

KIC 005869502

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})
005869502-01	OBS	No	337.332668	333.381994	175.3	11.517	8.4	5.8	1.45	6192	2.12	2.67

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005869502-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL—CENT_FEW_DIFFS

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

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

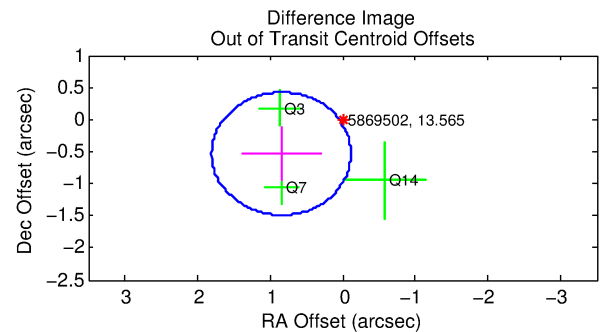
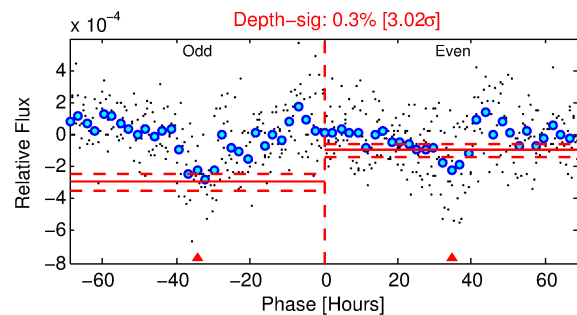
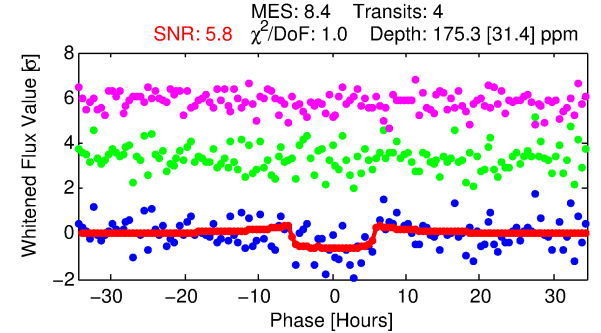
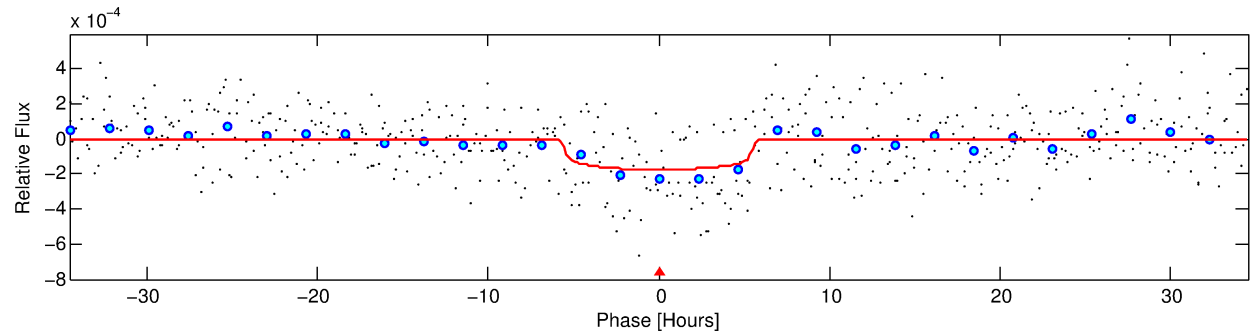
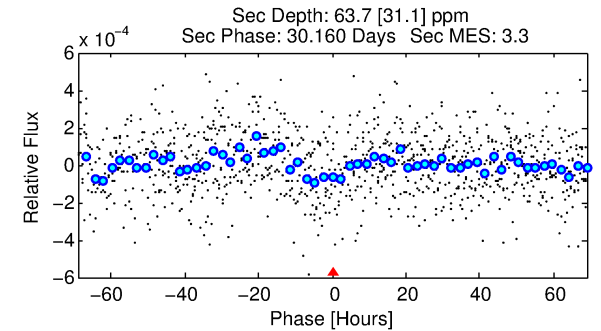
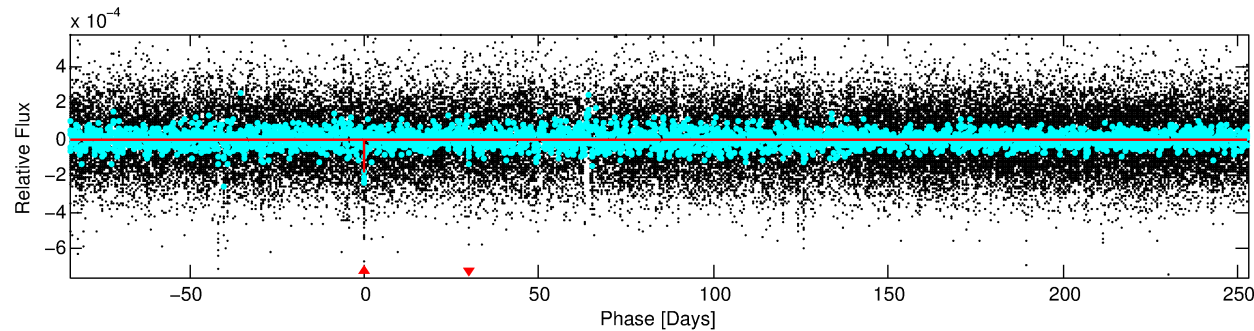
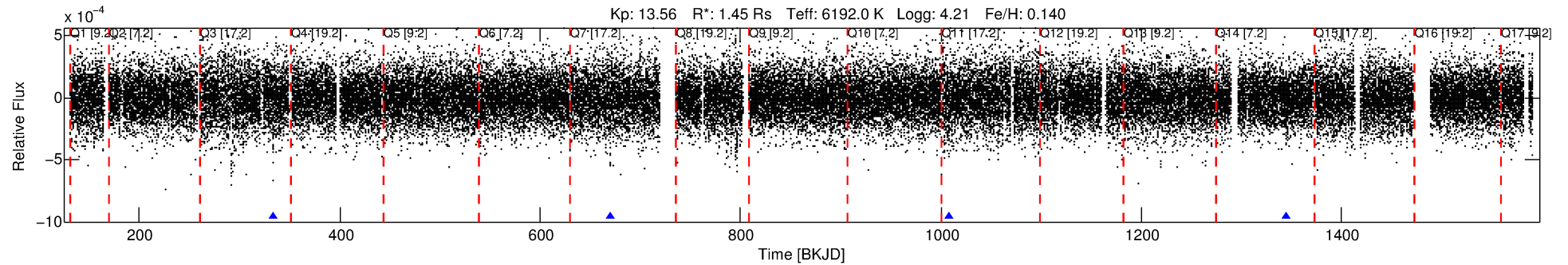
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005869502-01

No Significant Match Found

DV One-Page Summary

KIC: 5869502 Candidate: 1 of 1 Period: 337.333 d



DV Fit Results:

Period = 337.33267 [0.00988] d
Epoch = 333.3820 [0.0196] BKJD
Rp/R* = 0.0134 [0.0063]
a/R* = 140.94 [324.89]
b = 0.79 [1.08]
Seff = 2.67 [1.06]
Teq = 326 [32] K
Rp = 2.12 [1.21] Re
a = 1.0182 [0.2700] AU
Ag = 8083.13 [9086.64] [0.89σ]
Teffp = 4781 [1277] K [3.49σ]

