

KIC 006314137

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})
006314137-01	OBS	No	438.400019	357.371267	98.0	8.452	9.3	7.1	1.33	6391	1.47	1.96

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006314137-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS—CENT_SATURATED

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

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

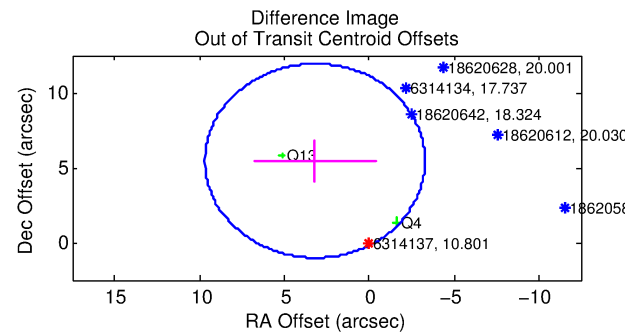
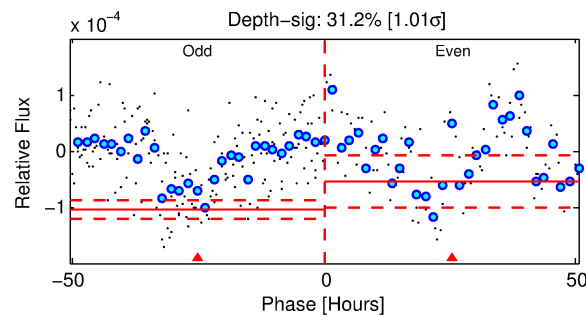
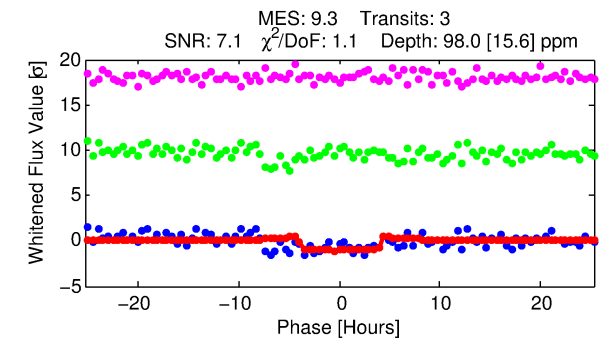
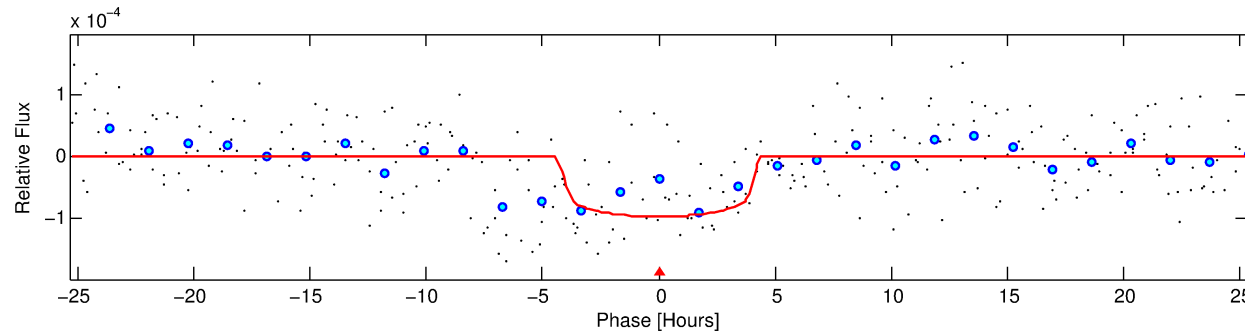
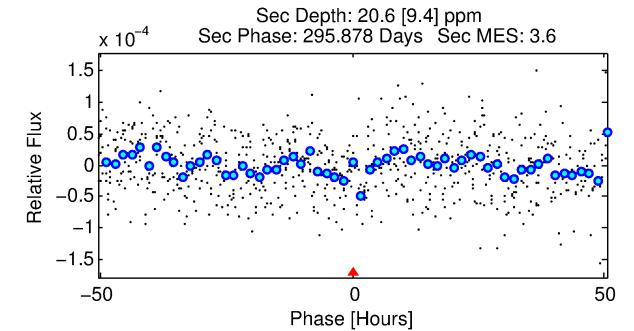
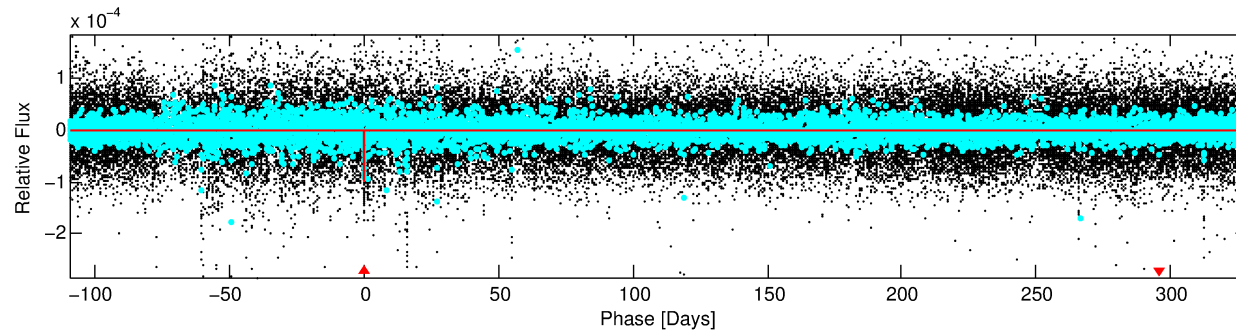
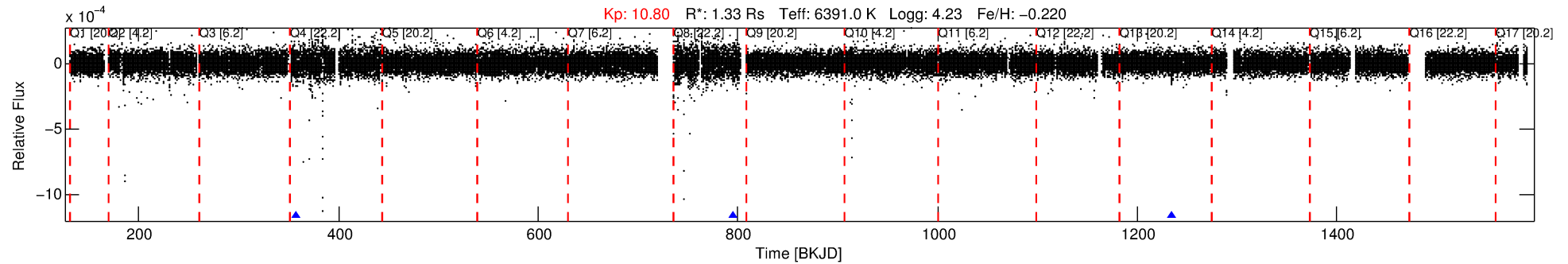
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006314137-01

No Significant Match Found

DV One-Page Summary

KIC: 6314137 Candidate: 1 of 1 Period: 438.400 d



DV Fit Results:

Period = 438.40002 [0.00873] d
Epoch = 357.3713 [0.0125] BKJD
Rp/R* = 0.0101 [0.0040]
a/R* = 231.20 [482.97]
b = 0.82 [0.82]
Seff = 1.96 [0.56]
Teff = 302 [22] K
Rp = 1.47 [0.66] Re
a = 1.1622 [0.2103] AU
Ag = 7072.03 [6703.75] [1.05σ]
Teffp = 4280 [981] K [4.05σ]

