

KIC 011404475

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})
011404475-01	OBS	No	568.691336	189.701540	379.3	13.388	7.2	7.4	1.10	6237	2.33	0.83

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011404475-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—ALL_TRANS_CHASES—CENT_FEW_MEAS

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

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

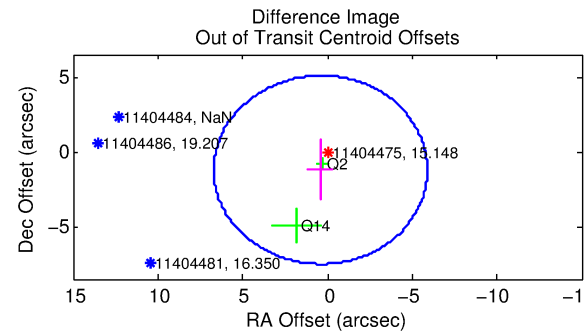
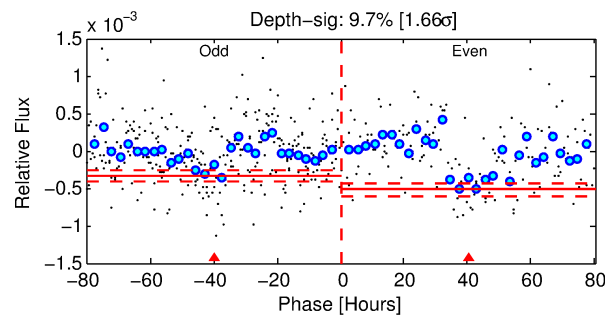
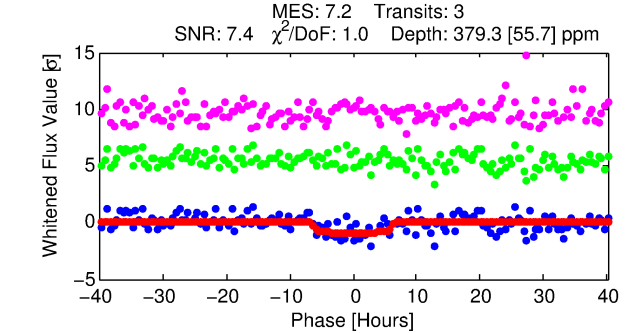
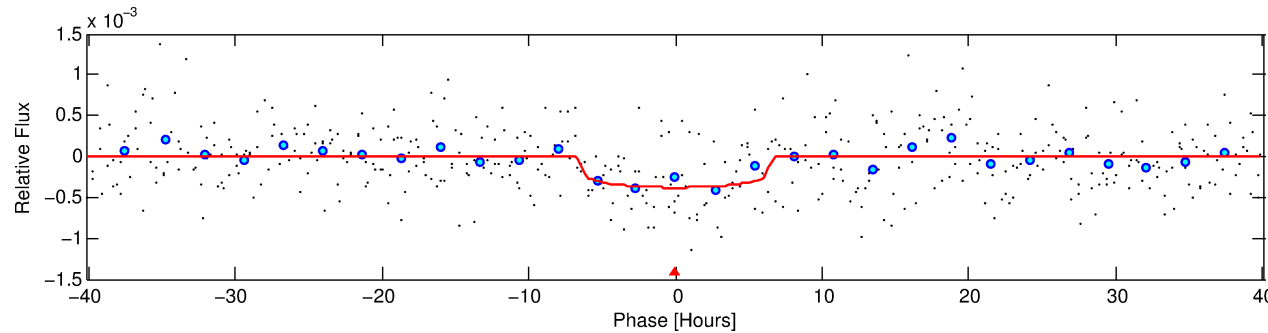
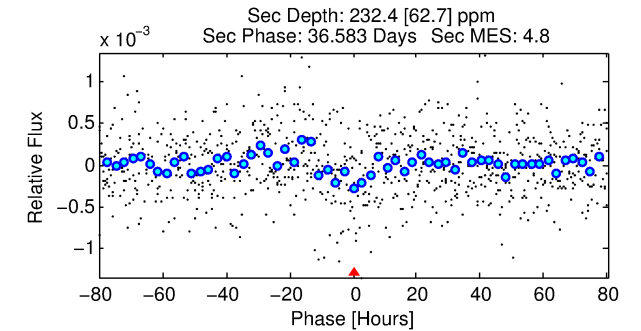
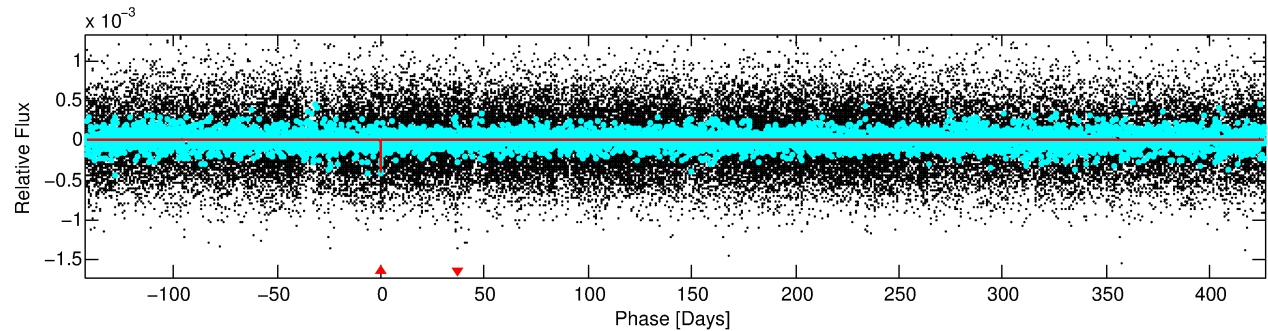
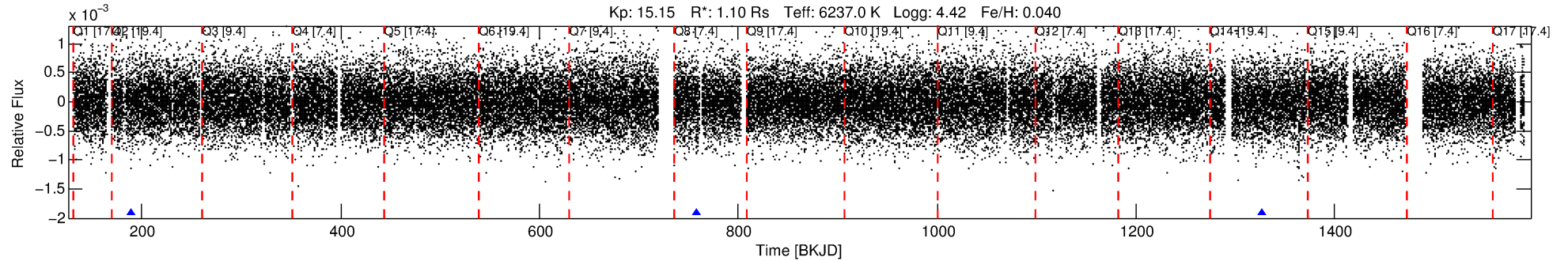
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011404475-01

No Significant Match Found

DV One-Page Summary

KIC: 11404475 Candidate: 1 of 1 Period: 568.691 d



DV Fit Results:

Period = 568.69134 [0.01848] d
Epoch = 189.7015 [0.0254] BKJD
Rp/R* = 0.0194 [0.0118]
a/R* = 224.08 [689.21]
b = 0.75 [1.80]
Seff = 0.83 [0.38]
Teff = 243 [28] K
Rp = 2.33 [1.63] Re
a = 1.4093 [0.4062] AU
Ag = 46725.02 [61617.20] [0.76 σ]
Teffp = 5533 [1748] K [3.03 σ]