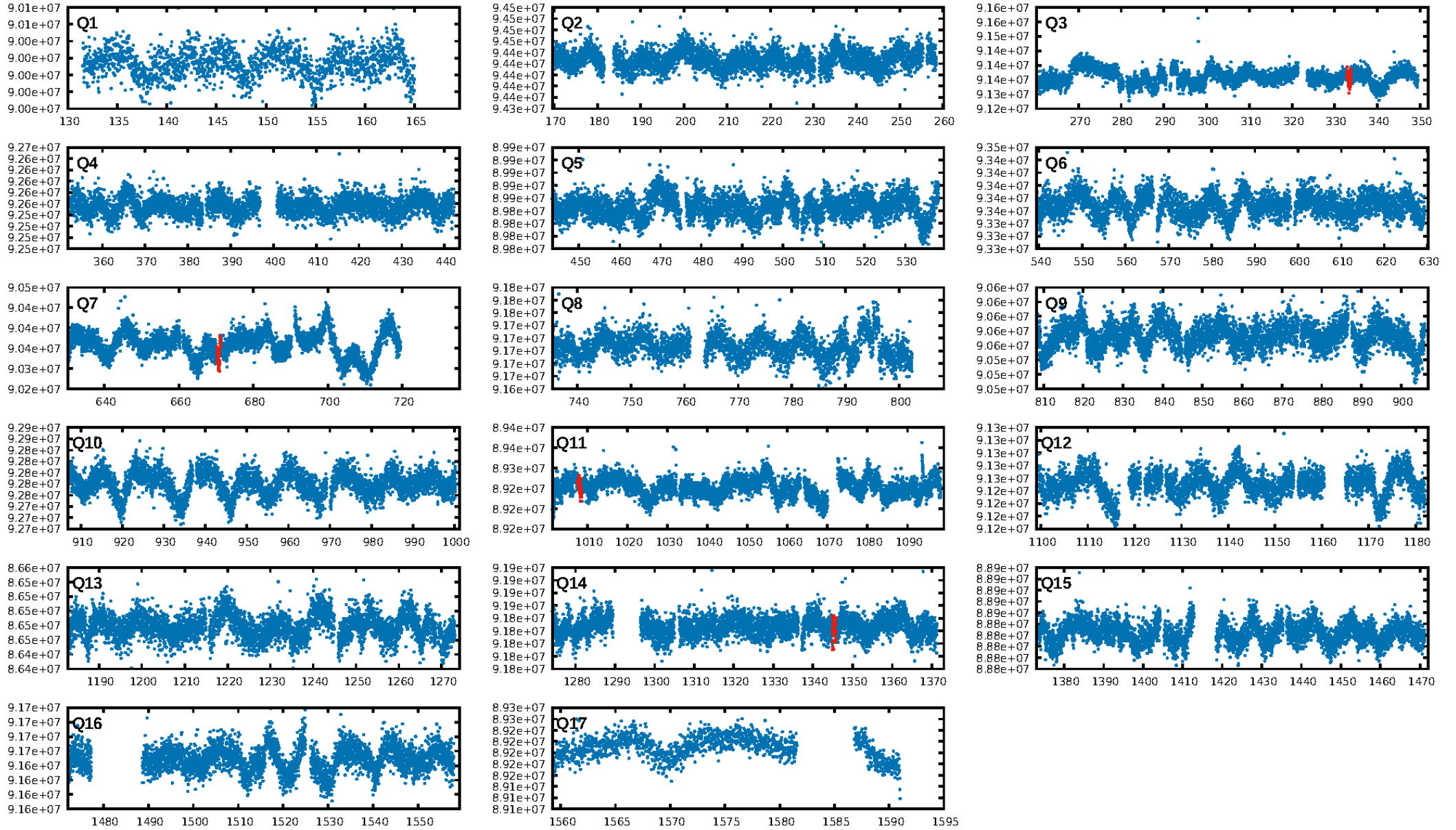
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
a/R* = 140.94 [324.89]
Bootstrap-pfa: 4.56e-12
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: 6.368
Centroid-sig: 23.0%
Centroid-so: 1.987 arcsec [0.97σ]
OotOffset-rm: 0.999 arcsec [3.13σ]
KicOffset-rm: 1.113 arcsec [3.12σ]
OotOffset-st: 1/2/0/0 [3]
KicOffset-st: 1/2/0/0 [3]
DiffImageQuality-fgm: 0.67 [2/3]
DiffImageOverlap-fno: 1.00 [3/3]

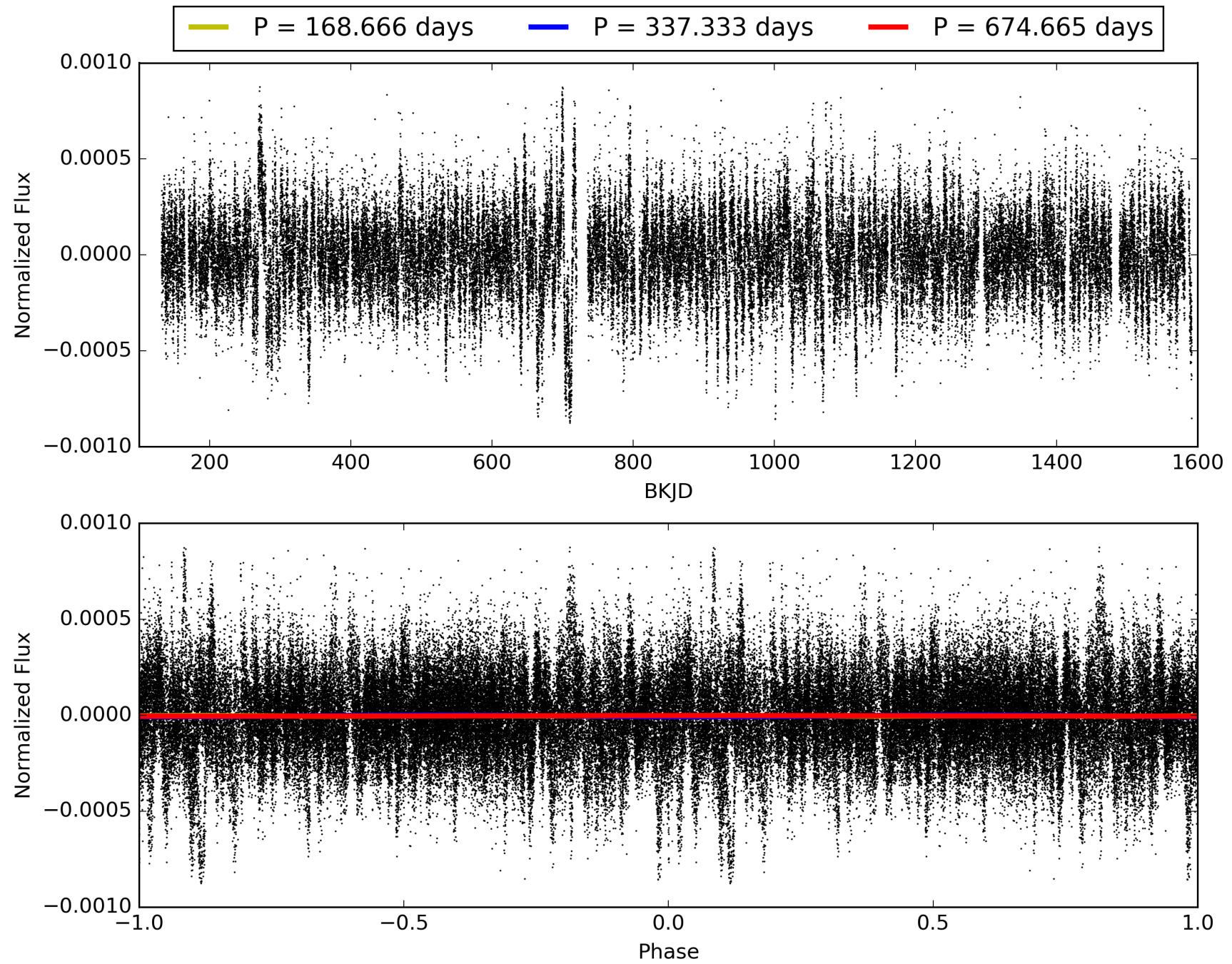
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 15:27:59 Z