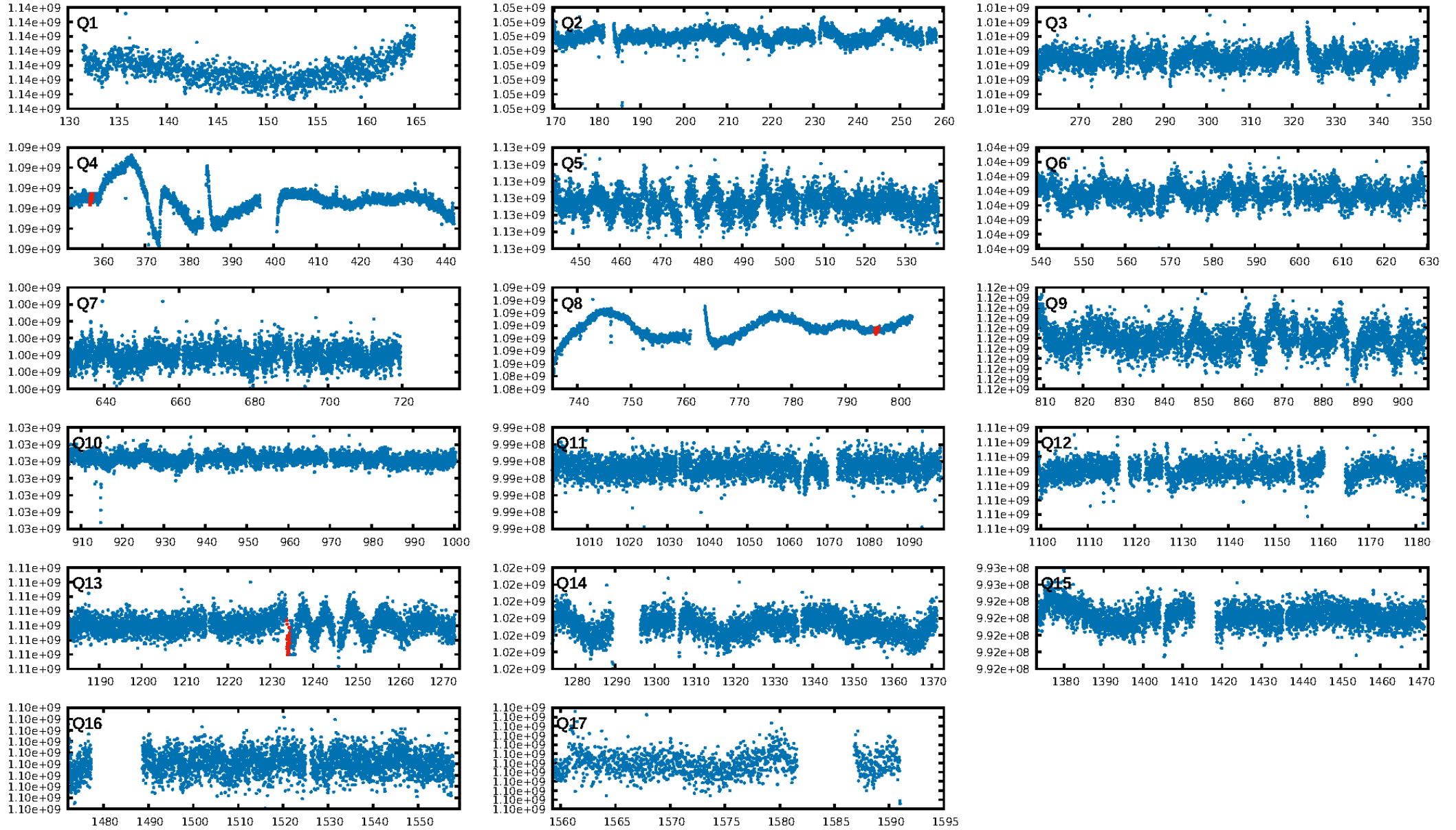
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 12.1%
ModelChiSquareGof-sig: 99.7%
Bootstrap-pfa: 7.47e-10
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -13.8
Centroid-sig: 1.2%
Centroid-so: 3.234 arcsec [1.68σ]
OotOffset-rm: 6.323 arcsec [2.93σ]
KicOffset-rm: 6.212 arcsec [3.04σ]
OotOffset-st: 0/0/1/1 [2]
KicOffset-st: 0/0/1/1 [2]
DiffImageQuality-fgm: 0.50 [1/2]
DiffImageOverlap-fno: 1.00 [3/3]

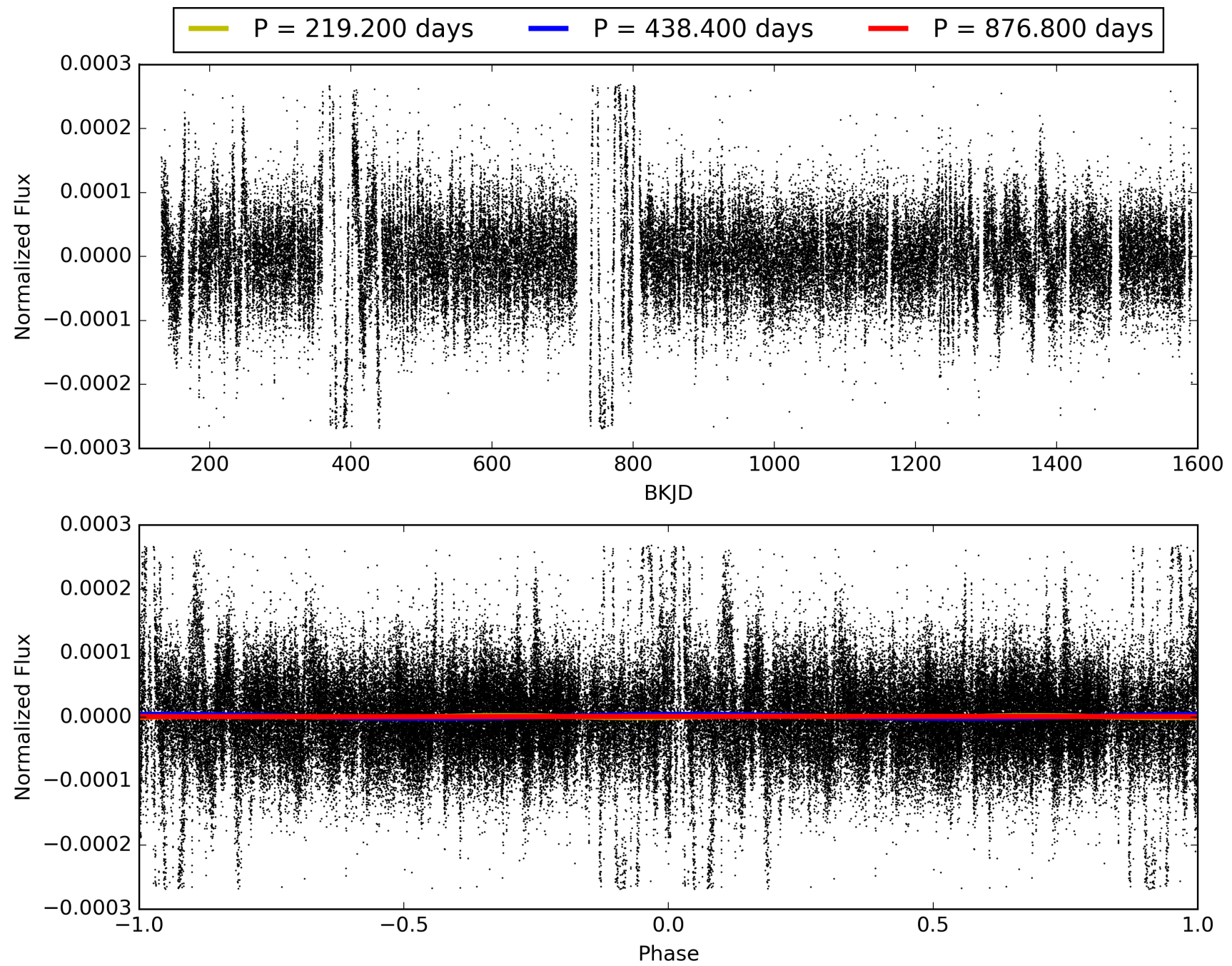
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 01:28:21 Z

