

KIC 008631697

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})
008631697-01	OBS	No	205.808471	270.466158	133.7	20.904	7.5	7.7	1.01	5584	1.25	2.07

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008631697-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE—LPP_DV—INCONSISTENT_TRANS—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.

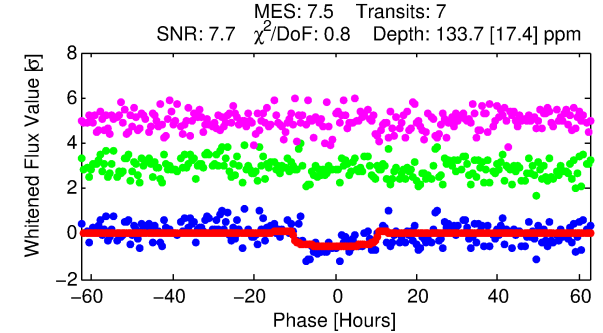
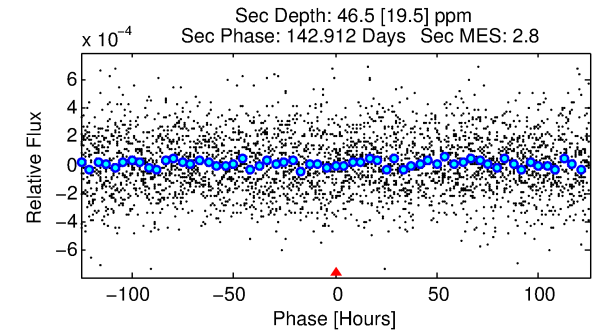
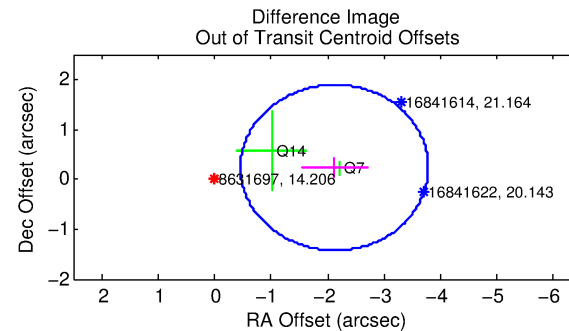
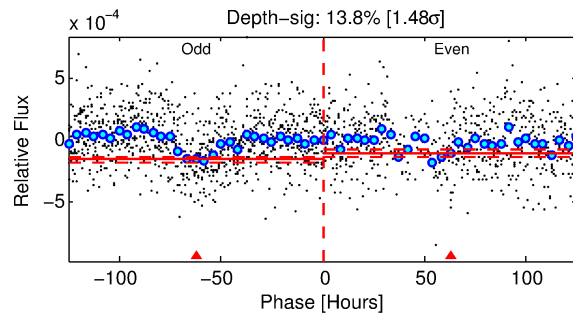
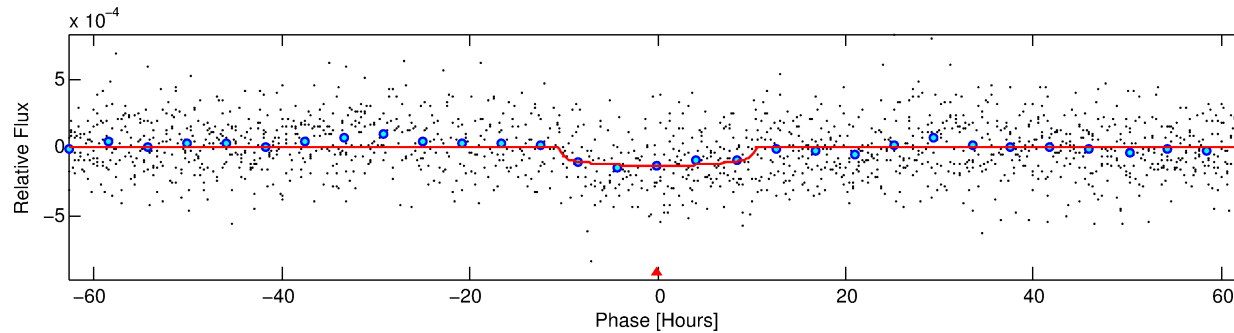
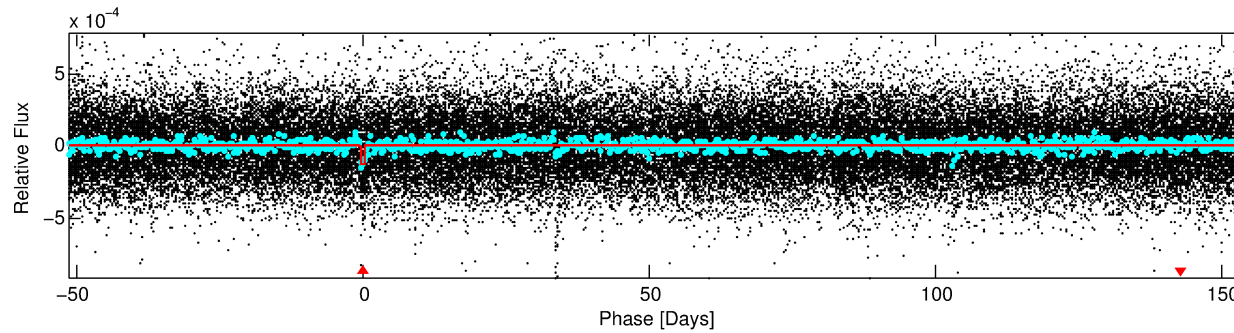
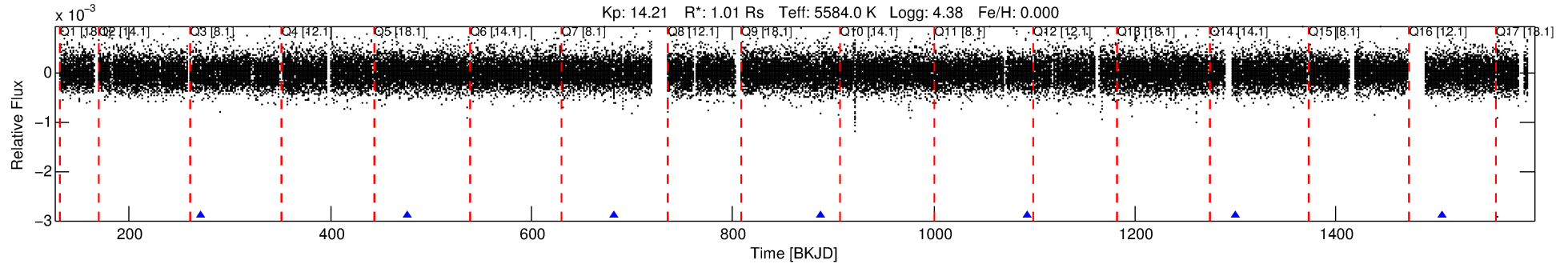
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008631697-01

No Significant Match Found

DV One-Page Summary

KIC: 8631697 Candidate: 1 of 1 Period: 205.808 d



DV Fit Results:

Period = 205.80847 [0.00866] d
Epoch = 270.4662 [0.0327] BKJD
Rp/R* = 0.0113 [0.0058]
a/R* = 55.74 [119.91]
b = 0.69 [1.65]
Seff = 2.07 [0.75]
Teq = 306 [28] K
Rp = 1.24 [0.72] Re
a = 0.6578 [0.1522] AU
Ag = 7138.24 [8256.71] [0.86 σ]
Teff = 4345 [1206] K [3.35 σ]

