

KIC 005360750

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})
005360750-01	OBS	No	428.959530	156.753763	183.6	3.777	7.1	6.7	1.17	5778	1.88	1.12

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005360750-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES—ALL_TRANS_CHASES—CENT_KIC_POS

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

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

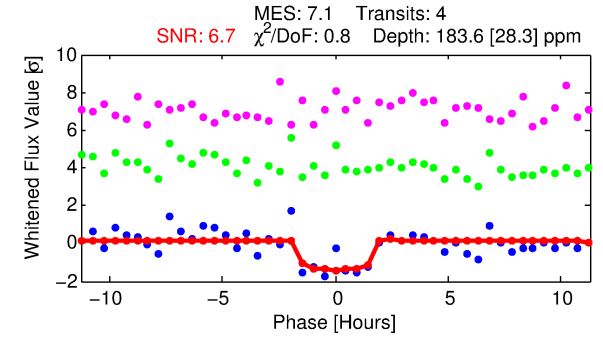
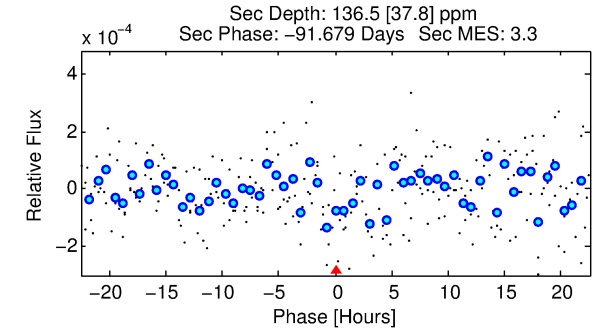
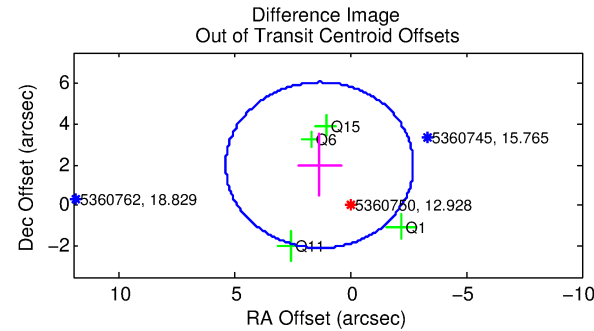
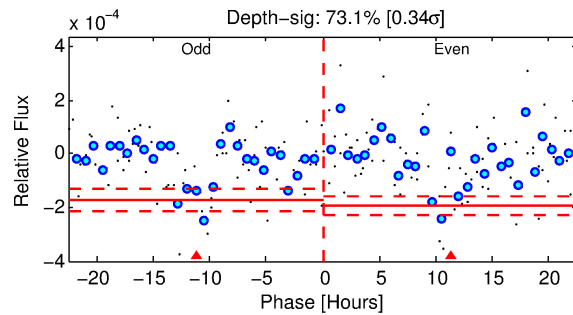
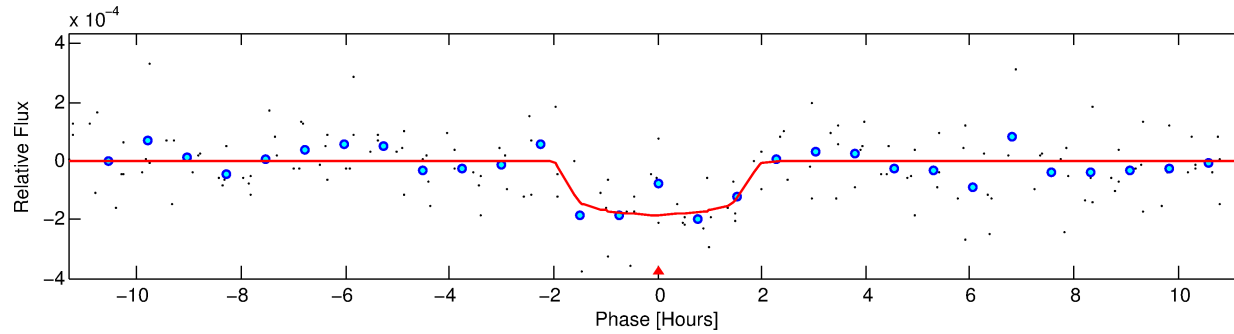
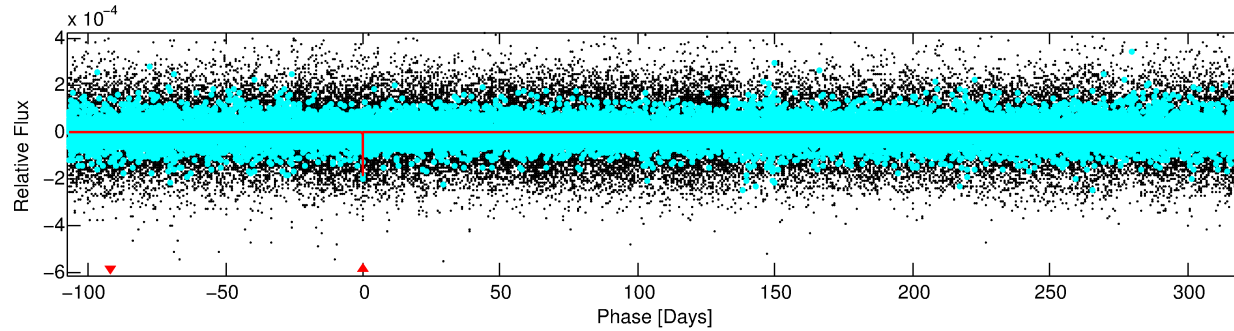
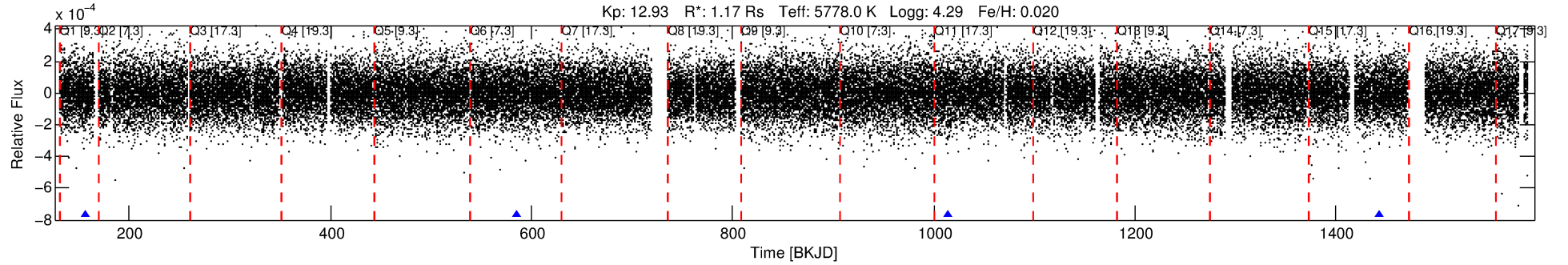
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005360750-01

No Significant Match Found

DV One-Page Summary

KIC: 5360750 Candidate: 1 of 1 Period: 428.960 d



DV Fit Results:

Period = 428.95953 [0.00550] d
Epoch = 156.7538 [0.0090] BKJD
Rp/R* = 0.0147 [0.0071]
a/R* = 408.70 [920.94]
b = 0.90 [0.49]
Seff = 1.12 [0.27]
Teq = 263 [16] K
Rp = 1.88 [0.96] Re
a = 1.1041 [0.1645] AU
Ag = 25781.17 [26684.22] [0.97 σ]
Teffp = 5143 [1297] K [3.76 σ]

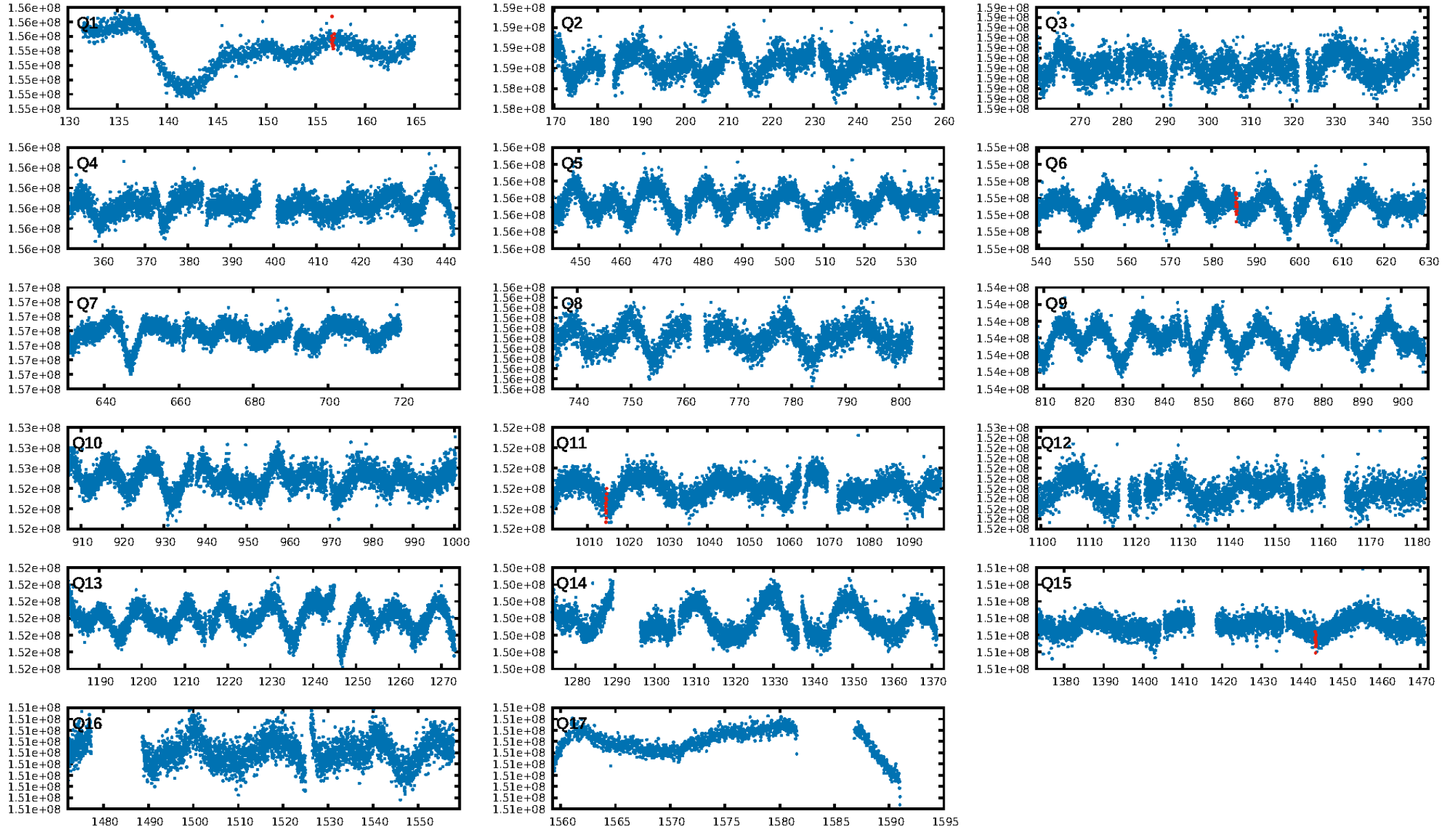
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 60.5%
ModelChiSquareGof-sig: 97.9%
Bootstrap-pfa: 6.50e-11
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 2.807
Centroid-sig: 20.7%
Centroid-so: 1.449 arcsec [0.83 σ]
OotOffset-rm: 2.391 arcsec [1.77 σ]
OotOffset-st: 1/2/0/1 [4]
KicOffset-rm: 2.576 arcsec [1.76 σ]
KicOffset-st: 1/2/0/1 [4]
DiffImageQuality-fgm: 0.50 [2/4]
DiffImageOverlap-fno: 1.00 [4/4]

