

KIC 008560475

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})
008560475-01	OBS	5543.01	7.415055	133.309896	934.3	2.180	23.8	31.4	18.27	4989	97.22	14878.47

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008560475-01	OBS	PC	1.00	0	0	0	0	NO_COMMENT

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.

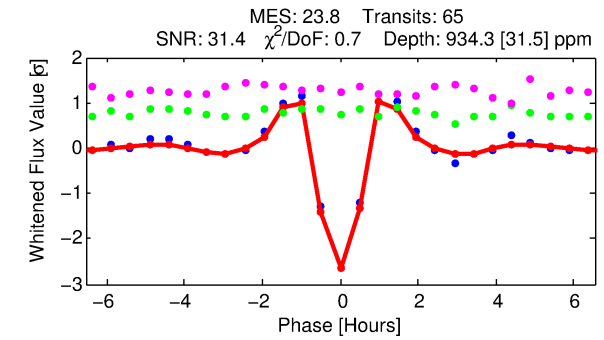
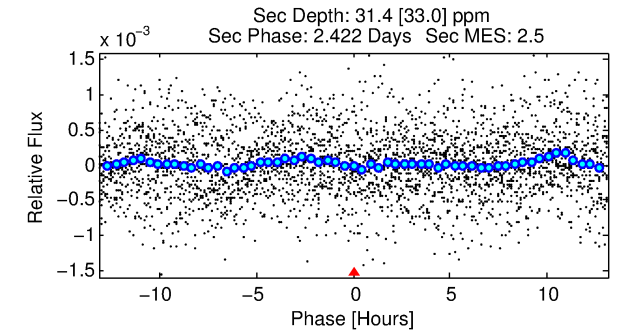
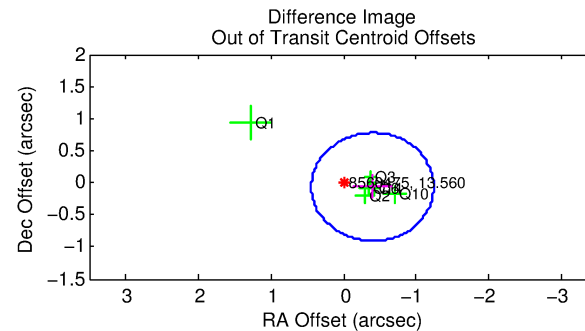
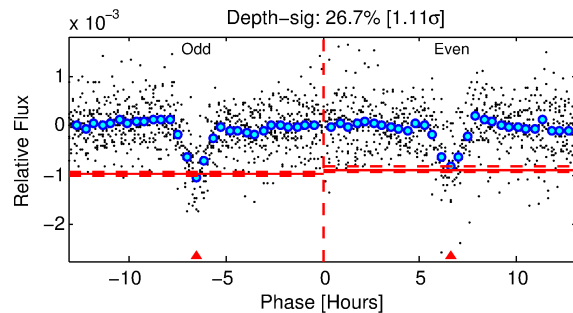
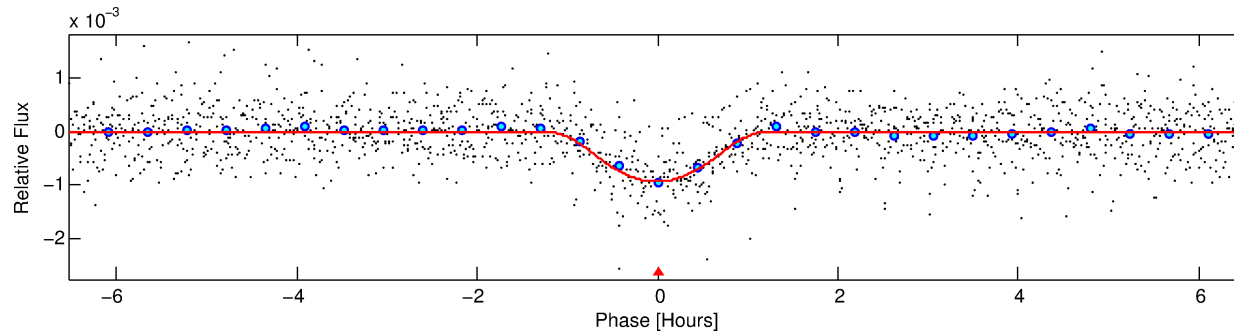
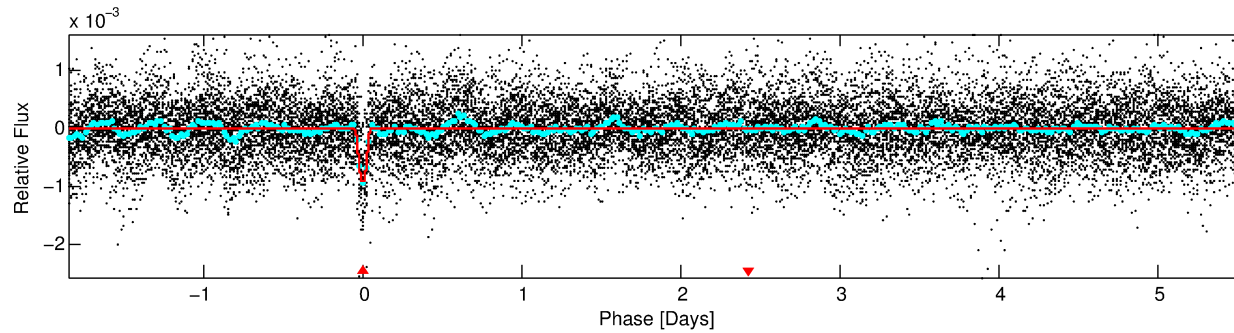
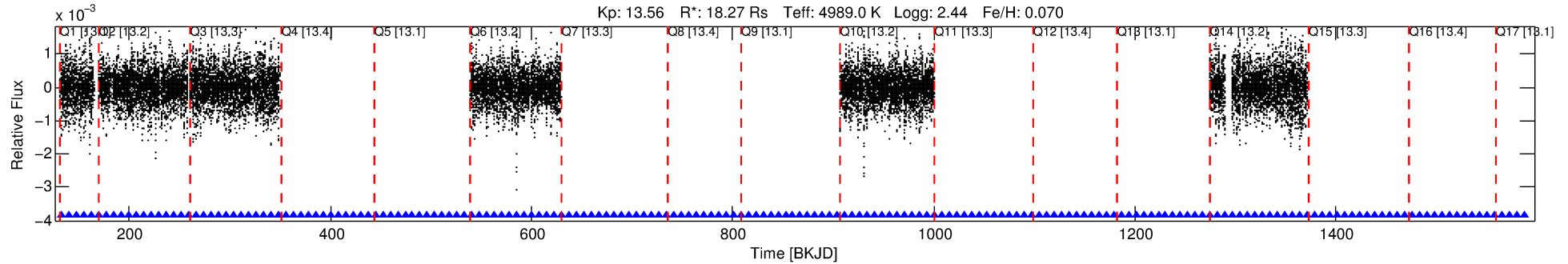
Ephemeris Match Information For 008560475-01

No Significant Match Found

DV One-Page Summary

KIC: 8560475 Candidate: 1 of 1 Period: 7.415 d
KOI: K05543.01 Corr: 0.820

Kp: 13.56 R*: 18.27 Rs Teff: 4989.0 K Logg: 2.44 Fe/H: 0.070



DV Fit Results:

Period = 7.41505 [0.00001] d
Epoch = 133.3099 [0.0008] BKJD
Rp/R* = 0.0488 [0.0218]
a/R* = 9.35 [1.31]
b = 0.99 [0.04]
Seff = 14878.47 [4775.36]
Teq = 2816 [226] K
Rp = 97.22 [56.61] Re
a = 0.1116 [0.0280] AU
Ag = 0.02 [0.03] [-30.66σ]
Teffp = 1691 [588] K [-1.79σ]

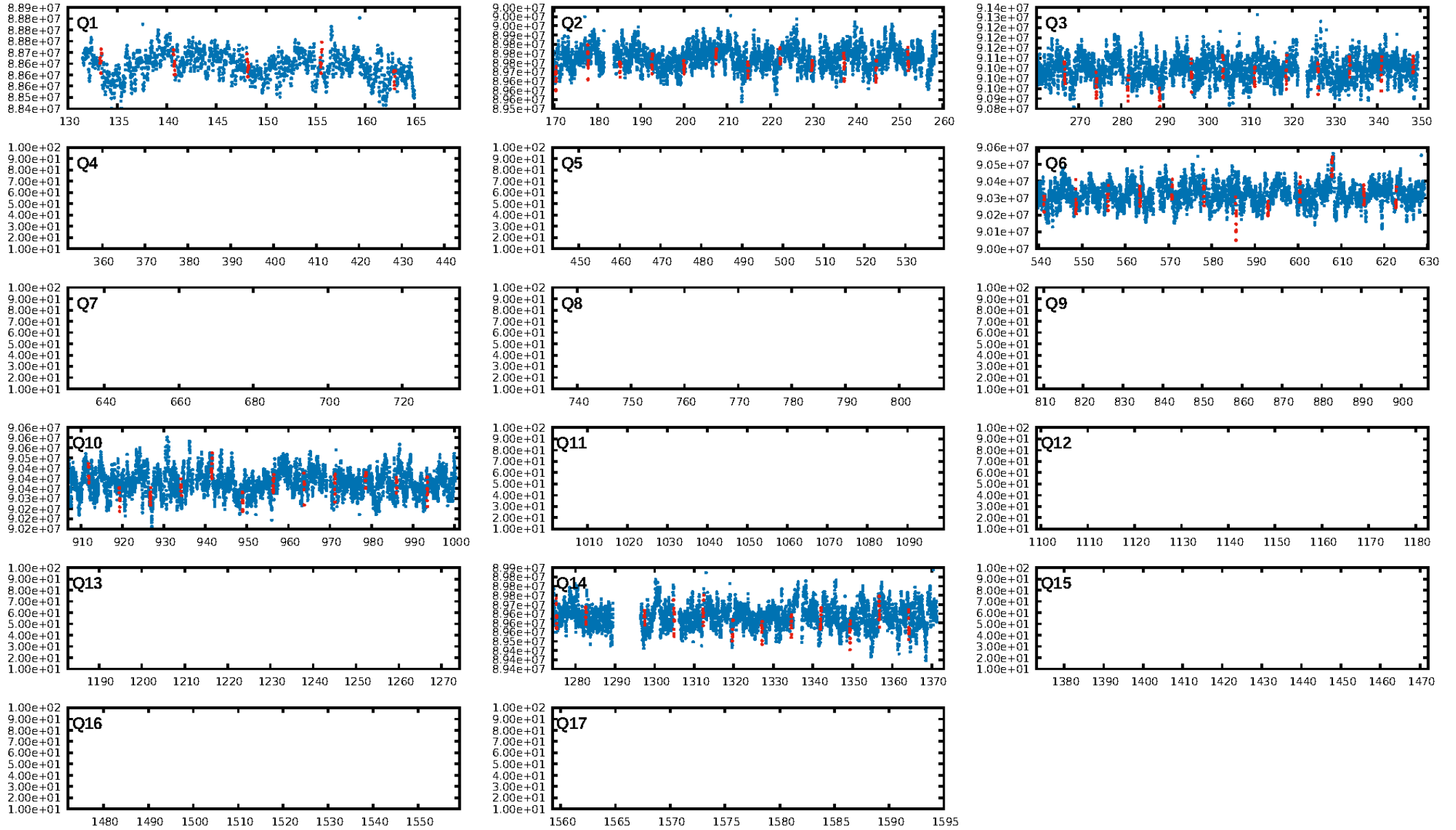
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 97.2%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.48e-115
RollingBand-fgt: 1.00 [60/60]
GhostDiagnostic-chr: 3.465
Centroid-sig: 8.2%
Centroid-so: 0.232 arcsec [1.18σ]
OotOffset-rm: 0.404 arcsec [1.44σ]
OotOffset-st: 4/1/0/1 [6]
KicOffset-rm: 0.381 arcsec [1.39σ]
KicOffset-st: 4/1/0/1 [6]
DiffImageQuality-fgm: 1.00 [6/6]
DiffImageOverlap-fno: 1.00 [6/6]