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

TCE 006314137-01, PDC Light Curves

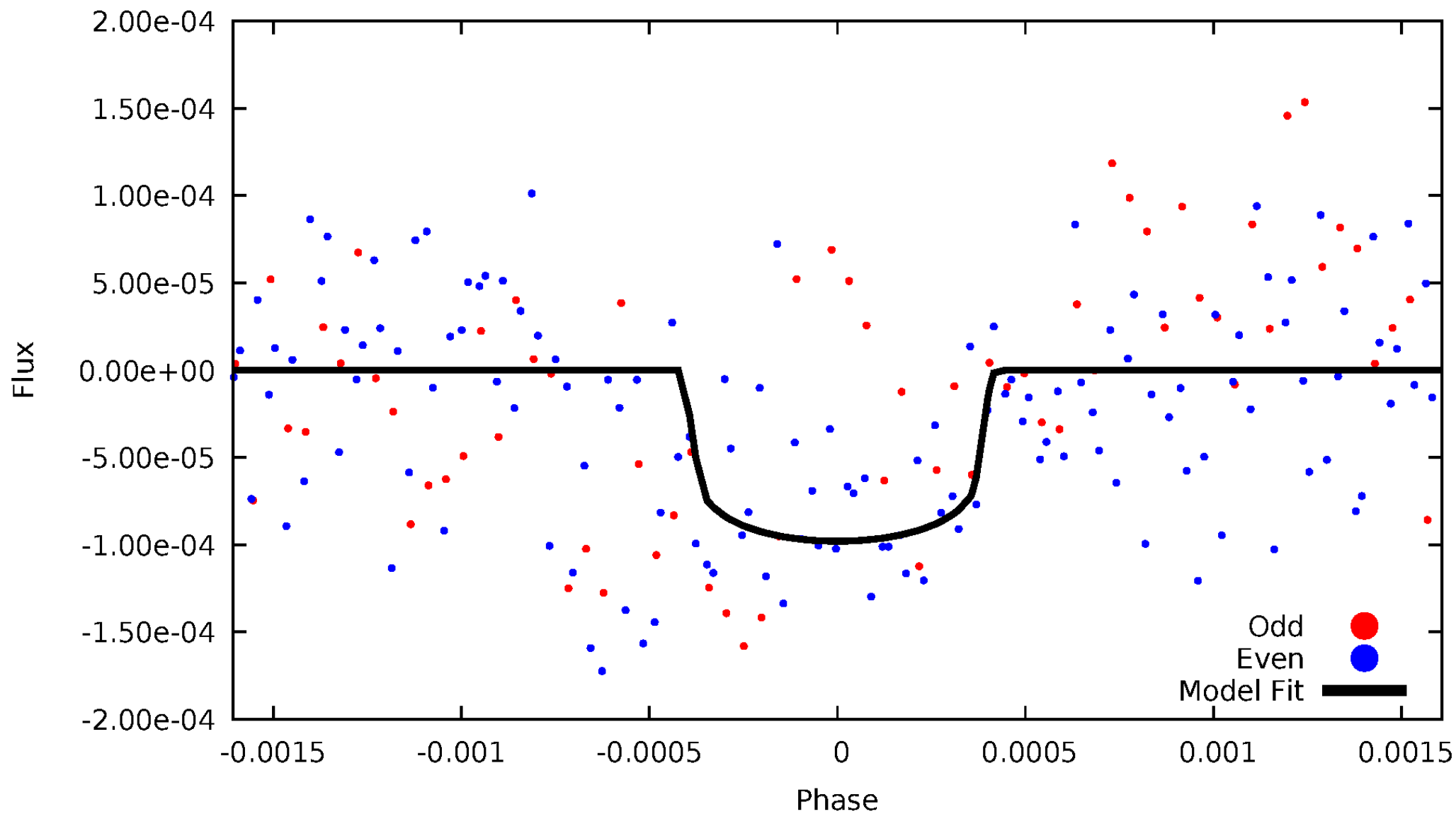


TCE 006314137-01