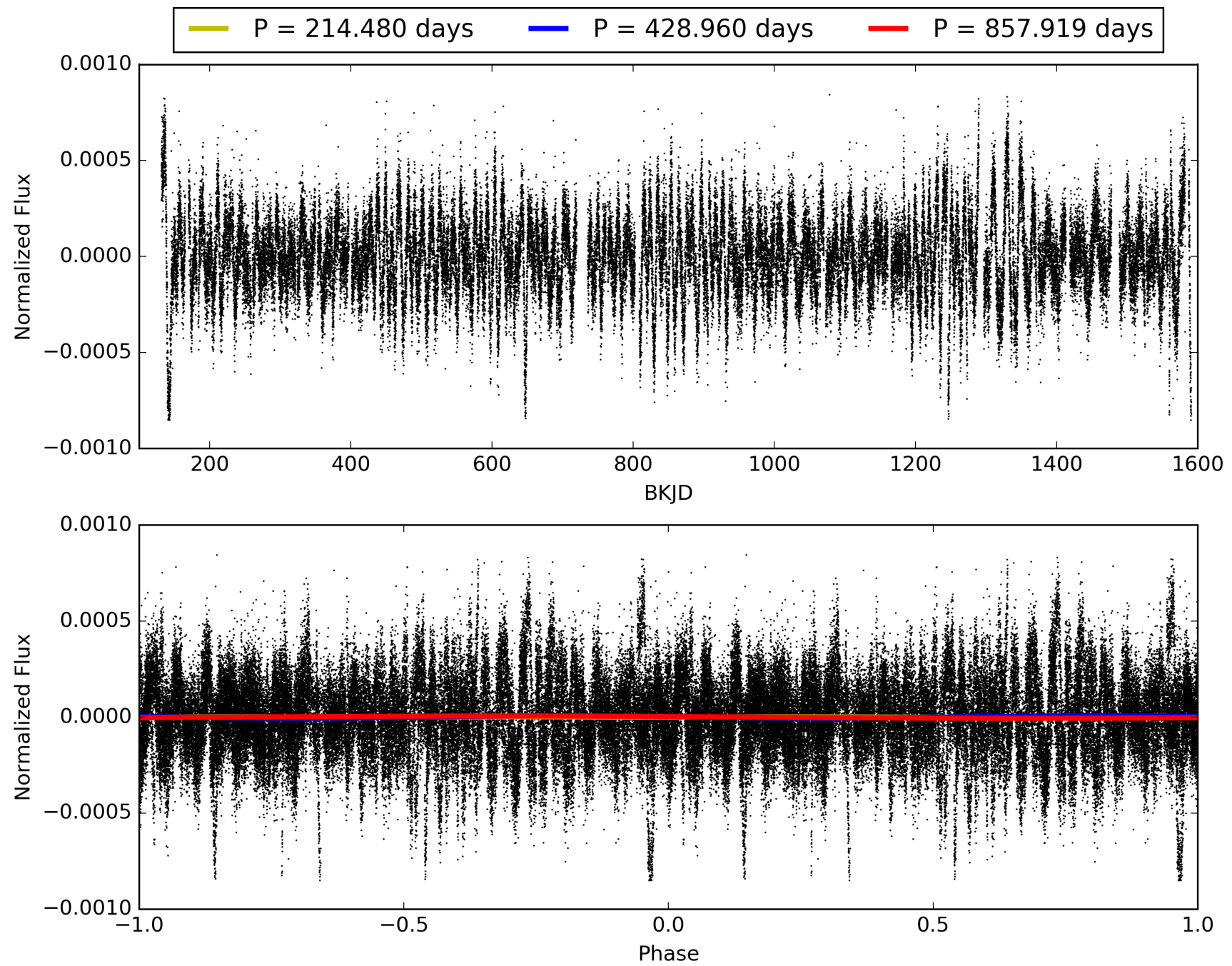
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 02:53:28 Z