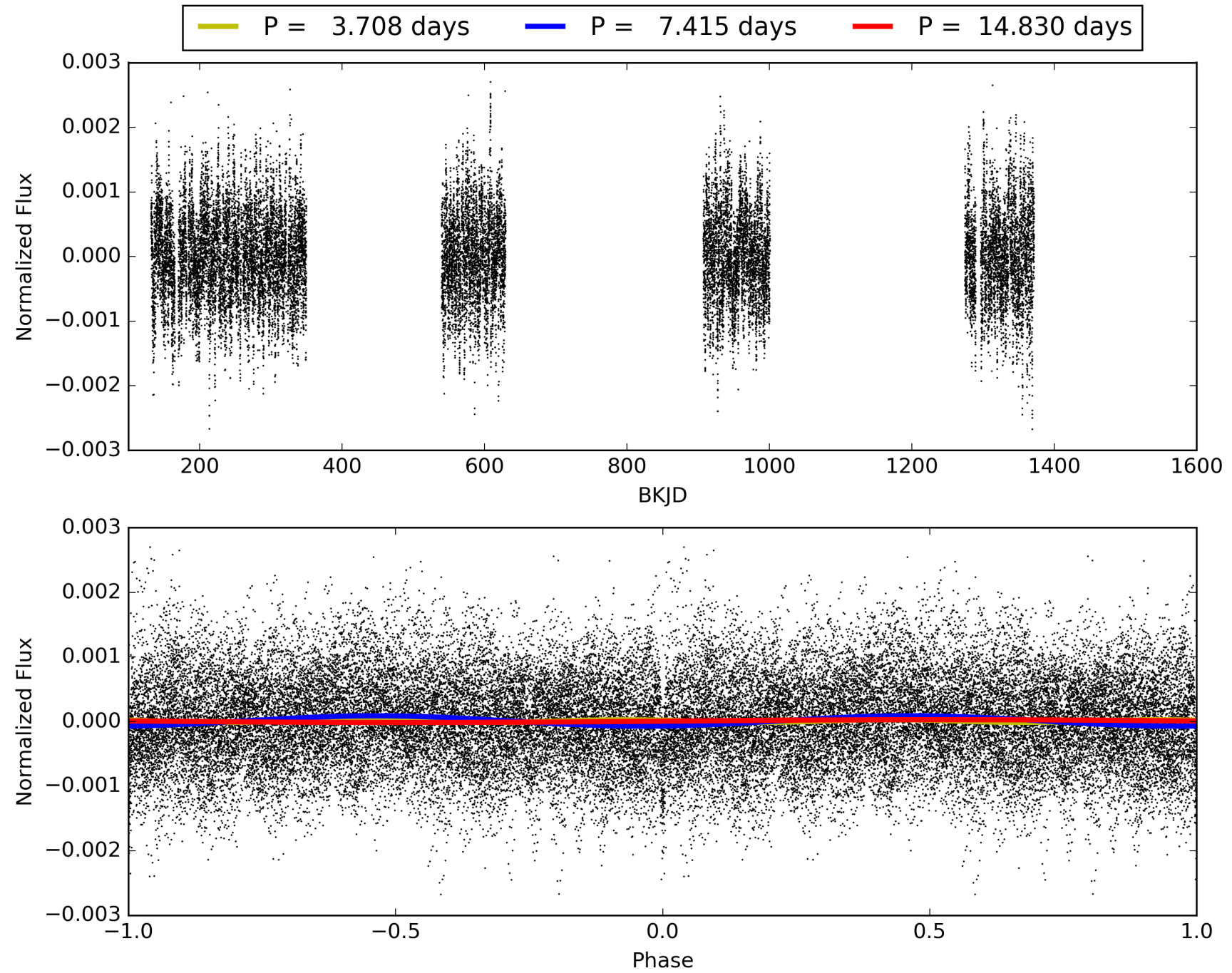
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 08:59:03 Z