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

TCE 005869502-01, PDC Light Curves

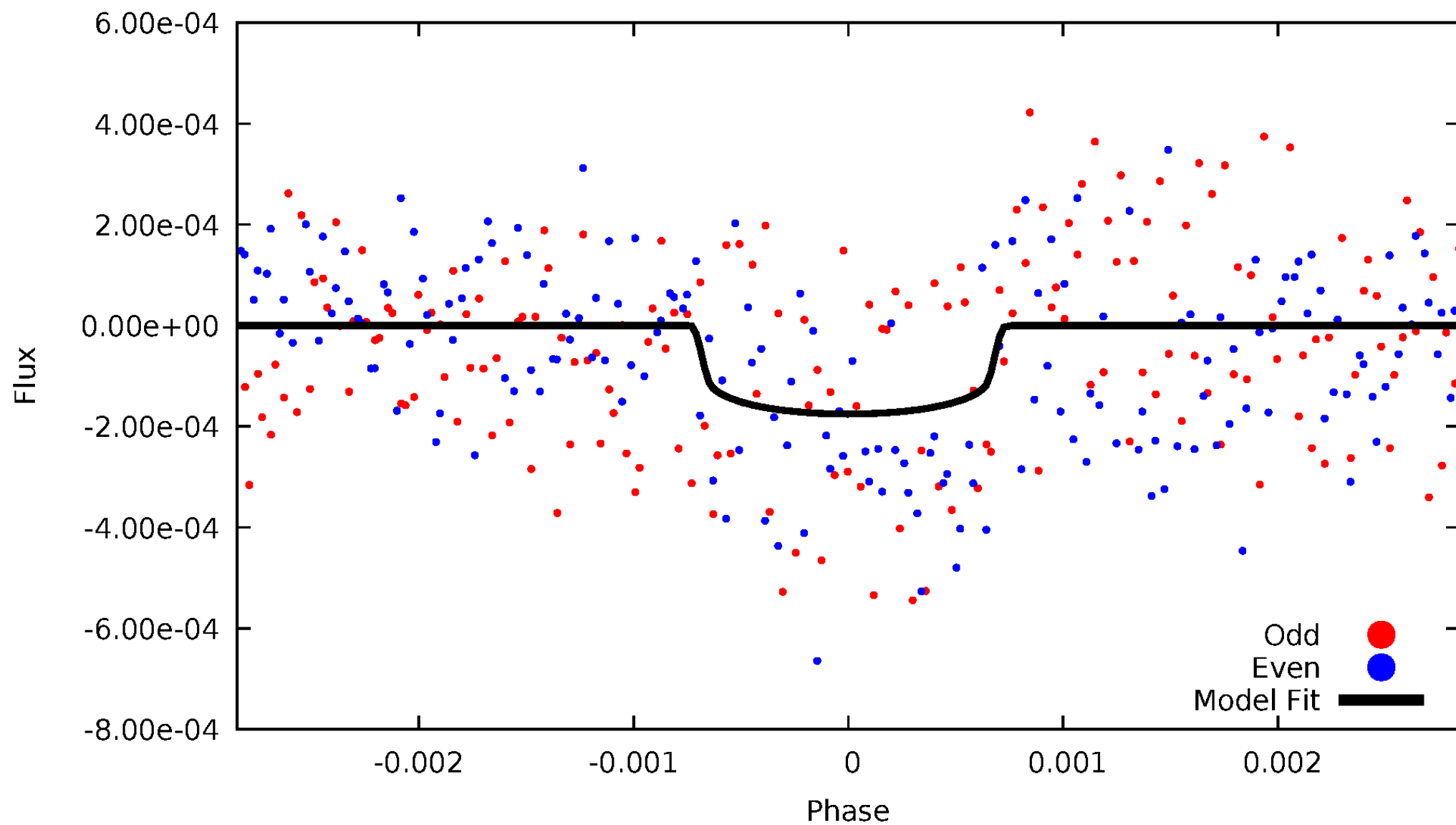


TCE 005869502-01



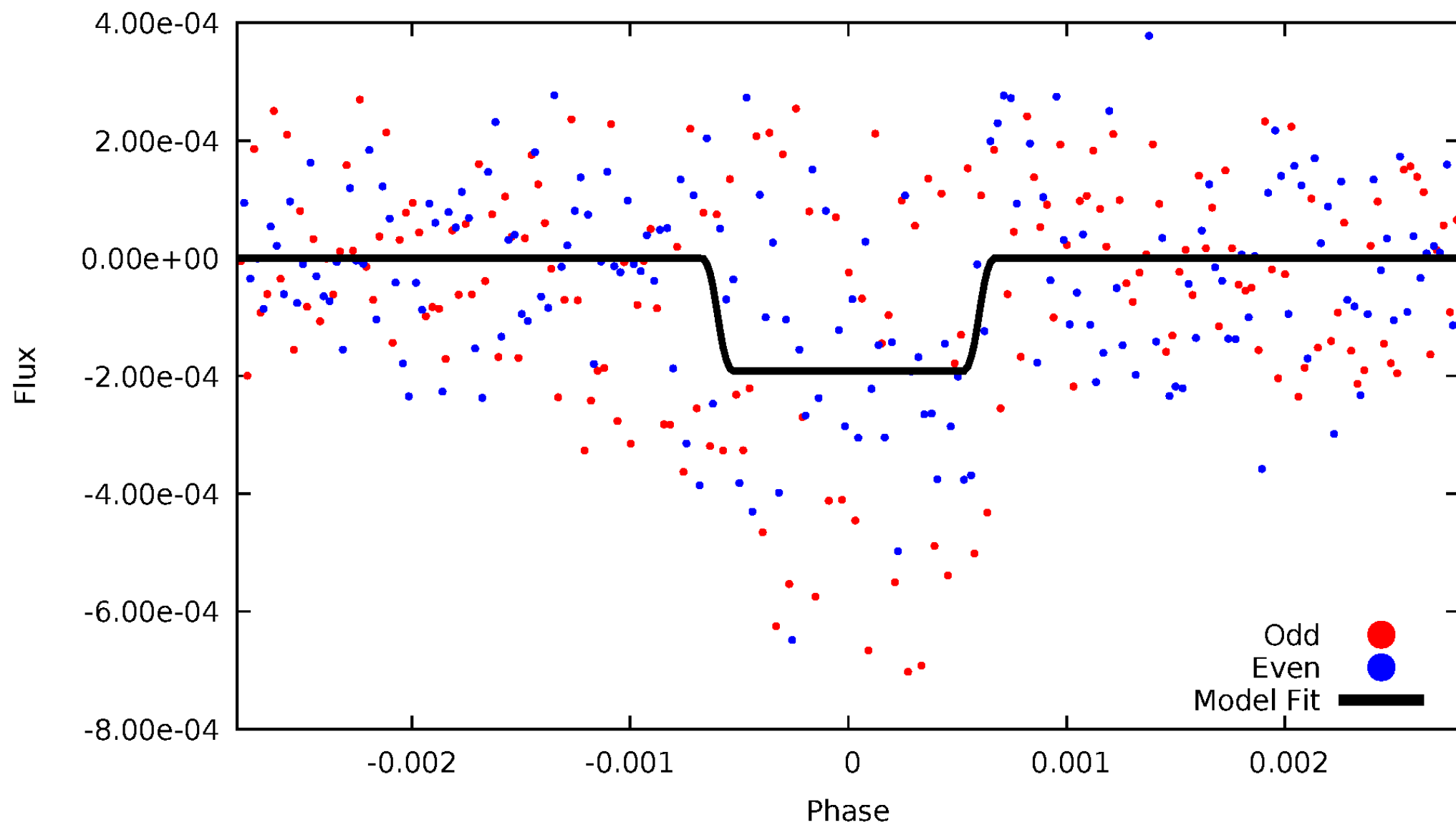
DV Odd/Even

TCE 005869502-01

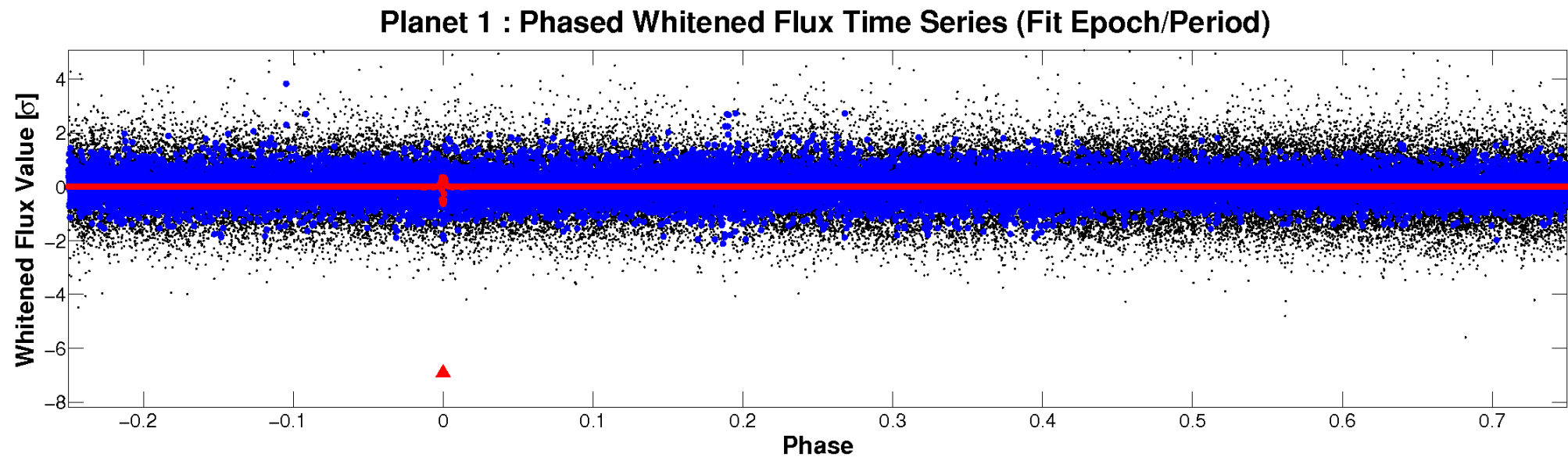
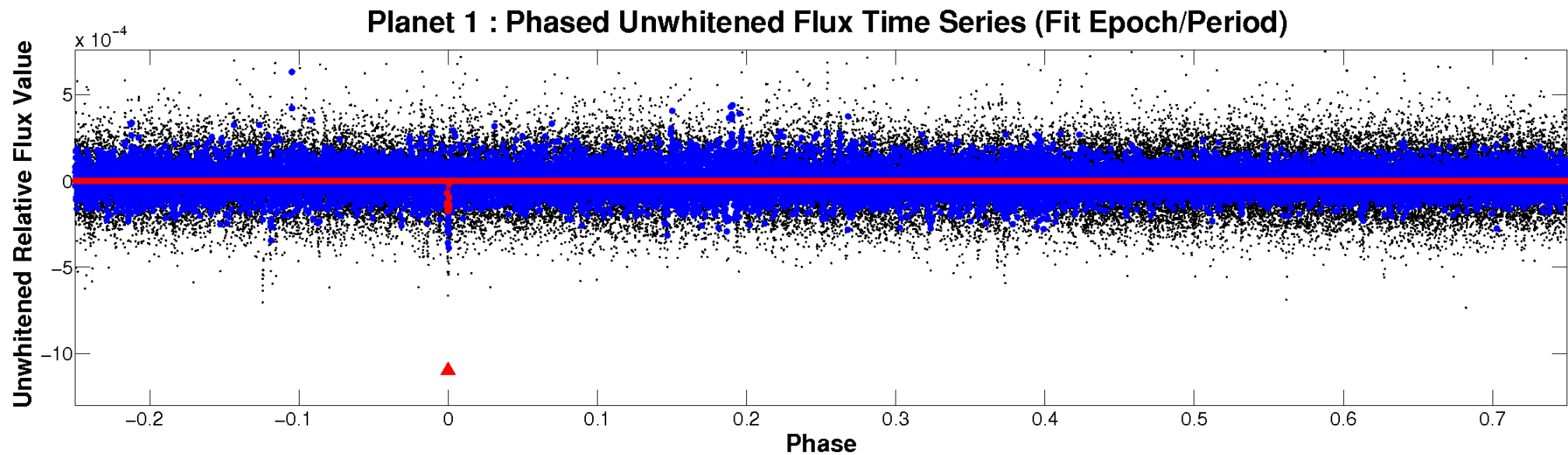


