26.749 ± 0.095	283.02	26.049 ± 0.095	-6.079 ± 0.092
PRF-fit source offset from KIC position	29.184 ± 0.094	308.95	28.188 ± 0.095	-7.561 ± 0.092
photometric centroid source offset	10.71 ± 5.10	2.10	6.58 ± 3.64	-8.45 ± 5.81

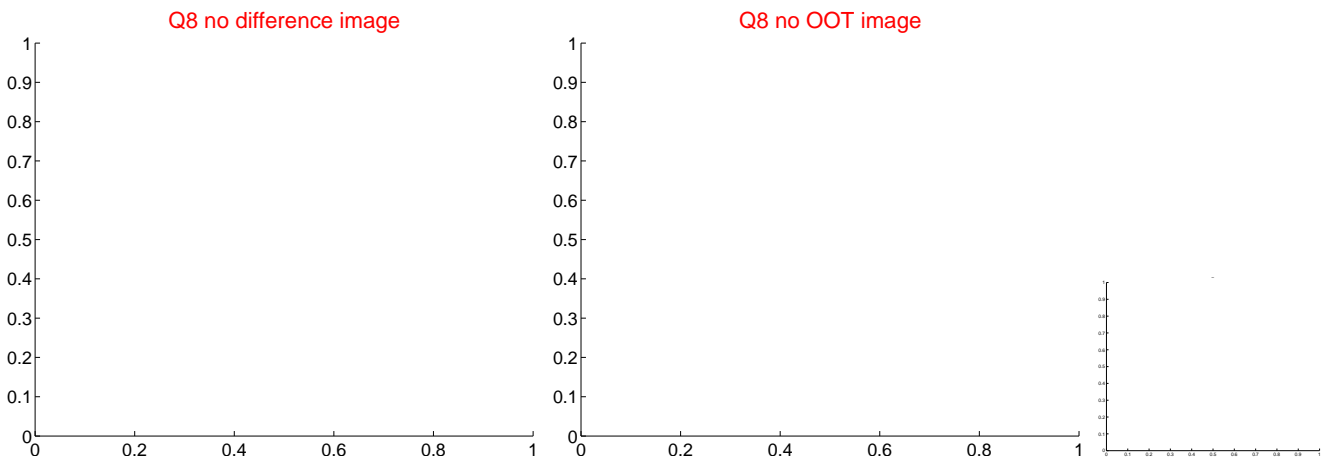
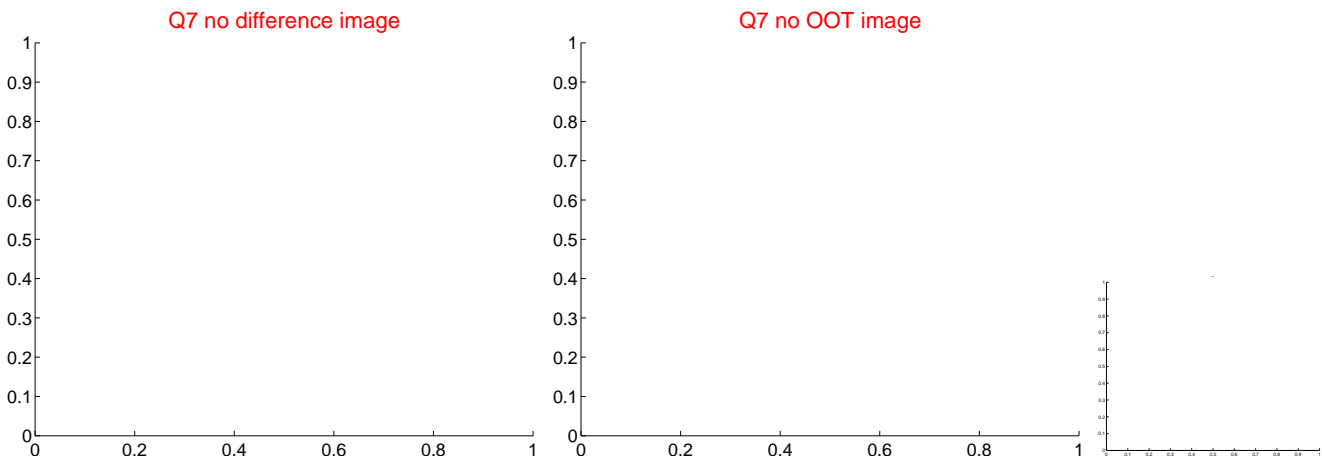
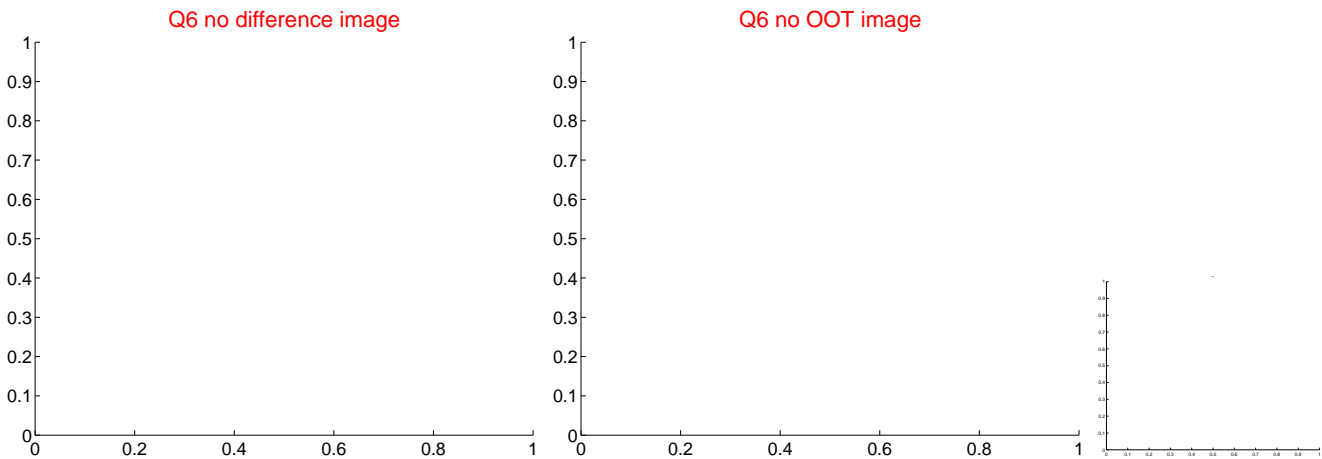
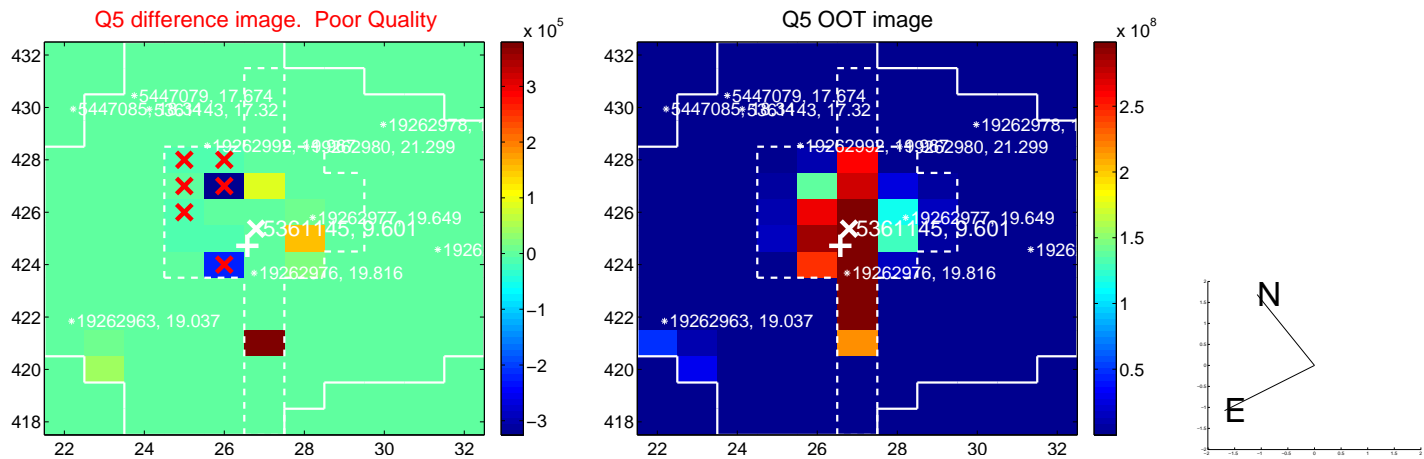