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

TCE 008560475-01, PDC Light Curves

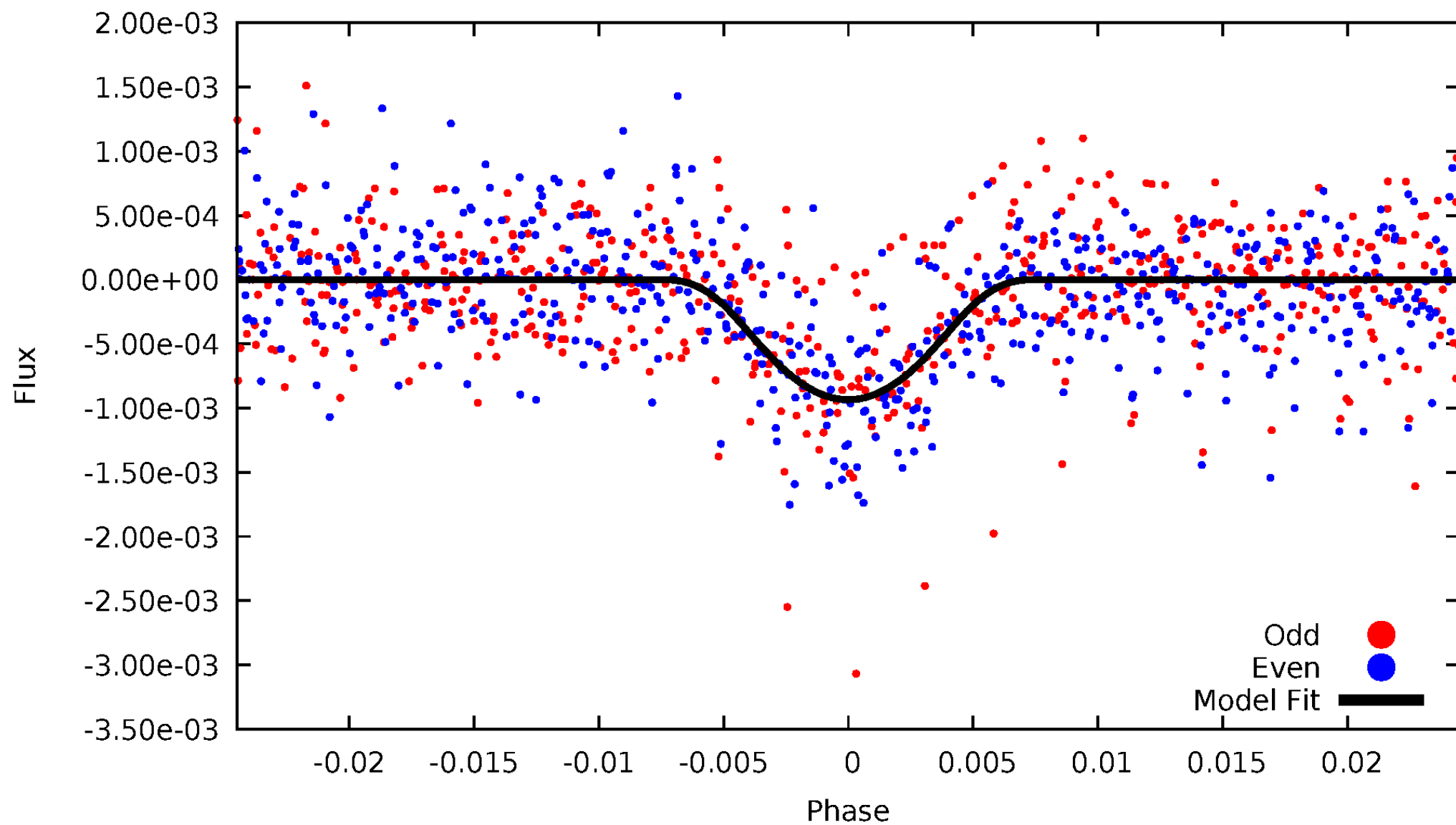


TCE 008560475-01



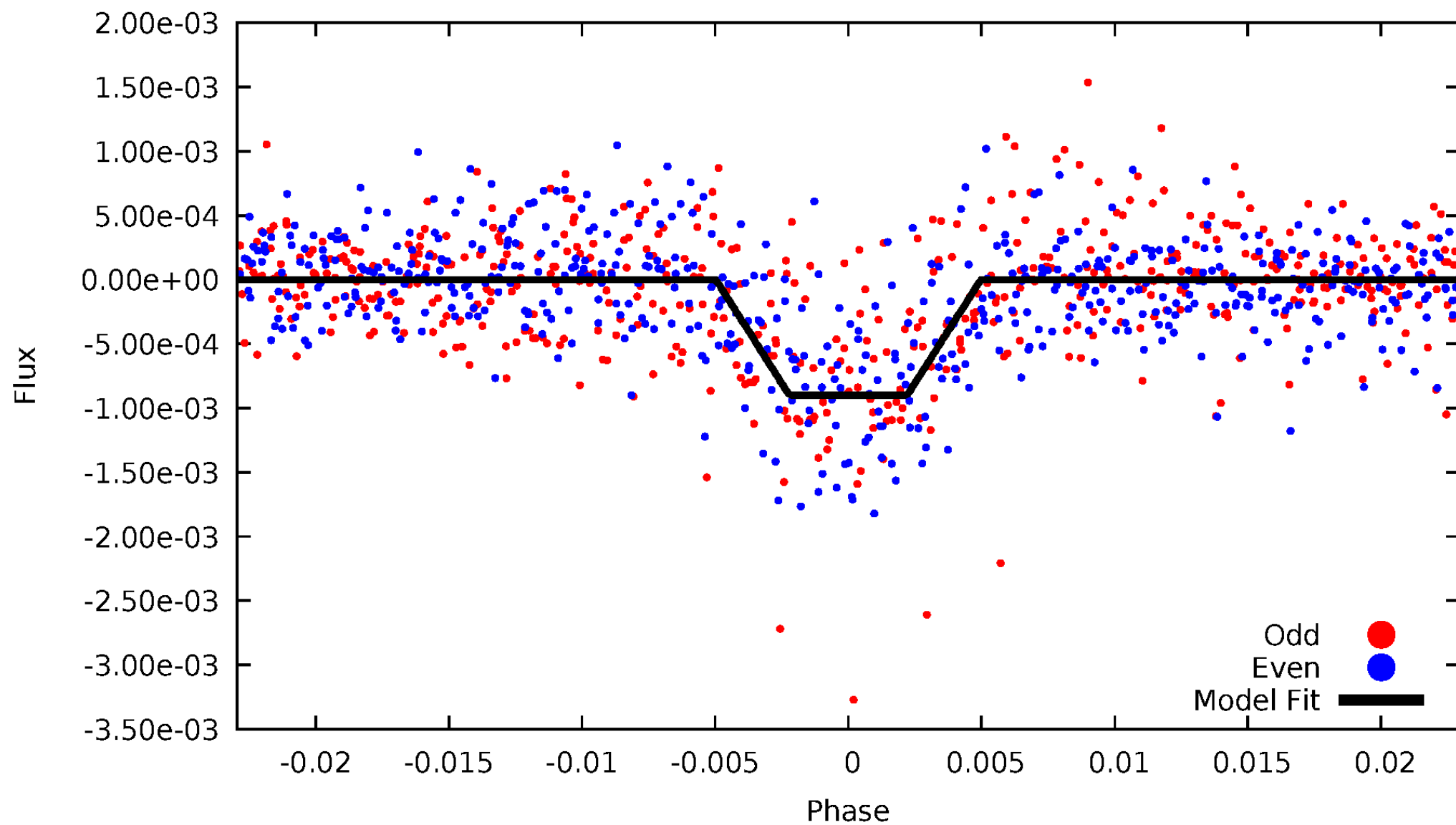
DV Odd/Even

TCE 008560475-01



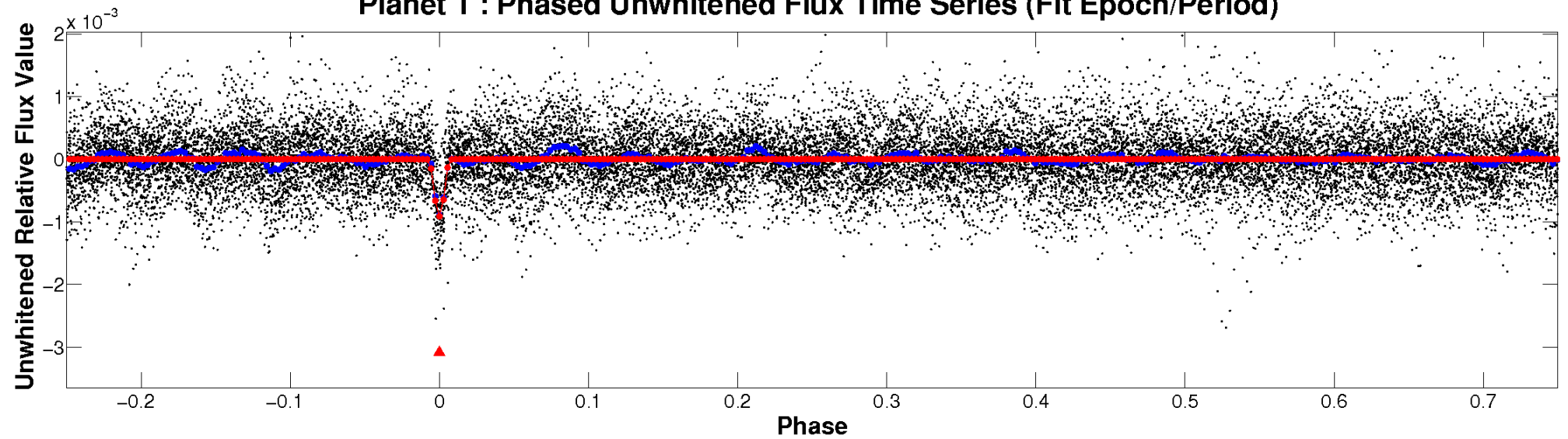
ALT Odd/Even

TCE 008560475-01

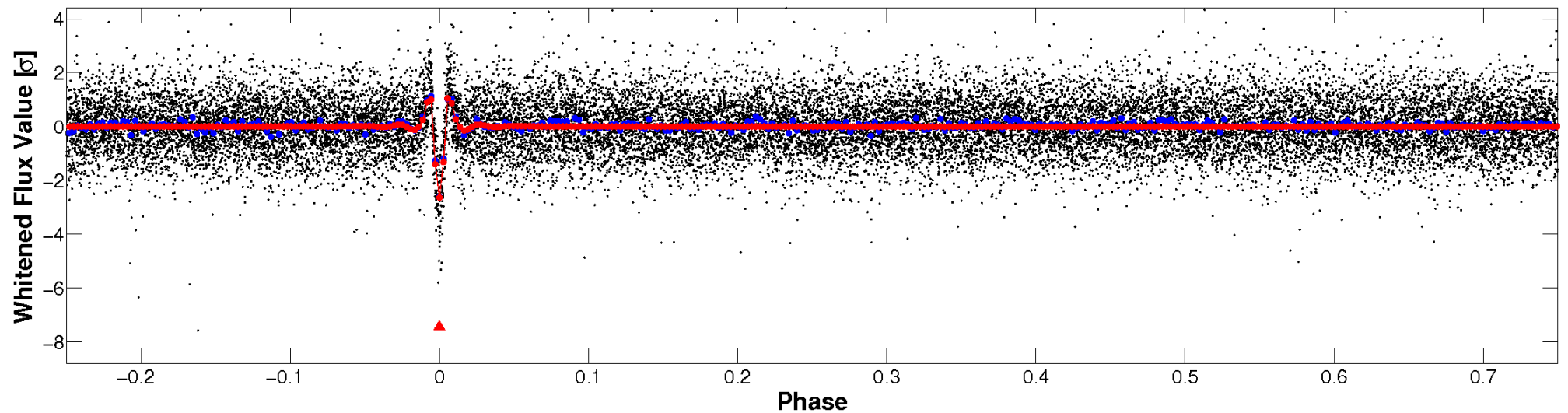


Non-Whitened Vs. Whitened Light Curve

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