ALT Odd/Even

TCE 005869502-01

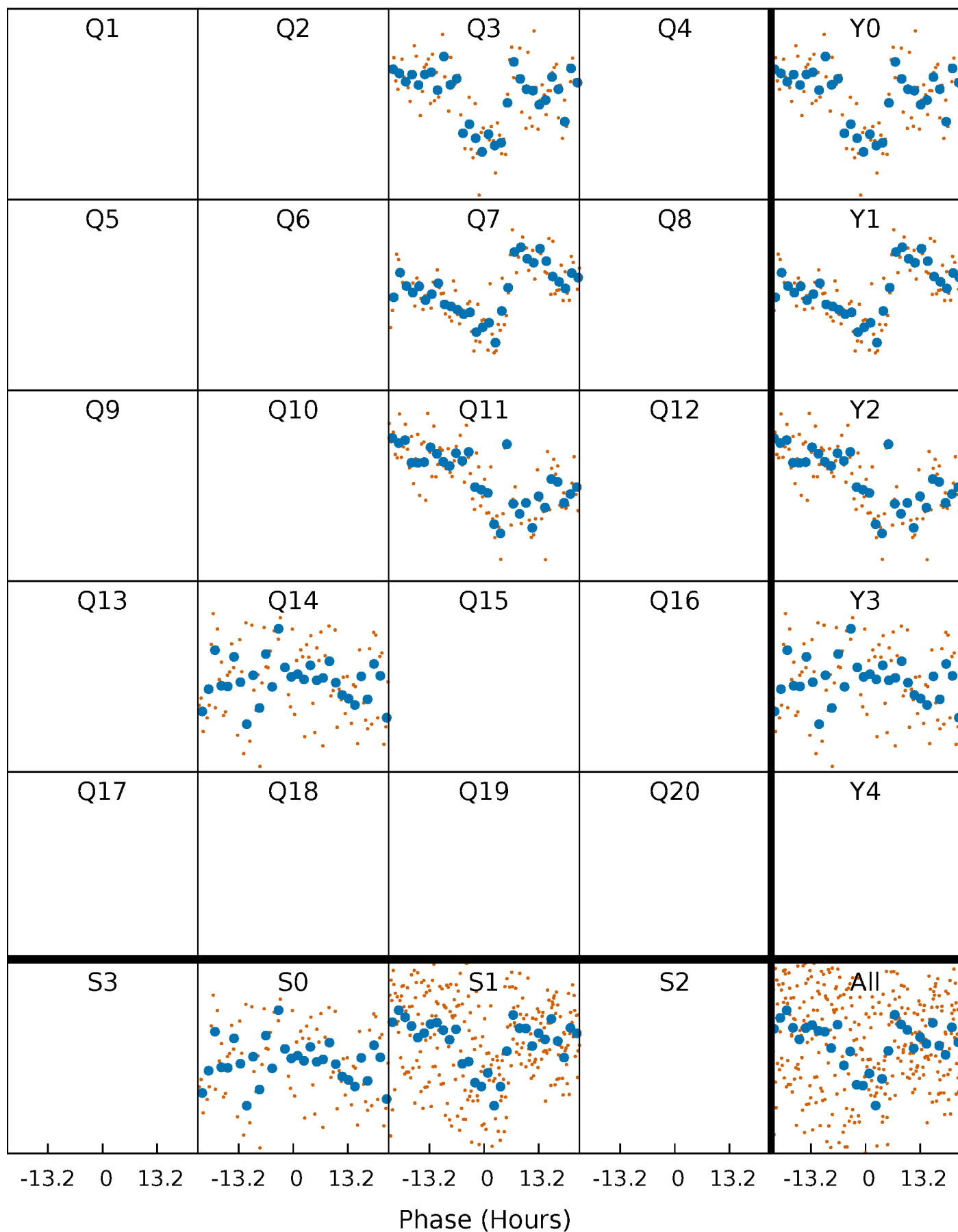


Non-Whitened Vs. Whitened Light Curve



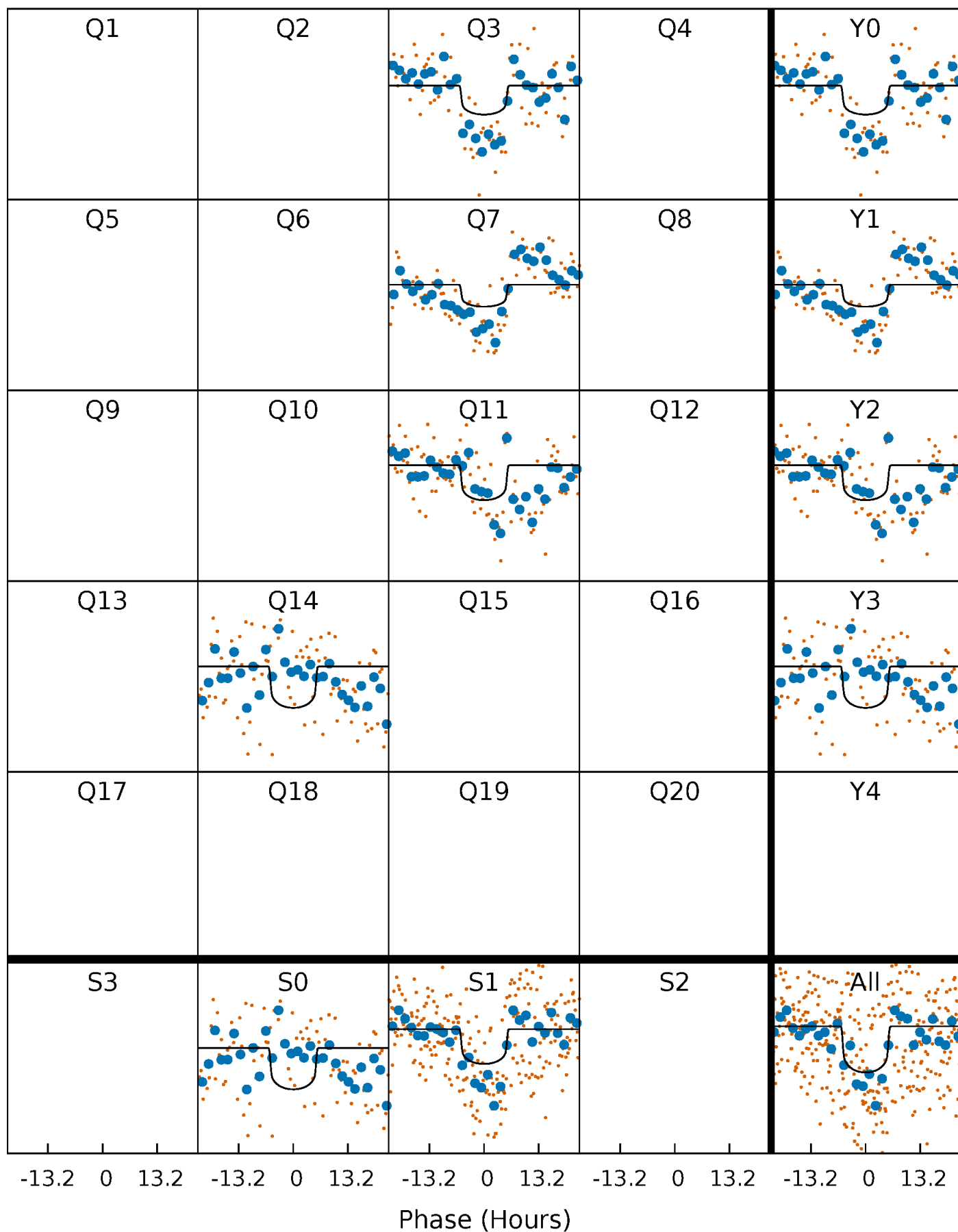
PDC Quarter-Phased Transit Curves

TCE 005869502-01 P=337.332668 Days $T_0=333.381994$ (BKJD)