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

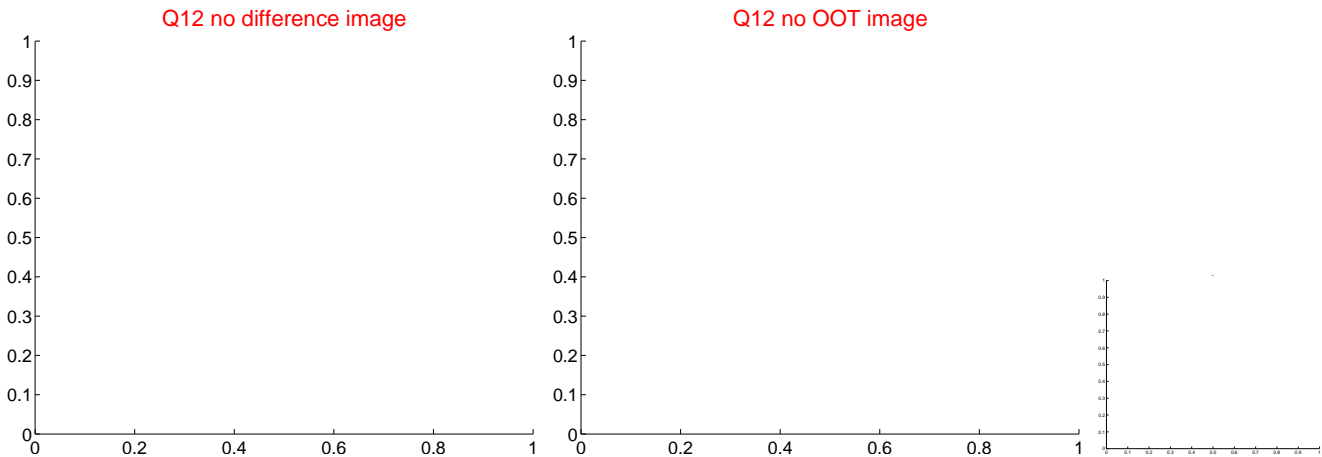
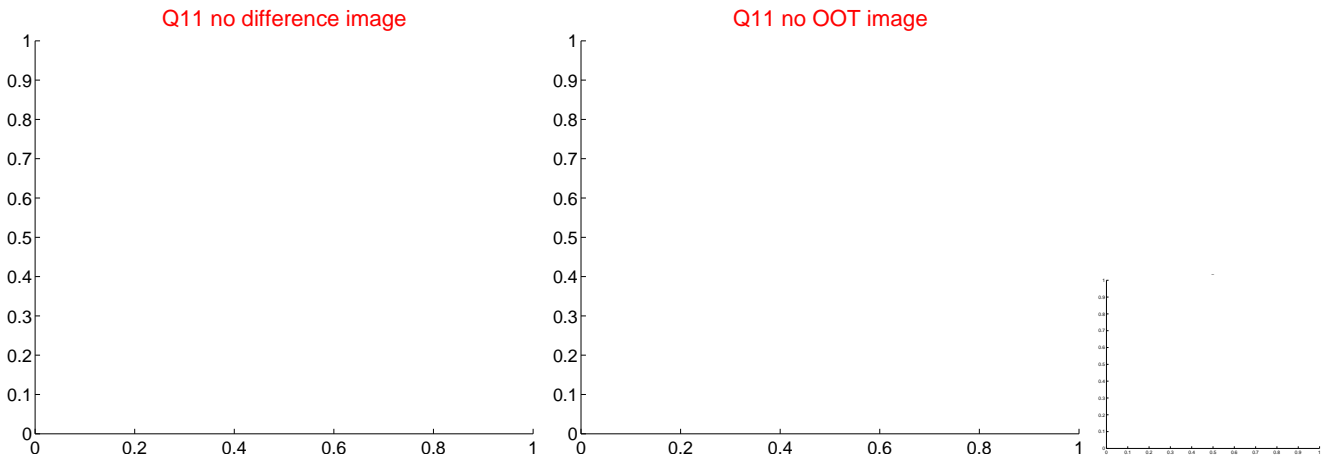