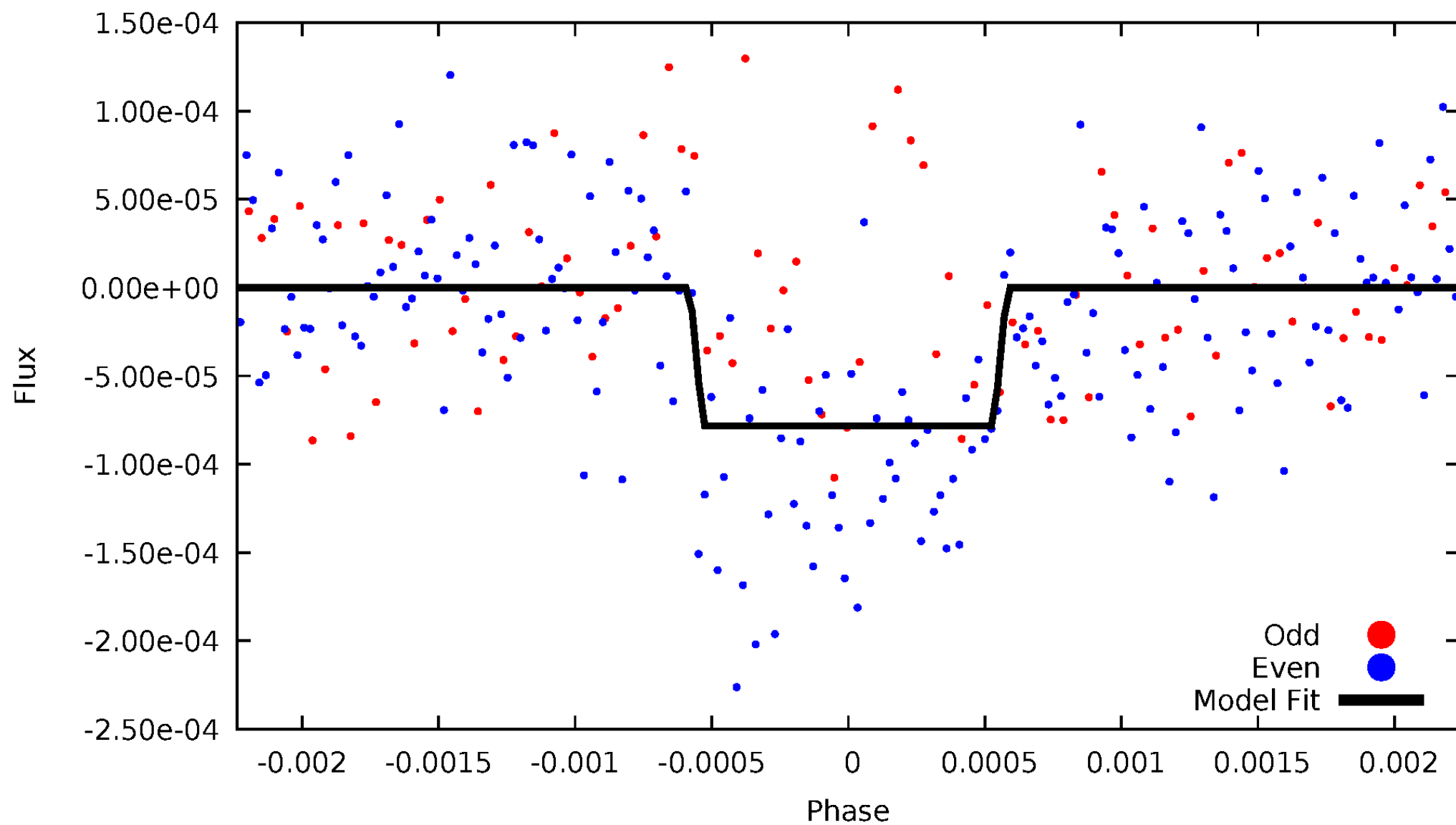
DV Odd/Even

TCE 006314137-01

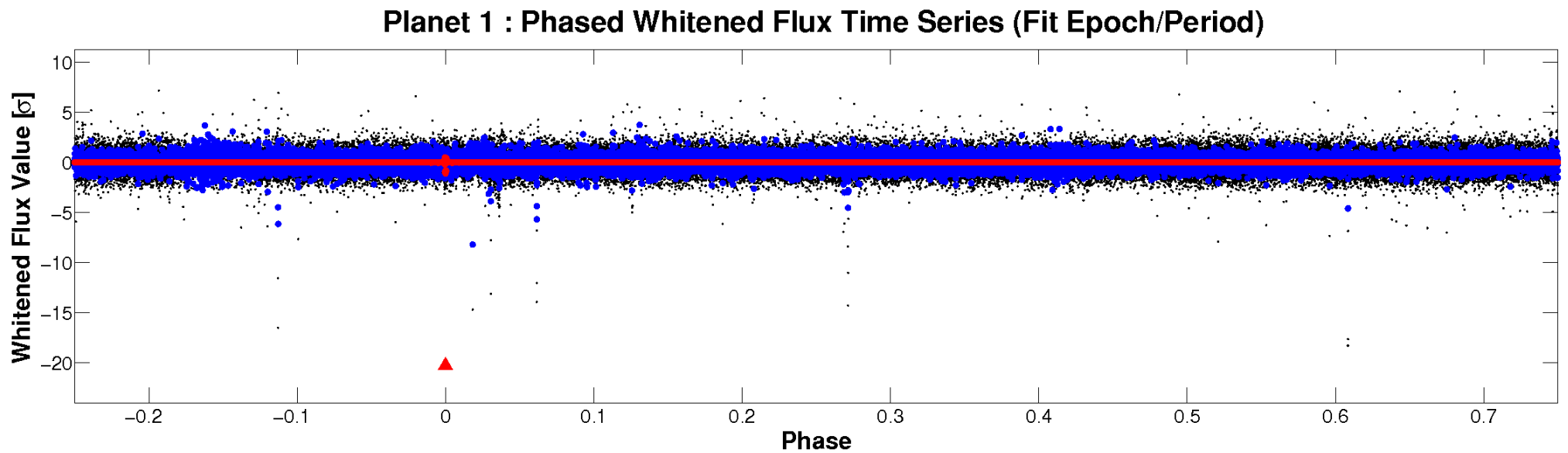
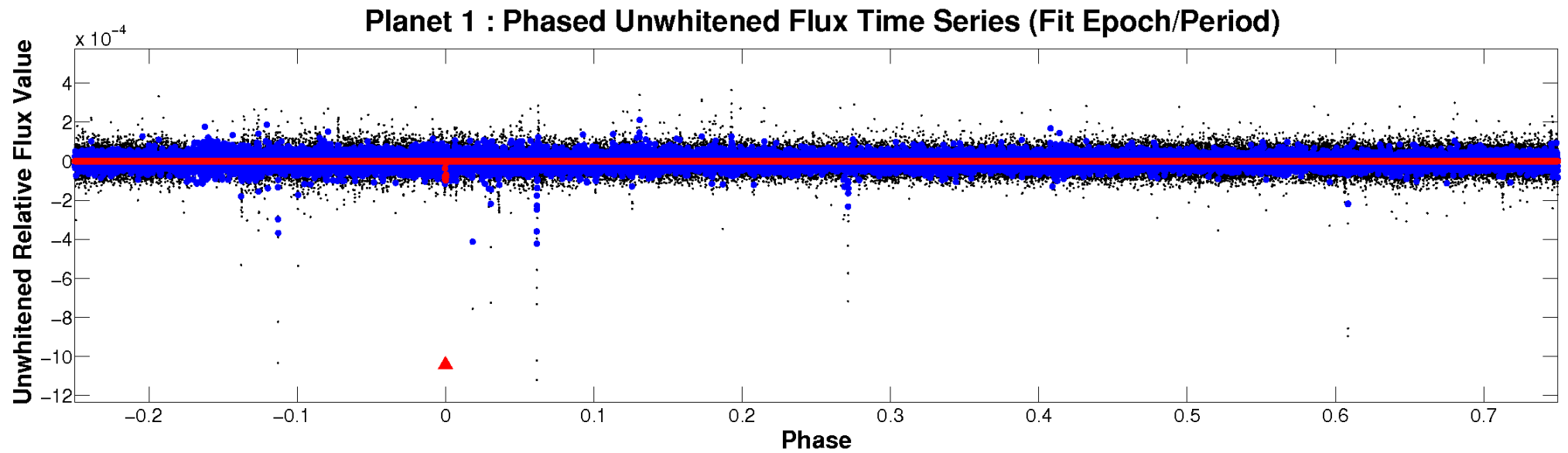