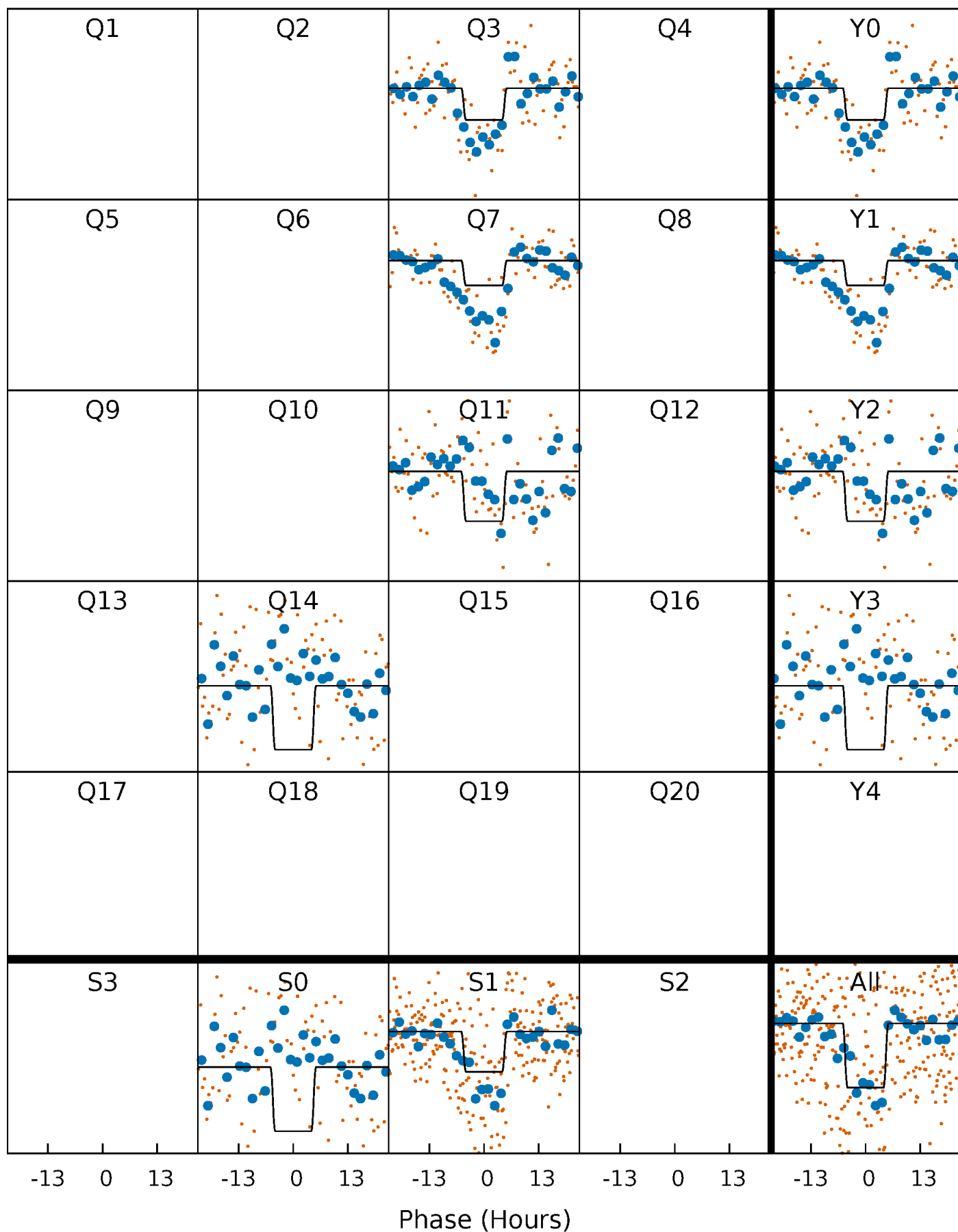
DV Quarter-Phased Transit Curves

TCE 005869502-01 P=337.332668 Days $T_0=333.381994$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

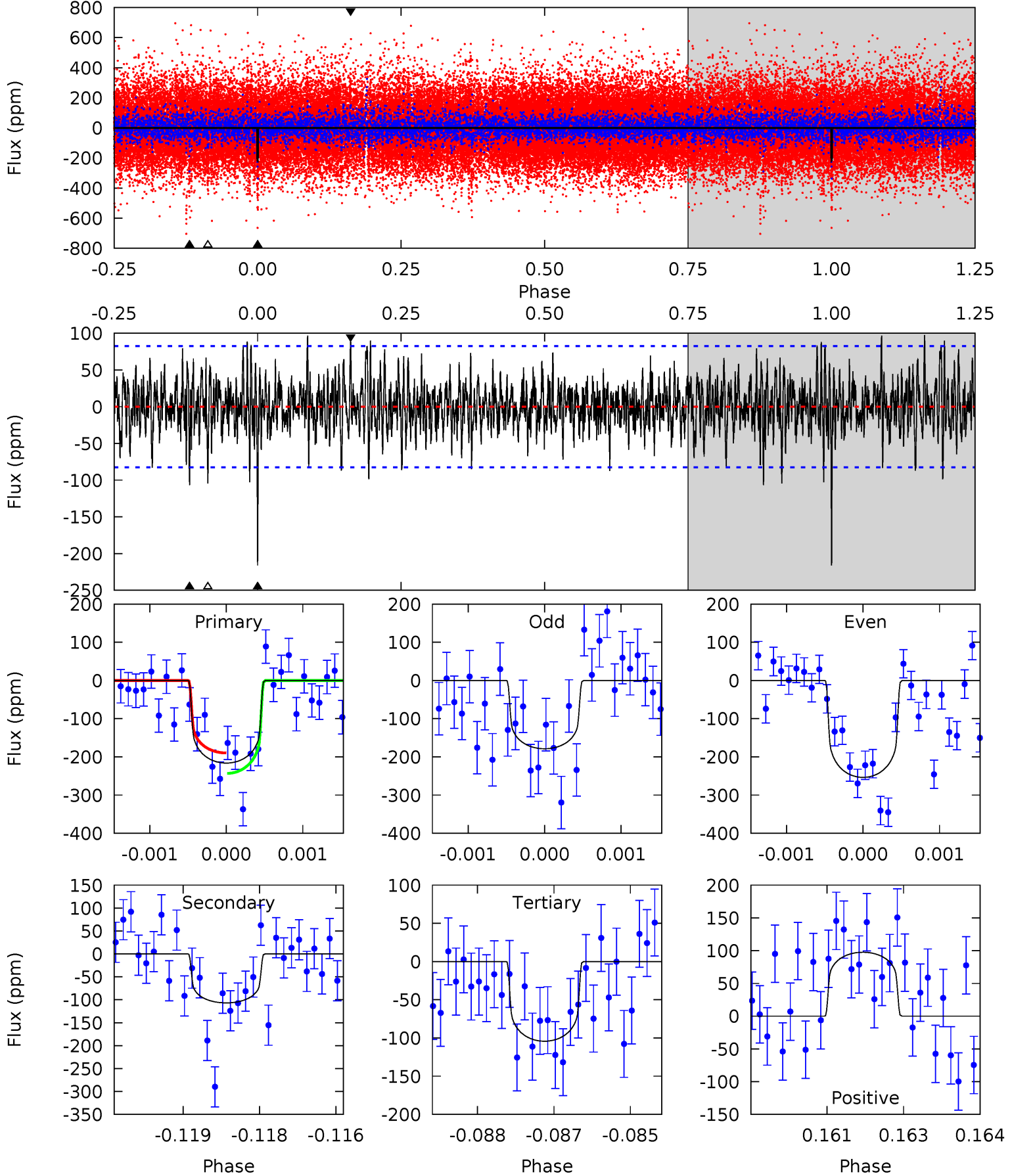
TCE 005869502-01 P=337.303586 Days $T_0=333.419851$ (BKJD)