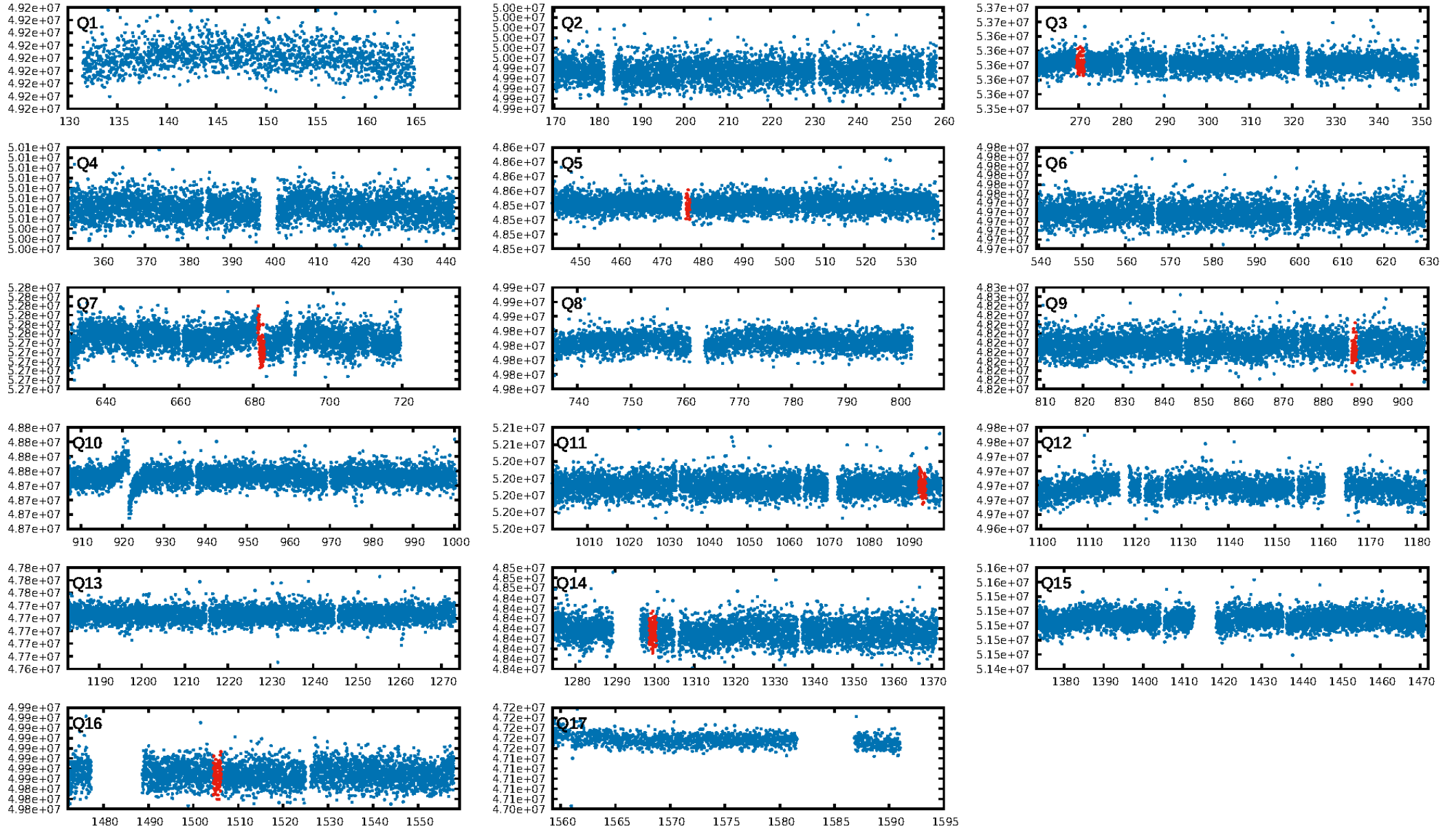
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 1.6%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 3.82e-11
RollingBand-fgt: 1.00 [7/7]
GhostDiagnostic-chr: -4.676
Centroid-sig: 30.7%
Centroid-so: 1.592 arcsec [1.29 σ]
OotOffset-rm: 2.135 arcsec [3.86 σ]
KicOffset-rm: 2.129 arcsec [5.02 σ]
OotOffset-st: 1/1/0/0 [2]
KicOffset-st: 1/1/0/0 [2]
DiffImageQuality-fgm: 1.00 [2/2]
DiffImageOverlap-fno: 1.00 [2/2]

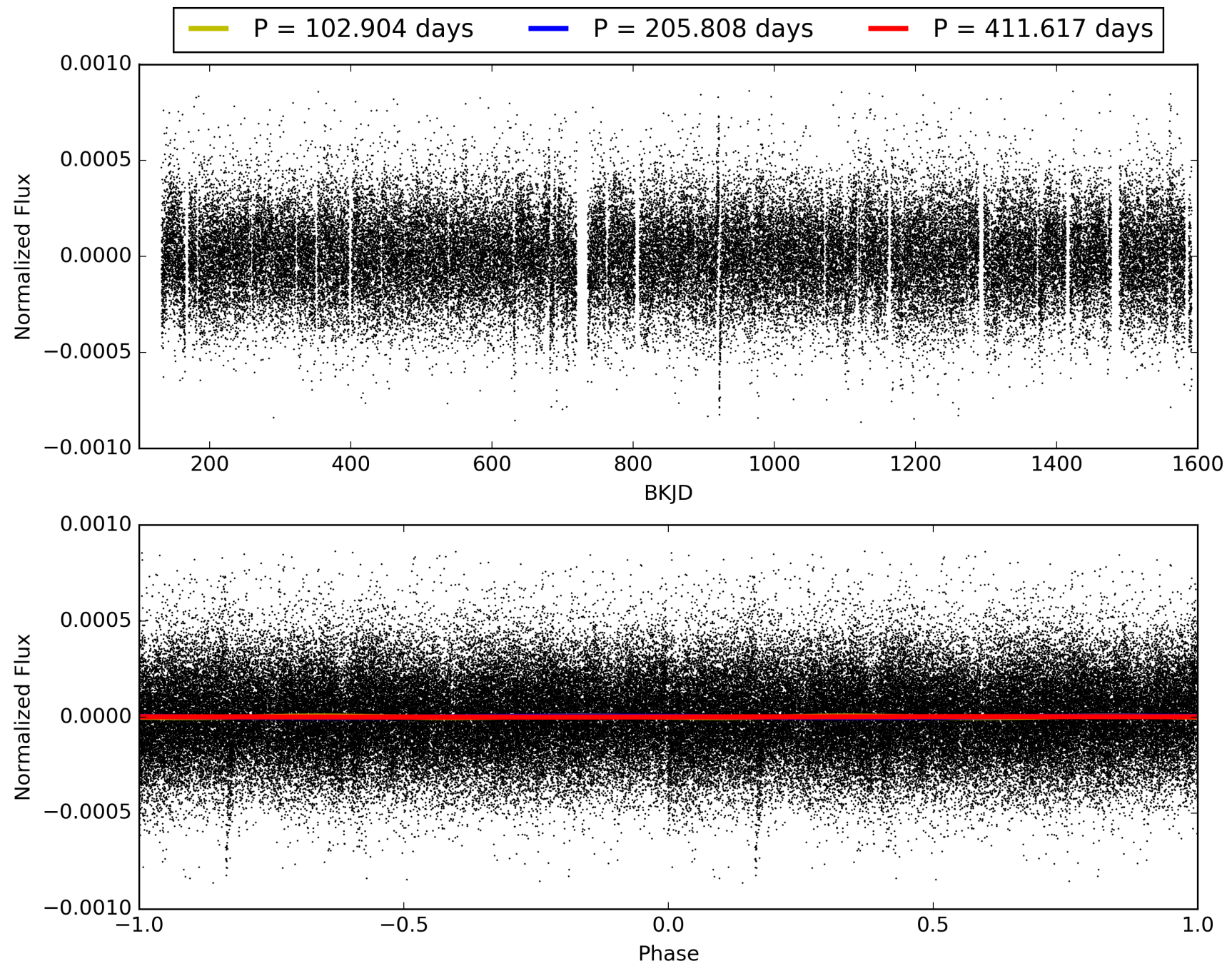
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 15:42:28 Z