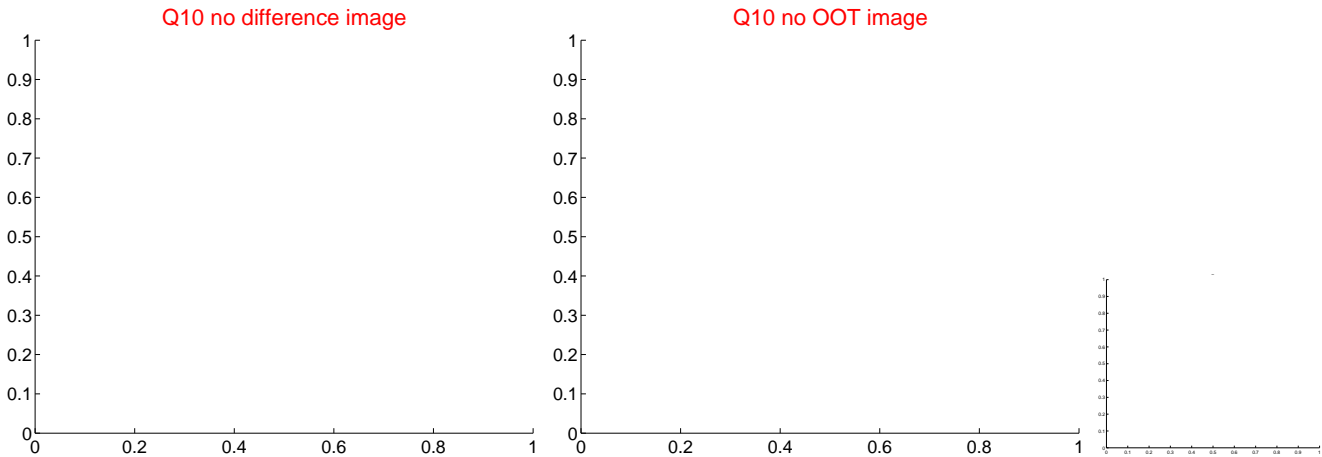
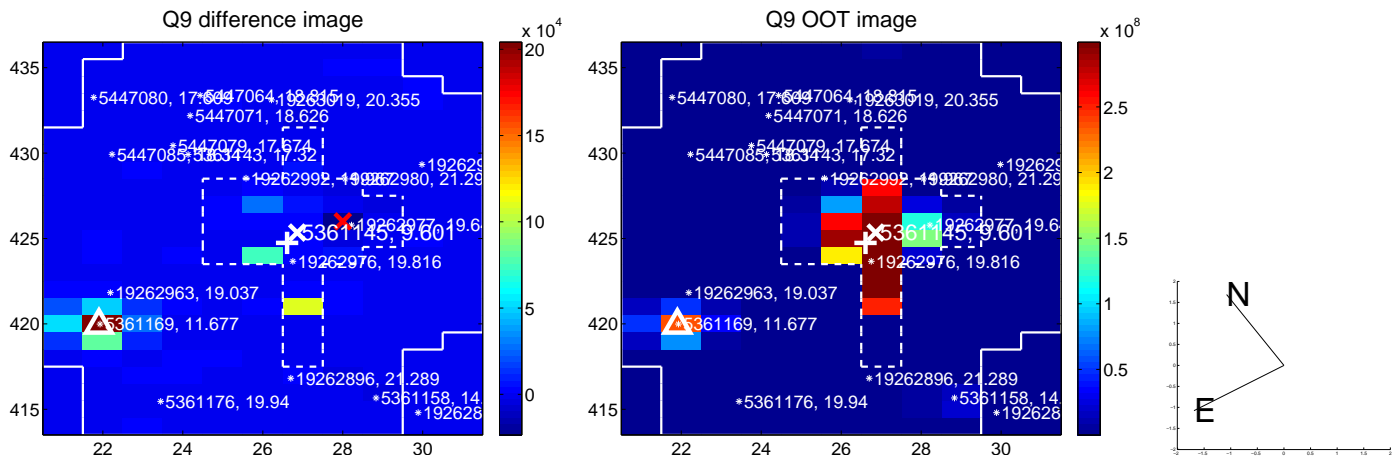
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