DV Model-Shift Uniqueness Test

005869502-01, P = 337.332668 Days, E = 333.381994 Days

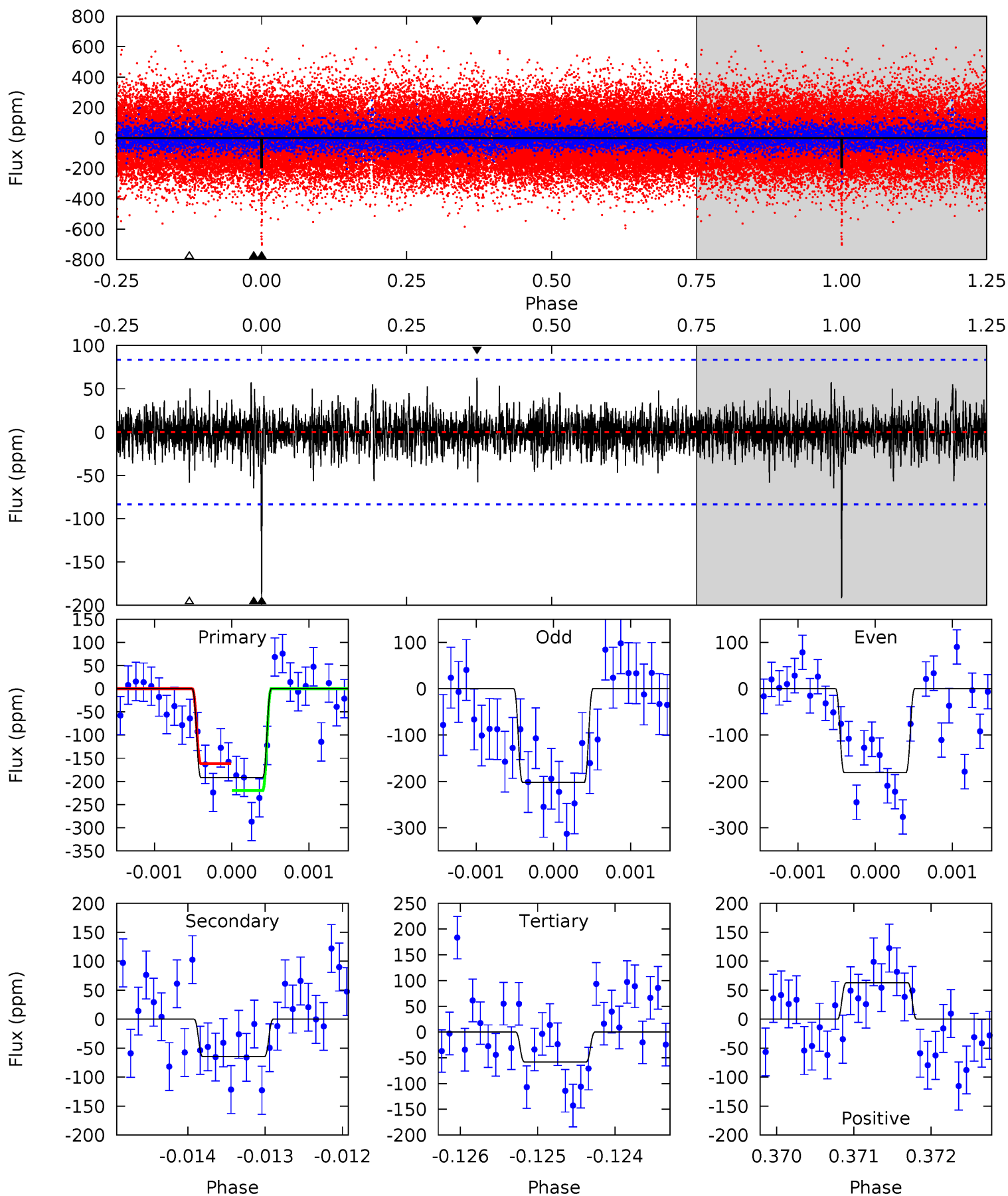
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.1	6.96	6.79	6.36	5.38	3.18	1.75	7.30	7.73	0.17	0.61	2.45	0.86	0.31	1.75



Alt Model-Shift Uniqueness Test

005869502-01, P = 337.303586 Days, E = 333.419851 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.4	4.19	3.76	4.06	5.40	3.21	0.95	8.63	8.33	0.43	0.13	0.68	1.03	0.25	1.87



Stellar Parameters For KIC 005869502

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6192^{+165}_{-202}	$4.207^{+0.162}_{-0.198}$	$0.140^{+0.200}_{-0.300}$	$1.451^{+0.473}_{-0.315}$	$1.241^{+0.174}_{-0.194}$	$0.572^{+0.487}_{-0.304}$
	+3%/-3%	+4%/-5%	+143%/-214%	+33%/-22%	+14%/-16%	+85%/-53%
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 005869502-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-107 ± 15	$2.13^{+1.09}_{-0.95}$	458^{+36}_{-32}	5421^{+2030}_{-822}	13066^{+31642}_{-7332}
Alt.	-65 ± 15	$2.19^{+1.15}_{-1.03}$	456^{+38}_{-28}	4830^{+1527}_{-674}	7605^{+18119}_{-4370}

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 $A_{obs} \gg 1.0$

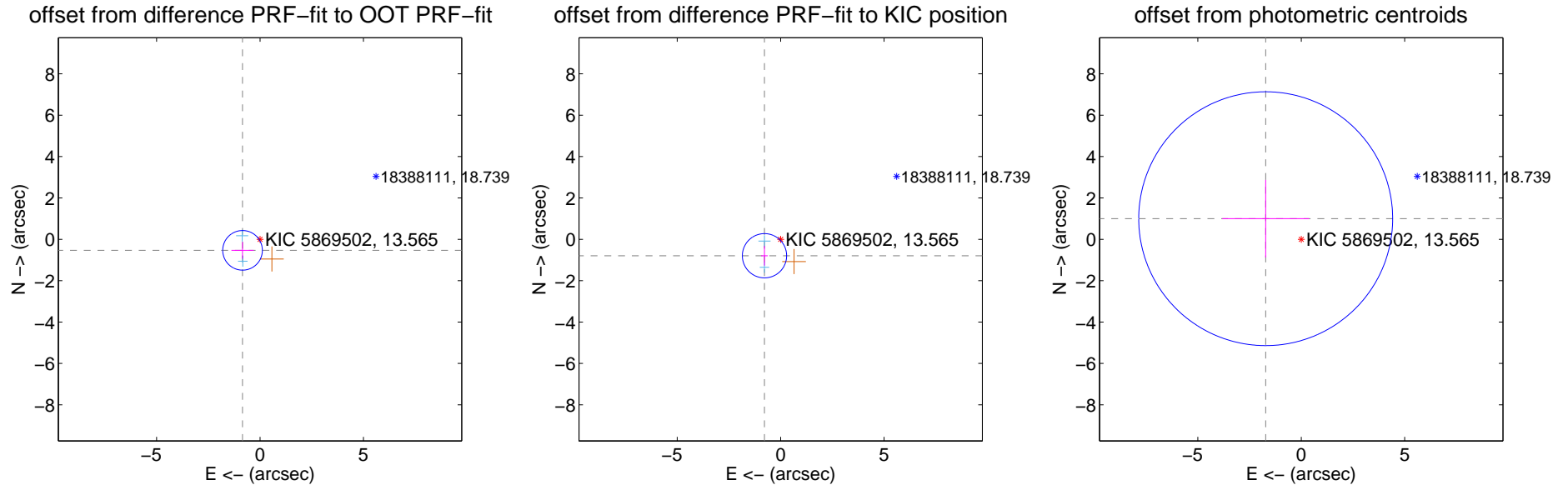
DV Centroid Data

Supplemental centroid analysis for 005869502-01. Kepler magnitude: 13.56. Transit SNR 5.77

There are 2 quarters with good PRF difference image offsets

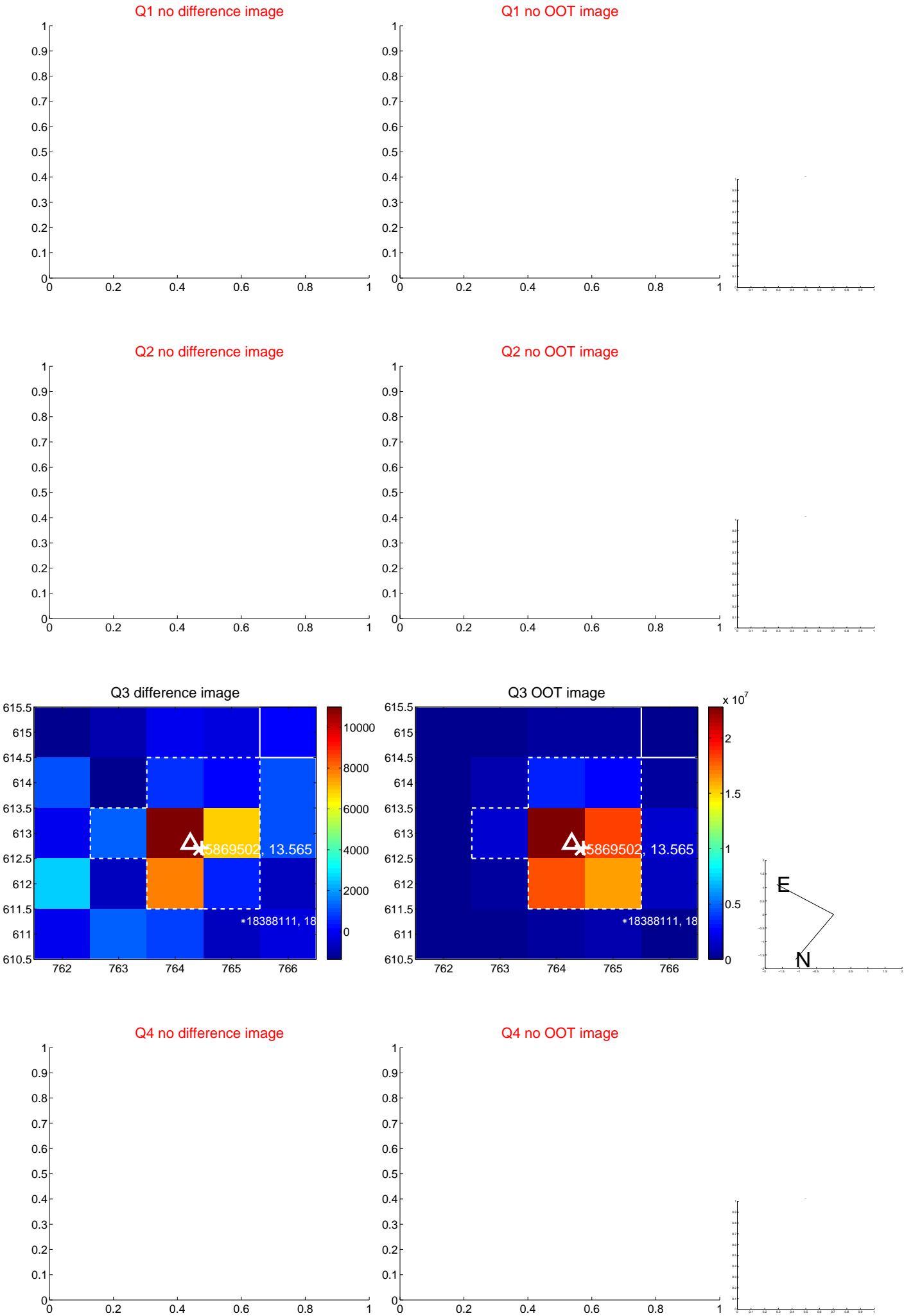
The direct PRF centroid is offset from the target star catalog position by about 0.15 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.999 ± 0.319	3.13	0.844 ± 0.537	-0.533 ± 0.407
PRF-fit source offset from KIC position	1.113 ± 0.357	3.12	0.780 ± 0.160	-0.795 ± 0.474
photometric centroid source offset	1.99 ± 2.05	0.97	1.72 ± 2.10	1.00 ± 1.87