ALT Odd/Even

TCE 006314137-01

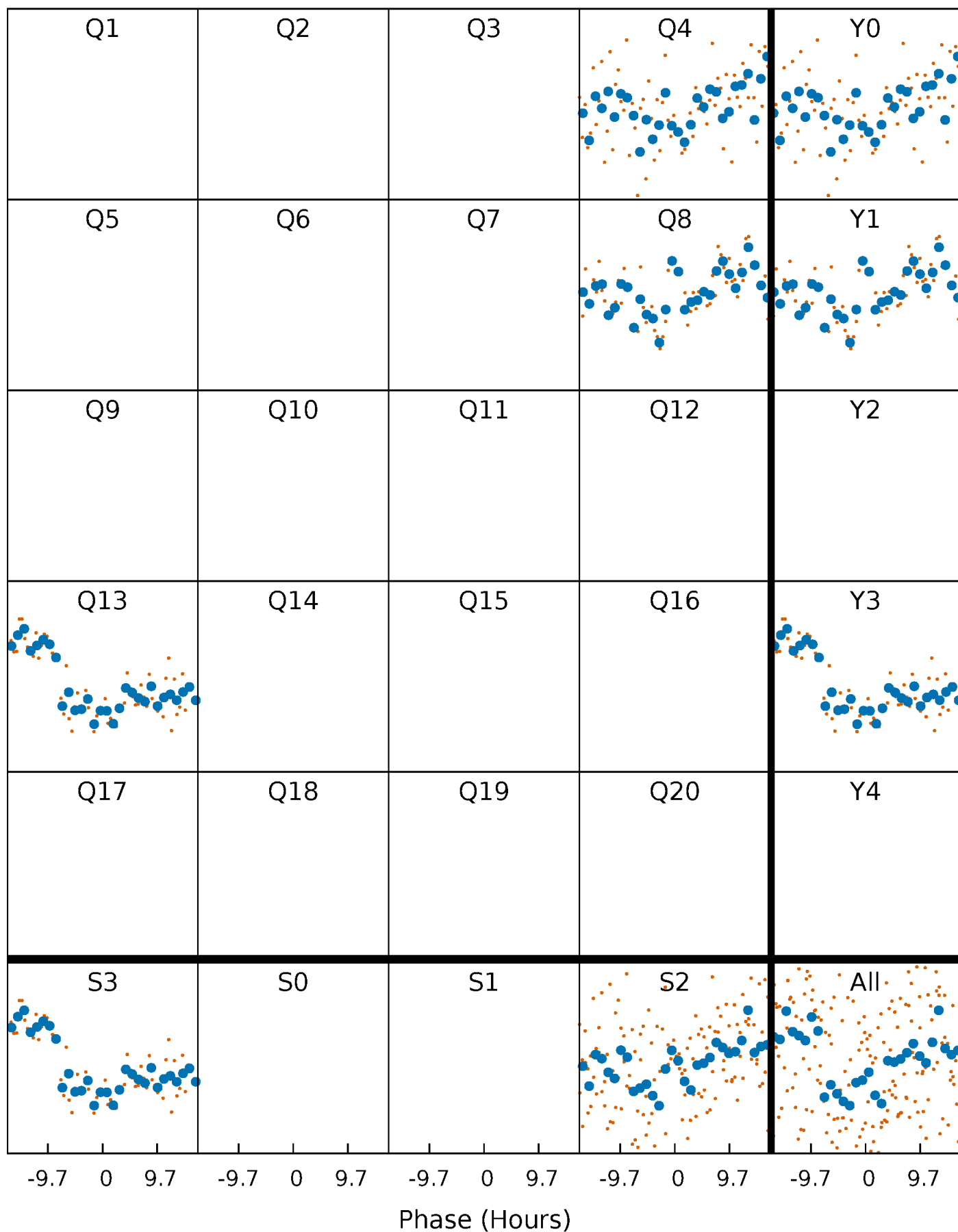


Non-Whitened Vs. Whitened Light Curve



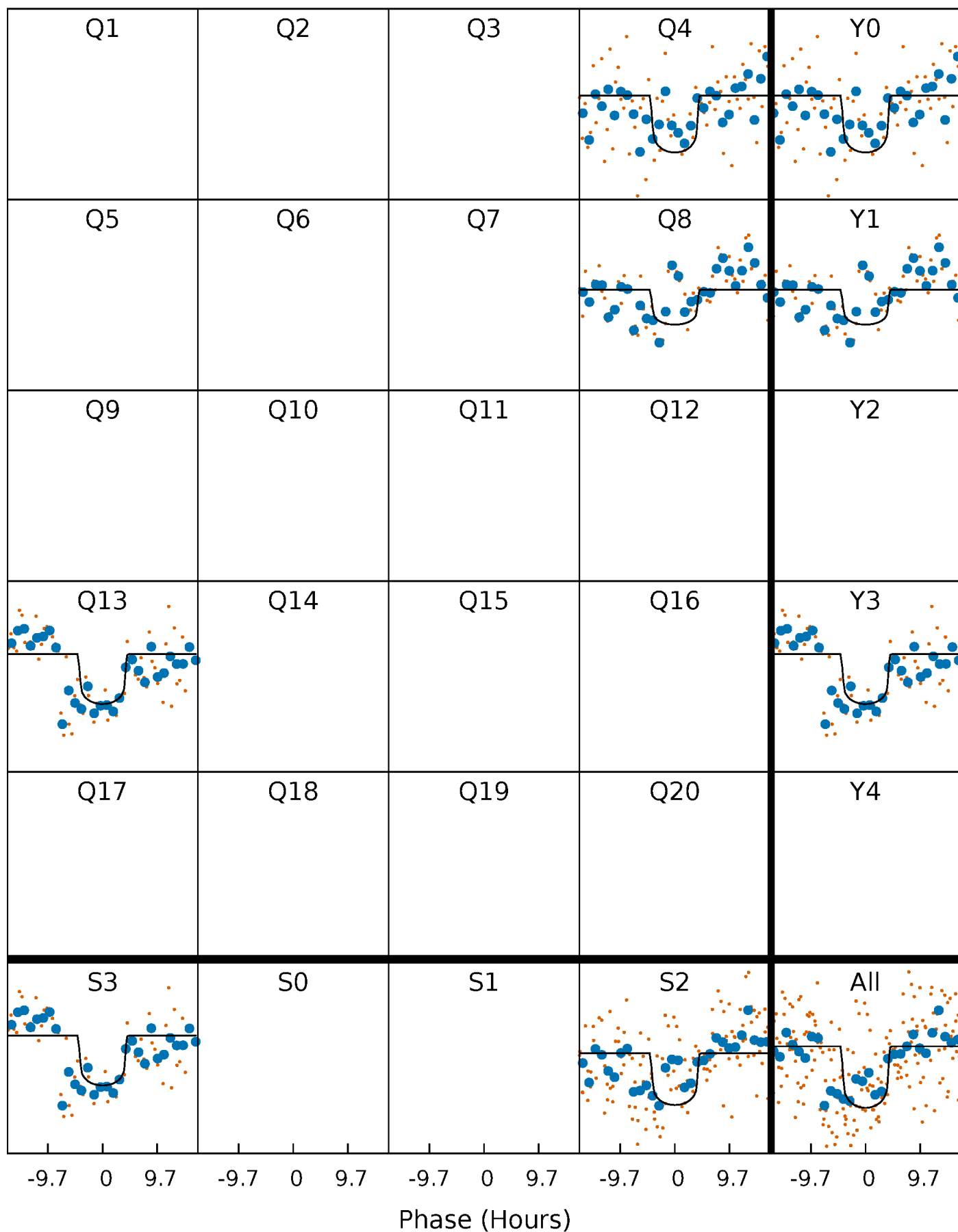
PDC Quarter-Phased Transit Curves

TCE 006314137-01 P=438.400019 Days $T_0=357.371267$ (BKJD)



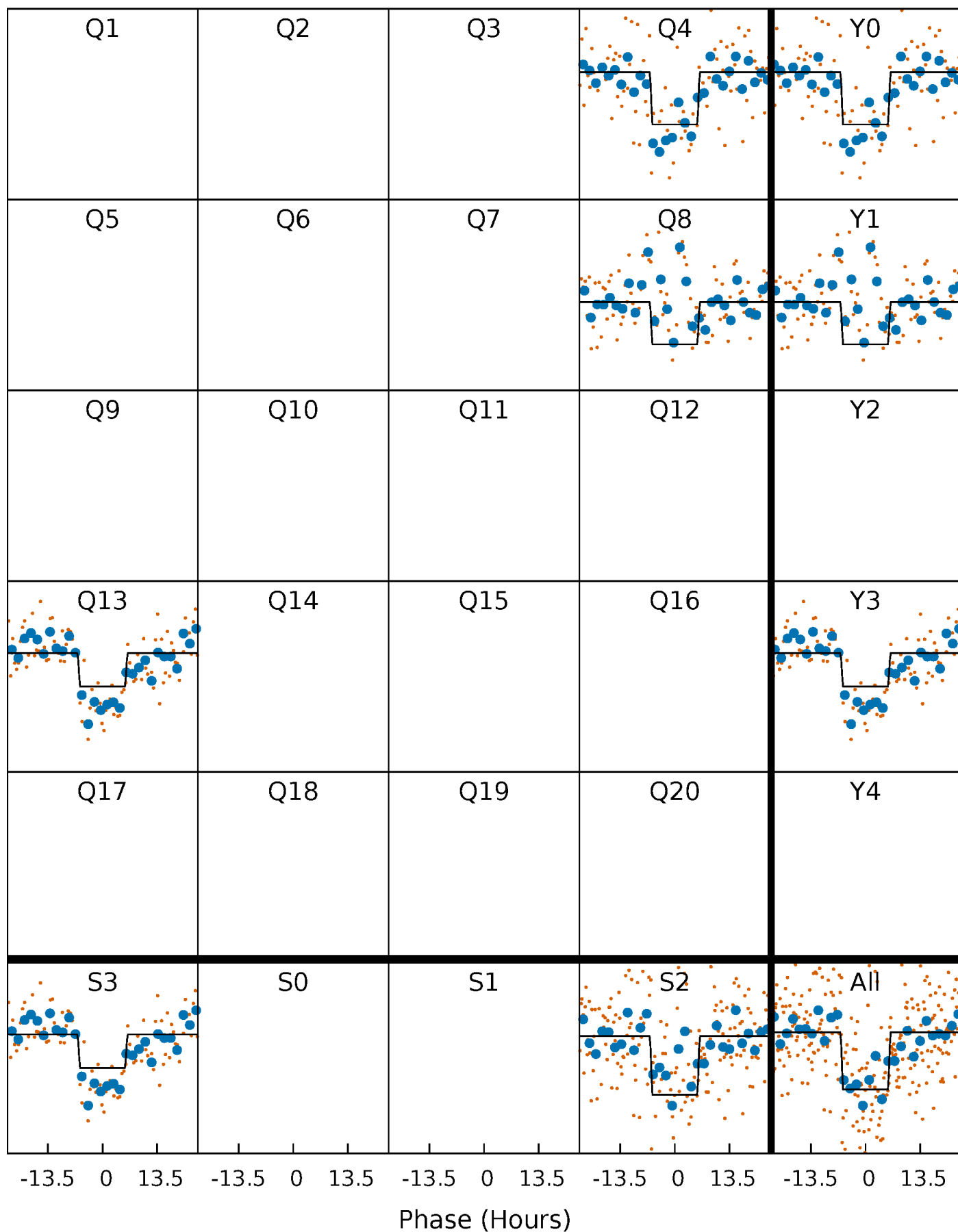
DV Quarter-Phased Transit Curves

TCE 006314137-01 P=438.400019 Days $T_0=357.371267$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