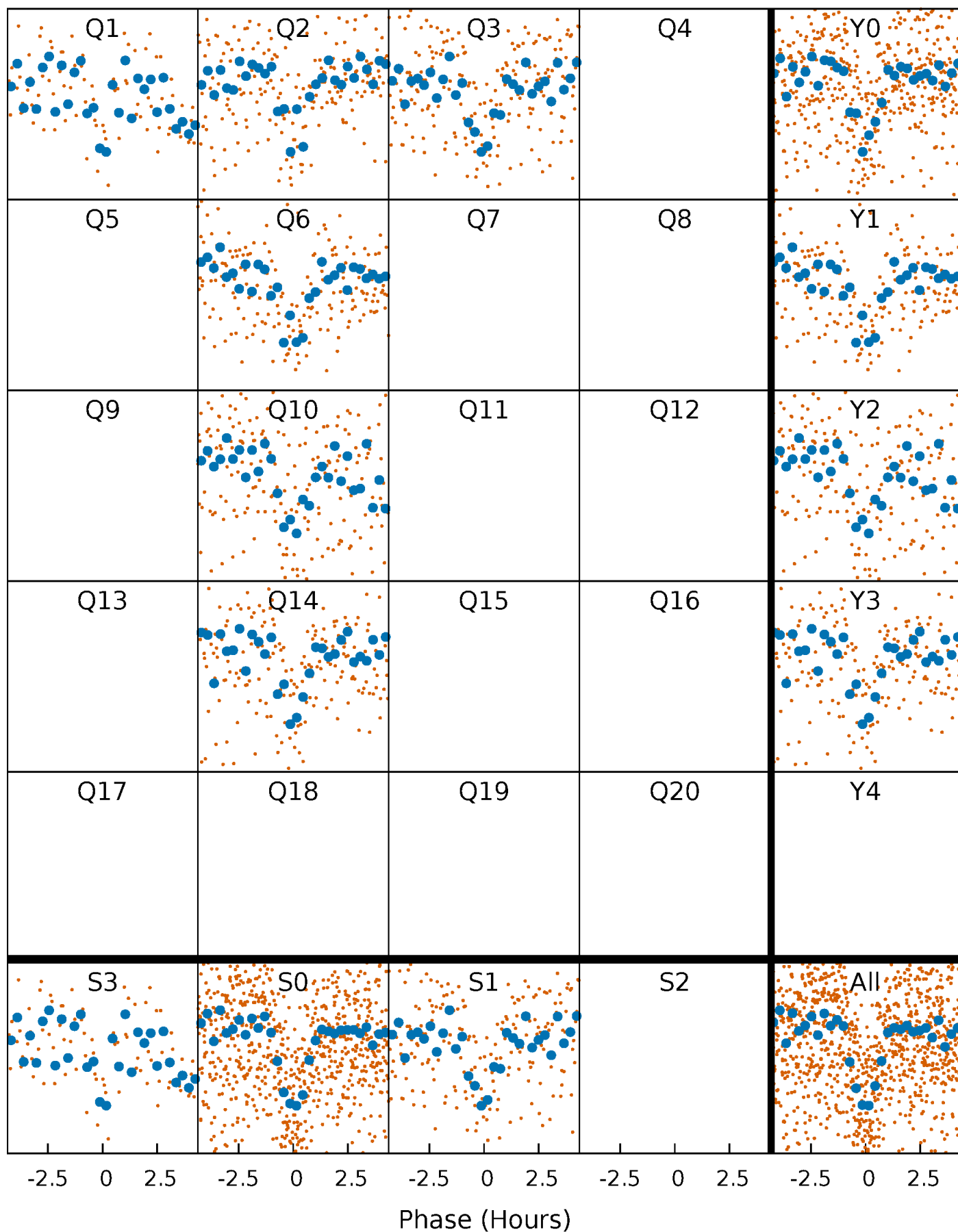


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



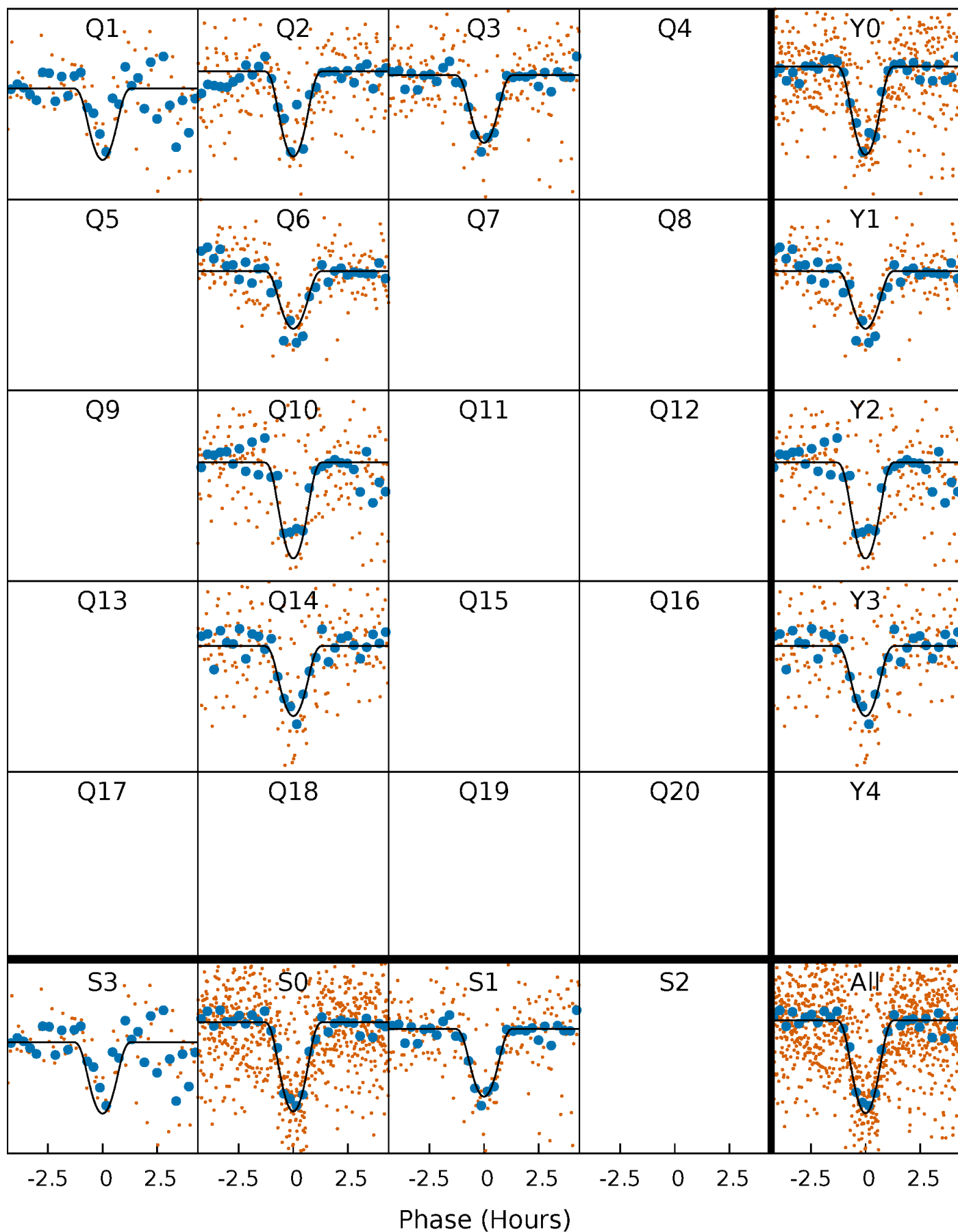
PDC Quarter-Phased Transit Curves

TCE 008560475-01 P= 7.415055 Days $T_0=133.309896$ (BKJD)



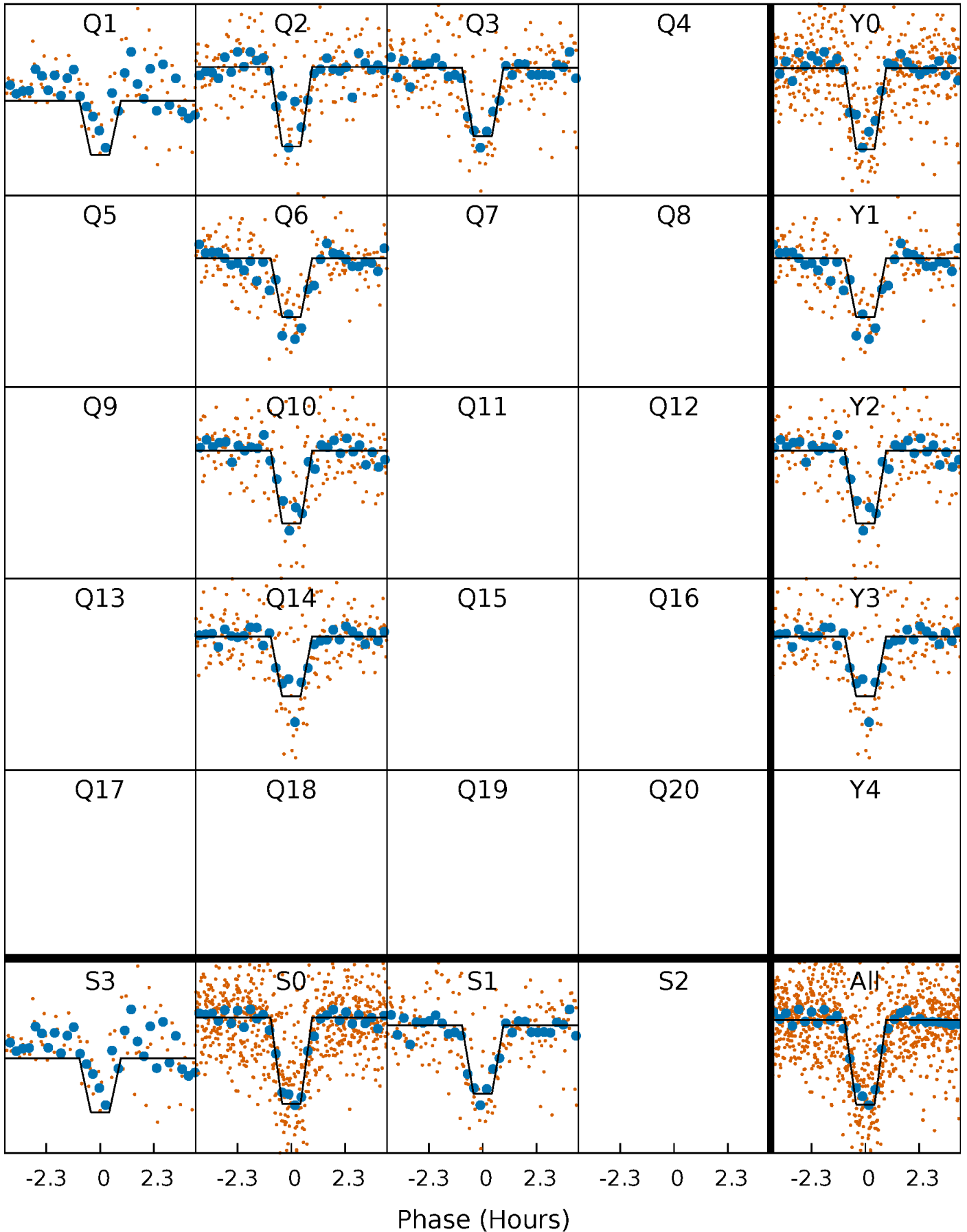
DV Quarter-Phased Transit Curves

TCE 008560475-01 P= 7.415055 Days $T_0=133.309896$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