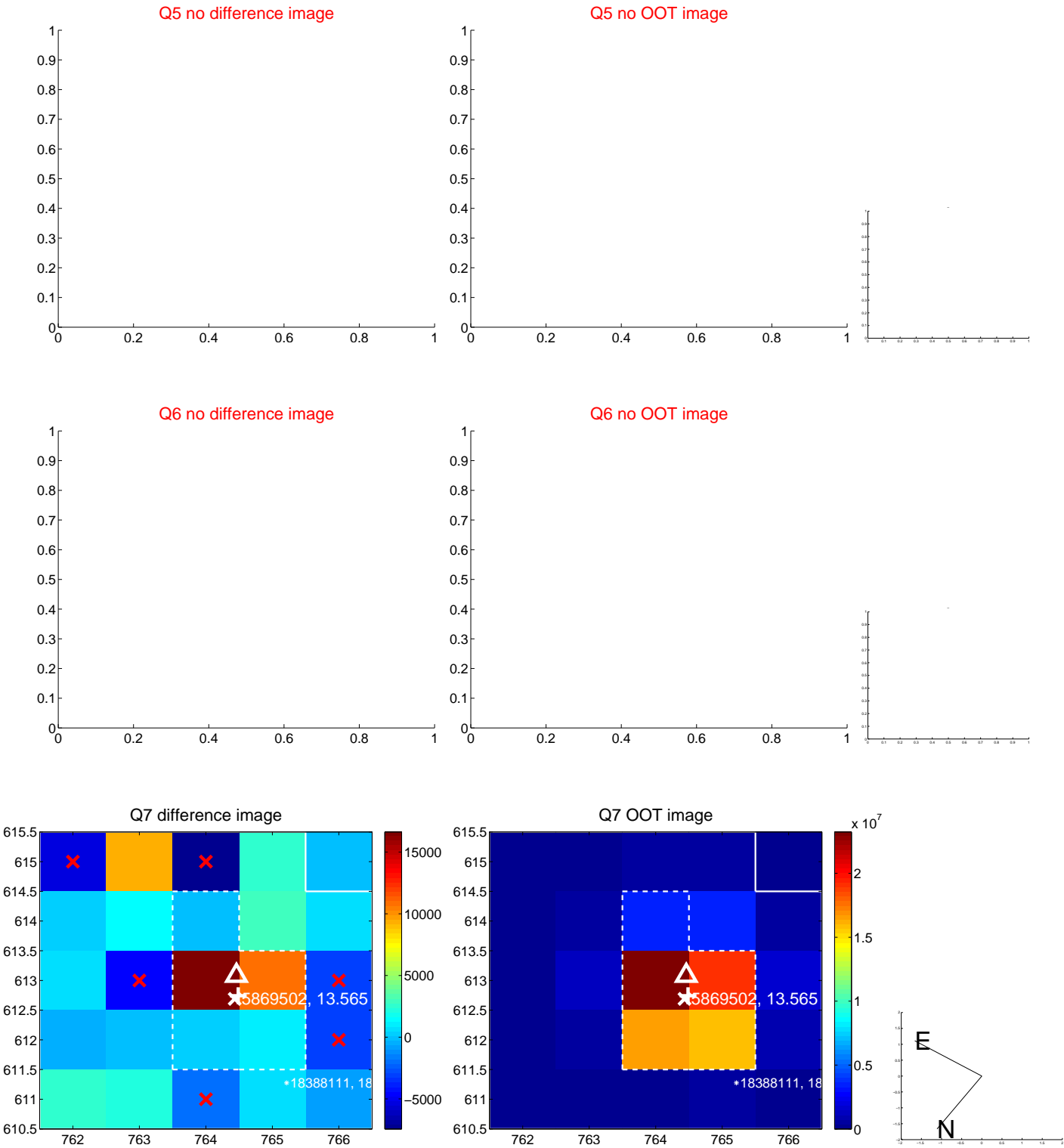


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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