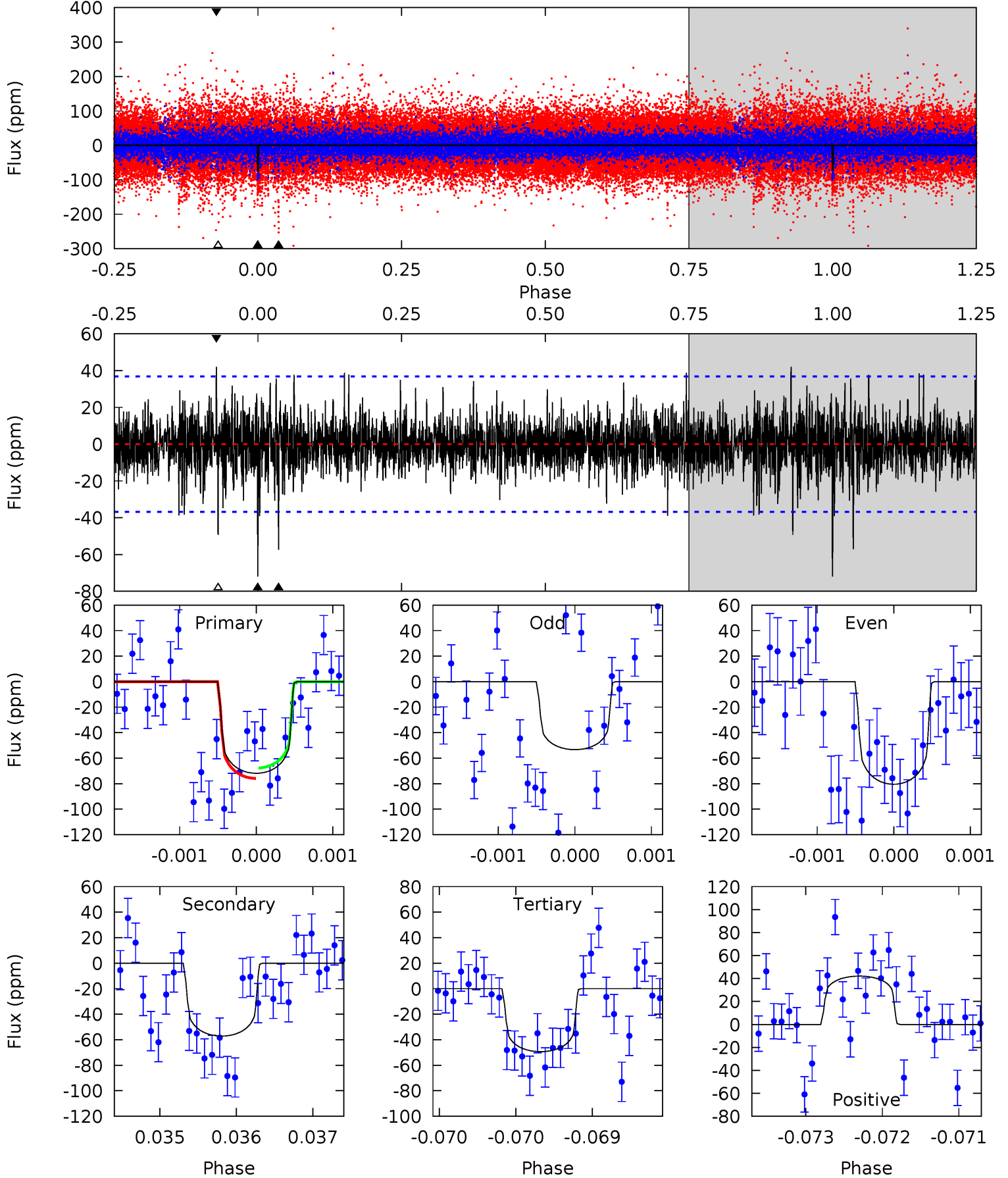
TCE 006314137-01 P=438.408841 Days $T_0=357.275920$ (BKJD)



DV Model-Shift Uniqueness Test

006314137-01, P = 438.400019 Days, E = 357.371267 Days

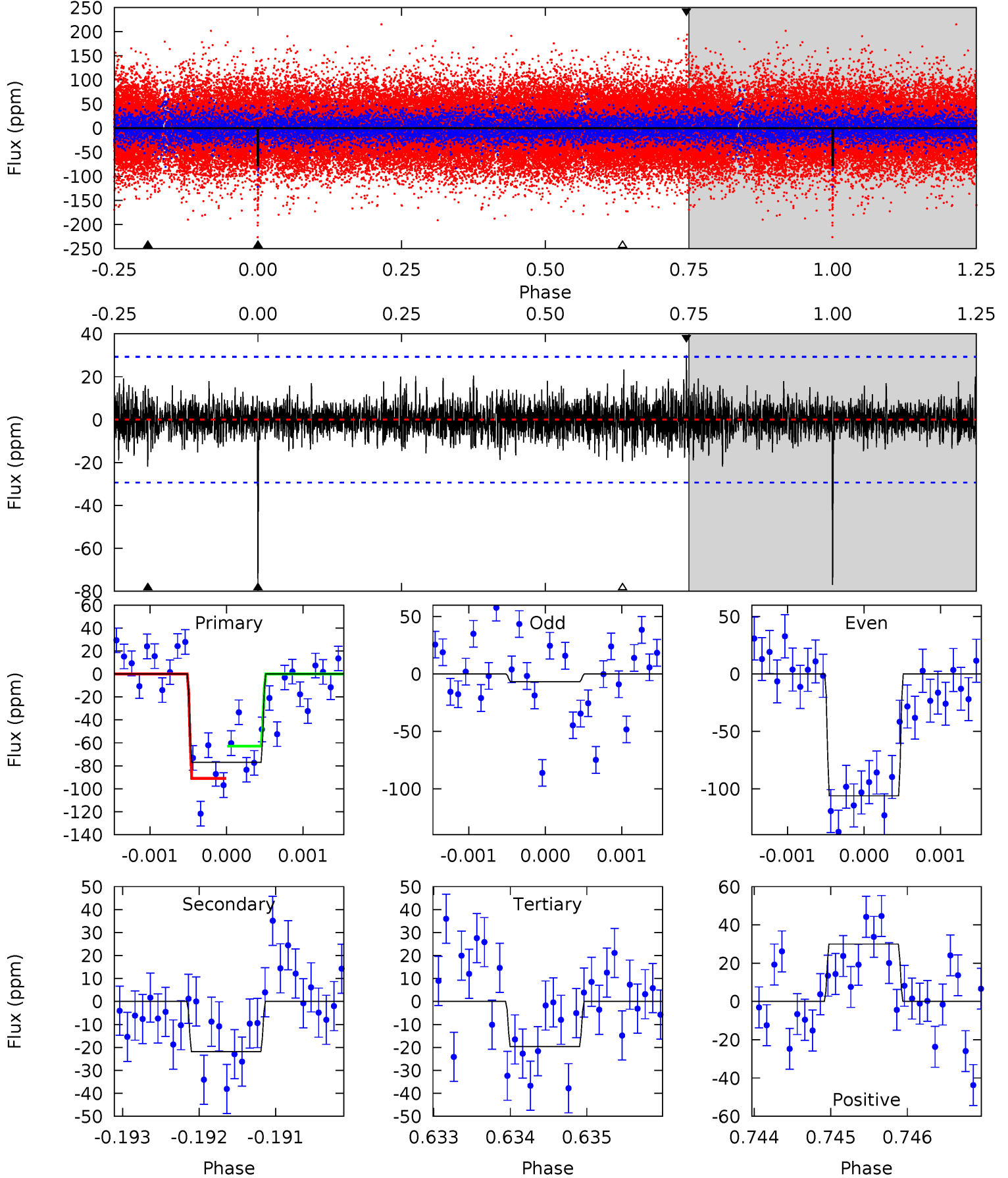
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.7	8.51	7.36	6.27	5.48	3.34	1.47	3.36	4.44	1.16	2.24	1.87	1.34	0.37	0.60