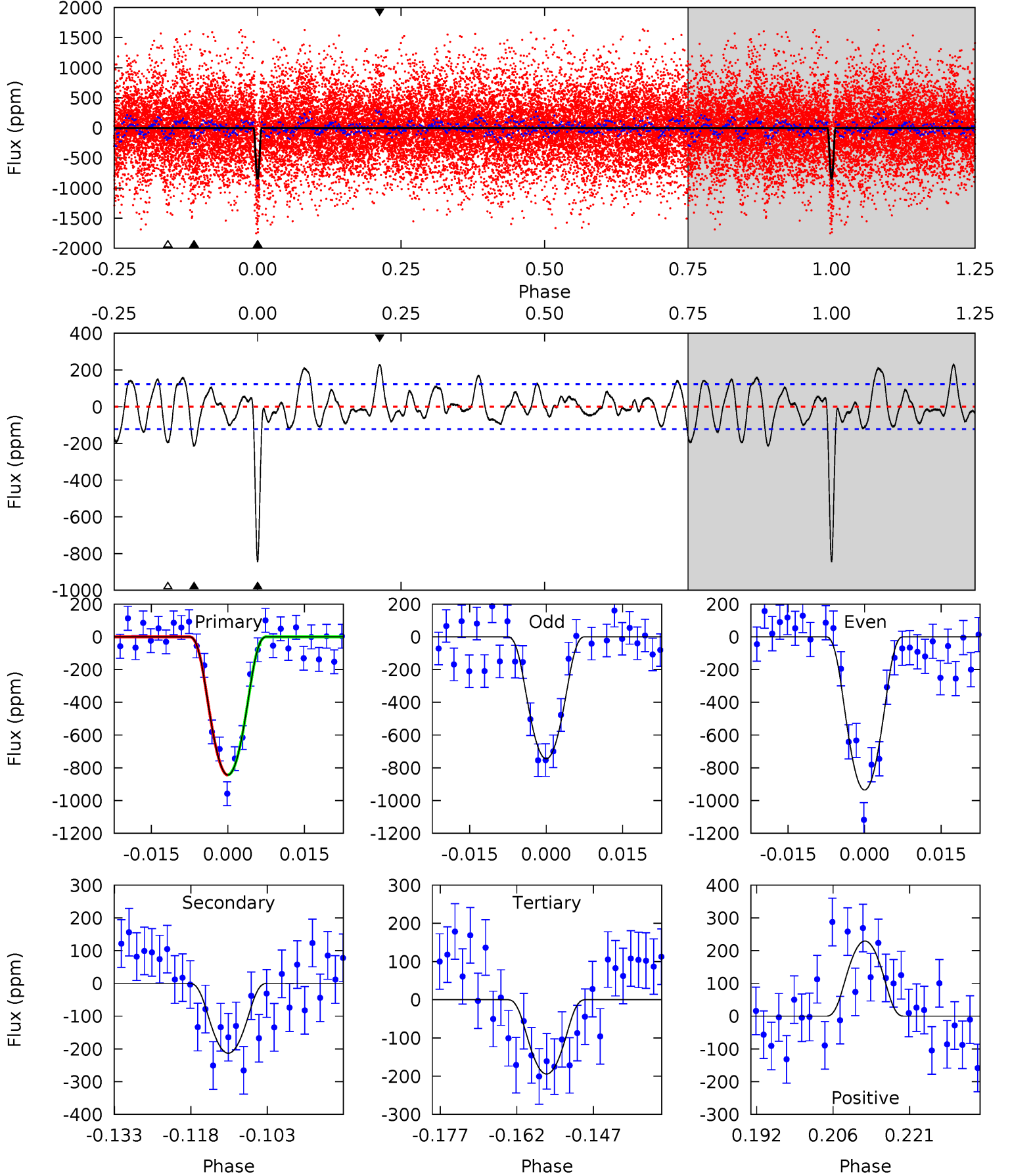
TCE 008560475-01 P= 7.415018 Days $T_0=133.312982$ (BKJD)



DV Model-Shift Uniqueness Test

008560475-01, P = 7.415055 Days, E = 125.894841 Days

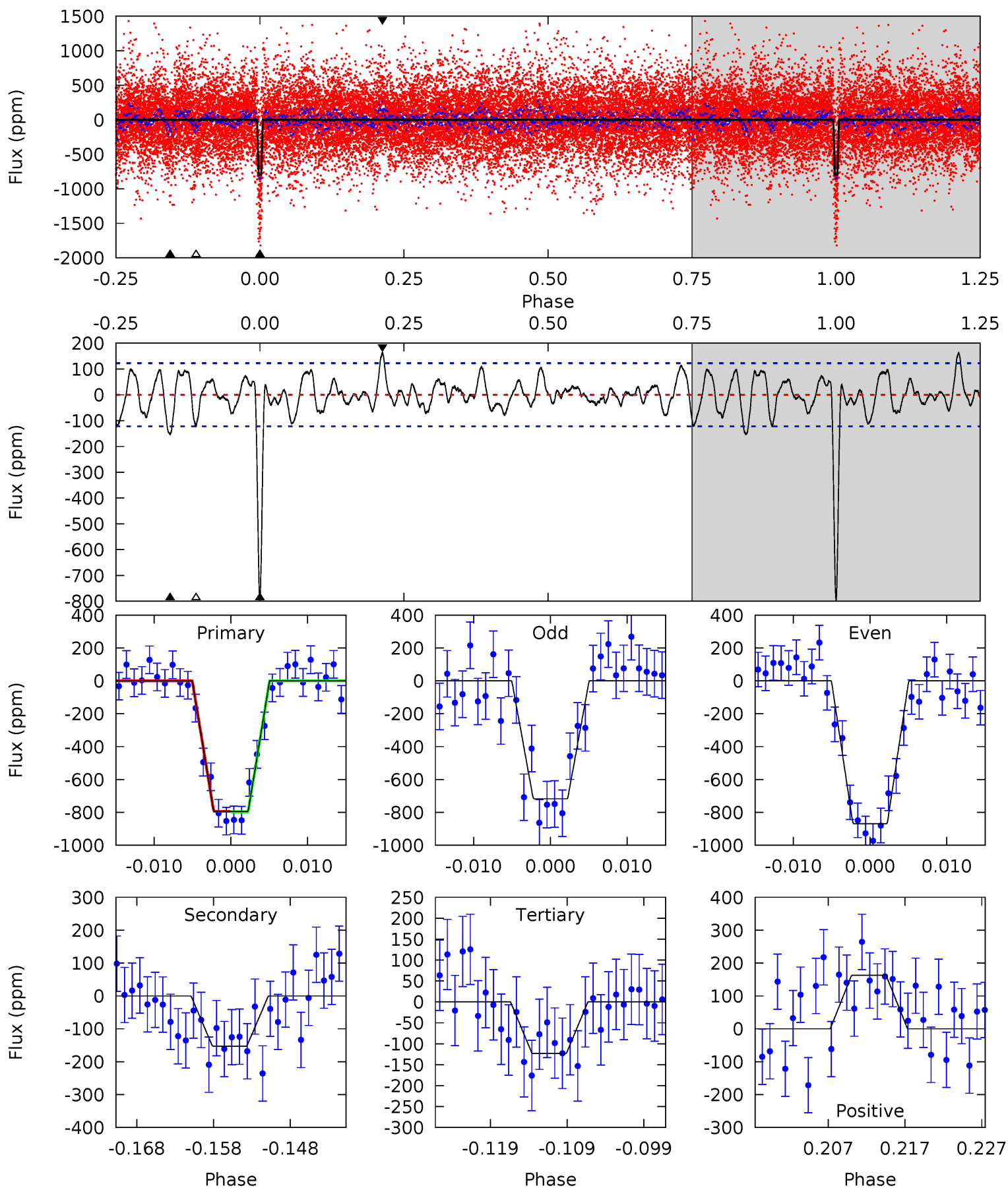
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
34.1	8.62	7.86	9.27	4.95	2.44	3.09	26.2	24.8	0.76	-0.65	3.88	1.02	0.21	0.04



Alt Model-Shift Uniqueness Test

008560475-01, P = 7.415018 Days, E = 125.897964 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
32.7	6.29	5.08	6.72	5.03	2.58	2.02	27.7	26.0	1.22	-0.42	3.12	0.98	0.17	0.07



Stellar Parameters For KIC 008560475

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	4989^{+122}_{-244}	$2.442^{+0.033}_{-0.033}$	$0.070^{+0.150}_{-0.600}$	$18.266^{+0.804}_{-6.832}$	$3.366^{+0.104}_{-2.087}$	$0.001^{+0.001}_{-0.000}$
	+2%/-5%	+1%/-1%	+214%/-857%	+4%/-37%	+3%/-62%	+65%/-12%
Source	PHO1	AST9	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 008560475-01 / KOI 5543.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-213 ± 25	$97.44^{+41.47}_{-38.67}$	3952^{+110}_{-203}	-3208^{+6317}_{-249}	$0.147^{+0.274}_{-0.072}$
Alt.	-153 ± 24	$64.00^{+44.57}_{-37.40}$	3944^{+120}_{-197}	-2716^{+7421}_{-699}	$0.253^{+1.230}_{-0.167}$

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

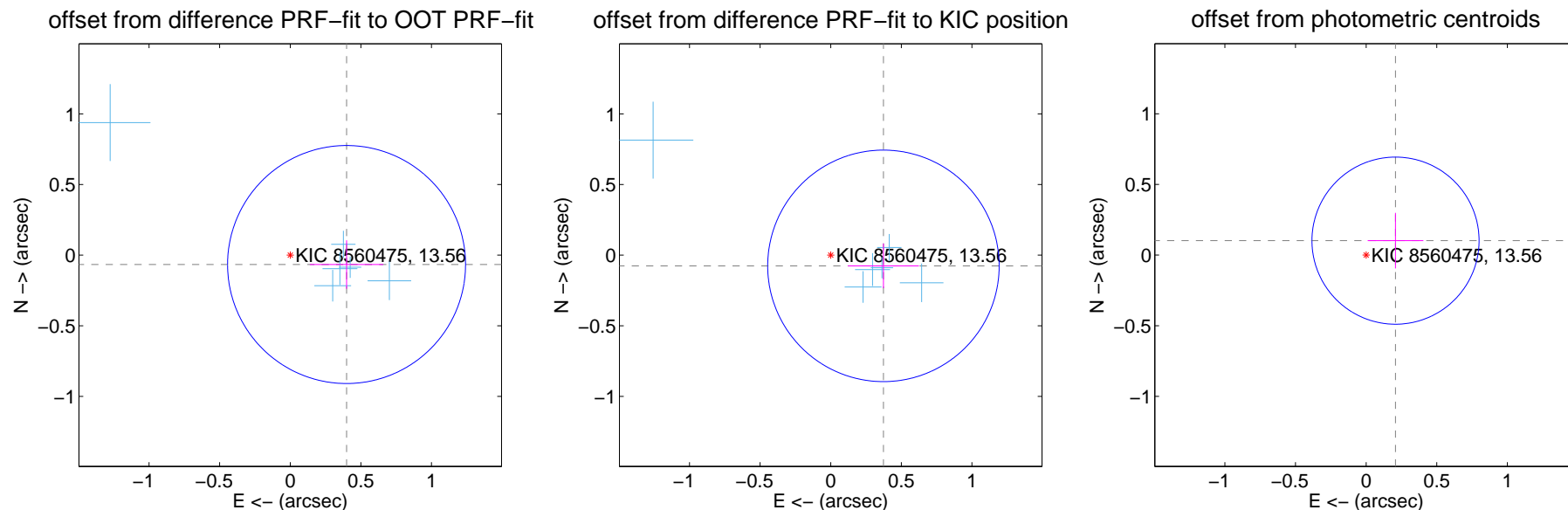
DV Centroid Data

Supplemental centroid analysis for 008560475-01. Kepler magnitude: 13.56. Transit SNR 31.42