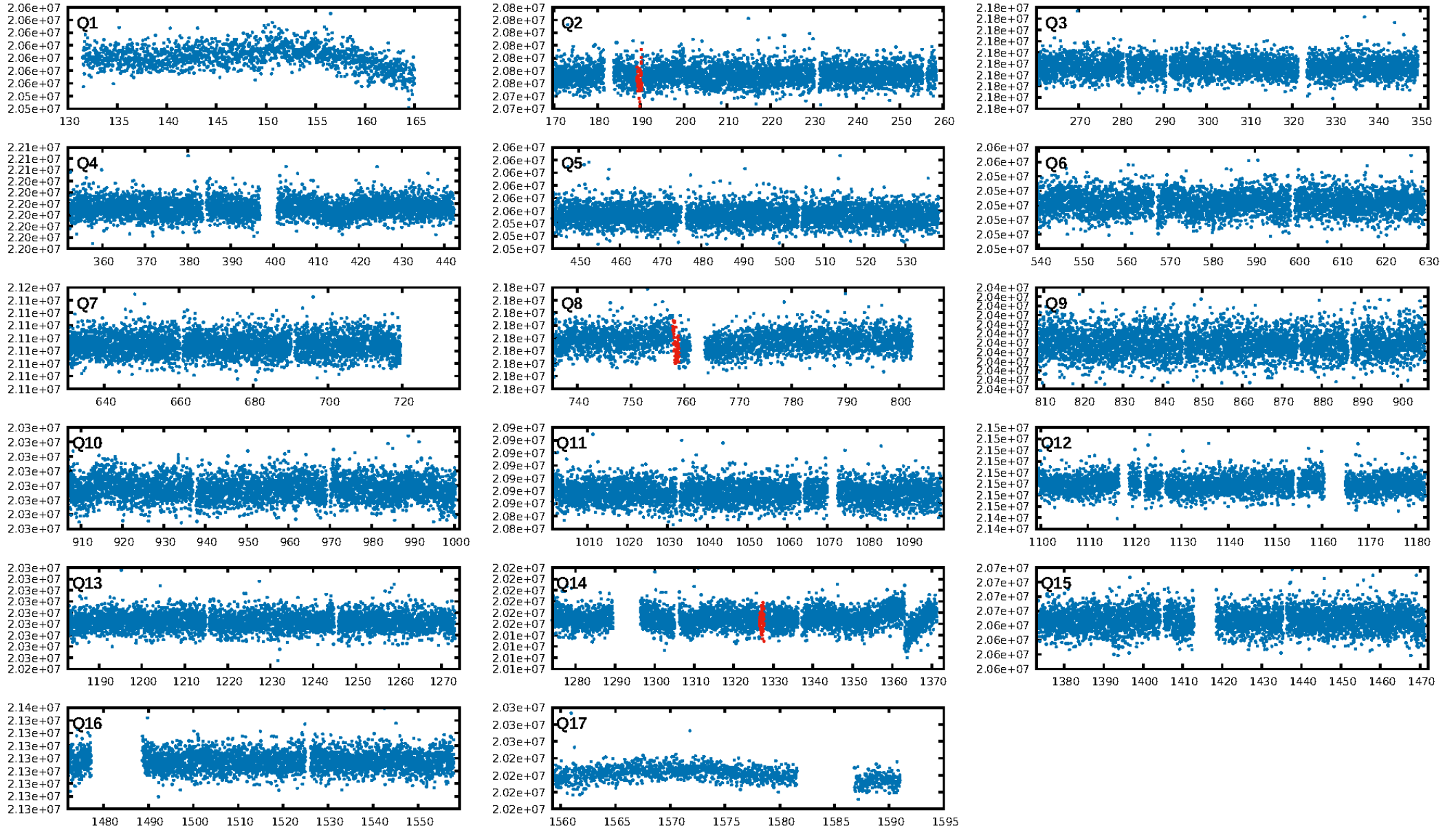
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 15.2%
ModelChiSquareGof-sig: 99.7%
Bootstrap-pfa: 2.05e-11
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -2.356
Centroid-sig: 10.1%
Centroid-so: 3.473 arcsec [1.72 σ]
OotOffset-rm: 1.281 arcsec [0.61 σ]
KicOffset-rm: 1.227 arcsec [0.85 σ]
OotOffset-st: 2/0/0/0 [2]
KicOffset-st: 2/0/0/0 [2]
DiffImageQuality-fgm: 0.50 [1/2]
DiffImageOverlap-fno: 1.00 [3/3]

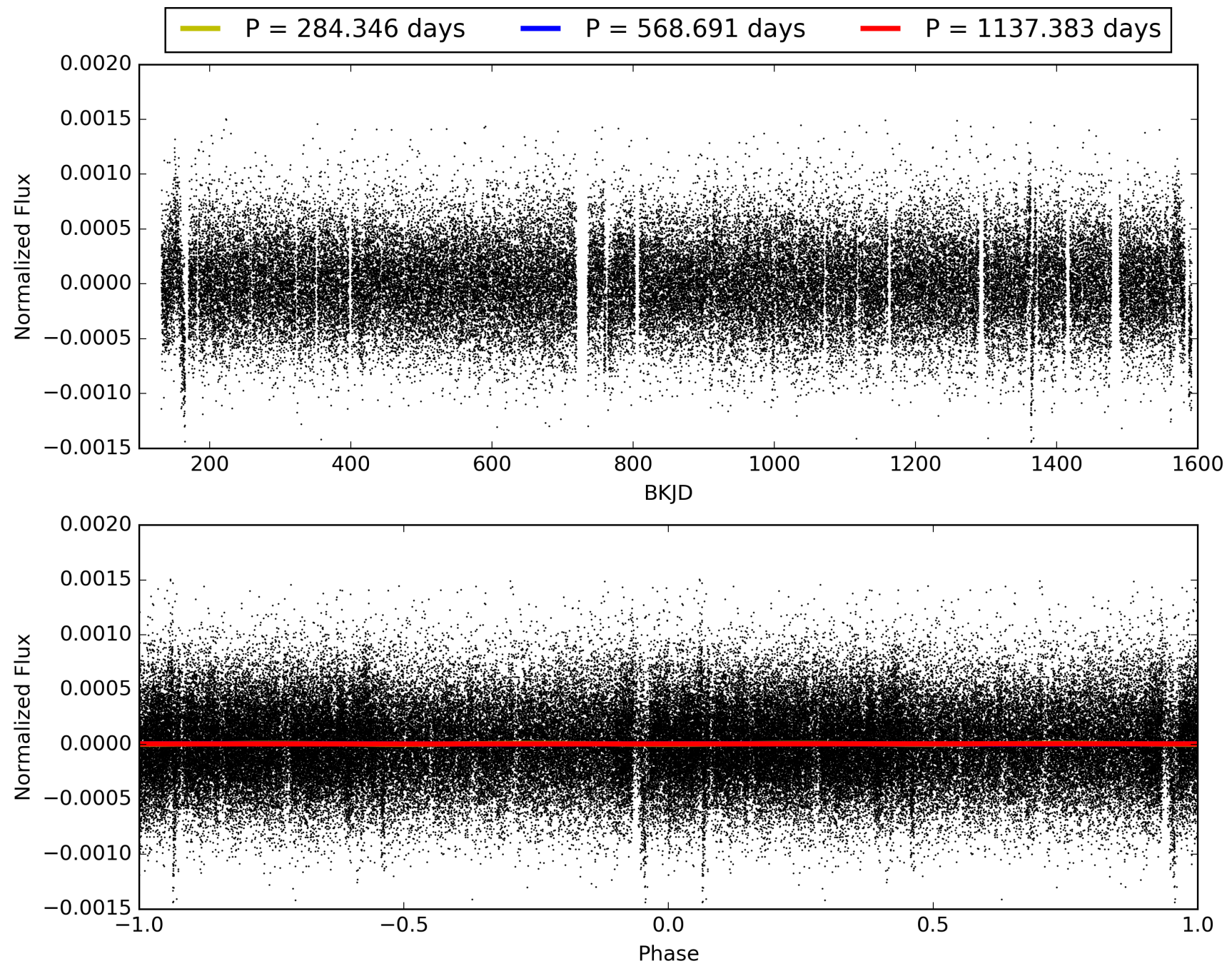
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 20:01:41 Z