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

TCE 008631697-01, PDC Light Curves

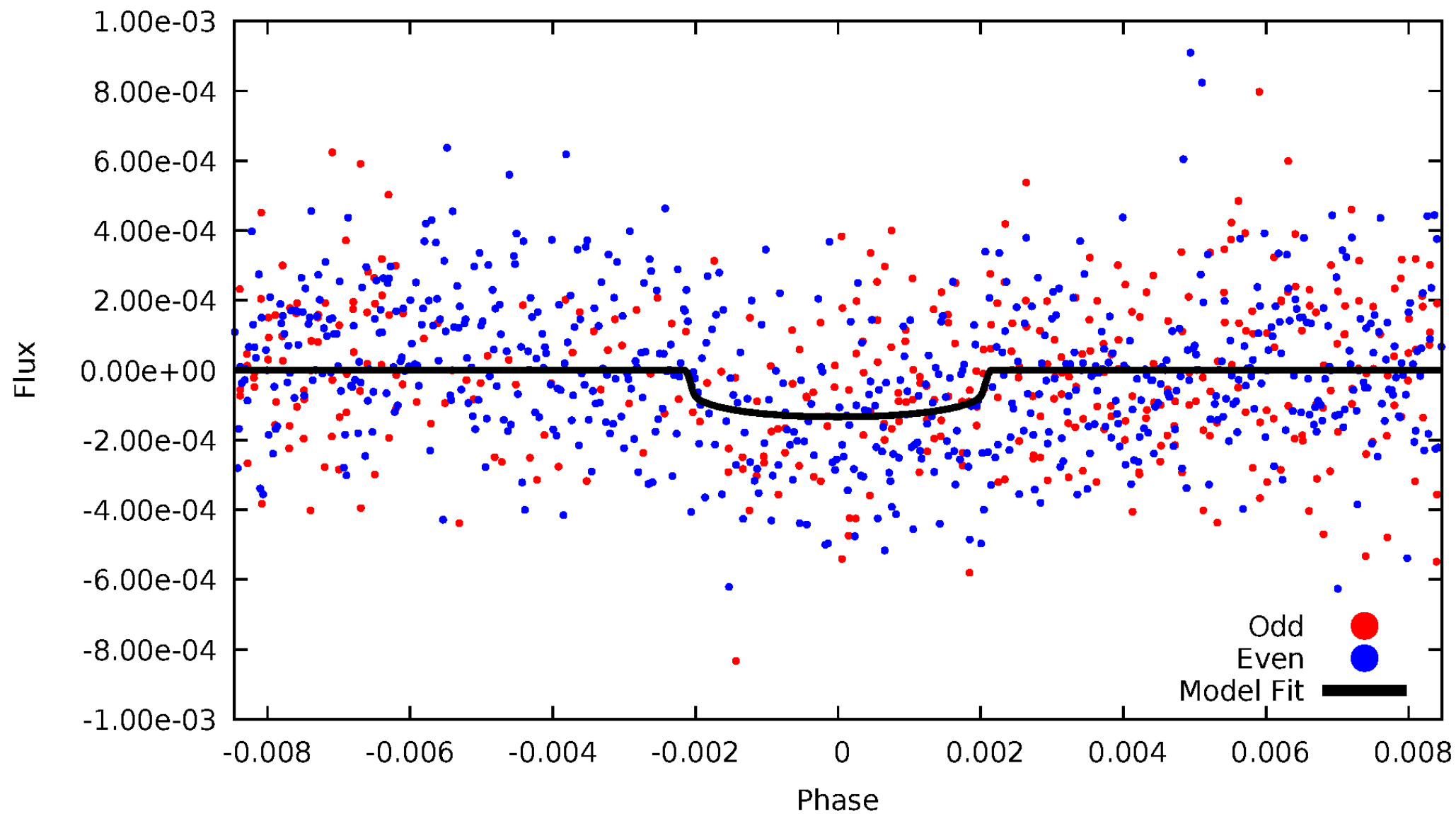


TCE 008631697-01



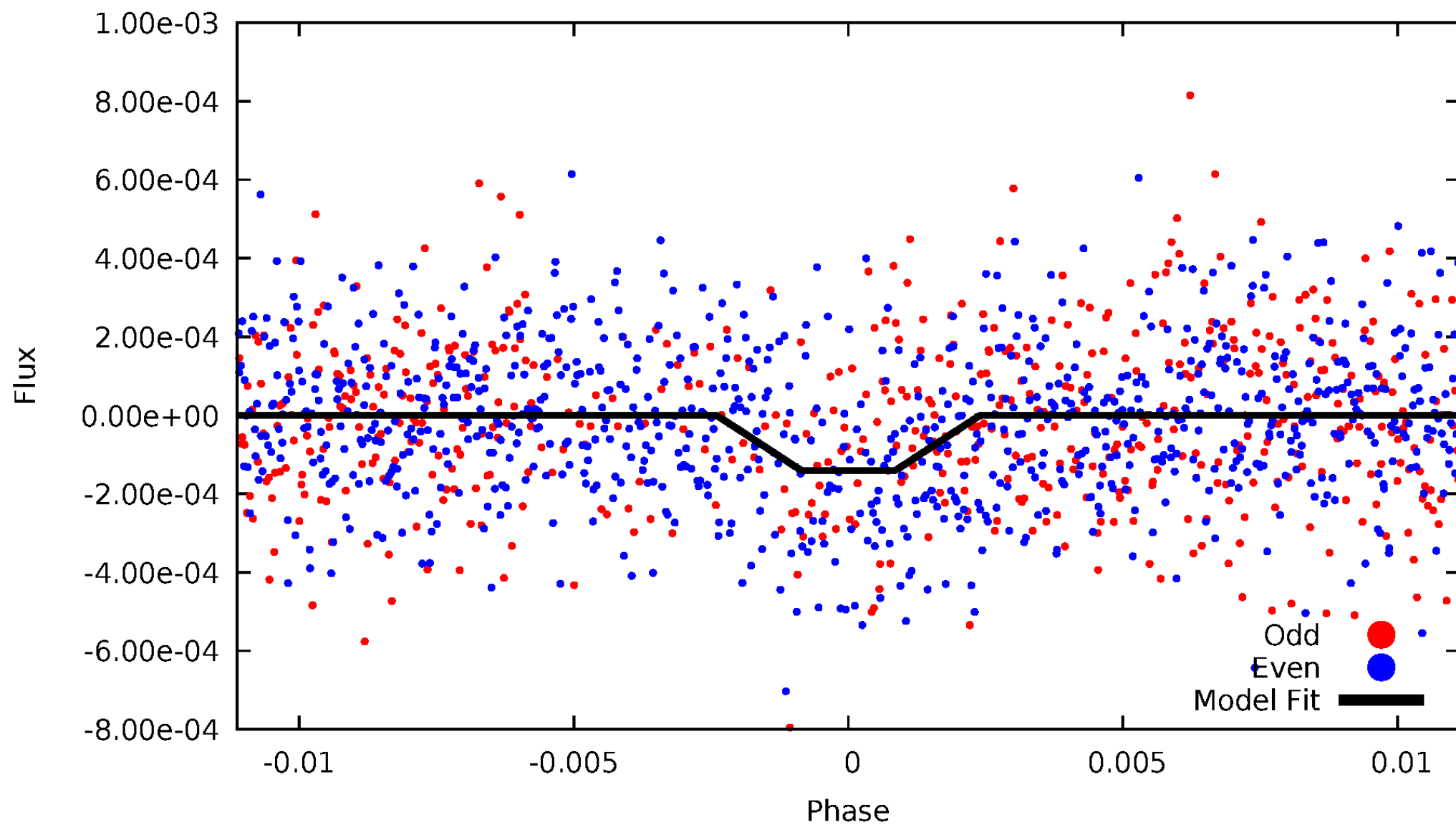
DV Odd/Even

TCE 008631697-01

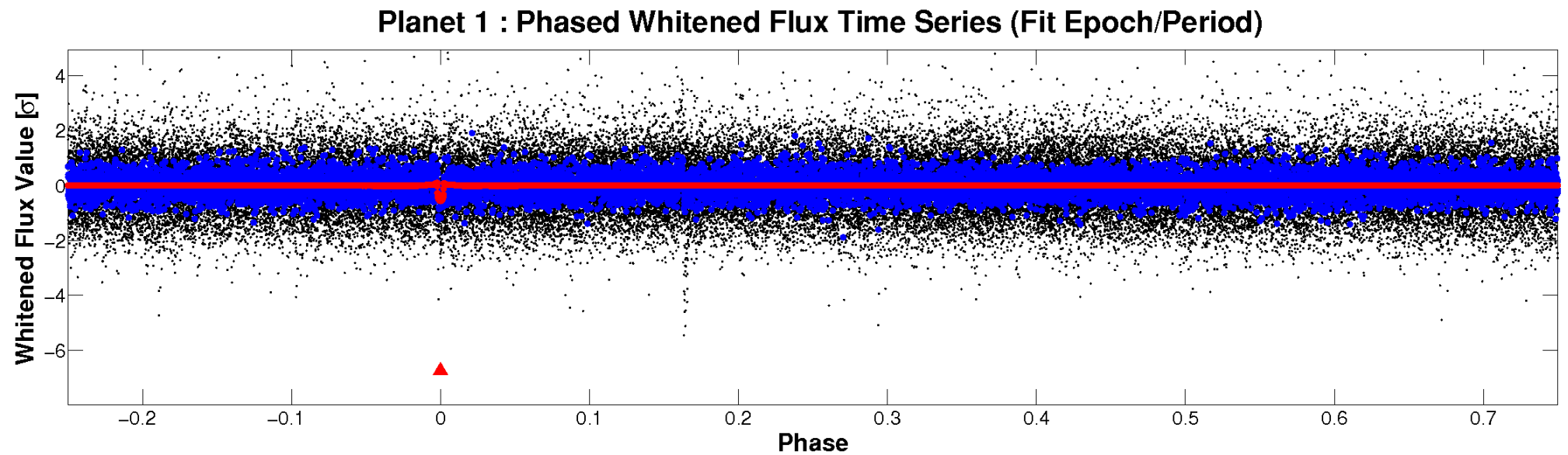