Q13 no difference image



Q13 no OOT image



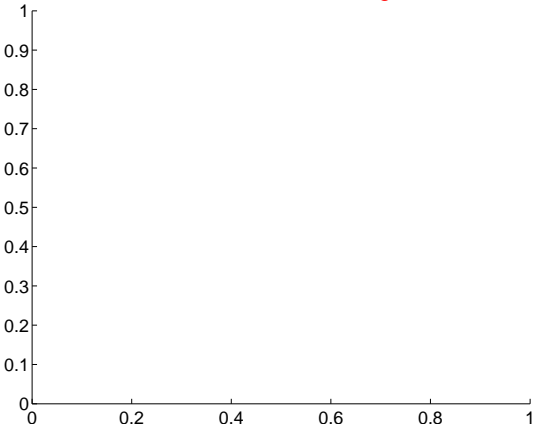
Q14 no difference image



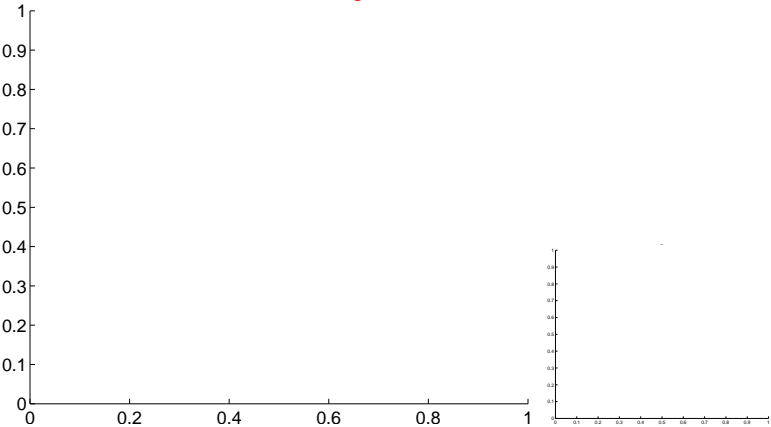
Q14 no OOT image



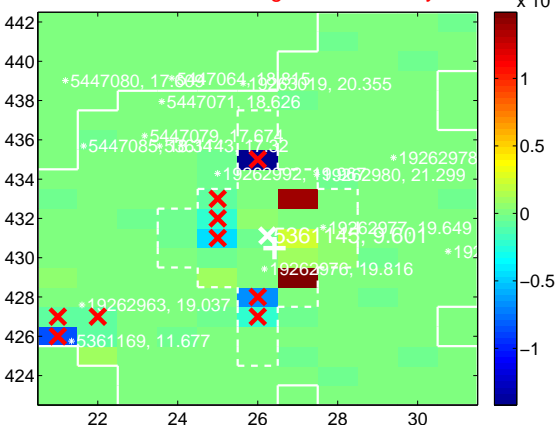
Q15 no difference image



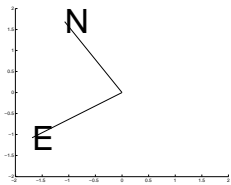
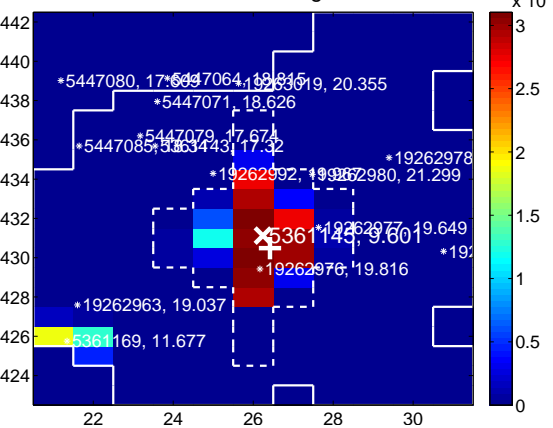
Q15 no OOT image