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

TCE 011404475-01, PDC Light Curves

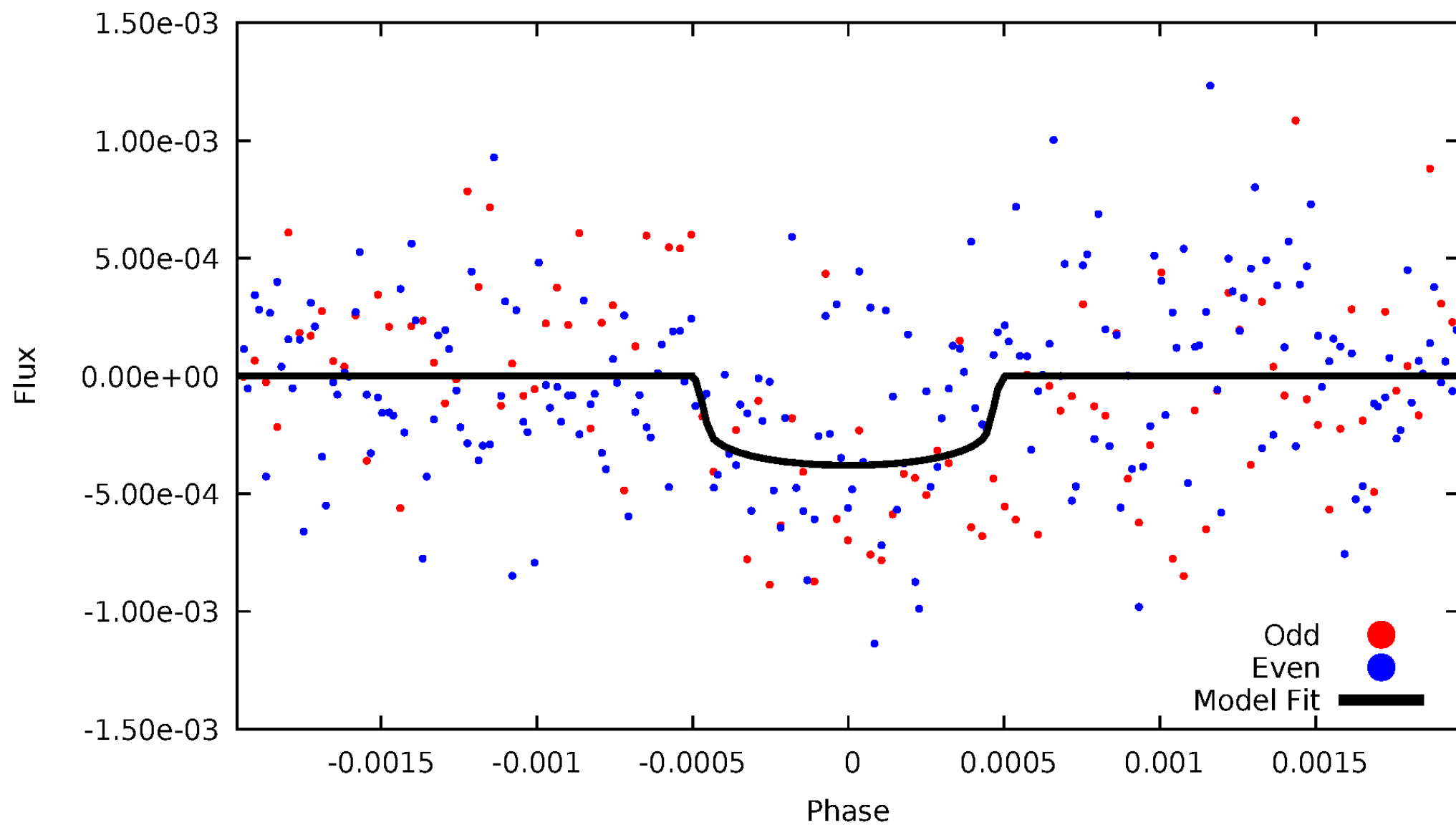


TCE 011404475-01



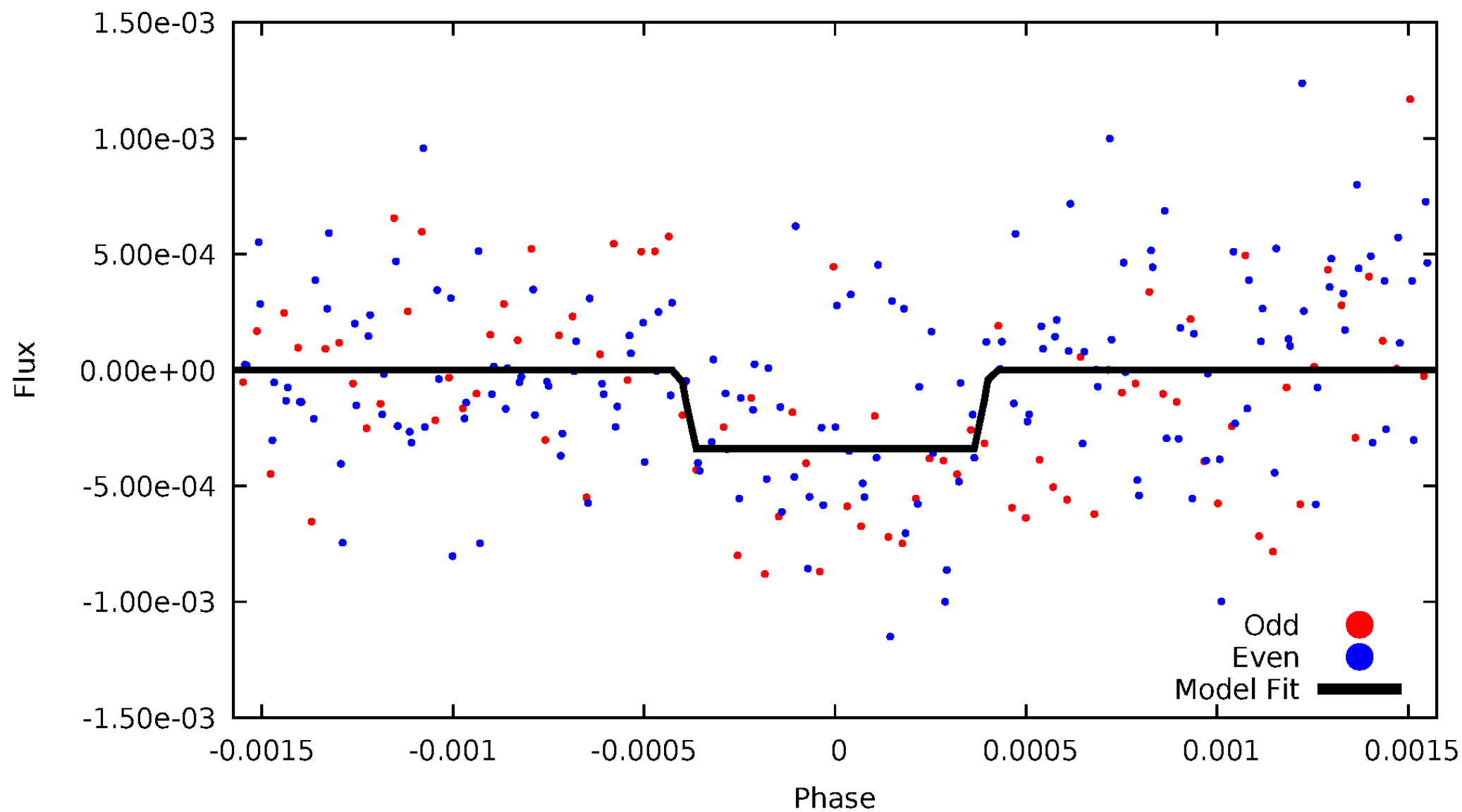
DV Odd/Even

TCE 011404475-01

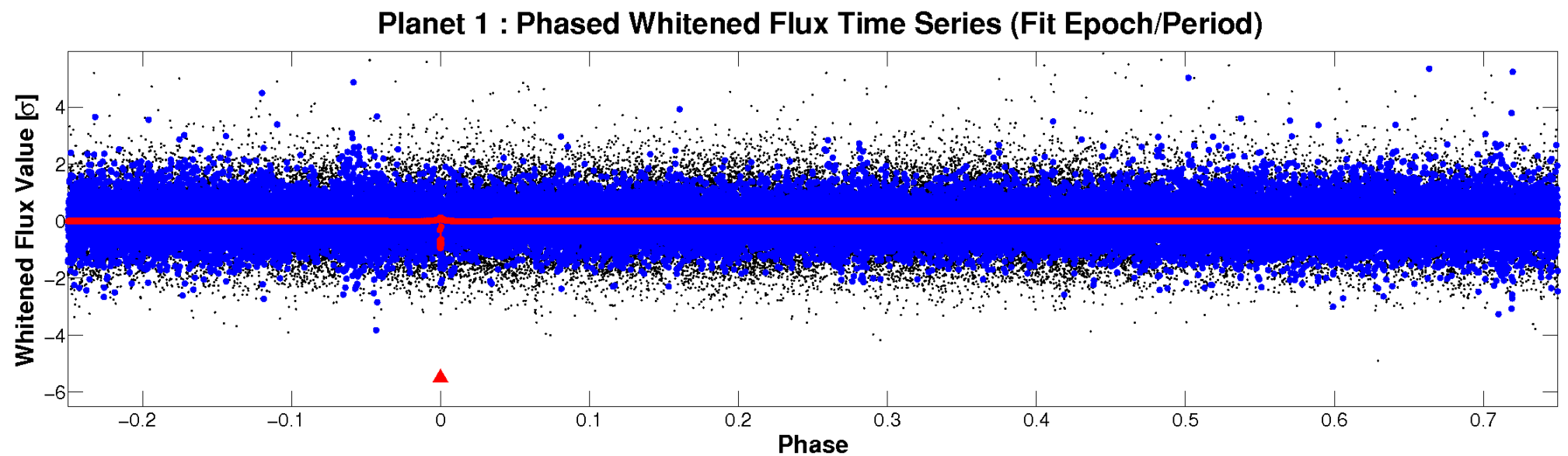
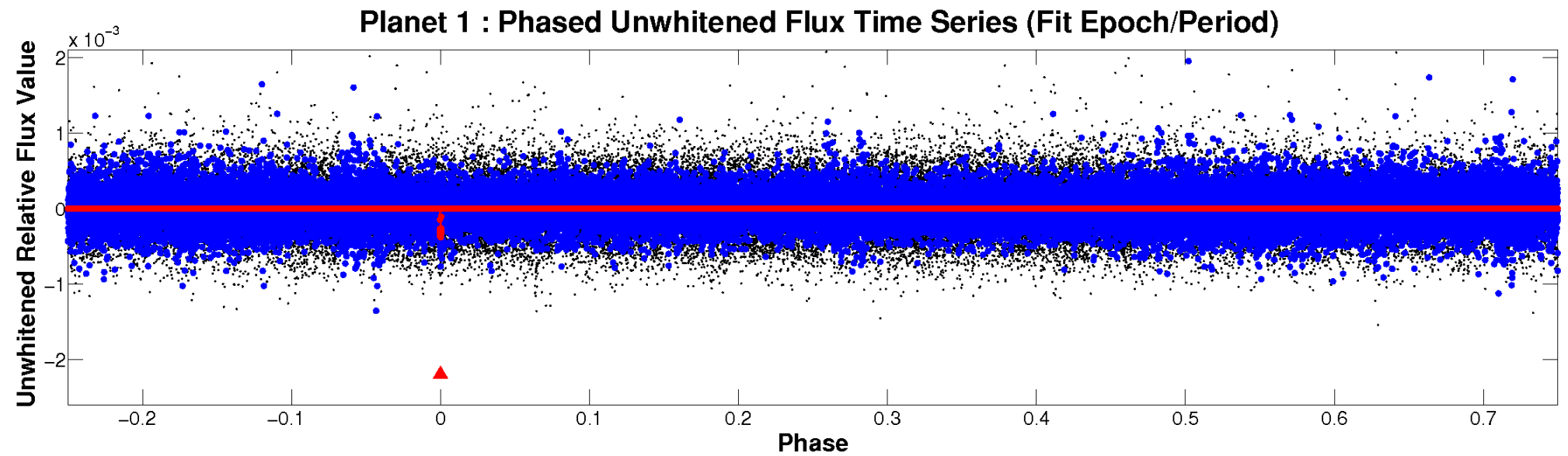