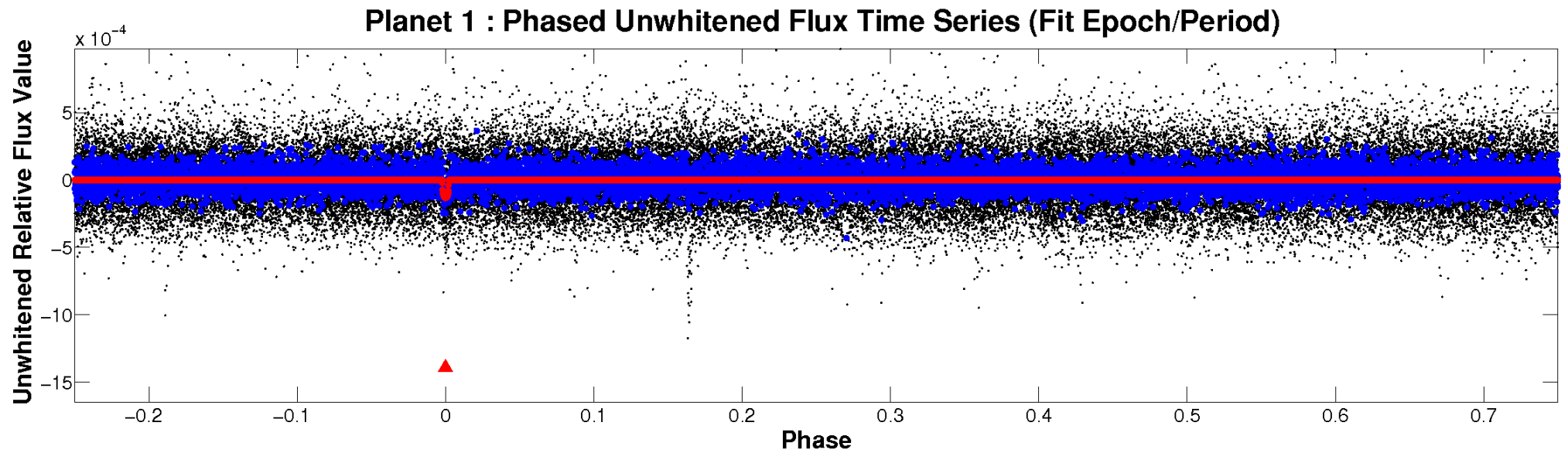


ALT Odd/Even

TCE 008631697-01



Non-Whitened Vs. Whitened Light Curve



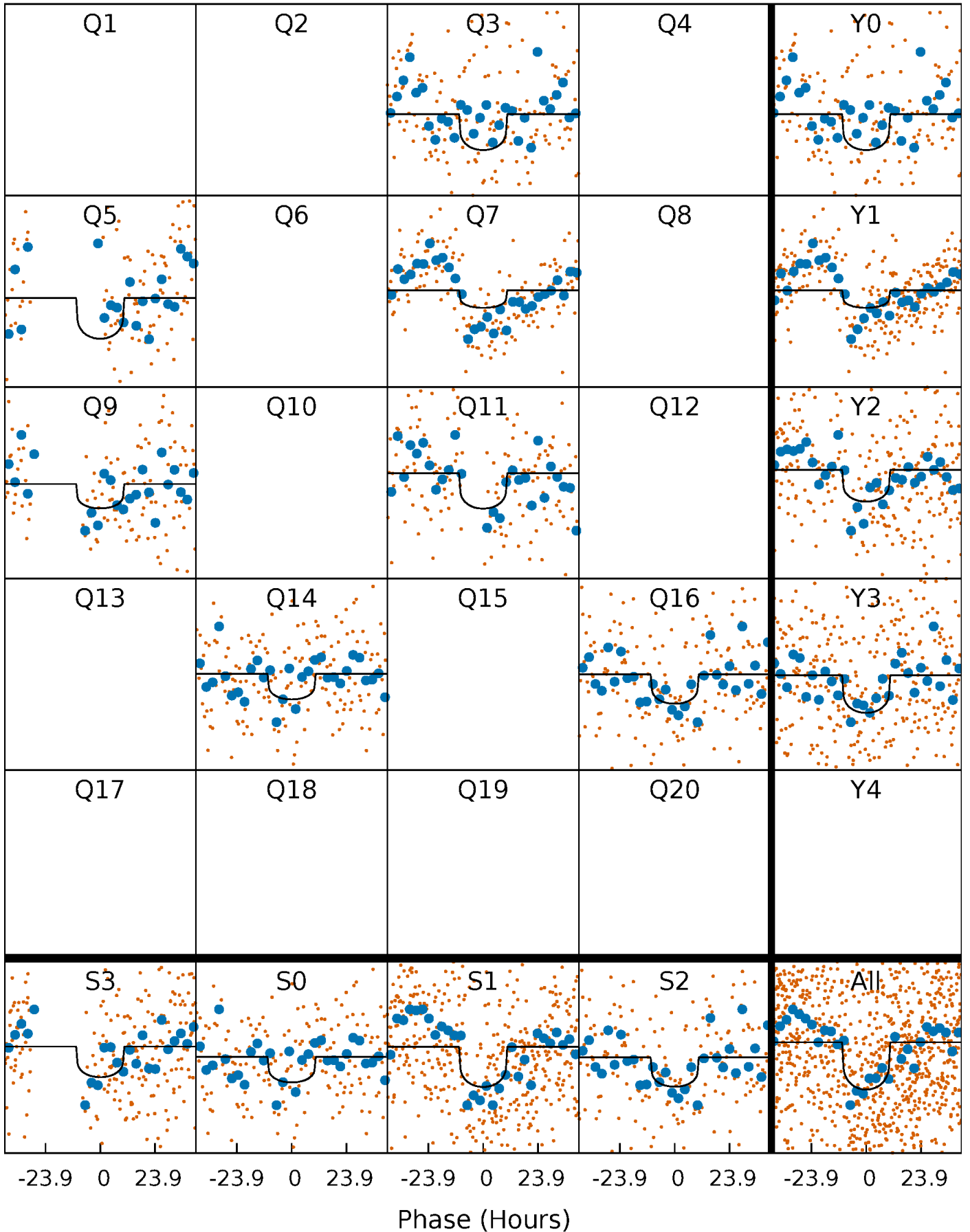
PDC Quarter-Phased Transit Curves

TCE 008631697-01 P=205.808471 Days $T_0=270.466158$ (BKJD)