Alt Model-Shift Uniqueness Test

006314137-01, P = 438.408841 Days, E = 357.275920 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.3	4.05	3.64	5.56	5.43	3.25	1.05	10.6	8.72	0.41	-1.51	8.64	0.82	0.28	2.61



Stellar Parameters For KIC 006314137

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6391^{+144}_{-176}	$4.226^{+0.145}_{-0.145}$	$-0.220^{+0.250}_{-0.300}$	$1.332^{+0.285}_{-0.233}$	$1.085^{+0.173}_{-0.130}$	$0.647^{+0.489}_{-0.257}$
	+2%/-3%	+3%/-3%	+114%/-136%	+21%/-17%	+16%/-12%	+75%/-40%
Source	PHO1	FLK73	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 006314137-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-57 ± 7	$1.52^{+0.63}_{-0.62}$	421^{+25}_{-22}	5497^{+1514}_{-776}	18770^{+34174}_{-9434}
Alt.	-22 ± 5	$1.30^{+0.62}_{-0.54}$	422^{+24}_{-25}	4756^{+1266}_{-701}	9560^{+18746}_{-5268}

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 $A_{obs} \gg 1.0$

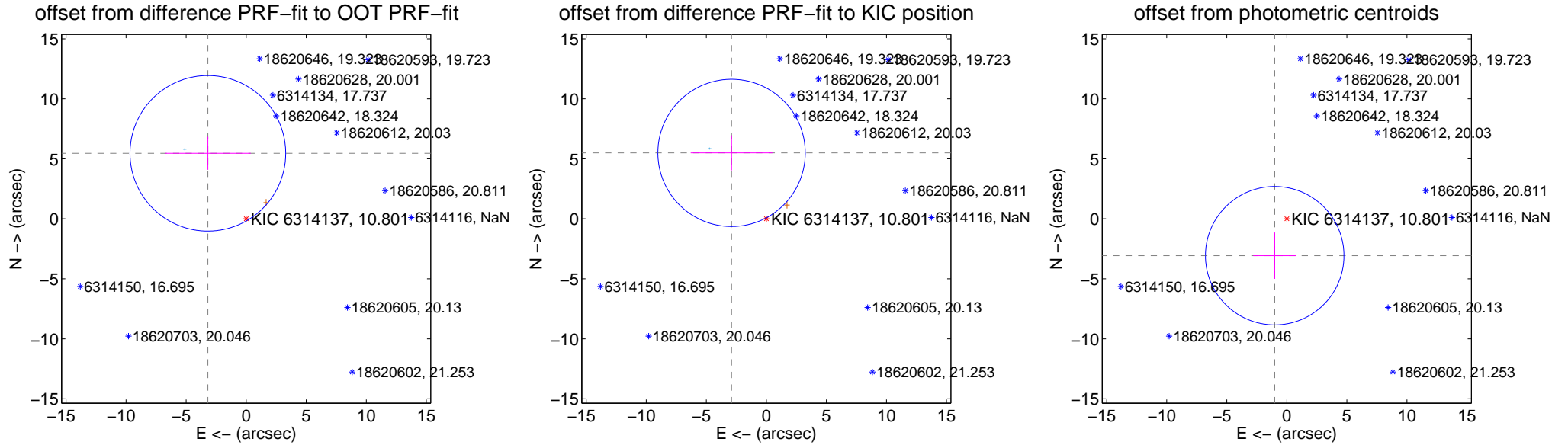
DV Centroid Data

Supplemental centroid analysis for 006314137-01. **Kepler magnitude: 10.80.** Transit SNR 7.12

There are 1 quarters with good PRF difference image offsets

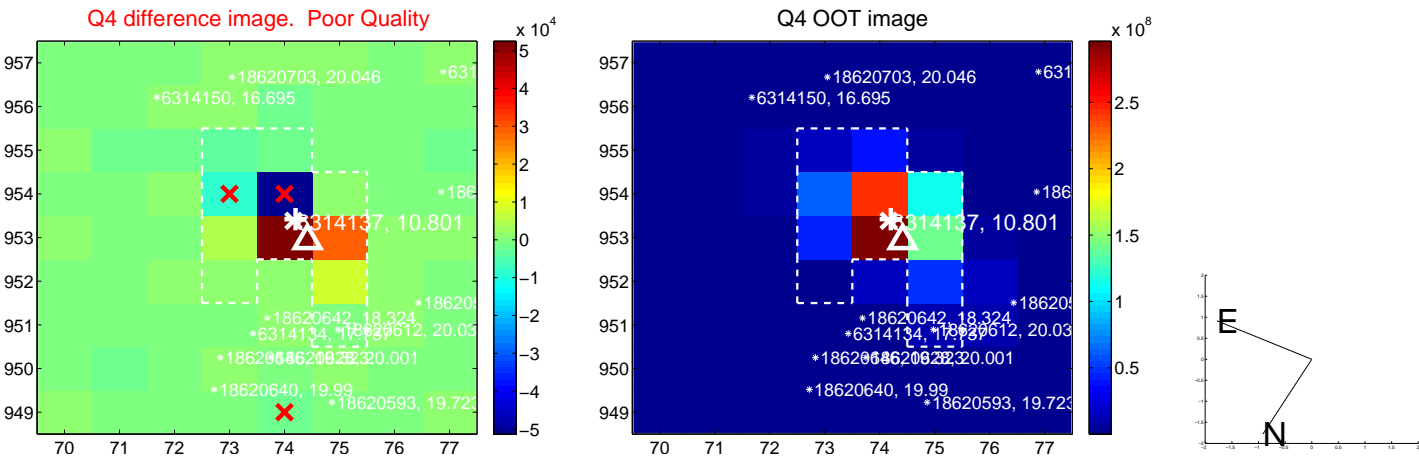
The direct PRF centroid is offset from the target star catalog position by about 0.39 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	6.323 ± 2.161	2.93	3.192 ± 3.573	5.458 ± 1.378
PRF-fit source offset from KIC position	6.212 ± 2.045	3.04	2.898 ± 3.401	5.494 ± 1.459
photometric centroid source offset	3.23 ± 1.92	1.68	1.01 ± 1.78	-3.07 ± 1.94