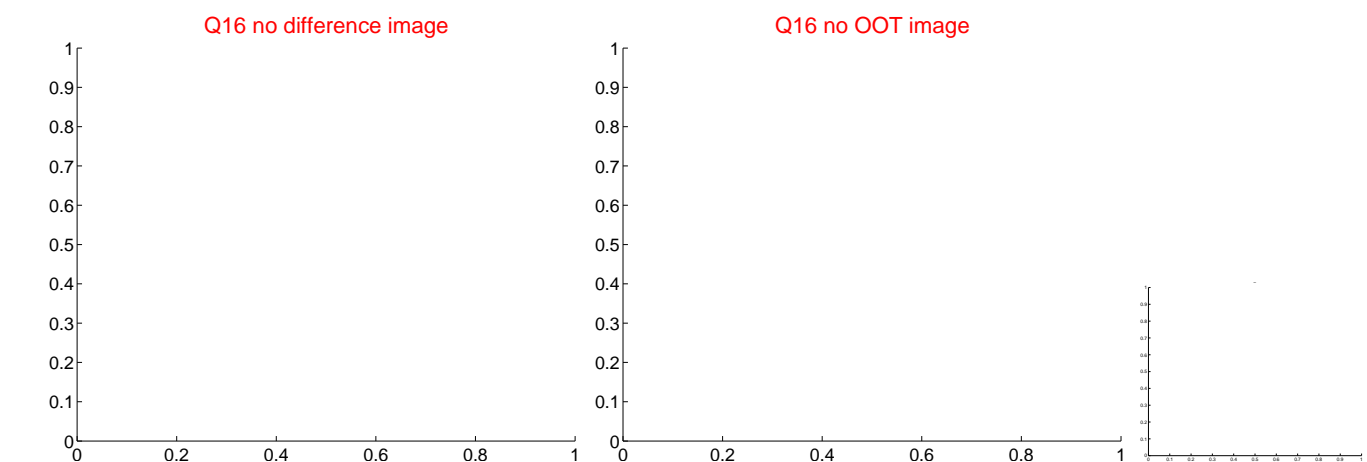
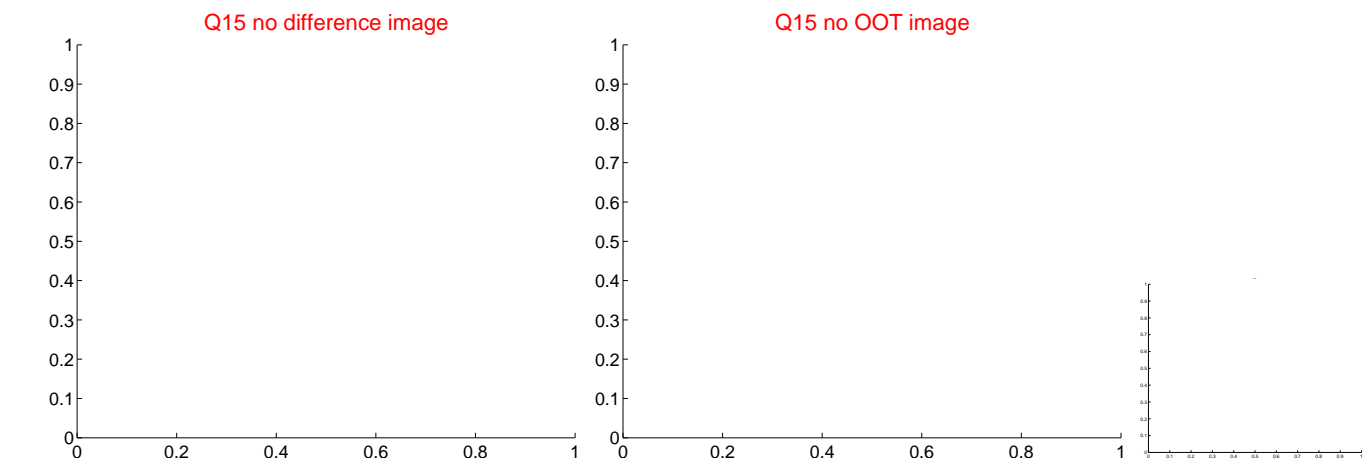
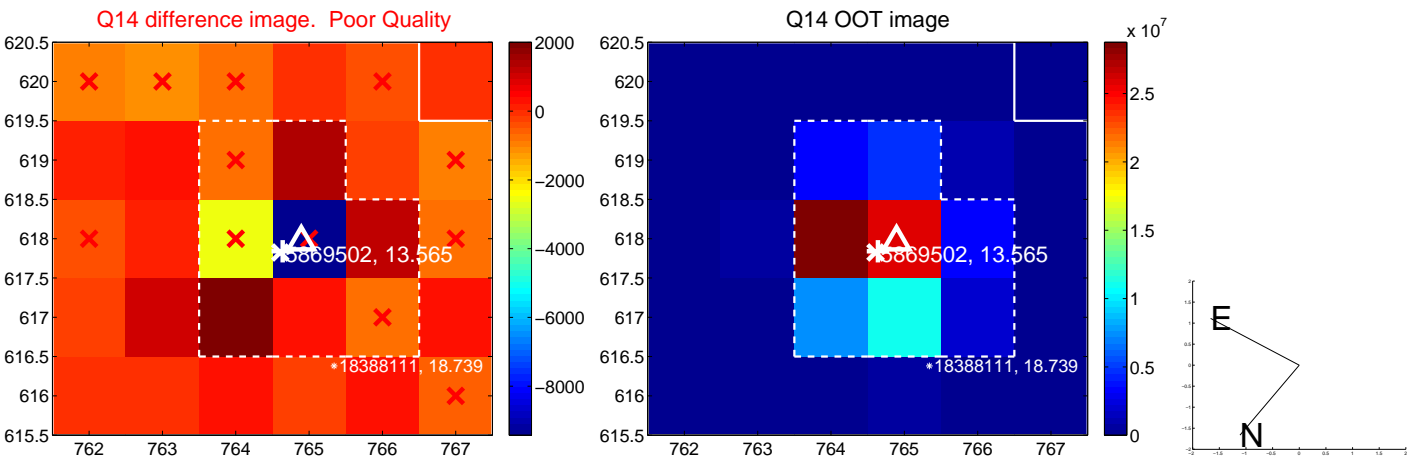
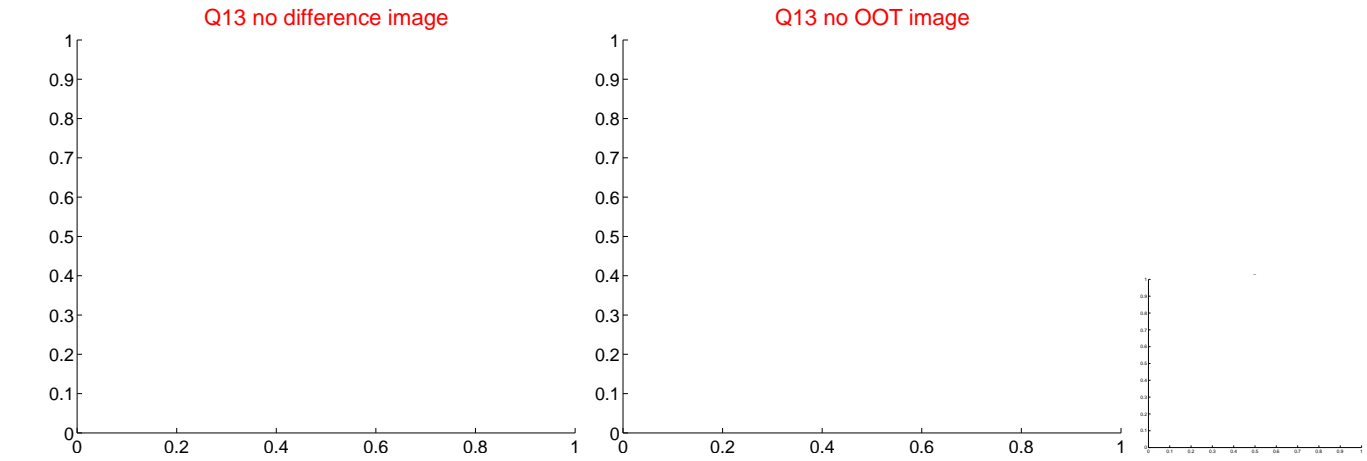
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



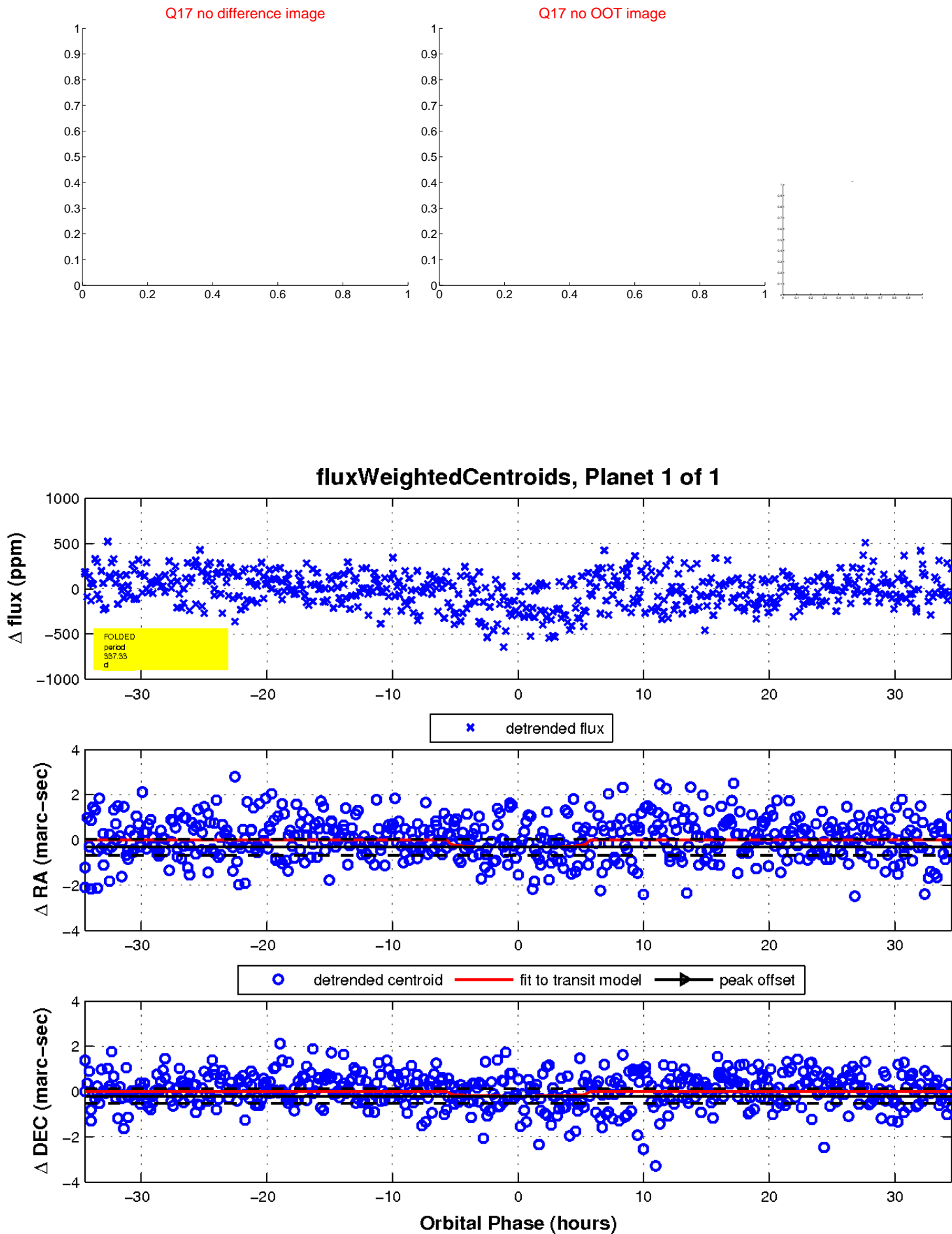
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

Declination