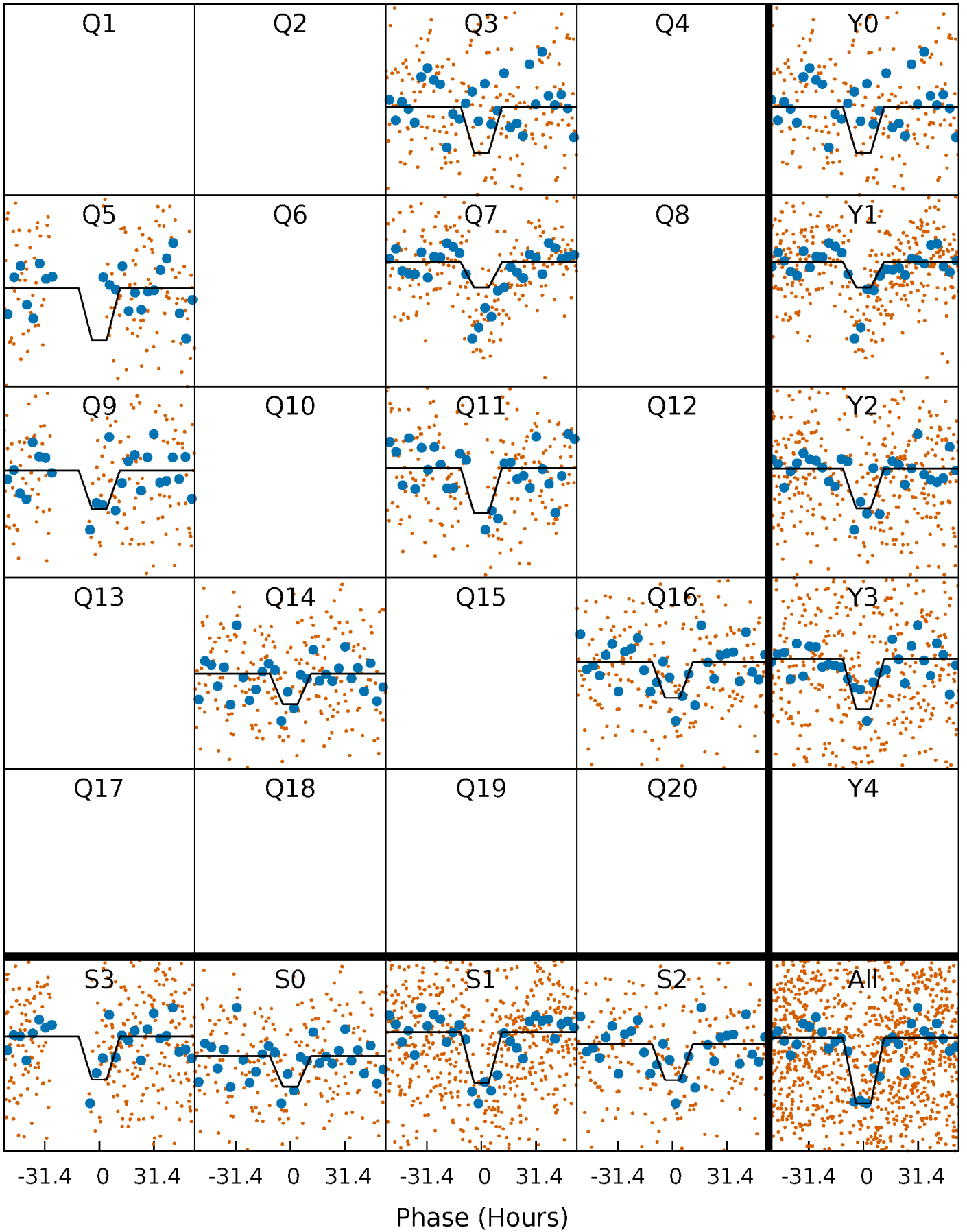
DV Quarter-Phased Transit Curves

TCE 008631697-01 P=205.808471 Days $T_0=270.466158$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

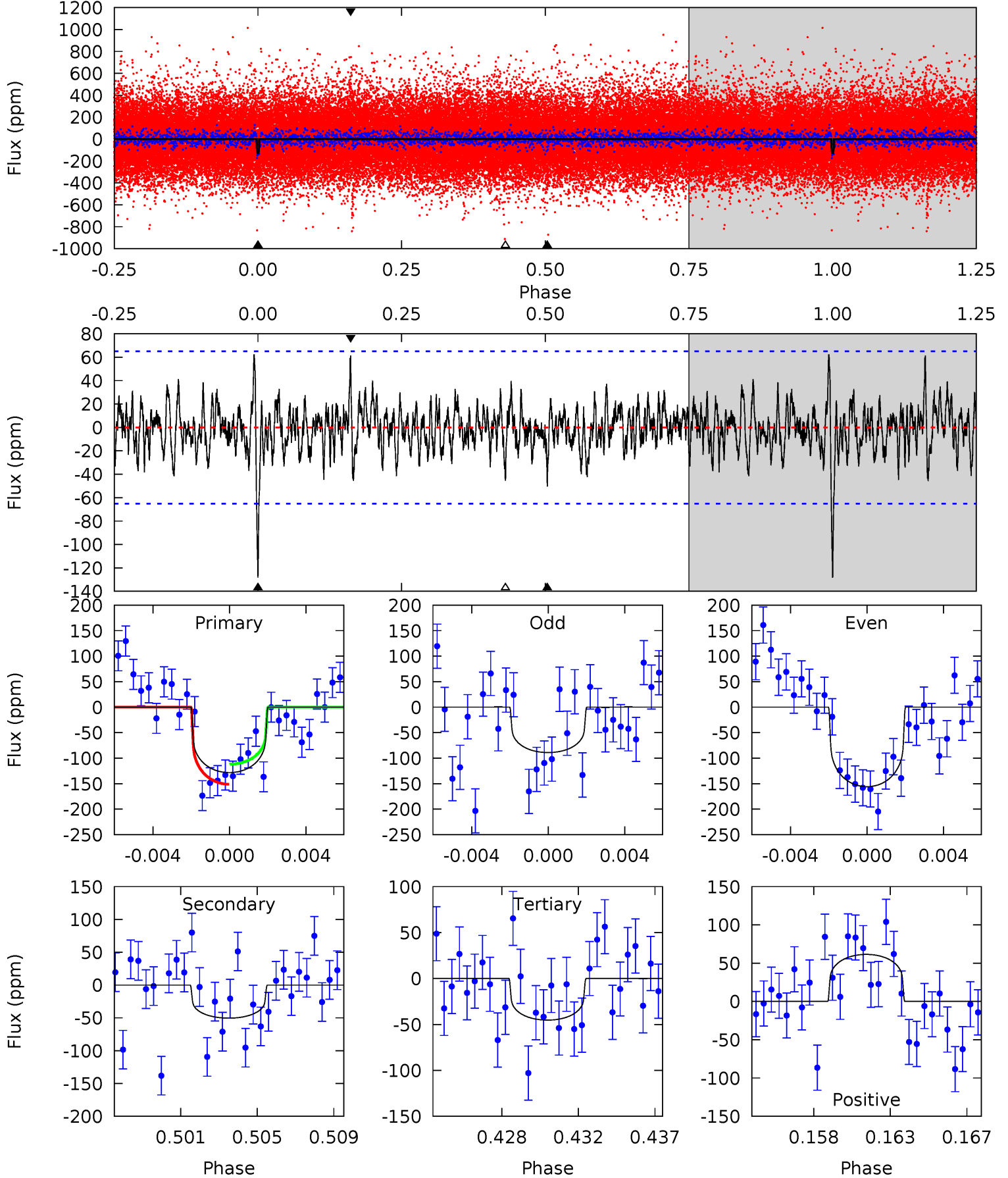
TCE 008631697-01 P=205.813627 Days $T_0=270.374827$ (BKJD)