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

TCE 005360750-01, PDC Light Curves

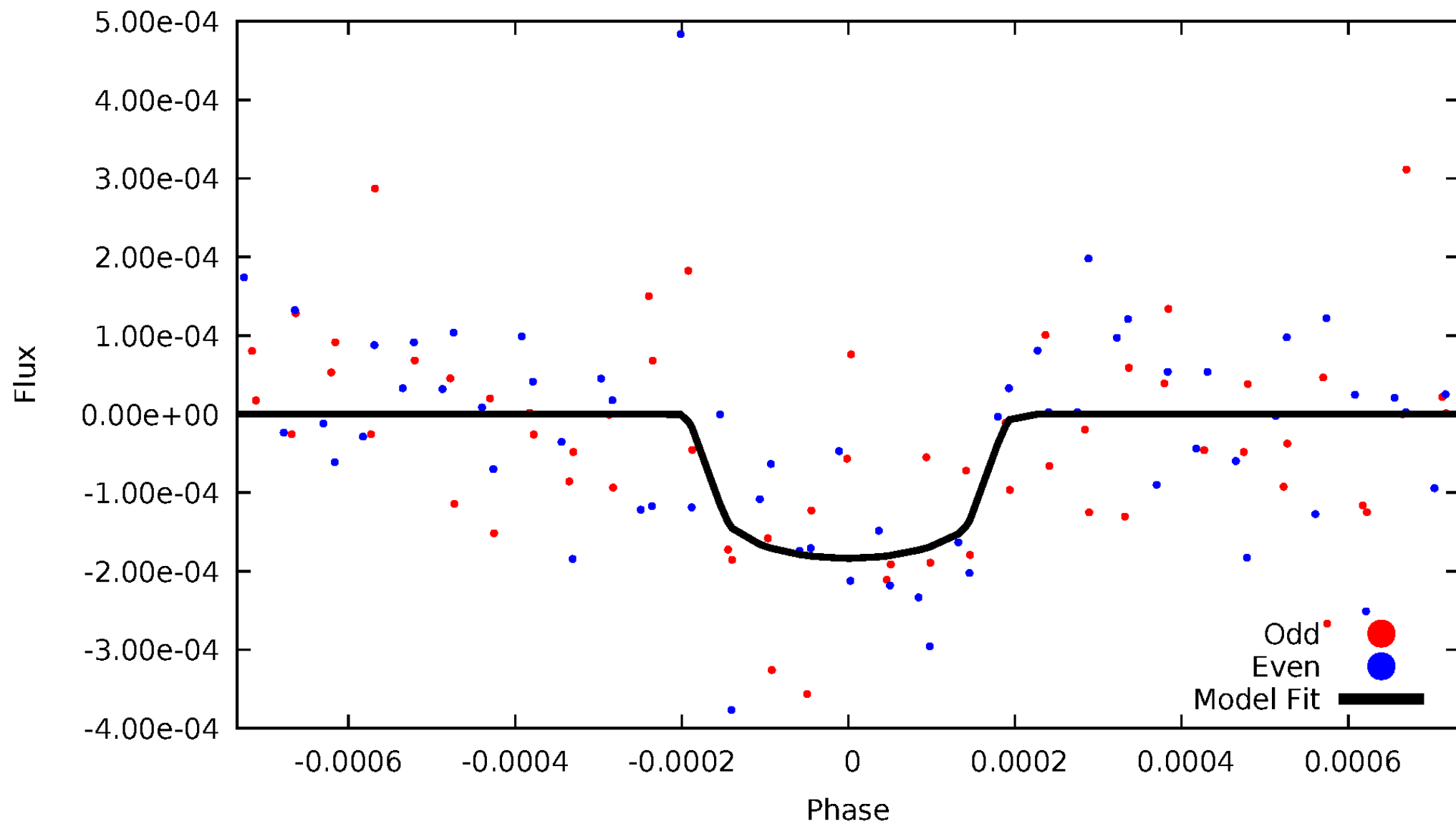


TCE 005360750-01



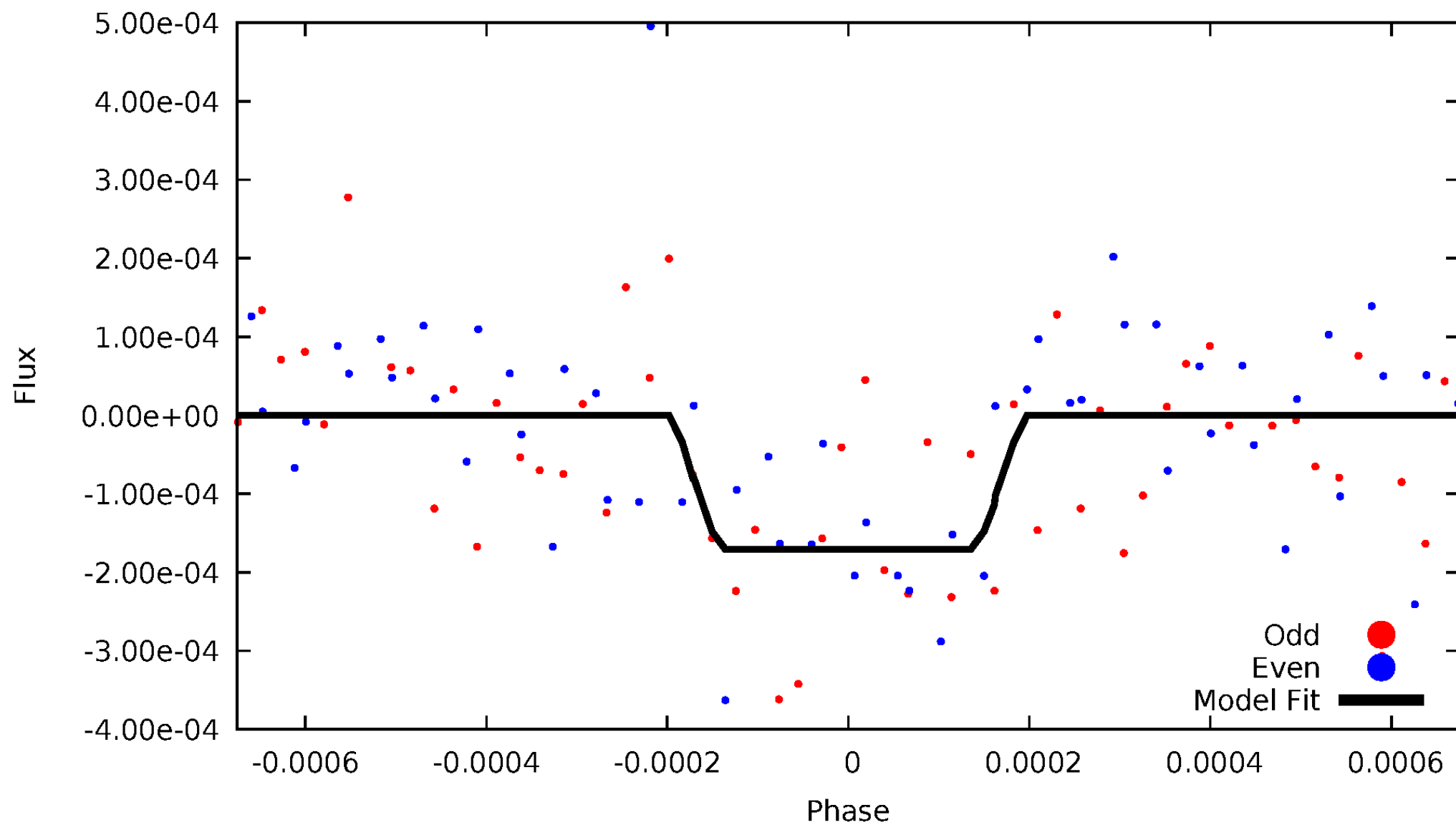
DV Odd/Even

TCE 005360750-01



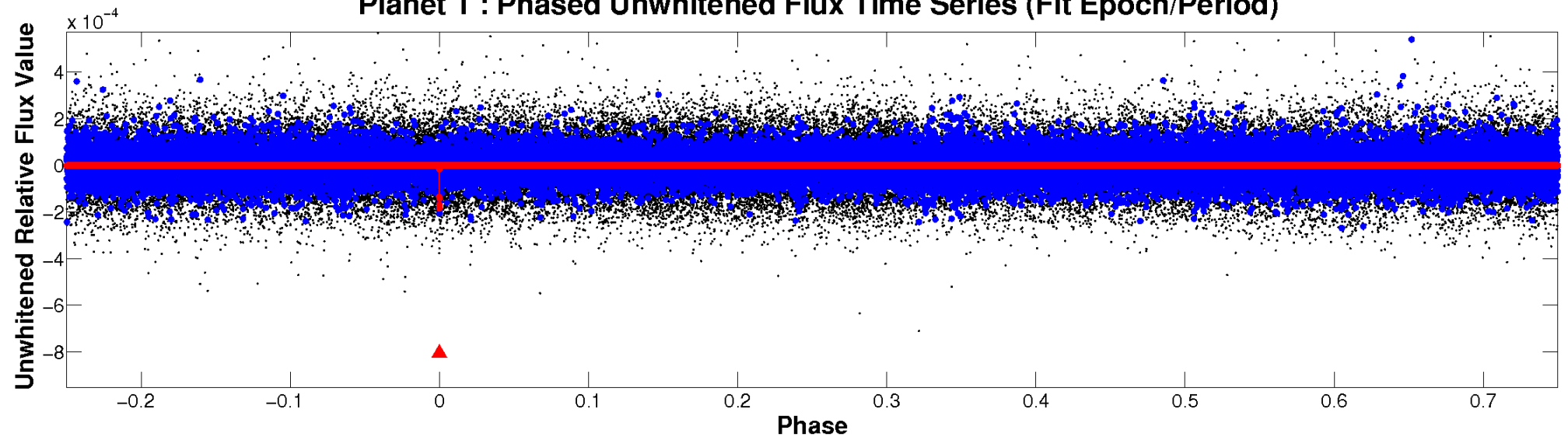
ALT Odd/Even

TCE 005360750-01

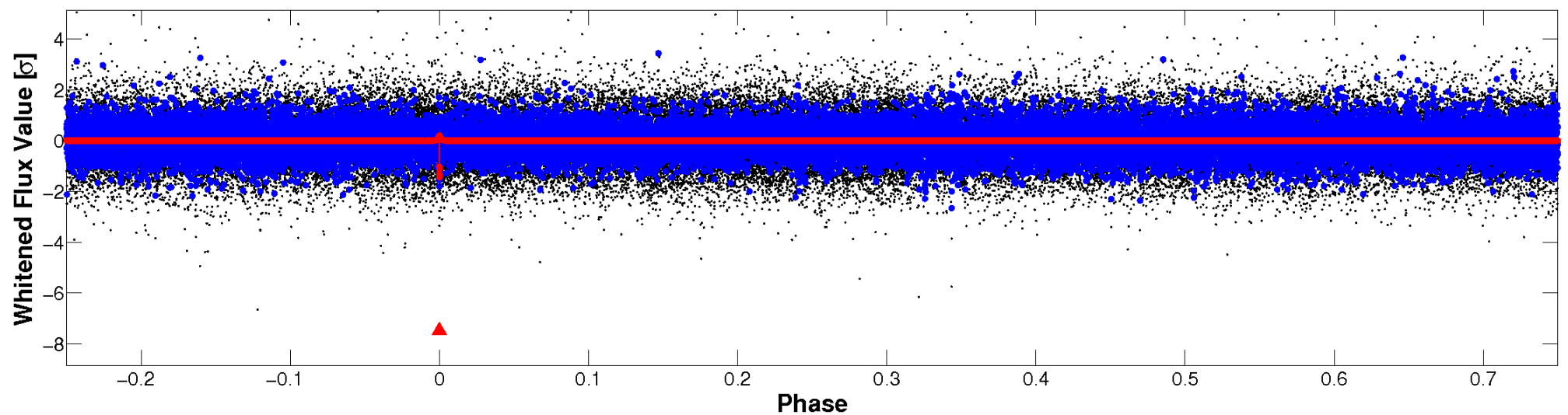


Non-Whitened Vs. Whitened Light Curve

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

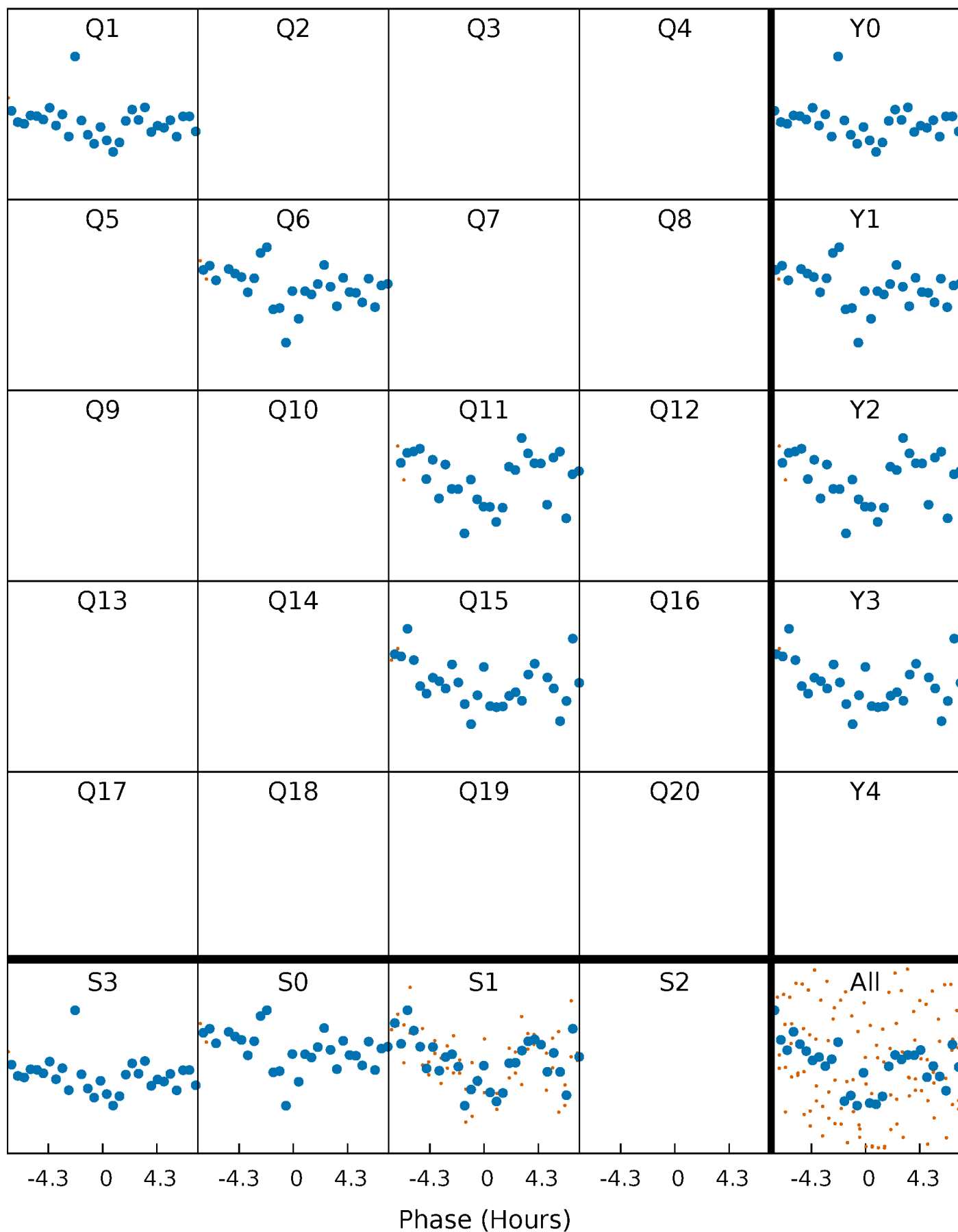