ALT Odd/Even

TCE 011404475-01

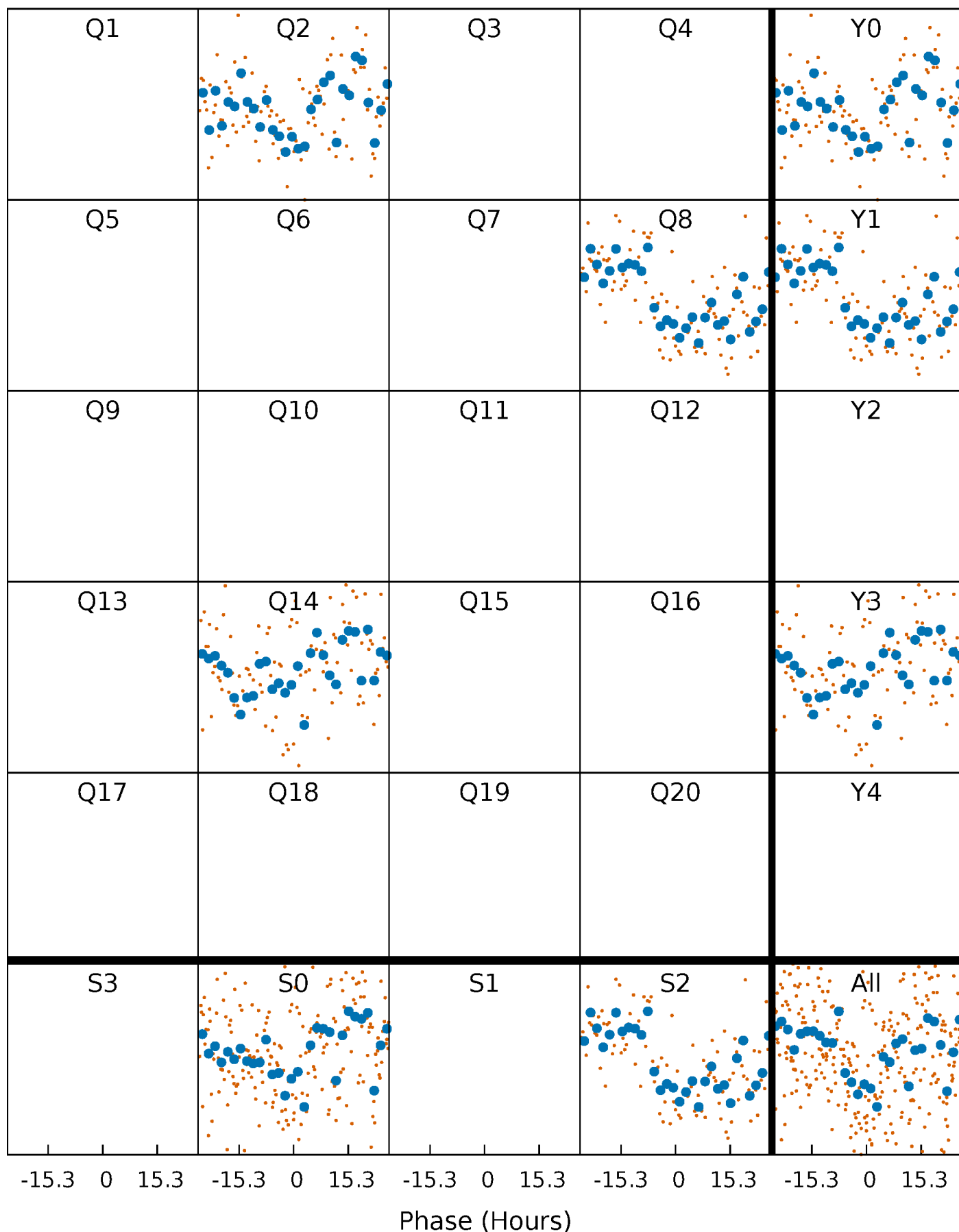


Non-Whitened Vs. Whitened Light Curve



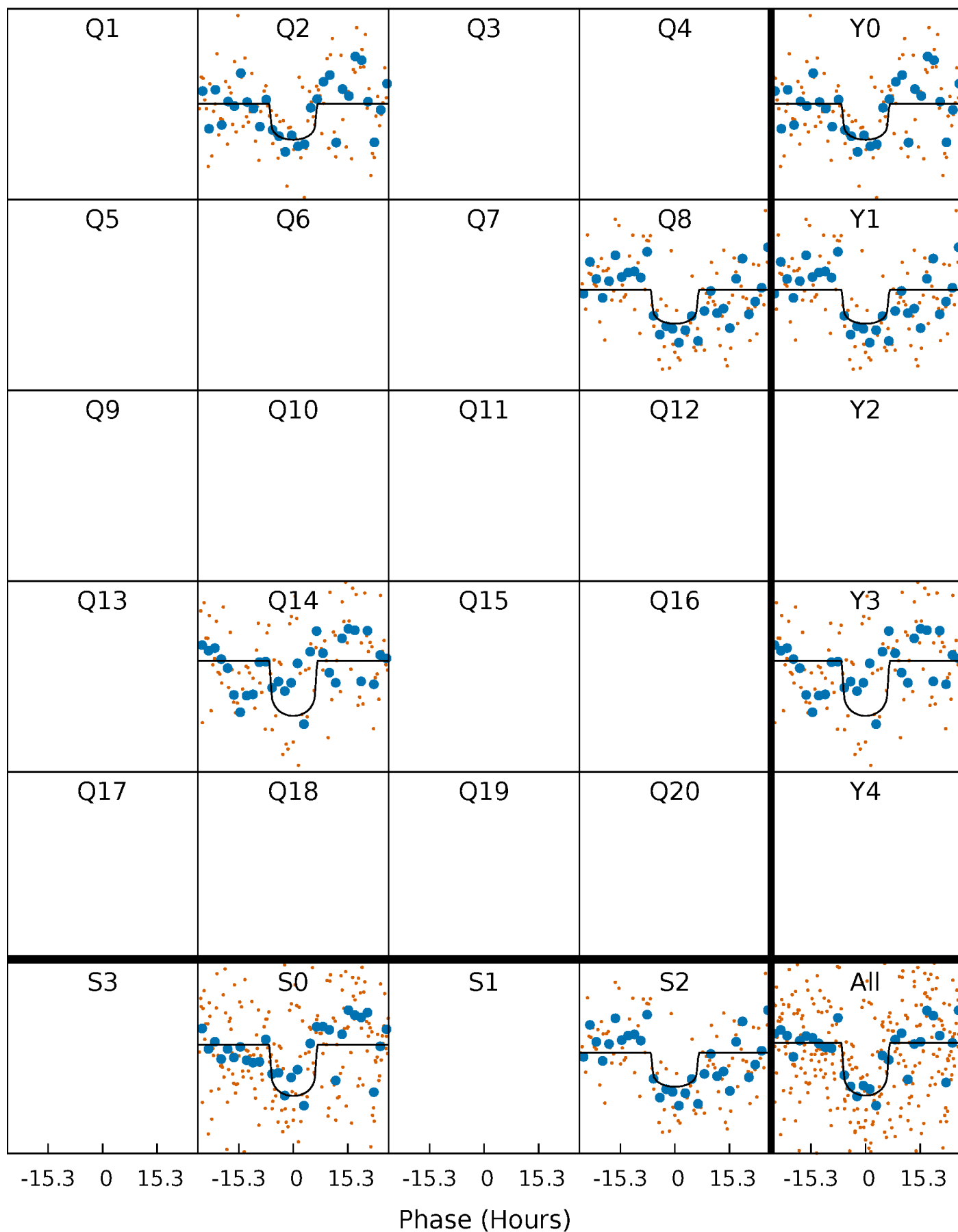
PDC Quarter-Phased Transit Curves

TCE 011404475-01 P=568.691336 Days $T_0=189.701540$ (BKJD)



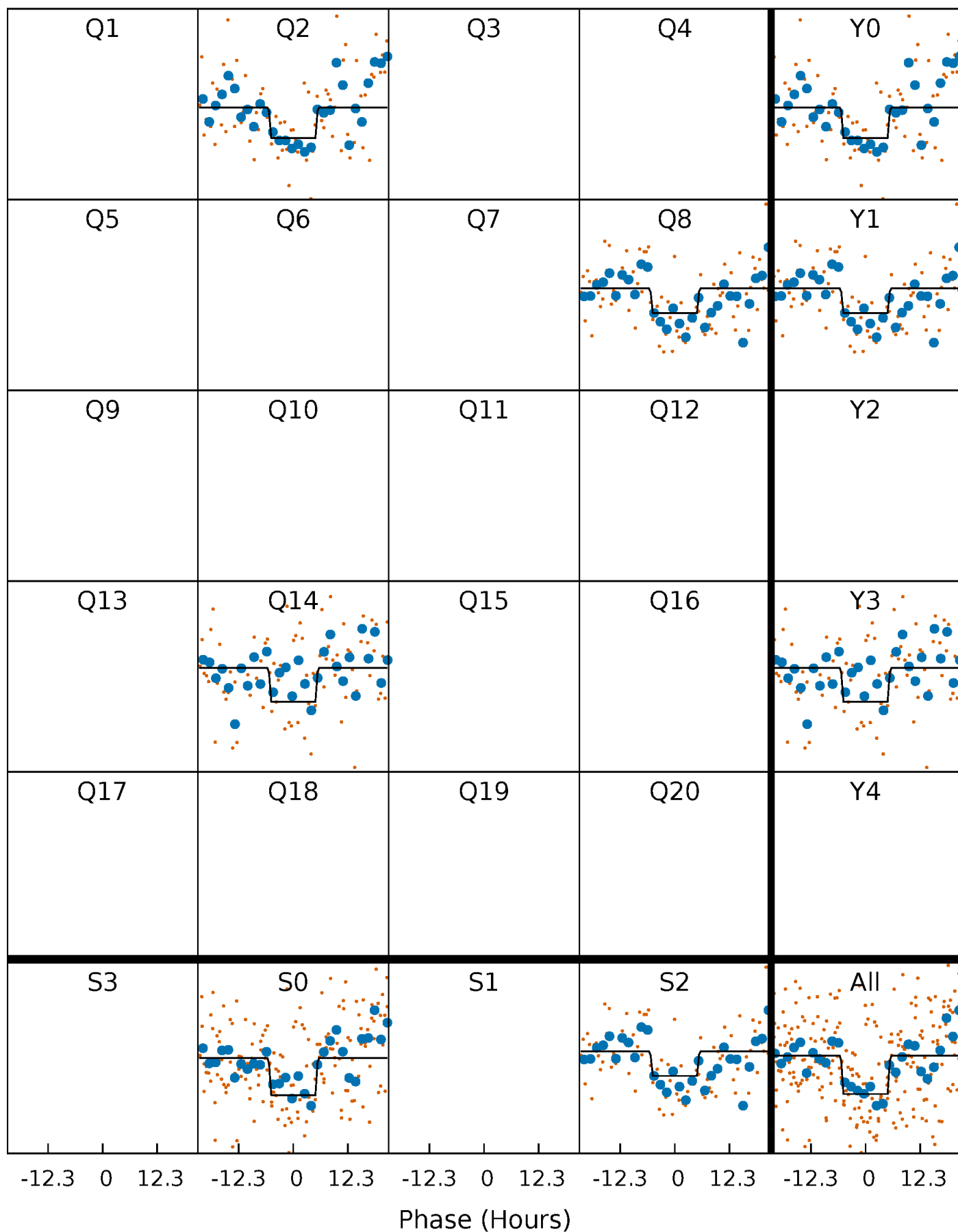
DV Quarter-Phased Transit Curves

TCE 011404475-01 P=568.691336 Days $T_0=189.701540$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