DV Model-Shift Uniqueness Test

008631697-01, P = 205.808471 Days, E = 64.657687 Days

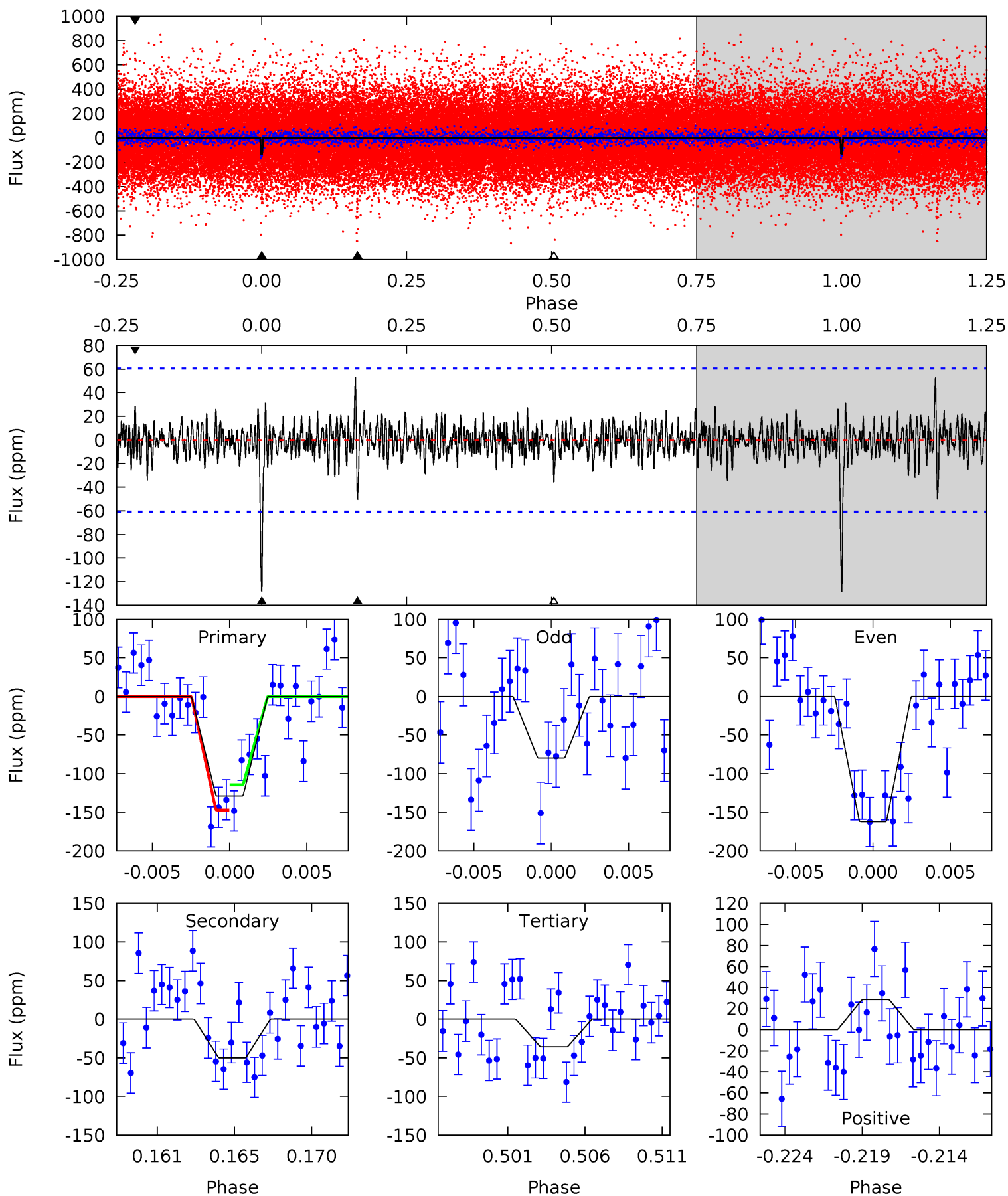
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.2	4.02	3.61	4.90	5.19	2.86	1.22	6.61	5.32	0.40	-0.88	2.61	0.97	0.33	1.54



Alt Model-Shift Uniqueness Test

008631697-01, $P = 205.813627$ Days, $E = 64.561200$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.0	4.25	3.04	2.44	5.16	2.82	0.88	7.91	8.52	1.21	1.81	3.39	1.08	0.29	1.38



Stellar Parameters For KIC 008631697

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5584^{+166}_{-149}	$4.379^{+0.144}_{-0.192}$	$0.000^{+0.250}_{-0.300}$	$1.013^{+0.271}_{-0.158}$	$0.896^{+0.111}_{-0.074}$	$1.215^{+0.737}_{-0.585}$
	+3%/-3%	+3%/-4%	+inf%/-inf%	+27%/-16%	+12%/-8%	+61%/-48%
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 008631697-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-50 ± 13	$1.30^{+0.67}_{-0.61}$	428^{+31}_{-25}	4542^{+1468}_{-680}	7147^{+19448}_{-4278}
Alt.	-50 ± 12	$1.33^{+0.69}_{-0.62}$	429^{+34}_{-25}	4495^{+1395}_{-660}	6777^{+18315}_{-3917}

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

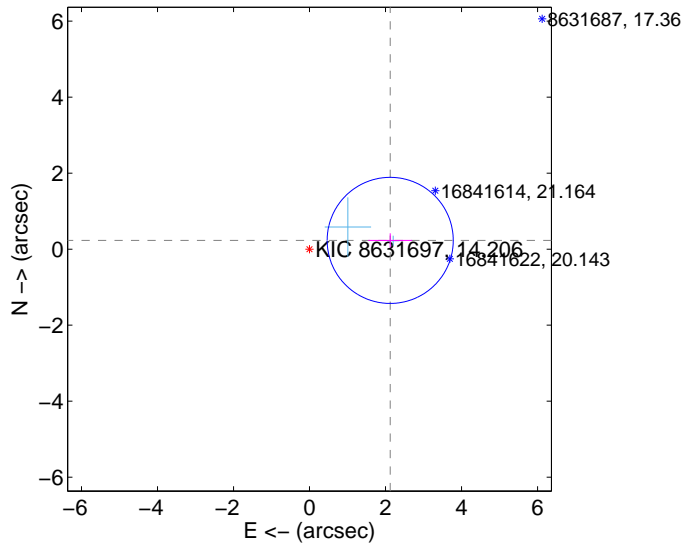
Supplemental centroid analysis for 008631697-01. Kepler magnitude: 14.21. Transit SNR 7.68