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



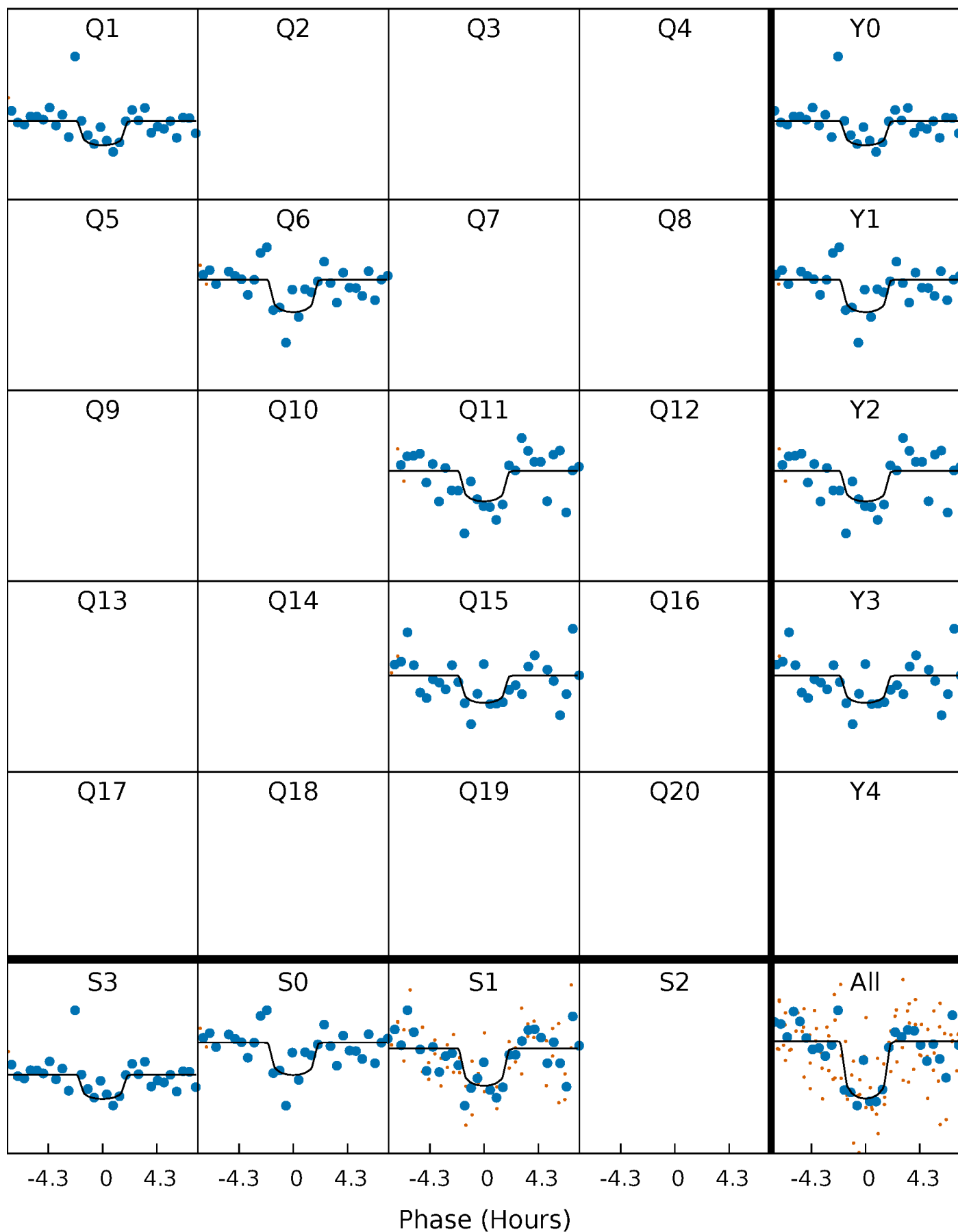
PDC Quarter-Phased Transit Curves

TCE 005360750-01 P=428.959530 Days $T_0=156.753763$ (BKJD)



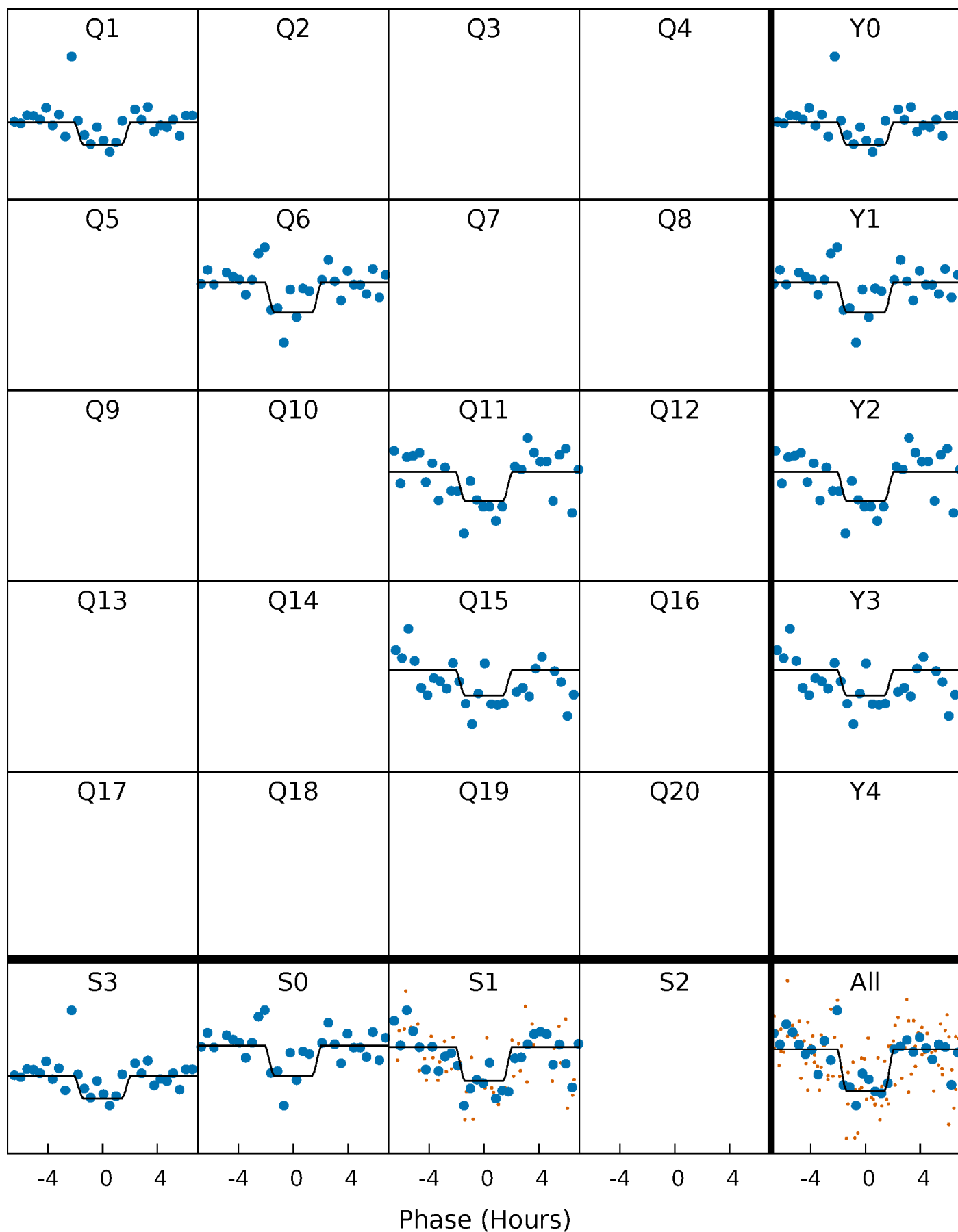
DV Quarter-Phased Transit Curves

TCE 005360750-01 P=428.959530 Days $T_0=156.753763$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

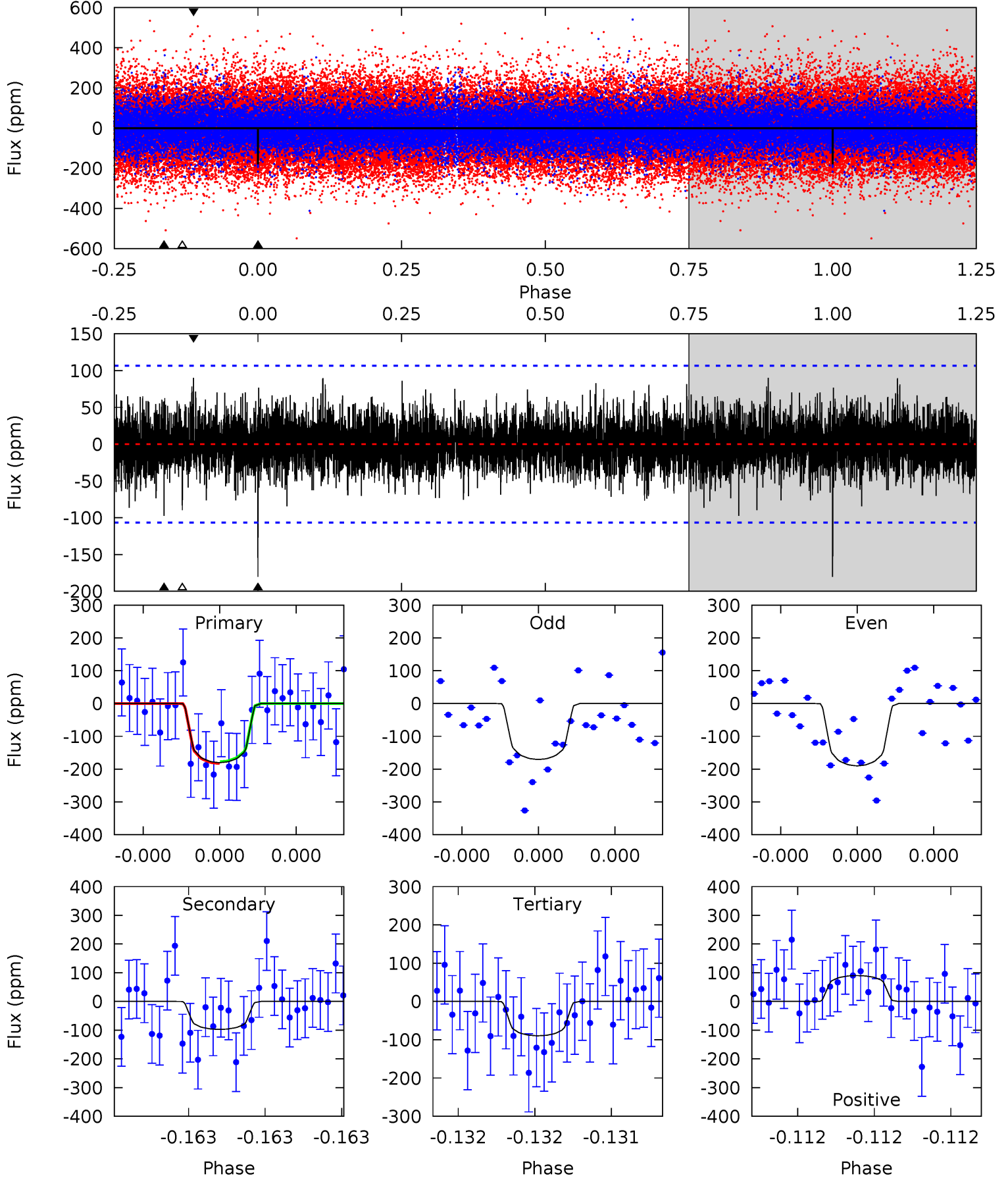
TCE 005360750-01 P=428.954914 Days $T_0=156.761049$ (BKJD)