There are 6 quarters with good PRF difference image offsets

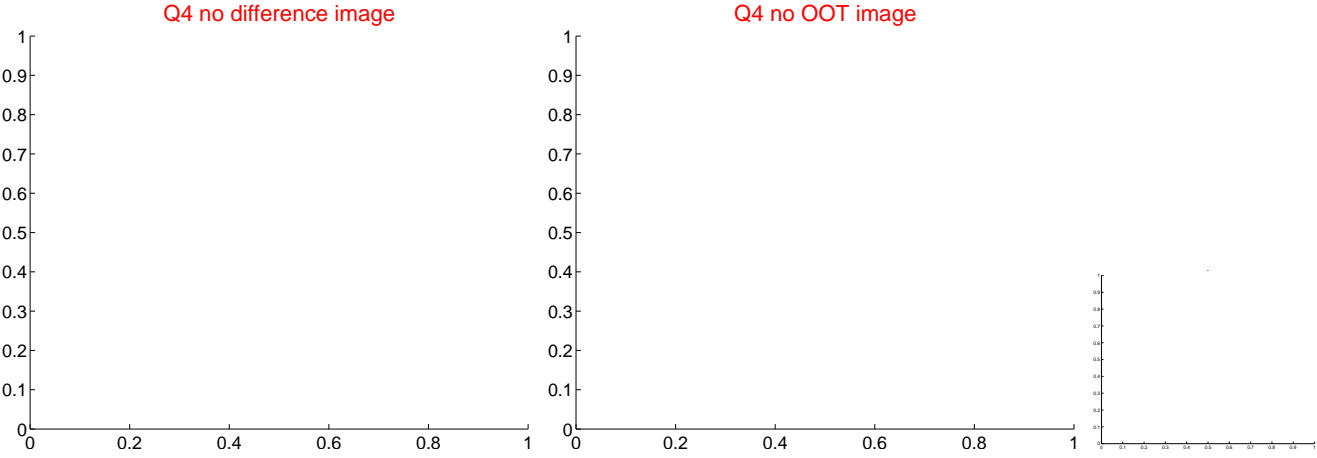
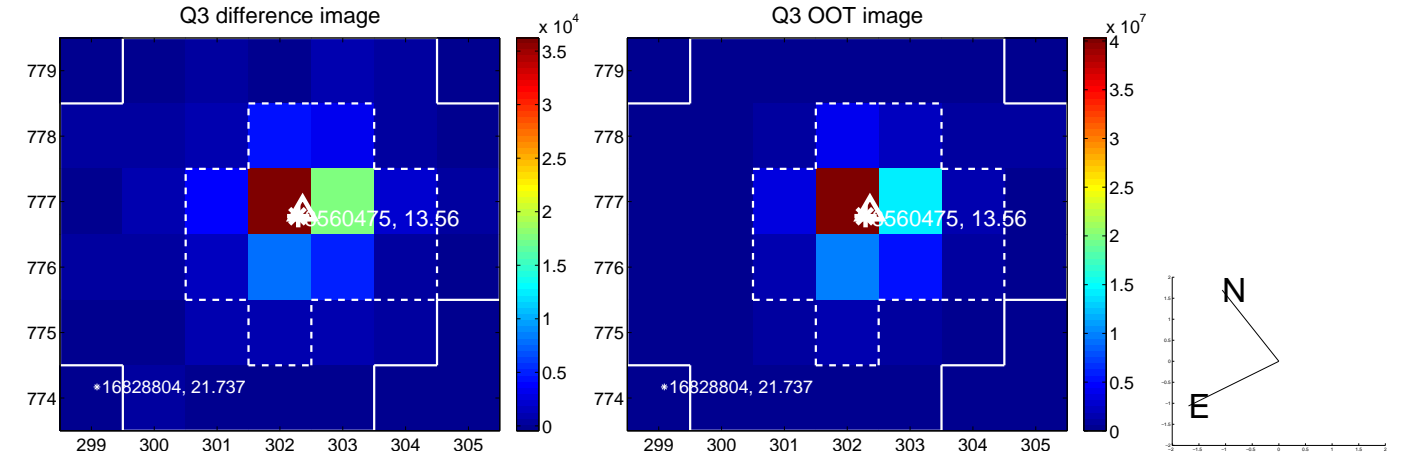
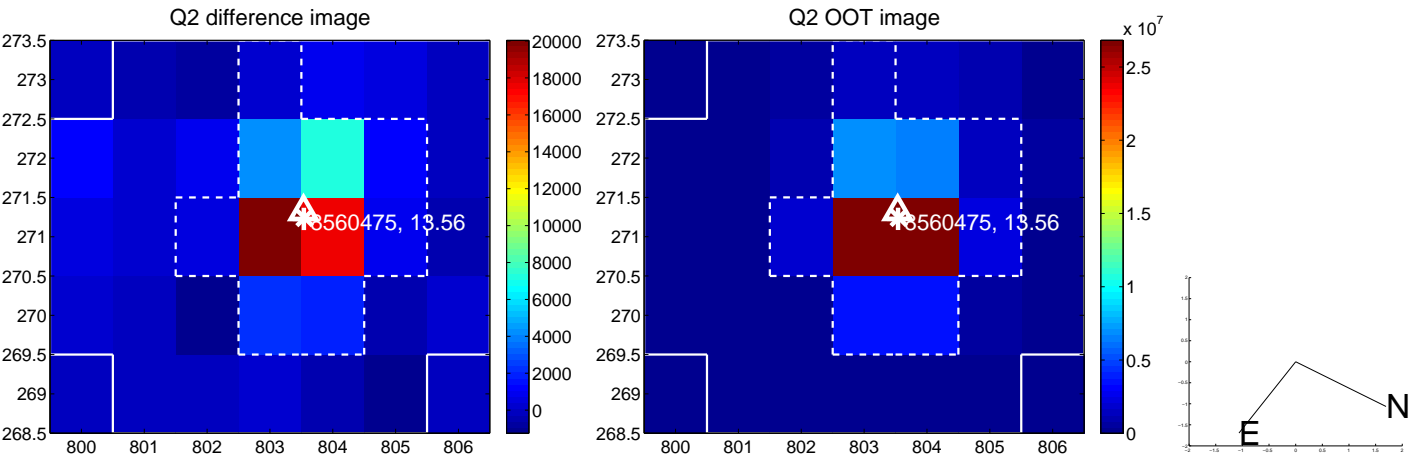
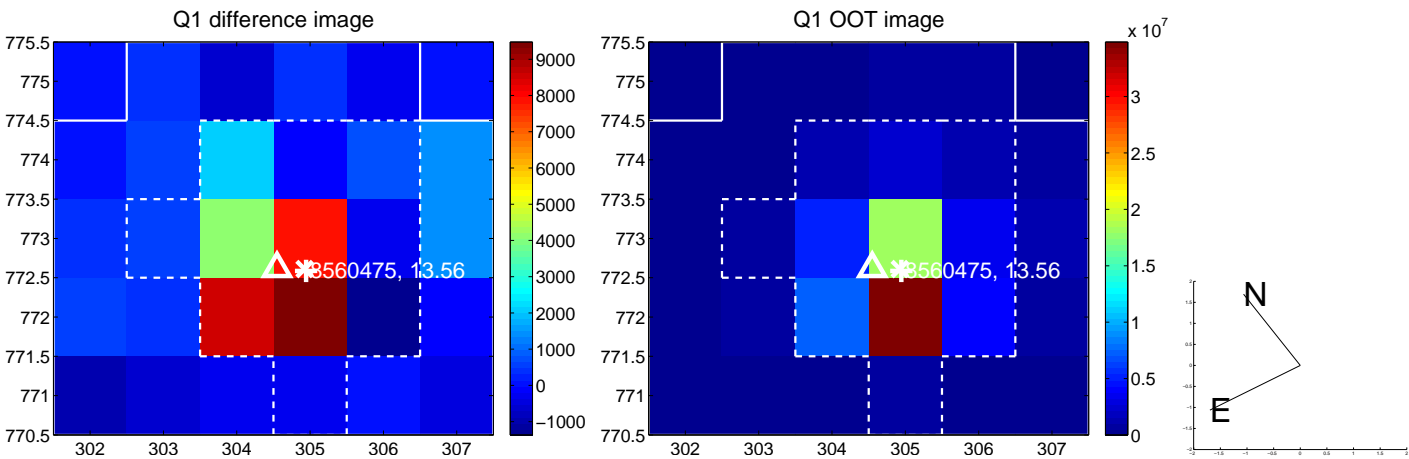
The direct PRF centroid is offset from the target star catalog position by about 0.06 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.404 ± 0.281	1.44	-0.398 ± 0.260	-0.066 ± 0.172
PRF-fit source offset from KIC position	0.381 ± 0.273	1.39	-0.373 ± 0.251	-0.076 ± 0.158
photometric centroid source offset	0.23 ± 0.20	1.18	-0.21 ± 0.20	0.10 ± 0.20



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.

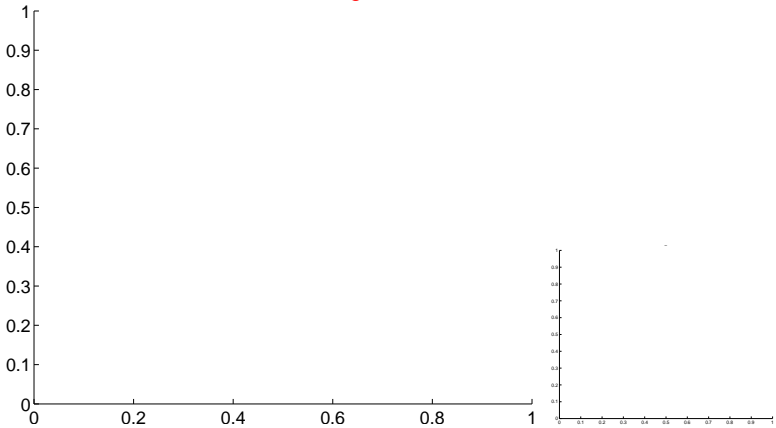


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

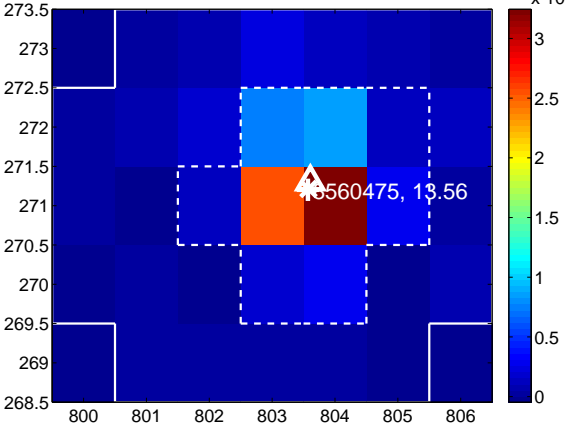
Q5 no difference image



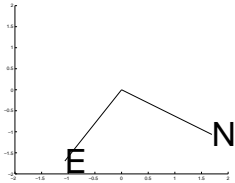
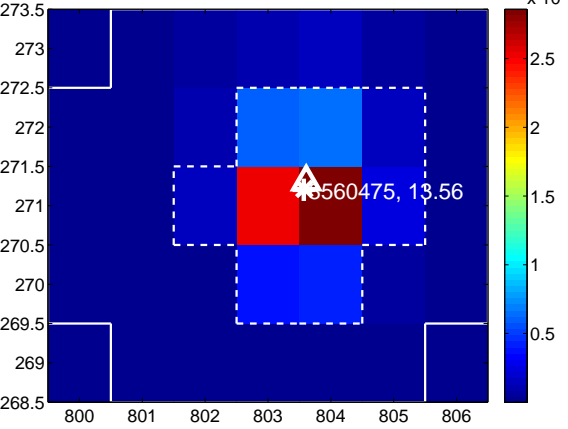
Q5 no OOT image