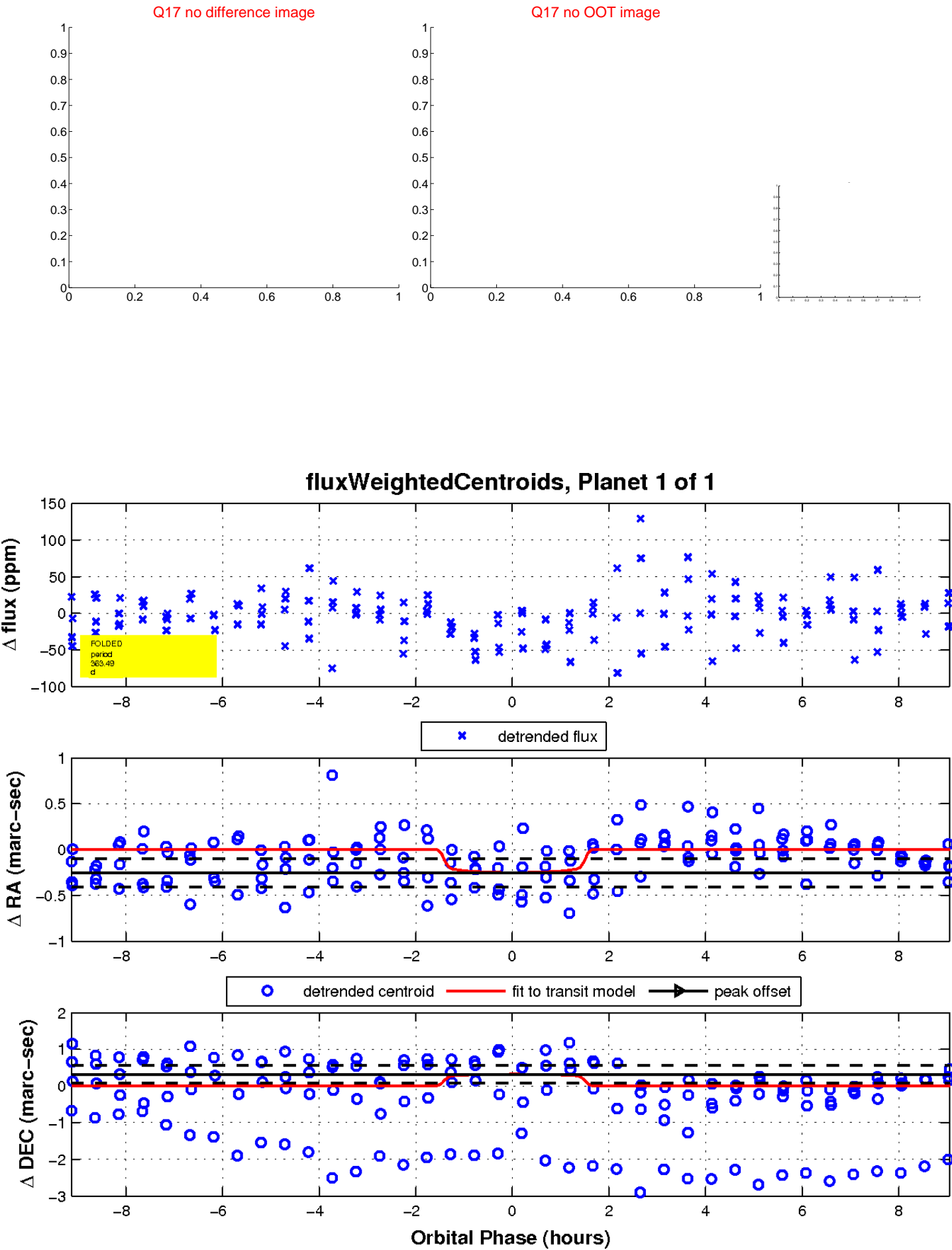
Q16 difference image. Poor Quality



Q16 OOT image



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



UKIRT Image