DV Model-Shift Uniqueness Test

005360750-01, P = 428.959530 Days, E = 156.753763 Days

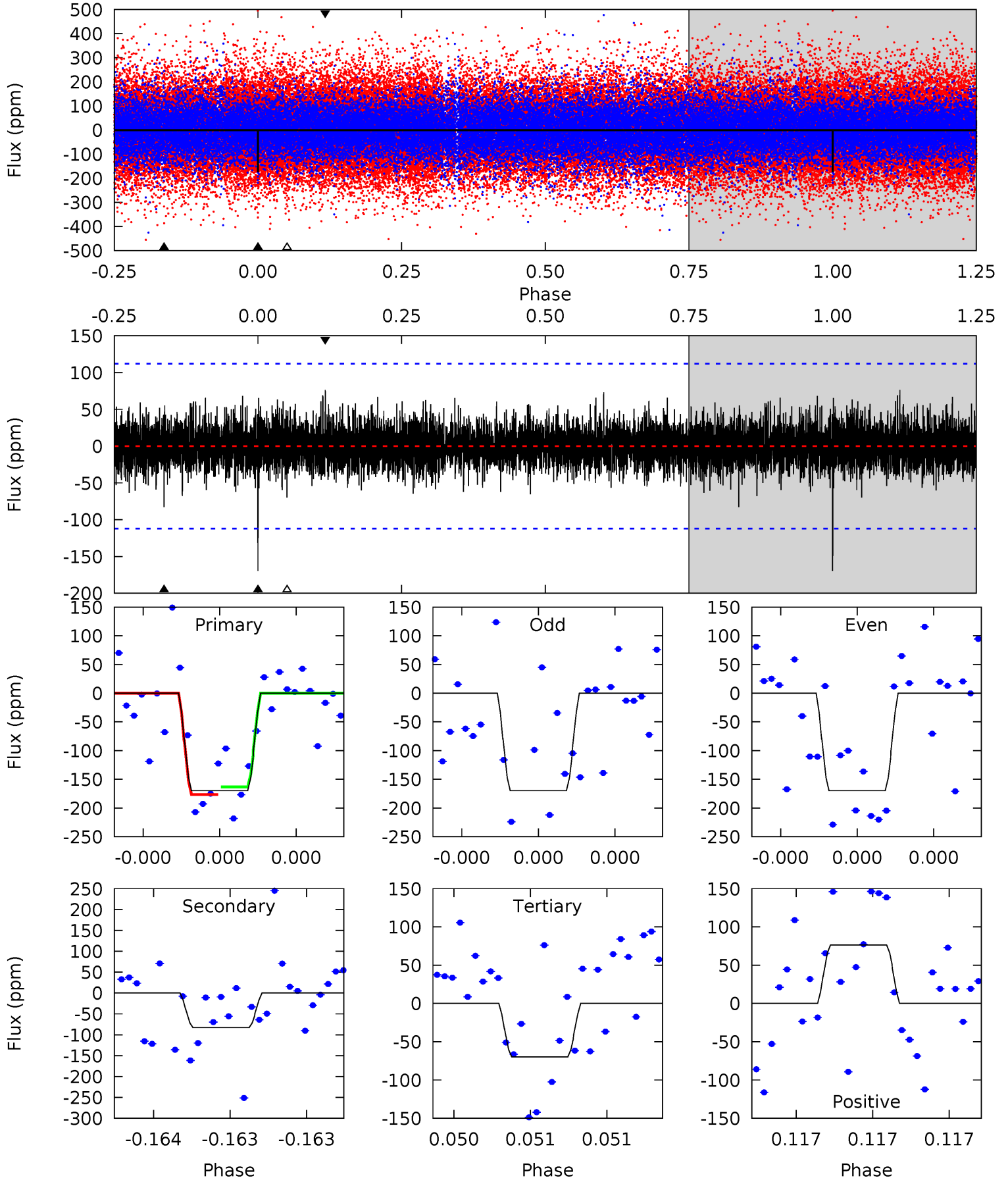
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.47	5.11	4.72	4.74	5.60	3.53	1.23	4.75	4.73	0.40	0.37	0.51	1.06	0.33	0.13



Alt Model-Shift Uniqueness Test

005360750-01, P = 428.954914 Days, E = 156.761049 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.52	4.16	3.50	3.83	5.63	3.56	0.99	5.02	4.69	0.66	0.33	0.00	1.00	0.31	0.33



Stellar Parameters For KIC 005360750

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5778^{+78}_{-78}	$4.290^{+0.138}_{-0.113}$	$0.020^{+0.150}_{-0.150}$	$1.171^{+0.184}_{-0.184}$	$0.974^{+0.072}_{-0.057}$	$0.855^{+0.538}_{-0.283}$
	+1%/-1%	+3%/-3%	+750%/-750%	+16%/-16%	+7%/-6%	+63%/-33%
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 005360750-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-97 ± 19	$1.91^{+0.92}_{-0.93}$	366^{+15}_{-16}	4813^{+1658}_{-710}	17900^{+49391}_{-10230}
Alt.	-83 ± 20	$1.68^{+0.95}_{-0.86}$	367^{+15}_{-17}	4846^{+2066}_{-752}	19100^{+62735}_{-11455}

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

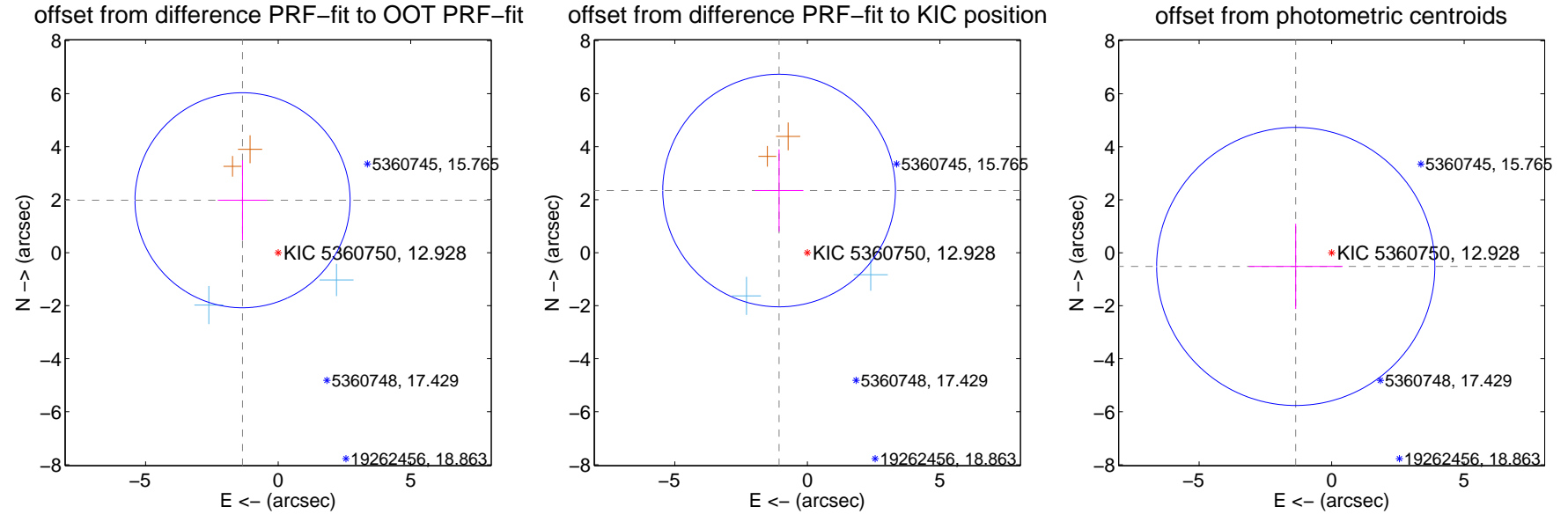
DV Centroid Data

Supplemental centroid analysis for 005360750-01. Kepler magnitude: 12.93. Transit SNR 6.69