There are 2 quarters with good PRF difference image offsets

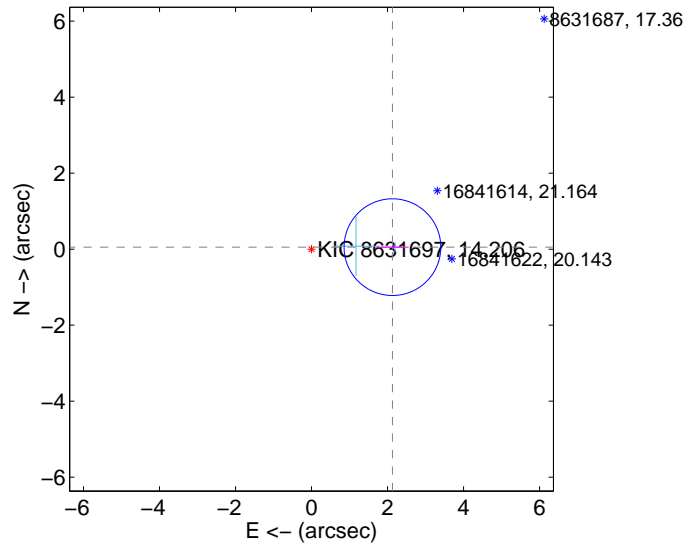
The direct PRF centroid is offset from the target star catalog position by about 0.53 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.135 ± 0.553	3.86	-2.123 ± 0.575	0.231 ± 0.185
PRF-fit source offset from KIC position	2.129 ± 0.424	5.02	-2.129 ± 0.424	0.053 ± 0.067
photometric centroid source offset	1.59 ± 1.24	1.29	-1.57 ± 1.23	0.28 ± 1.38

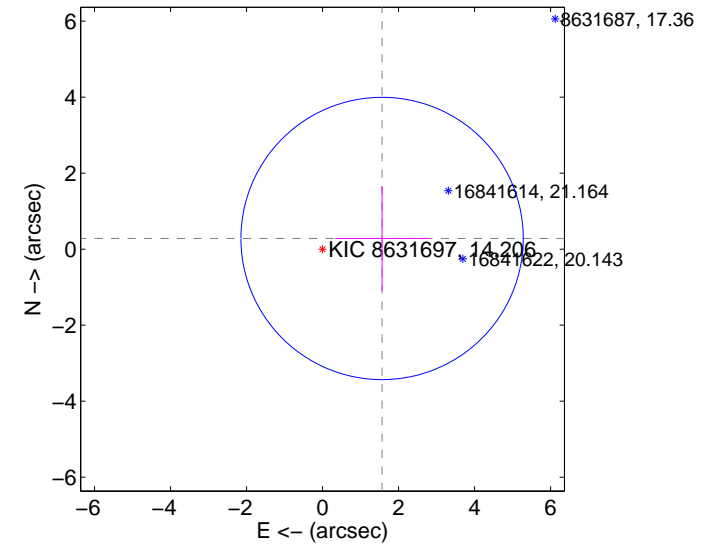
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position



offset from photometric centroids

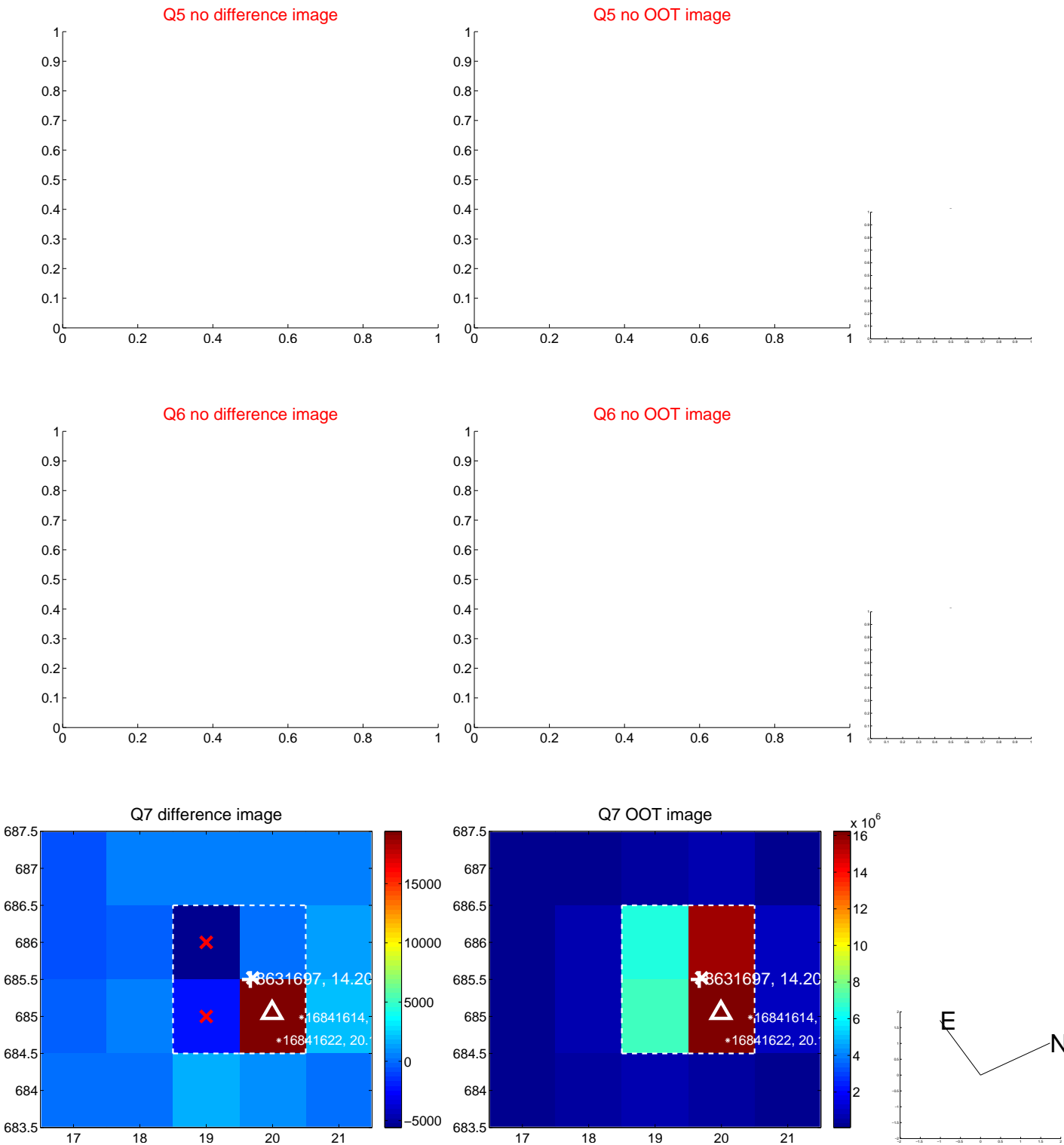


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

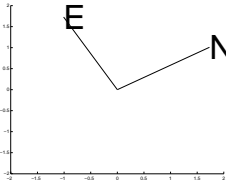
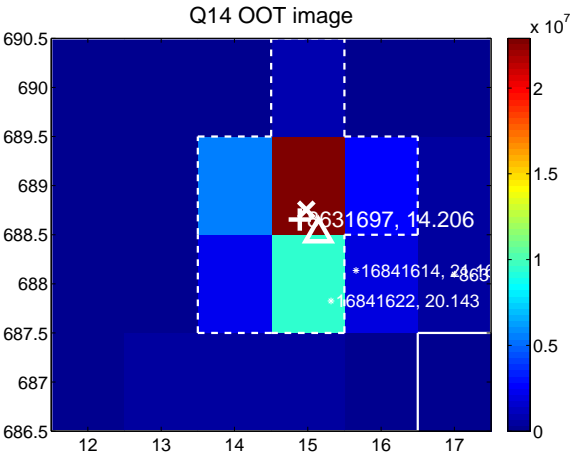
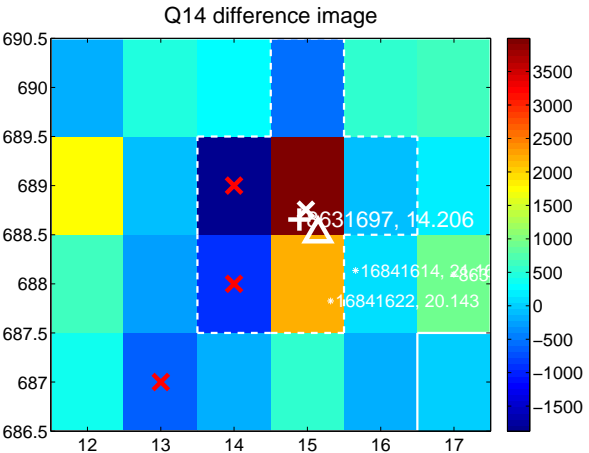


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.