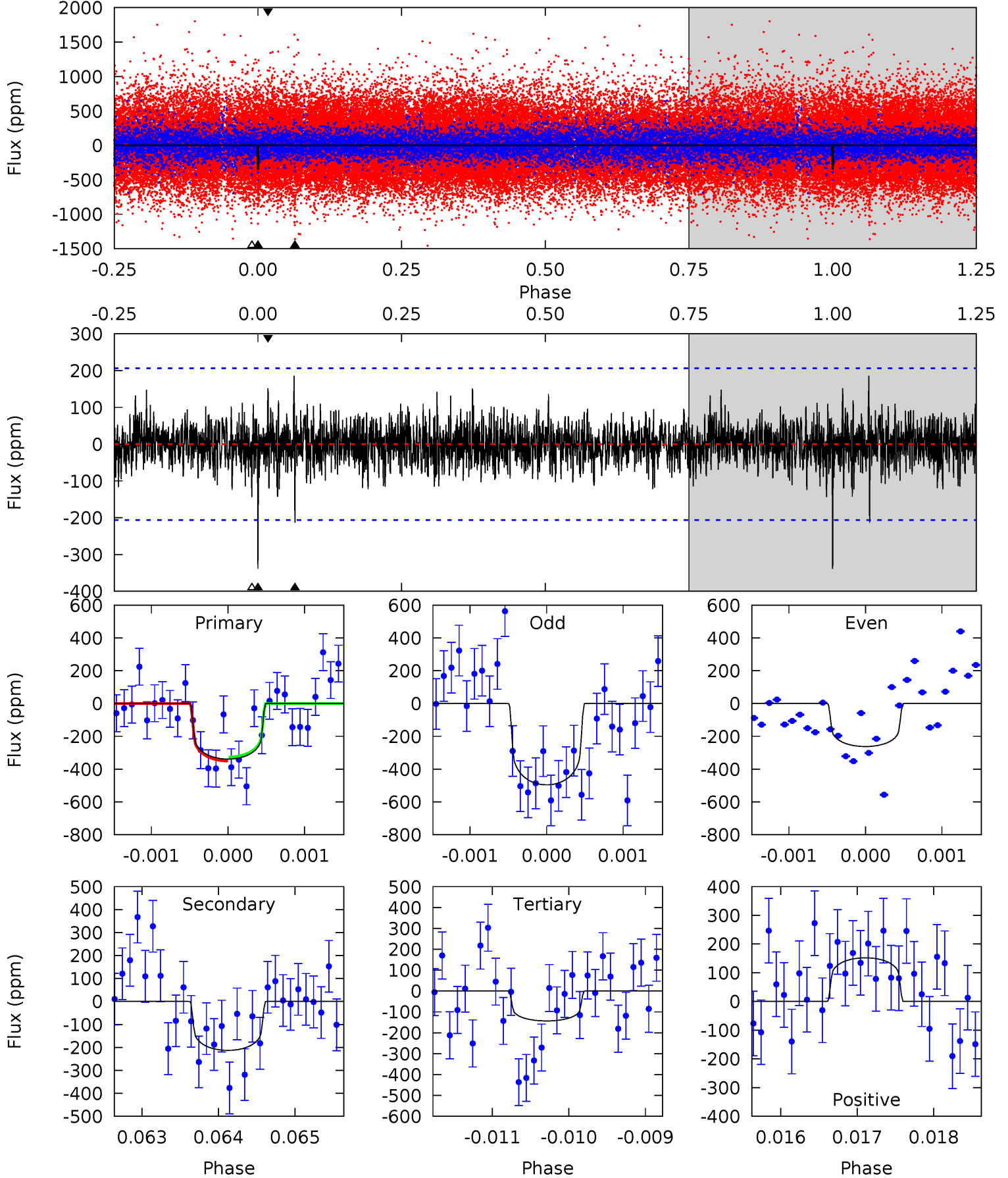
TCE 011404475-01 P=568.686408 Days $T_0=189.667084$ (BKJD)



DV Model-Shift Uniqueness Test

011404475-01, P = 568.691336 Days, E = 189.701540 Days

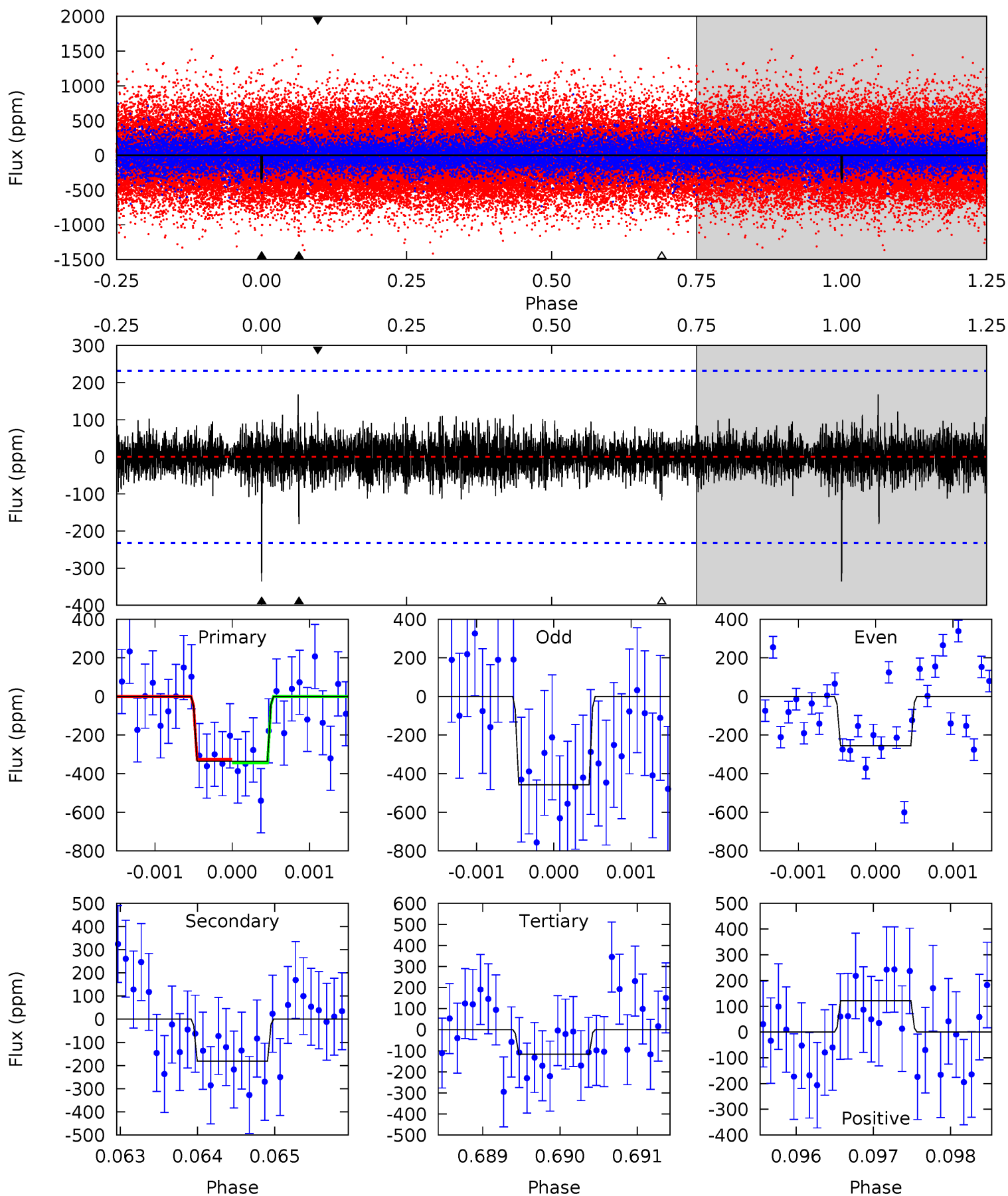
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.95	5.63	3.78	4.01	5.45	3.29	1.08	5.16	4.93	1.84	1.61	2.88	0.92	0.35	0.31



Alt Model-Shift Uniqueness Test

011404475-01, P = 568.686408 Days, E = 189.667084 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.94	4.28	2.76	2.89	5.49	3.35	0.78	5.19	5.06	1.52	1.39	2.21	0.88	0.33	0.23



Stellar Parameters For KIC 011404475

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6237^{+198}_{-298}	$4.415^{+0.072}_{-0.232}$	$0.040^{+0.250}_{-0.300}$	$1.103^{+0.375}_{-0.161}$	$1.156^{+0.170}_{-0.170}$	$1.213^{+0.395}_{-0.699}$
	+3%/-5%	+2%/-5%	+625%/-750%	+34%/-15%	+15%/-15%	+33%/-58%
Source	PHO1	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 011404475-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-213 ± 38	$2.57^{+1.53}_{-1.32}$	347^{+30}_{-20}	5336^{+2360}_{-937}	$33787^{+111488}_{-20133}$
Alt.	-181 ± 42	$2.48^{+1.52}_{-1.36}$	348^{+28}_{-21}	5263^{+2527}_{-1023}	$32260^{+119598}_{-20782}$

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

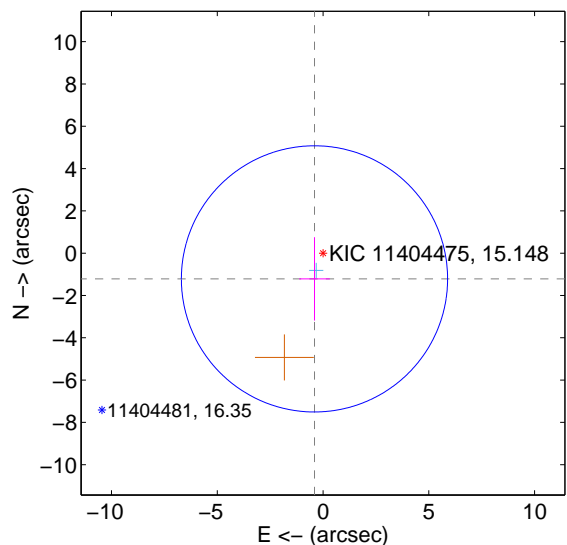
Supplemental centroid analysis for 011404475-01. Kepler magnitude: 15.15. Transit SNR 7.39