There are 2 quarters with good PRF difference image offsets

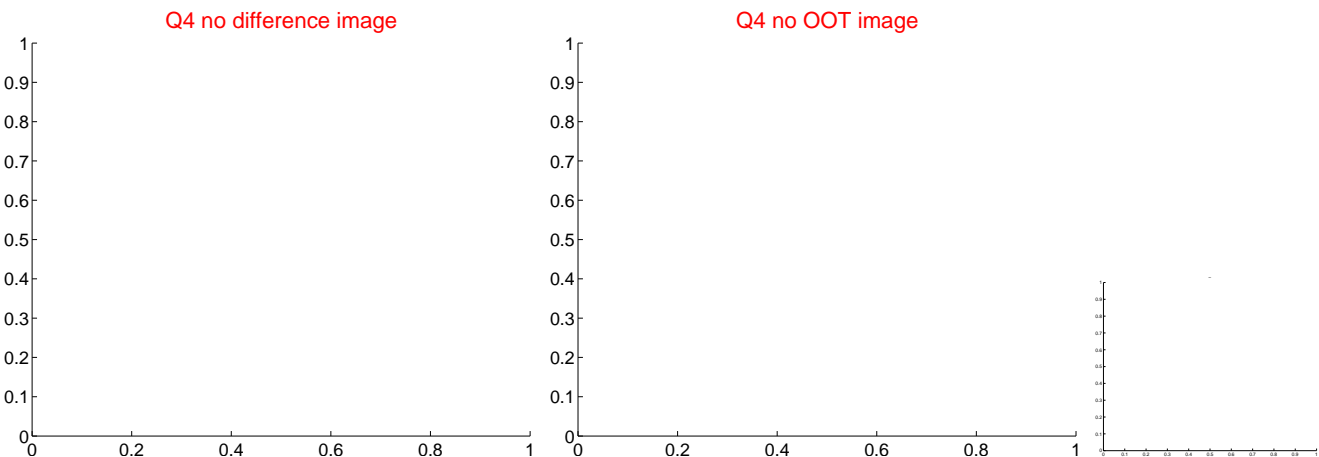
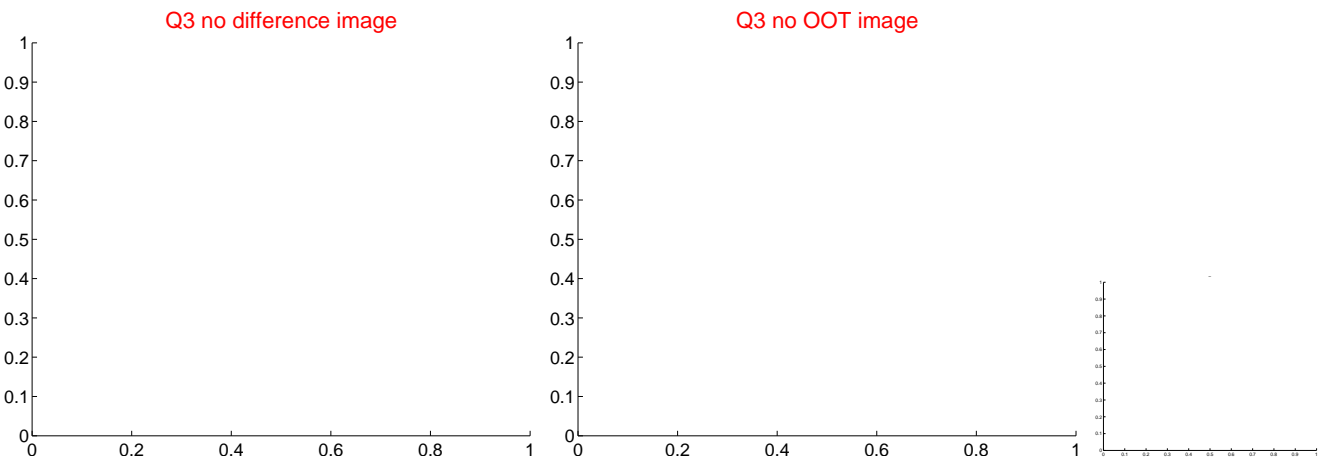
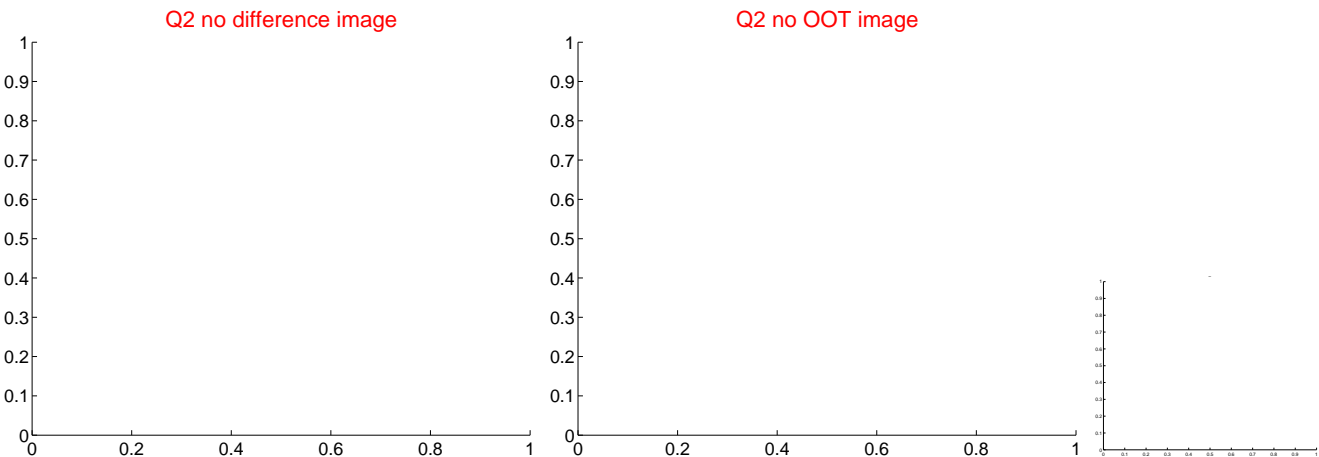
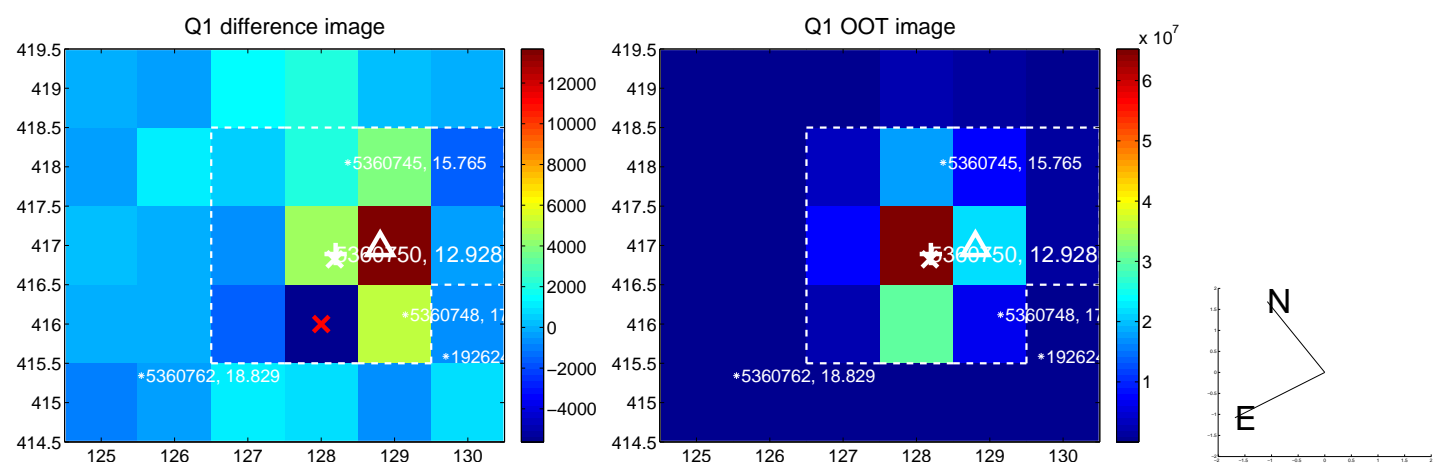
The direct PRF centroid is offset from the target star catalog position by about 0.59 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.391 ± 1.352	1.77	1.344 ± 0.931	1.978 ± 1.507
PRF-fit source offset from KIC position	2.576 ± 1.462	1.76	1.066 ± 0.915	2.345 ± 1.552
photometric centroid source offset	1.45 ± 1.75	0.83	1.35 ± 1.77	-0.52 ± 1.61