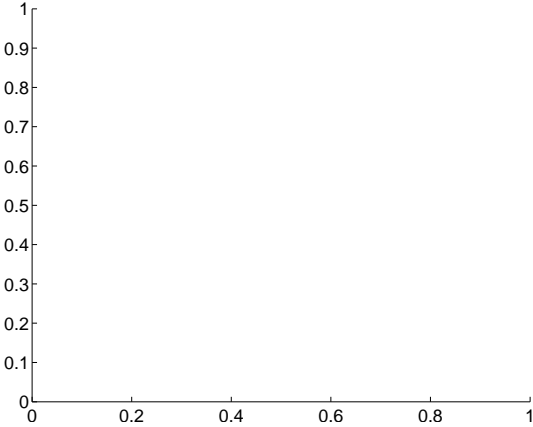
Q13 no difference image



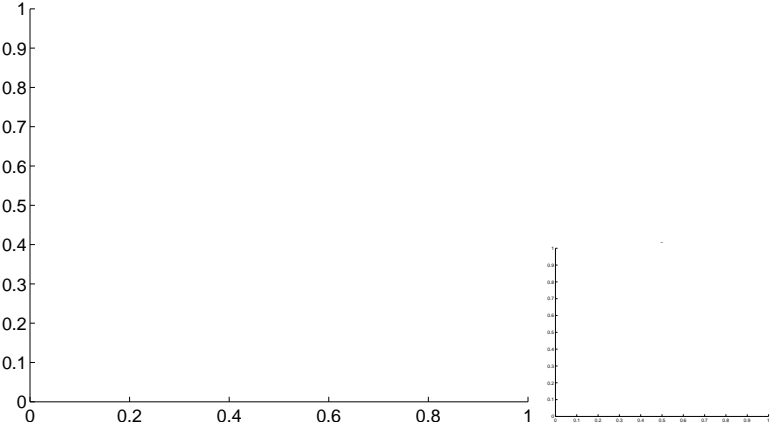
Q13 no OOT image



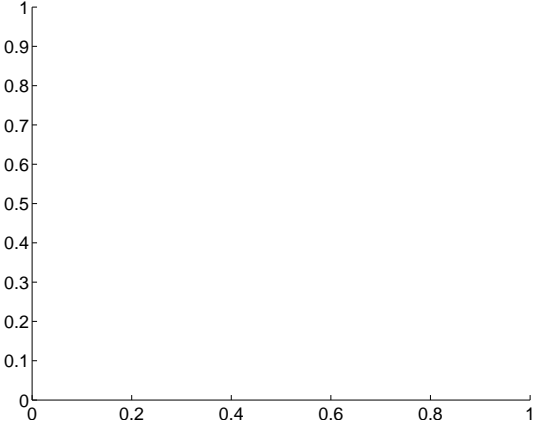
Q15 no difference image



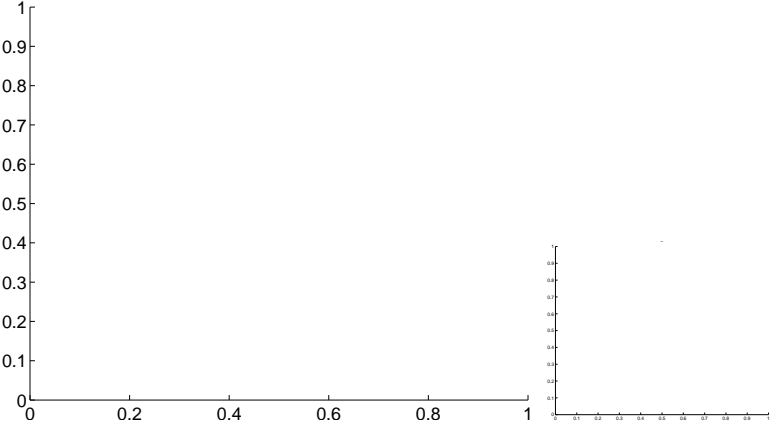
Q15 no OOT image



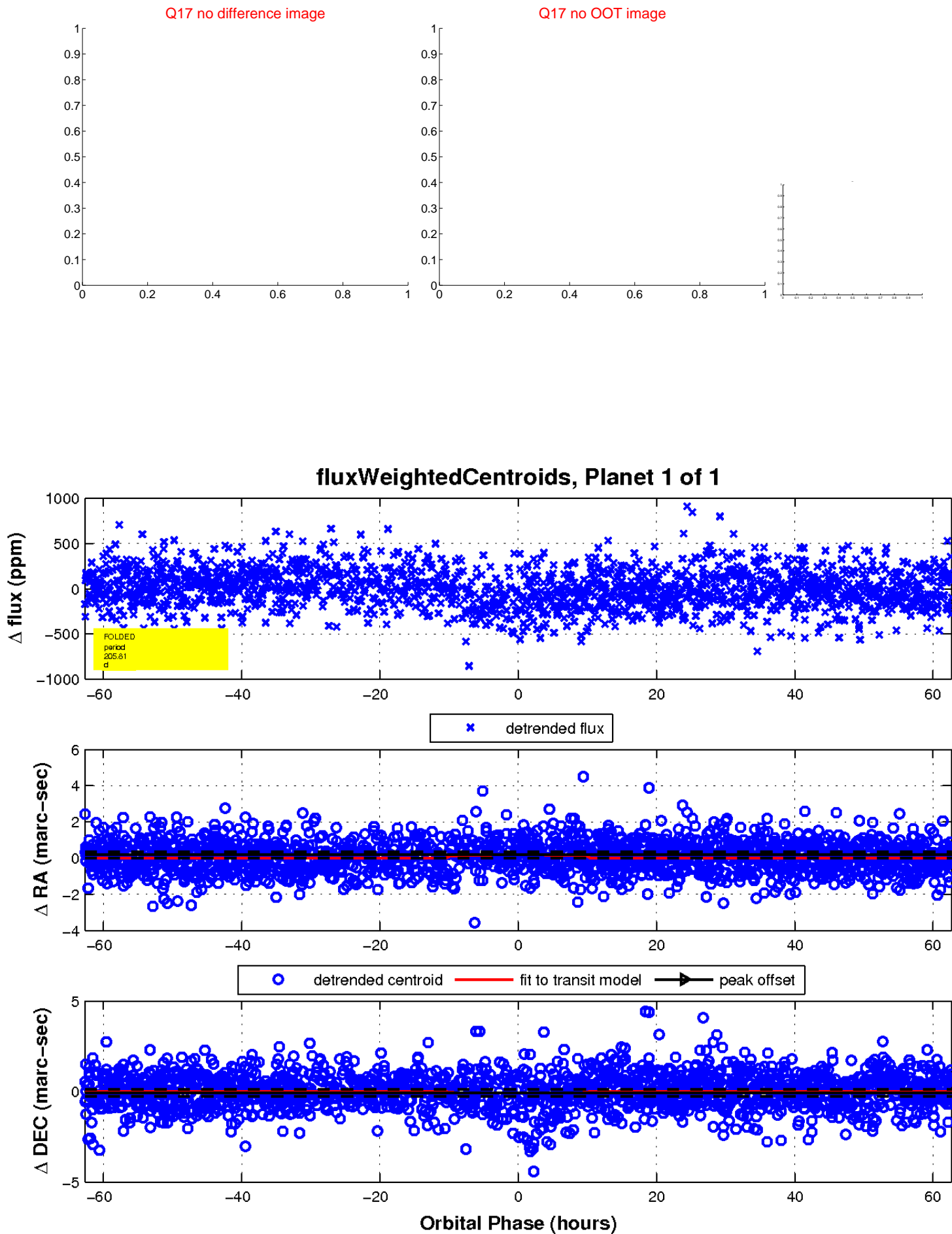
Q16 no difference image



Q16 no OOT image



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



UKIRT Image

Declination