There are 1 quarters with good PRF difference image offsets

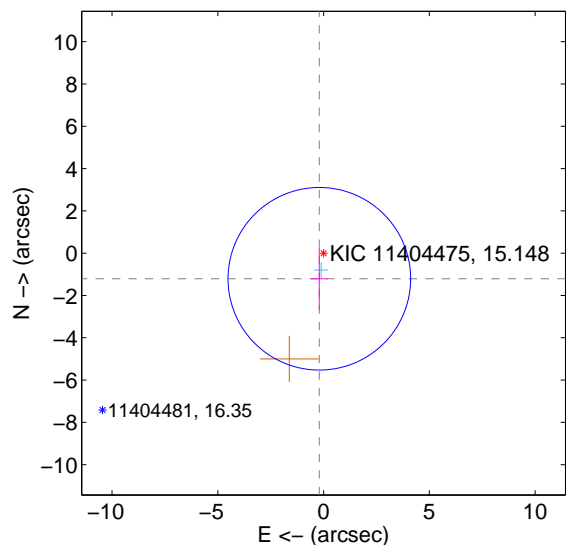
The direct PRF centroid is offset from the target star catalog position by about 0.22 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.281 ± 2.097	0.61	0.404 ± 0.724	-1.216 ± 1.971
PRF-fit source offset from KIC position	1.227 ± 1.439	0.85	0.201 ± 0.407	-1.210 ± 1.457
photometric centroid source offset	3.47 ± 2.02	1.72	-3.42 ± 2.03	0.59 ± 1.76

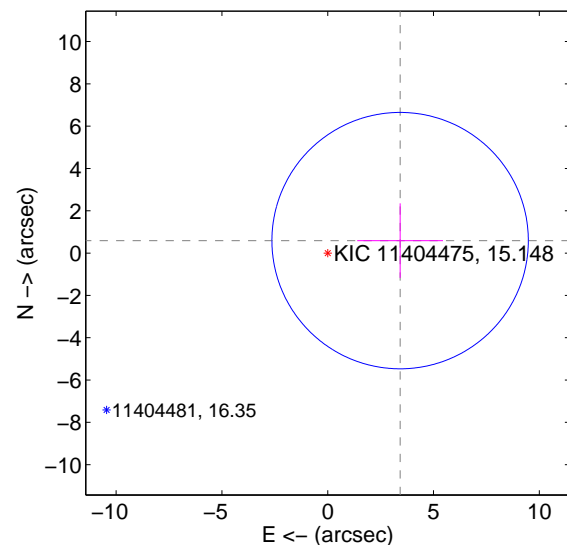
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