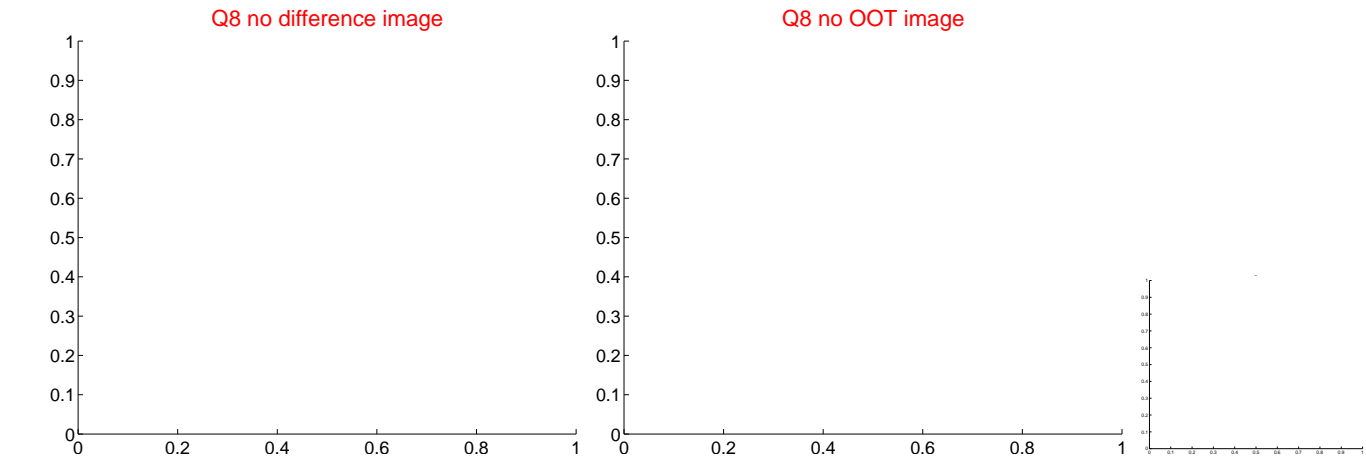
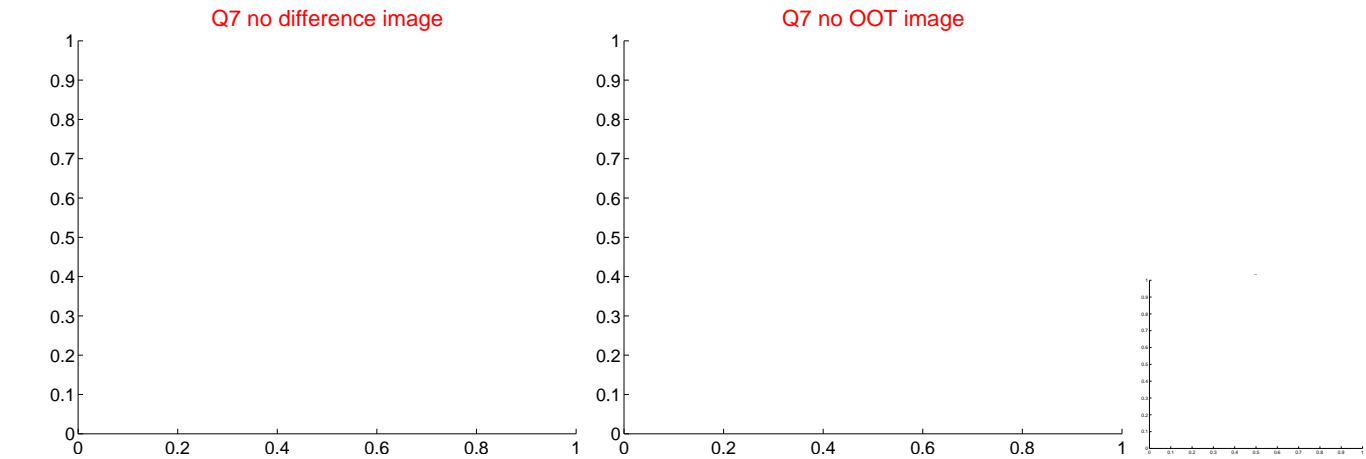
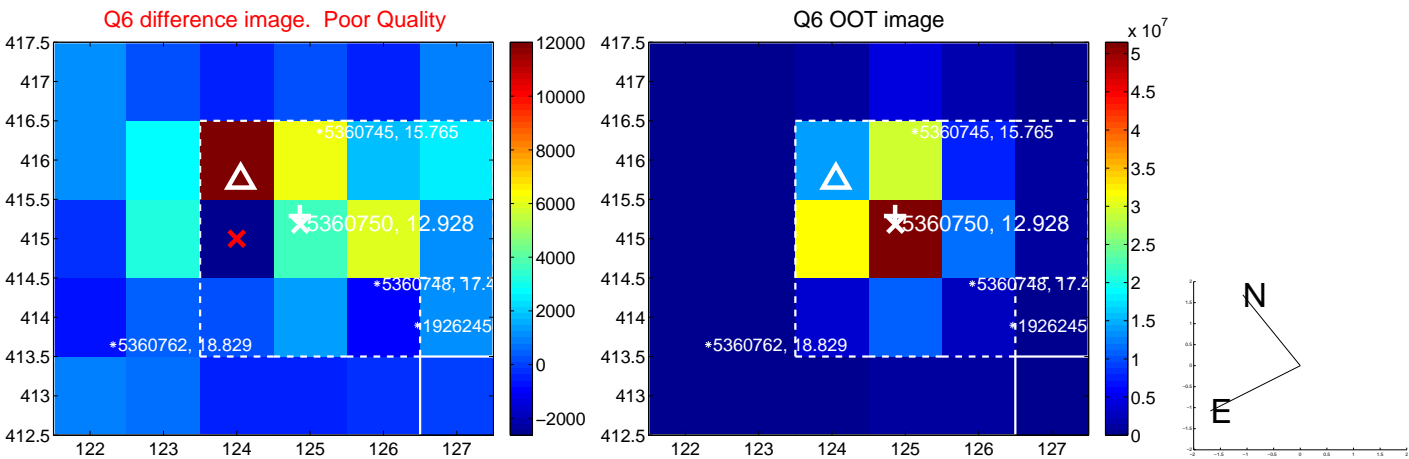
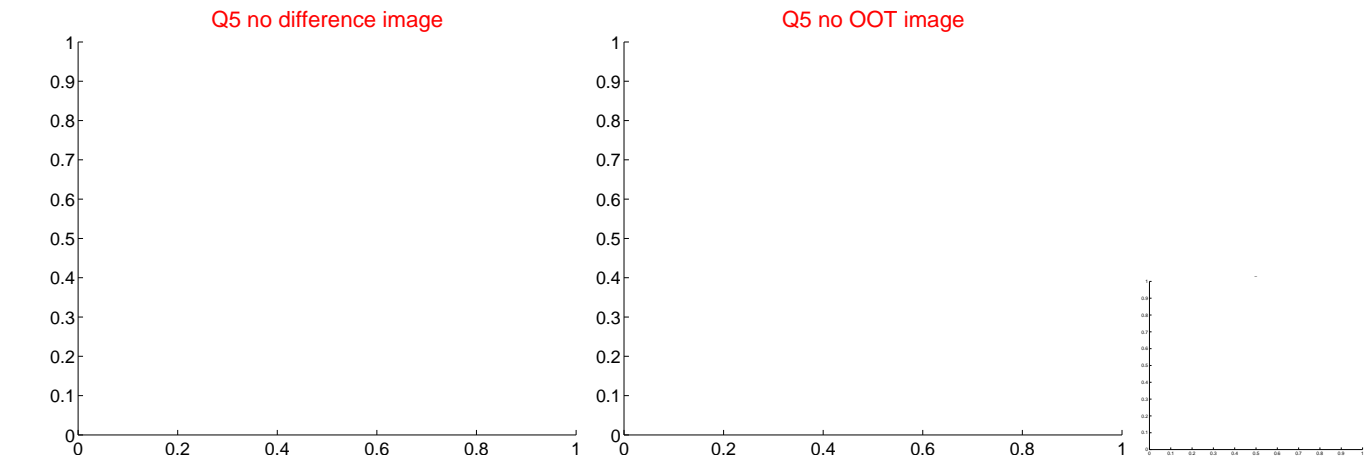


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000 are from the UKIRT catalog.