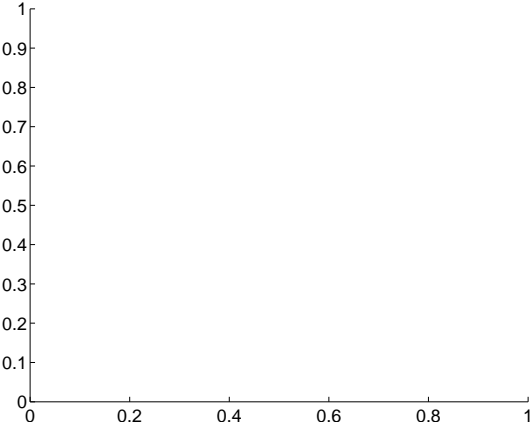
Q6 difference image



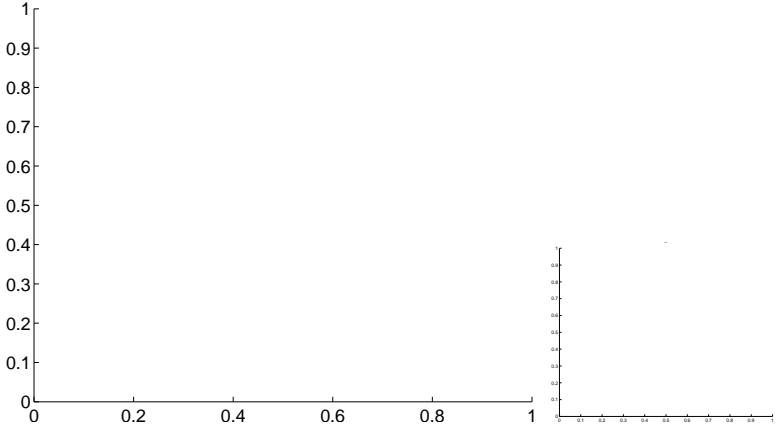
Q6 OOT image



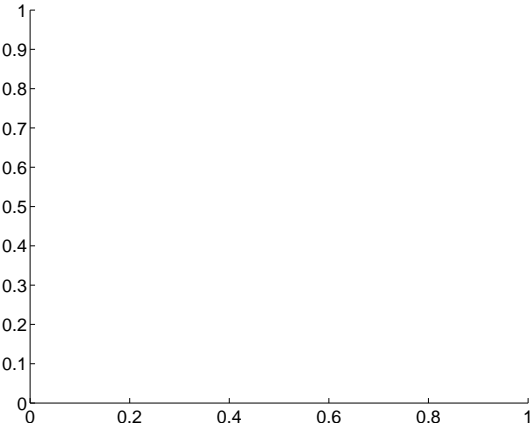
Q7 no difference image



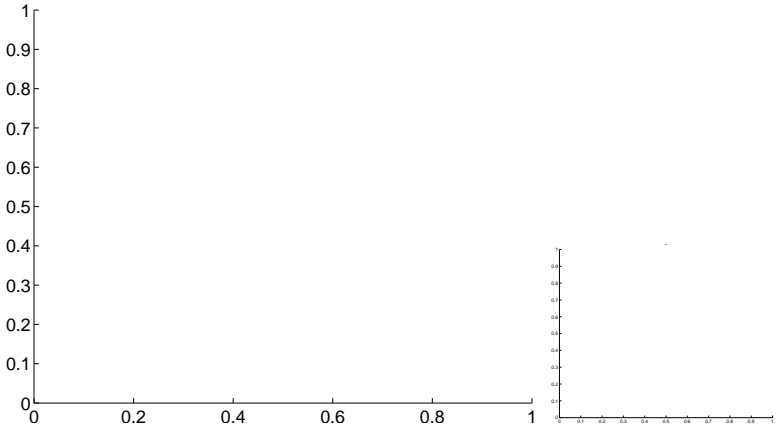
Q7 no OOT image



Q8 no difference image



Q8 no OOT image

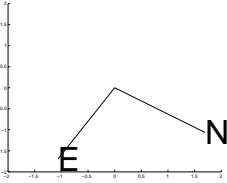
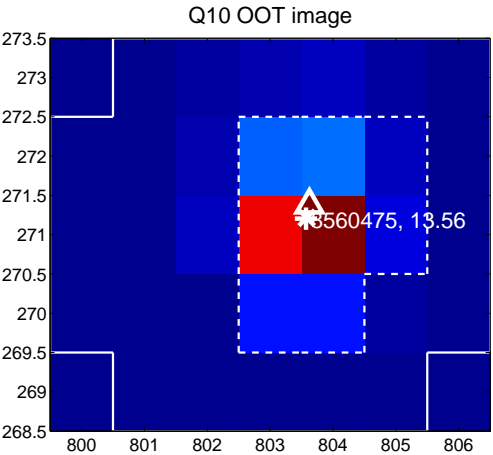
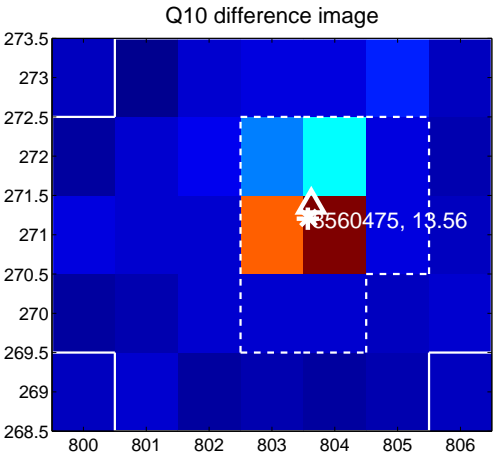