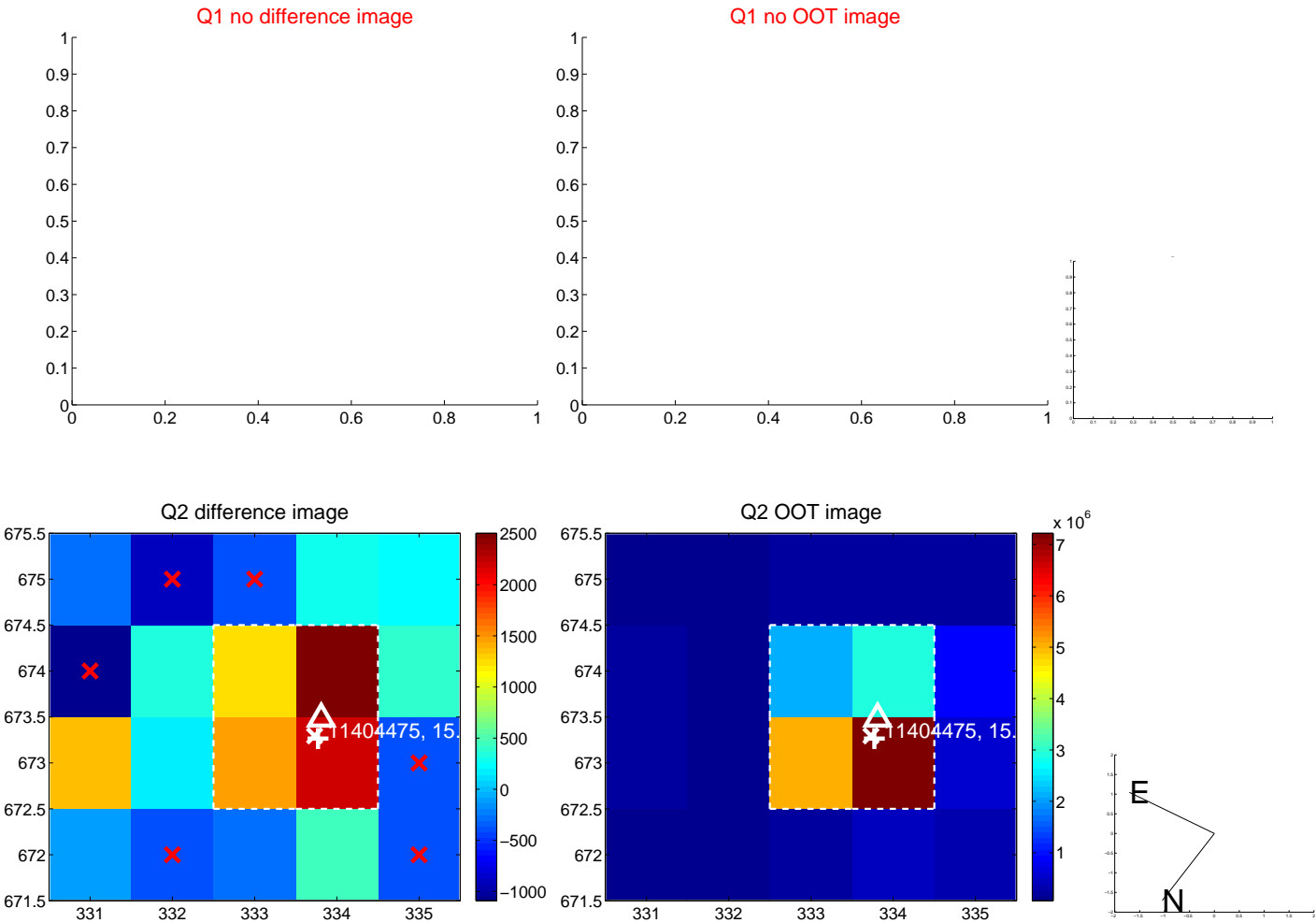


offset from photometric centroids

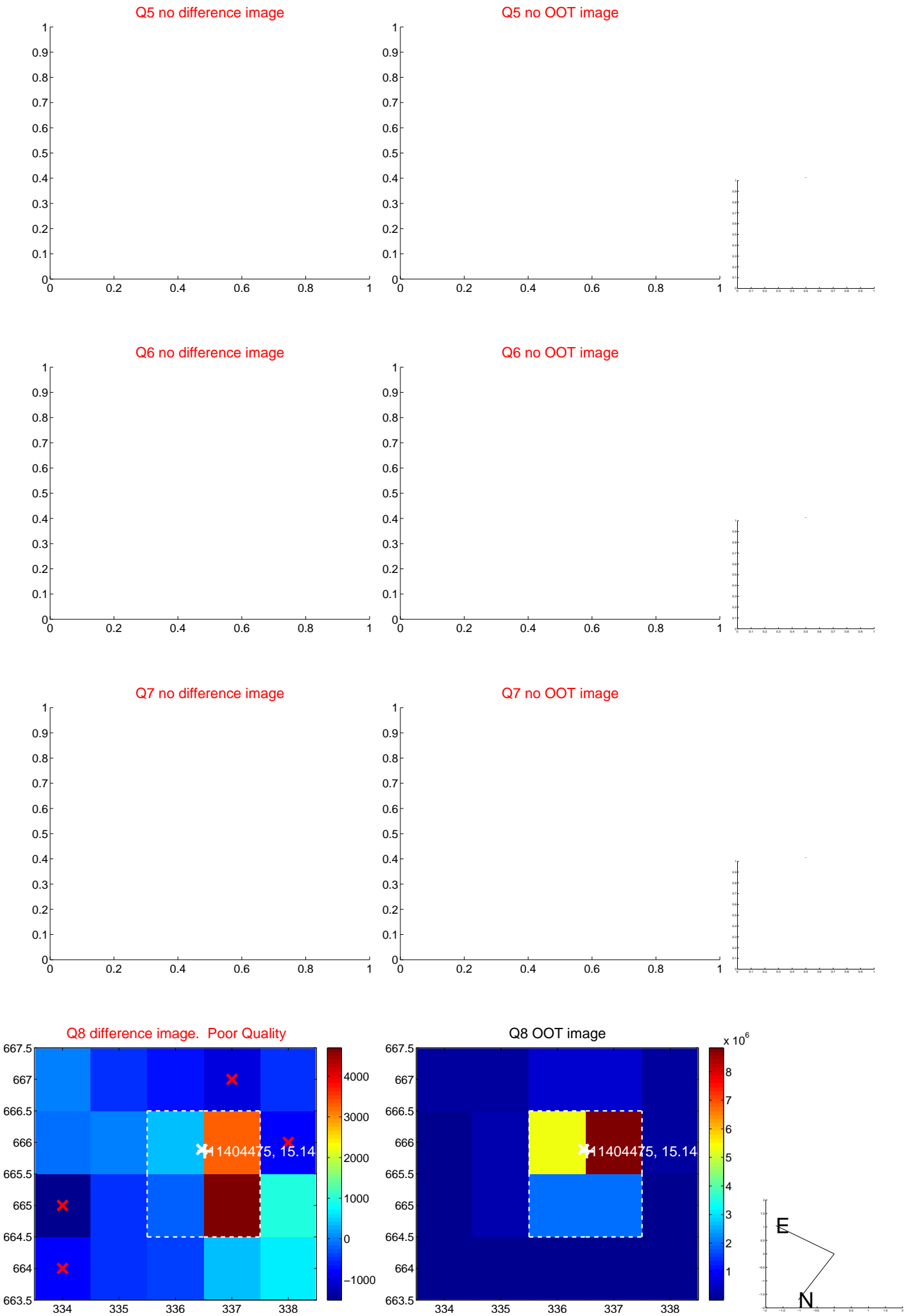


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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



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.



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

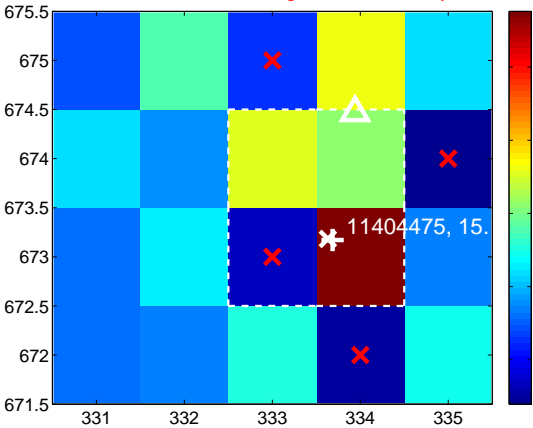