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

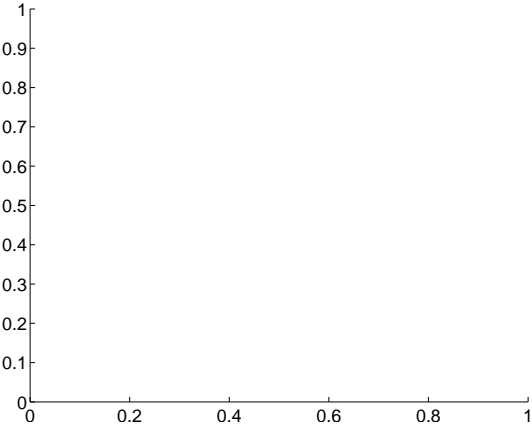


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

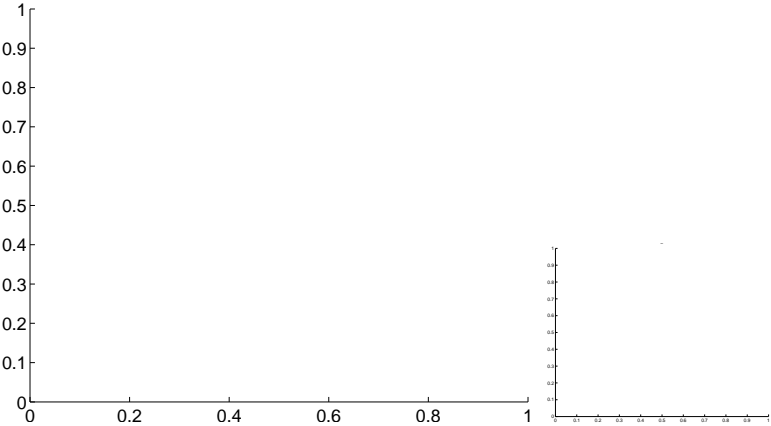


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

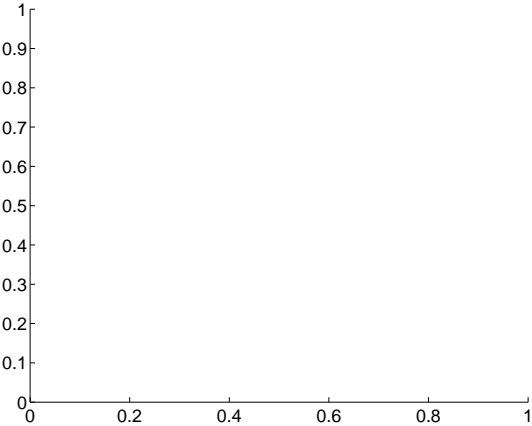
Q9 no difference image



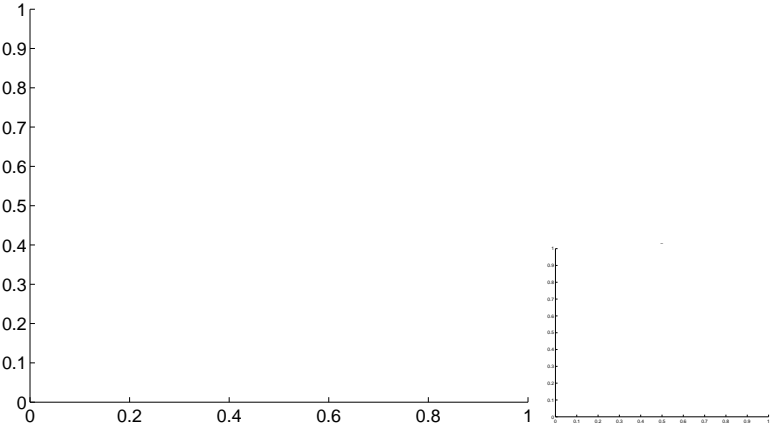
Q9 no OOT image



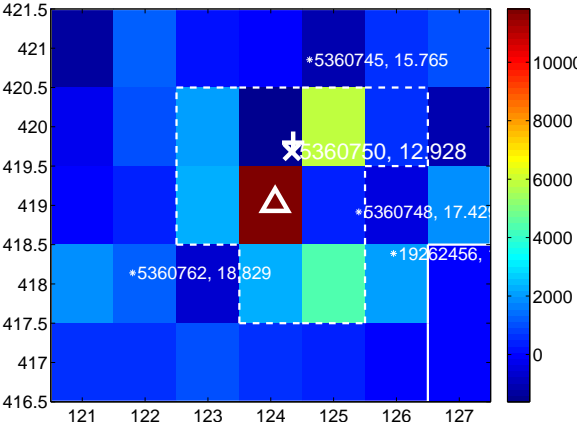
Q10 no difference image



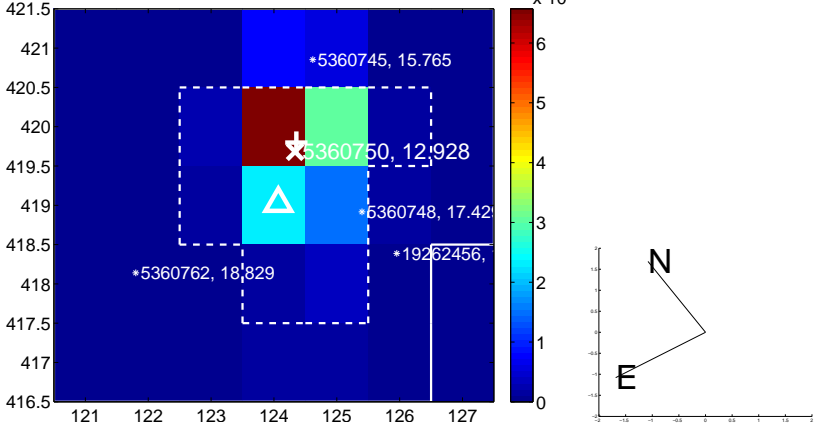
Q10 no OOT image



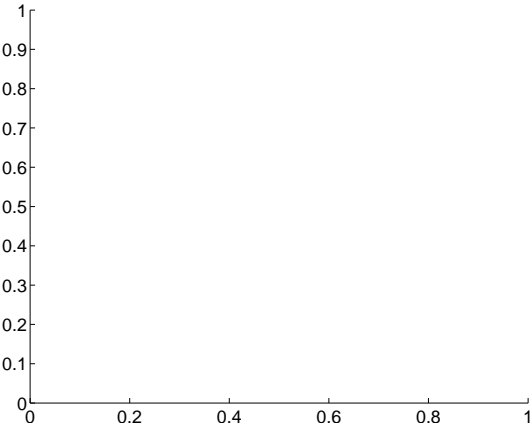
Q11 difference image



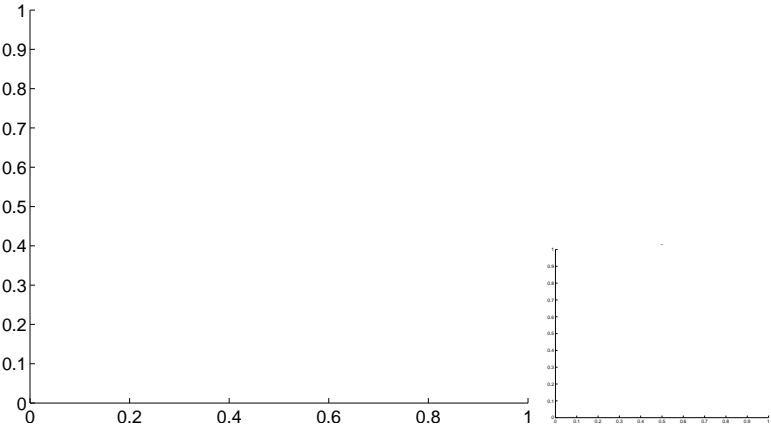
Q11 OOT image



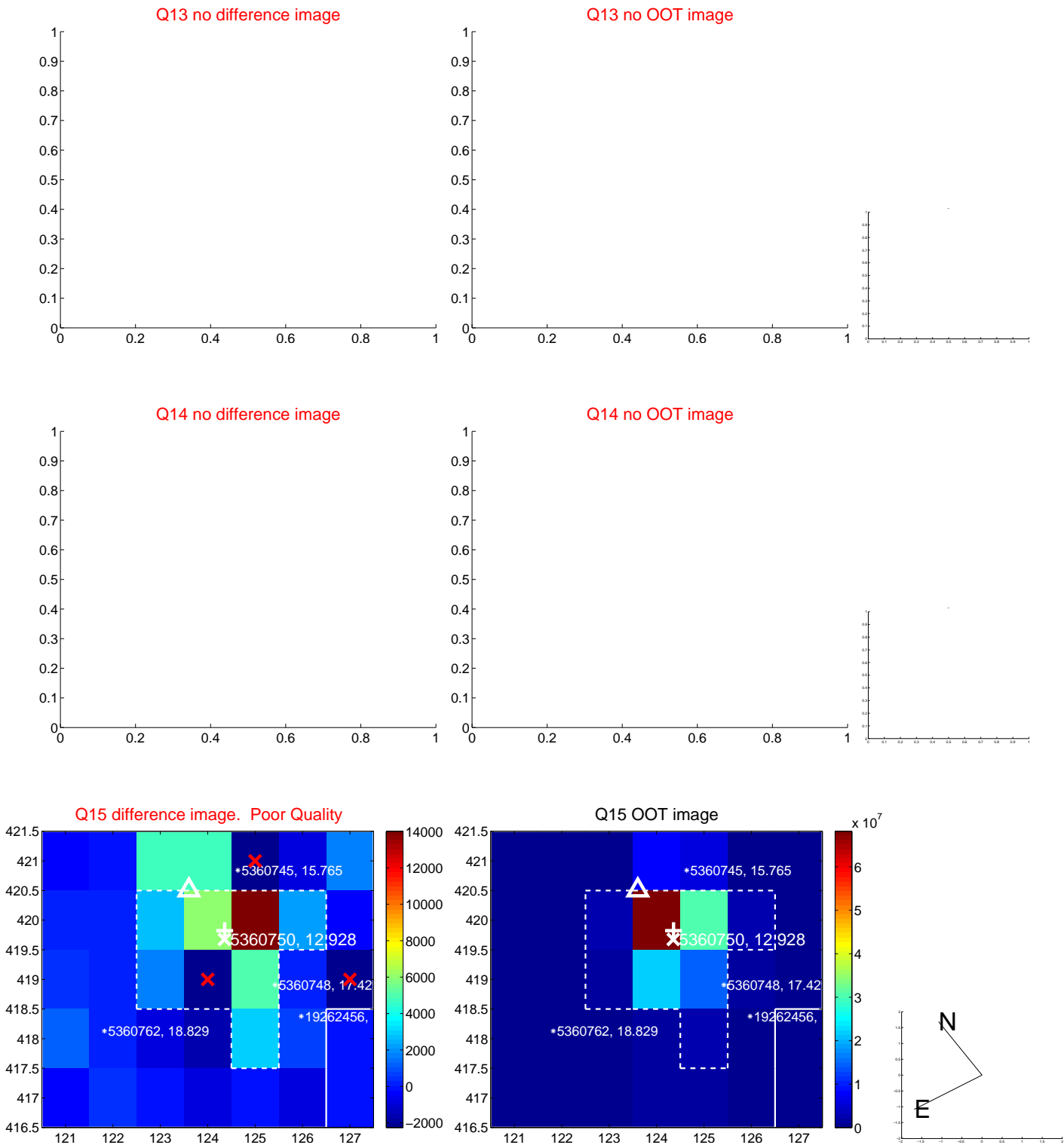
Q12 no difference image



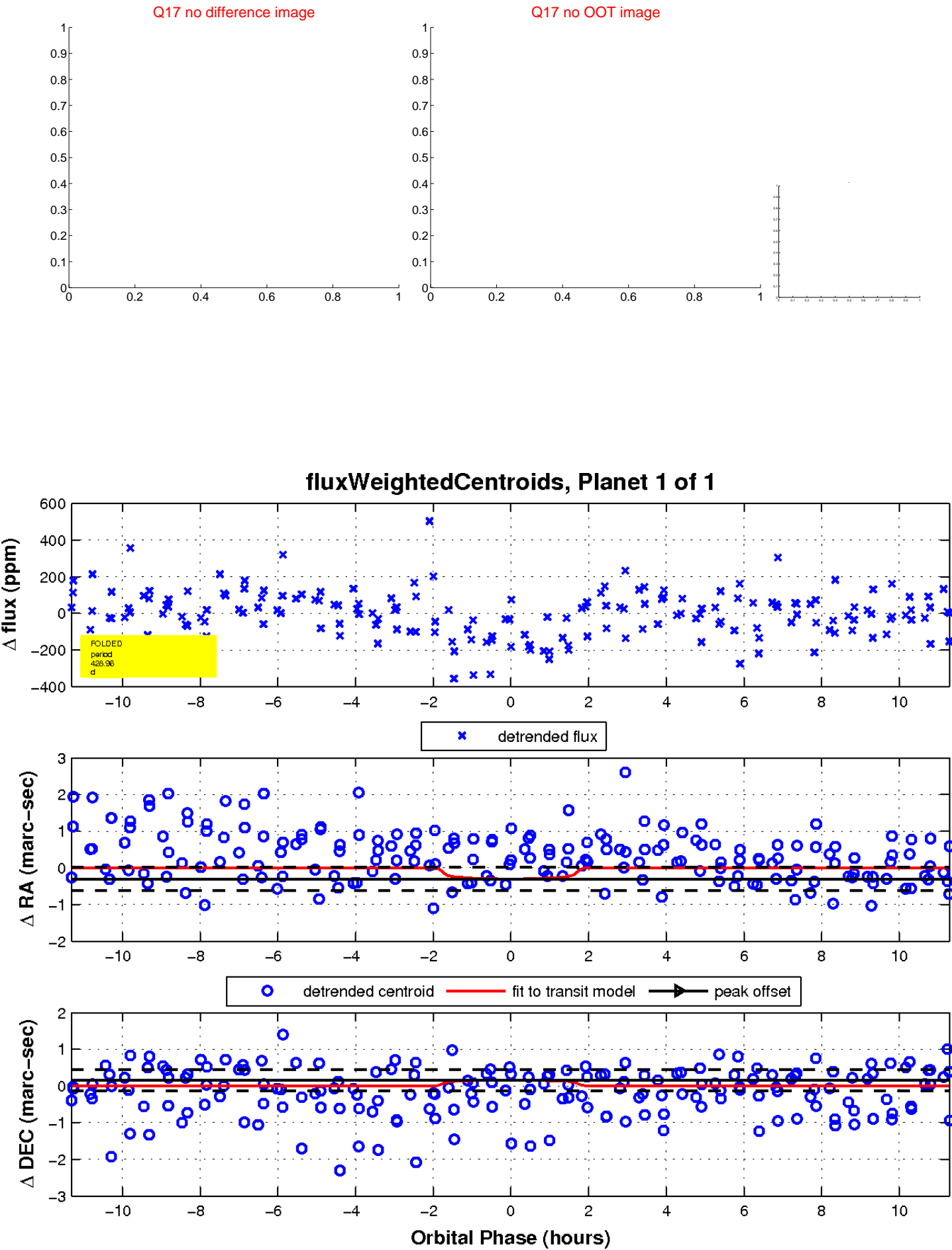
Q12 no OOT image



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.



UKIRT Image

Declination