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

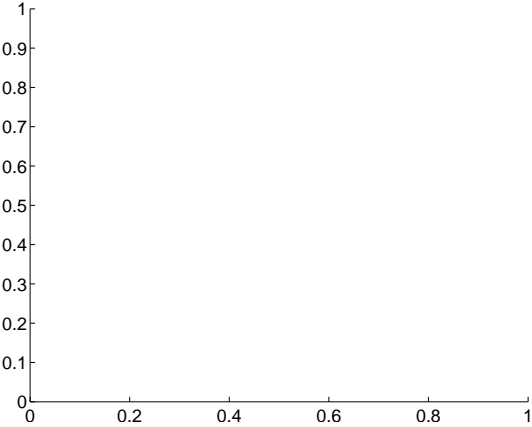
Q9 no difference image



Q9 no OOT image



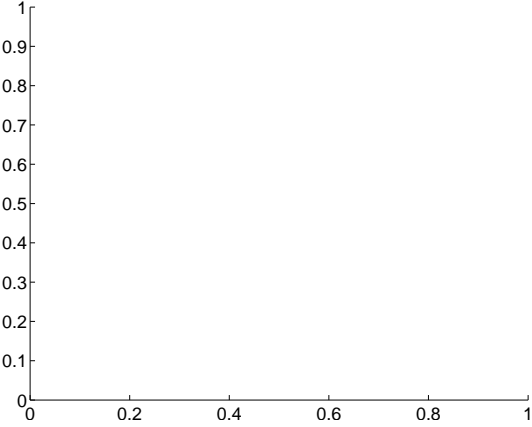
Q11 no difference image



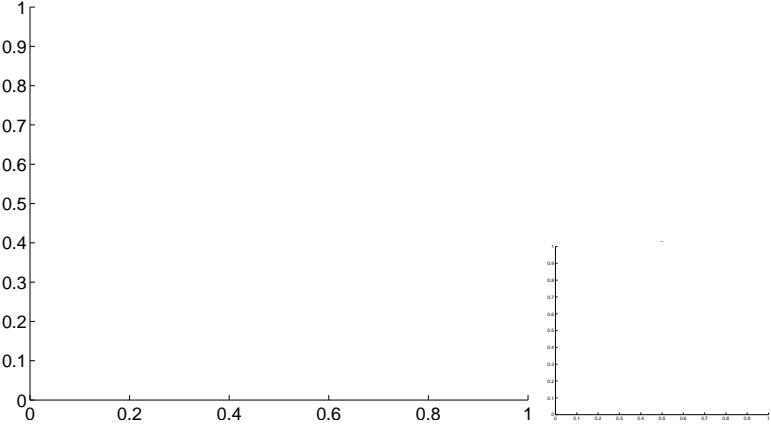
Q11 no OOT image



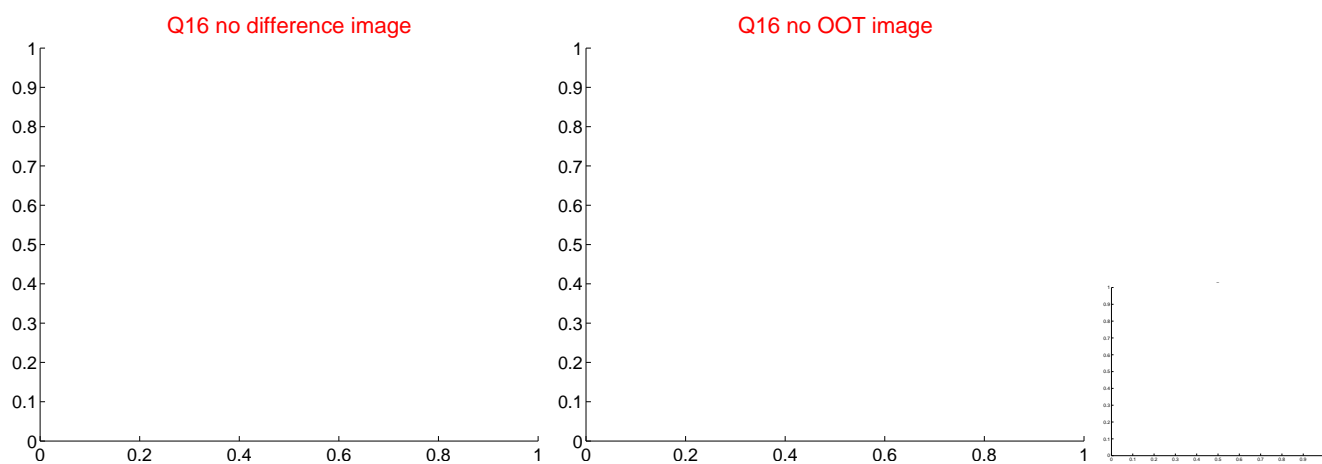
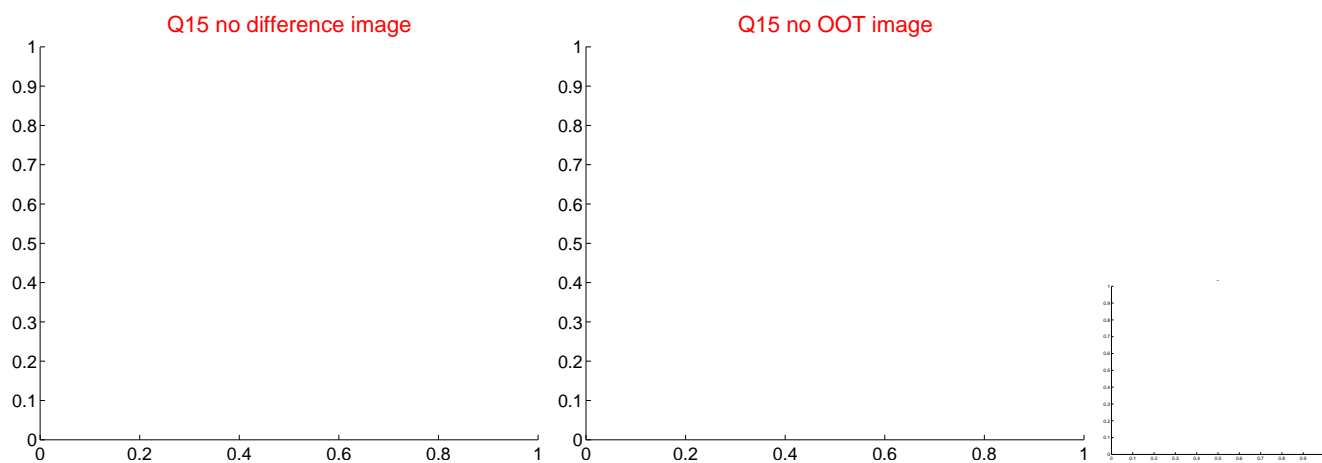
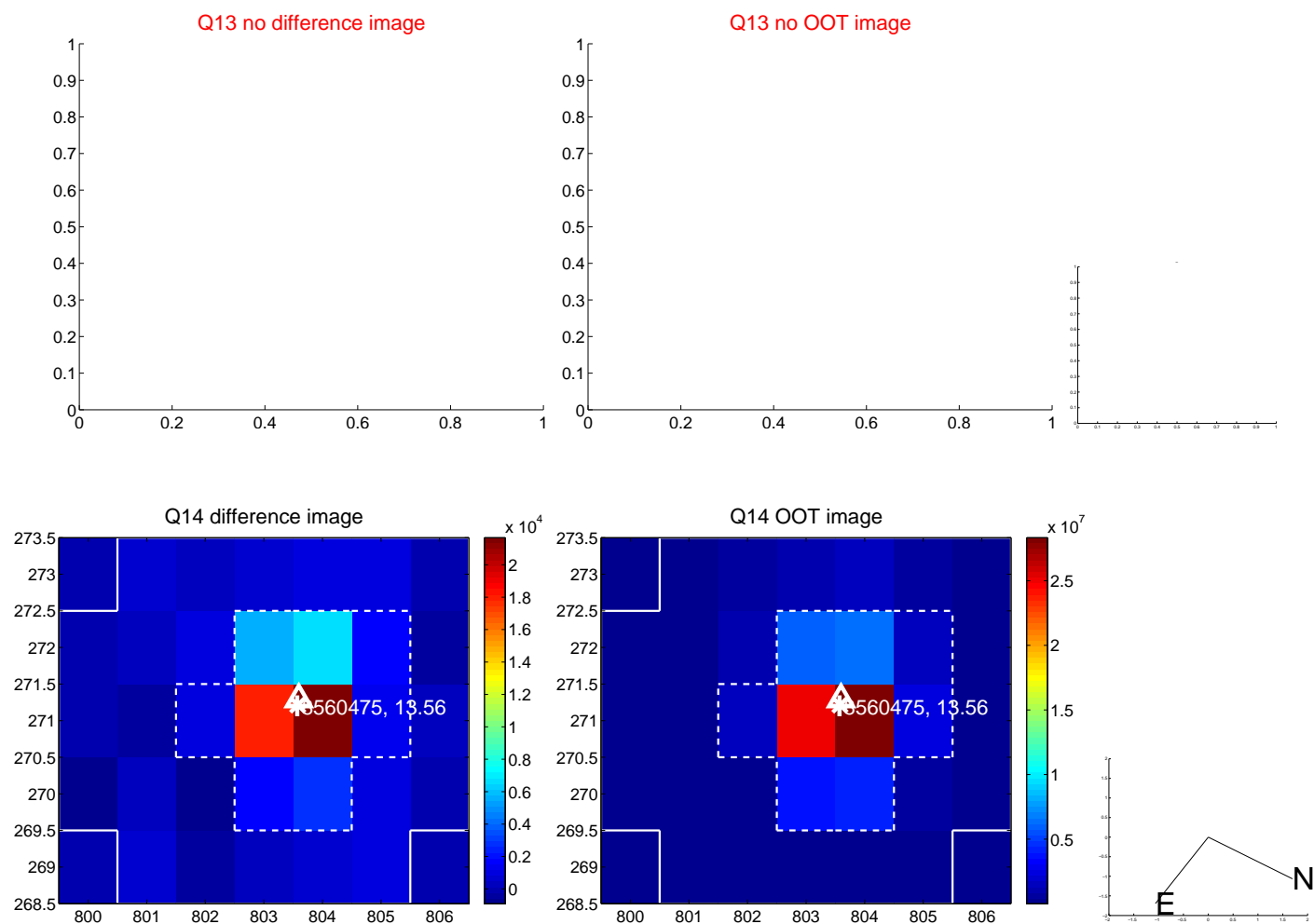
Q12 no difference image



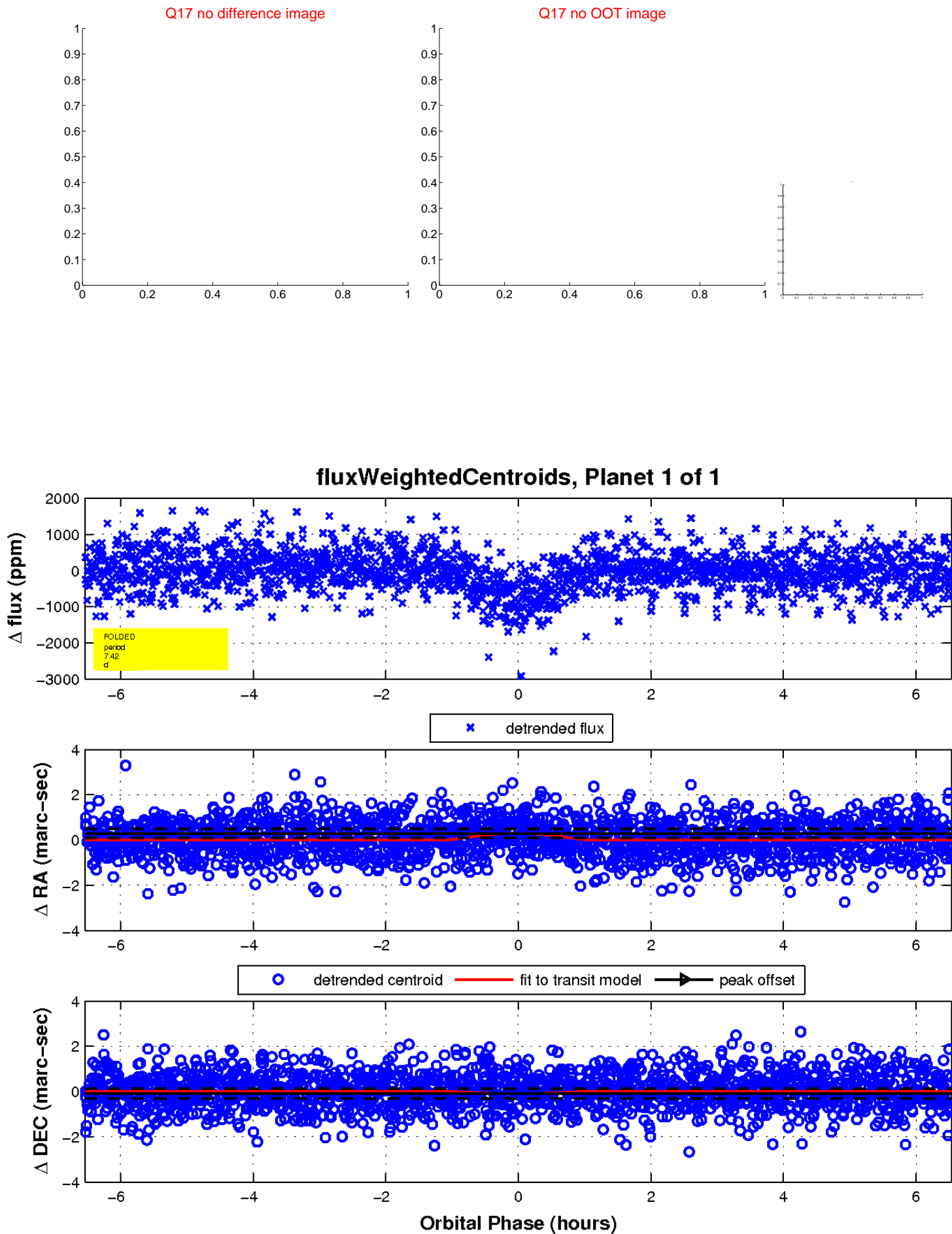
Q12 no OOT image



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