Q13 no difference image



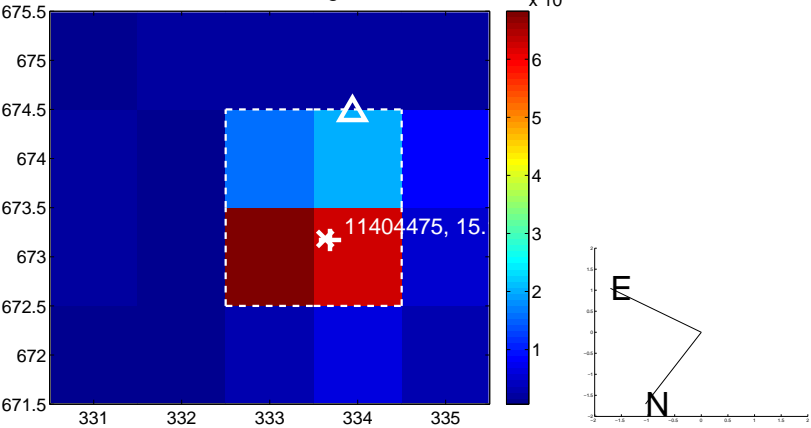
Q13 no OOT image



Q14 difference image. Poor Quality



Q14 OOT image



Q15 no difference image



Q15 no OOT image



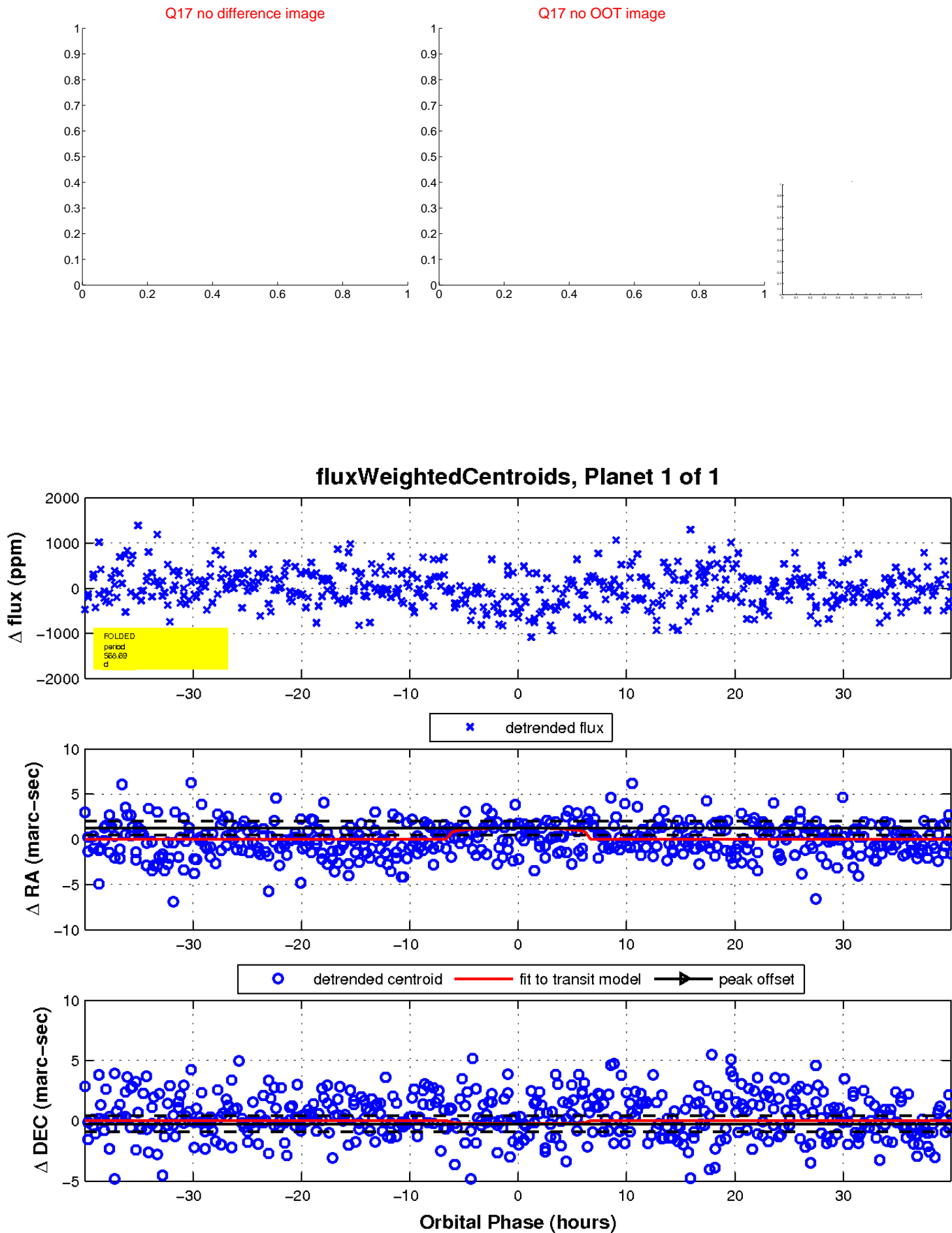
Q16 no difference image



Q16 no OOT image



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



UKIRT Image

Declination