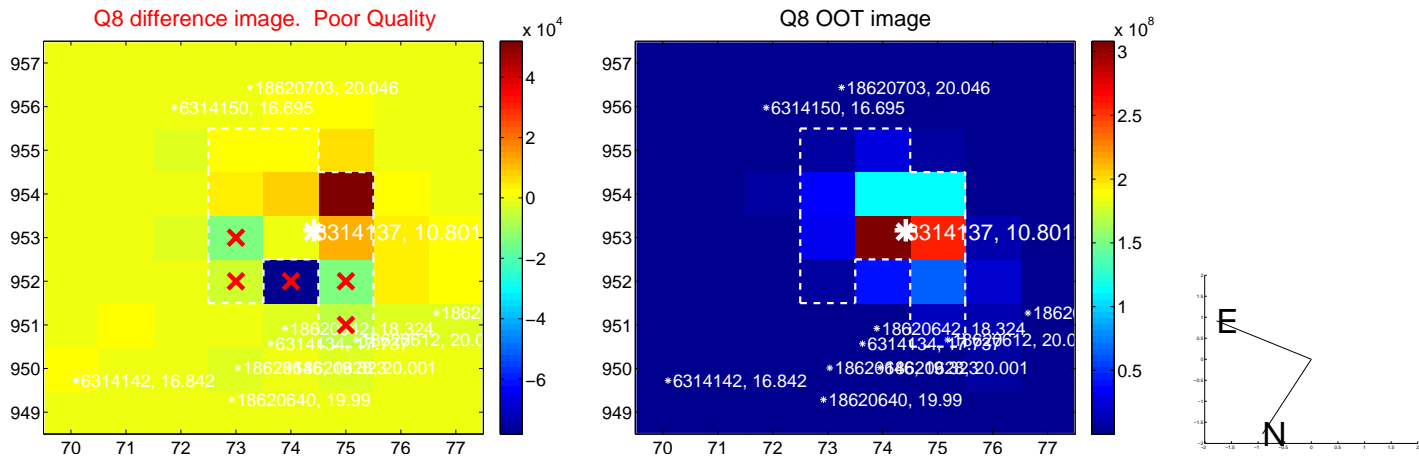
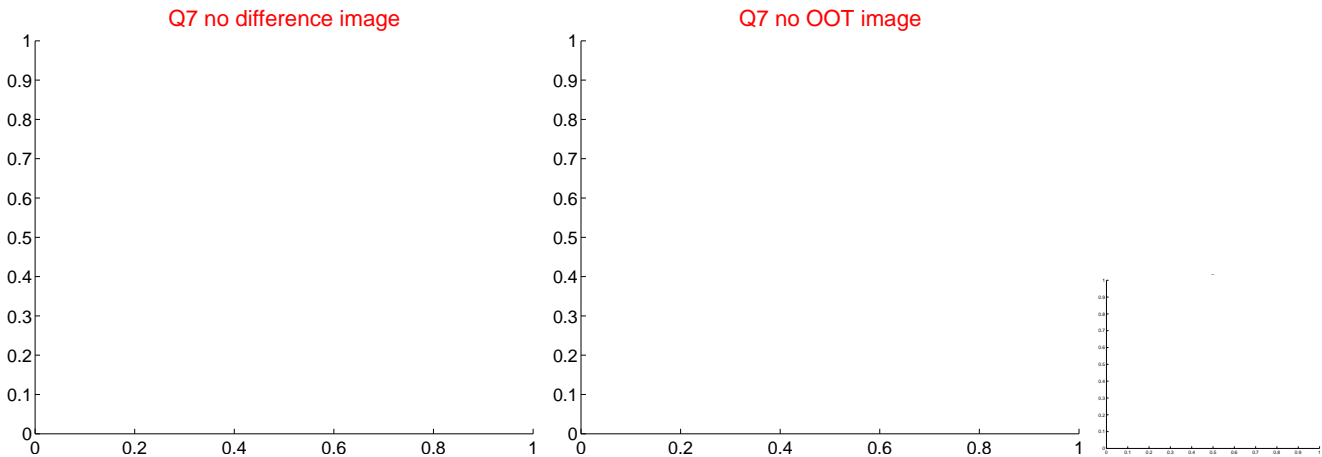
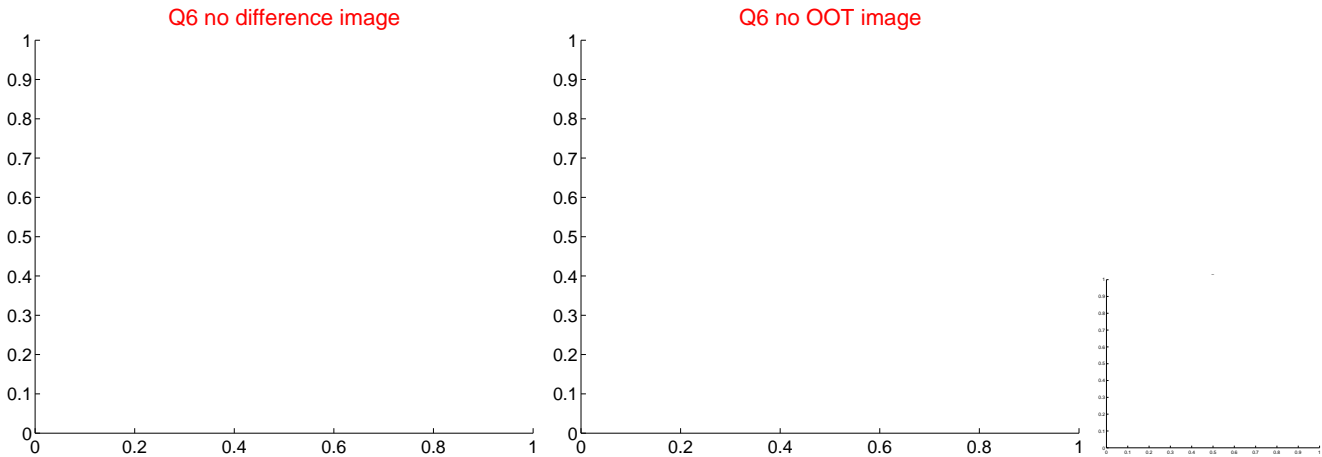
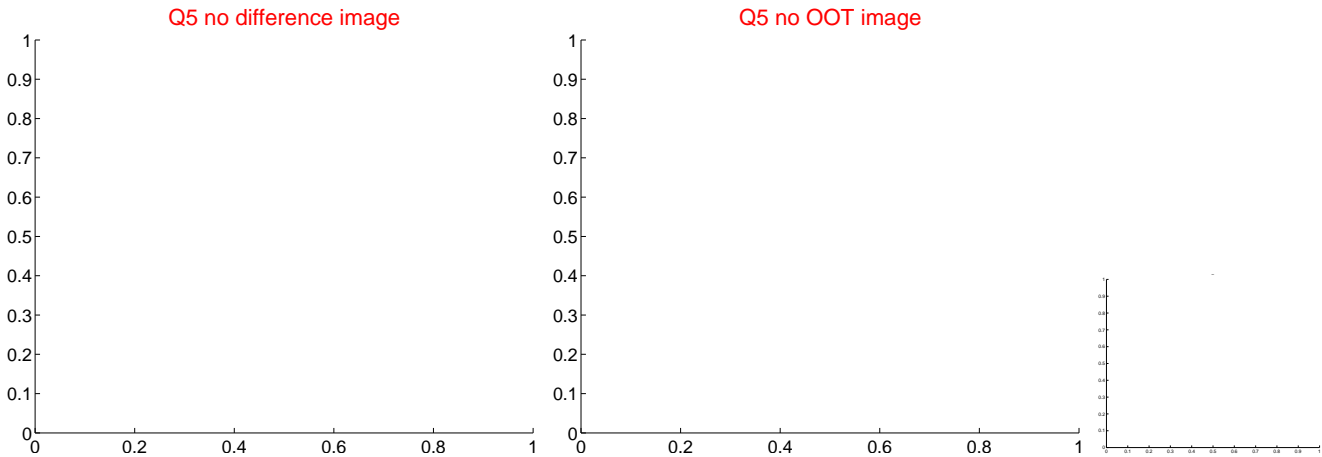


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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



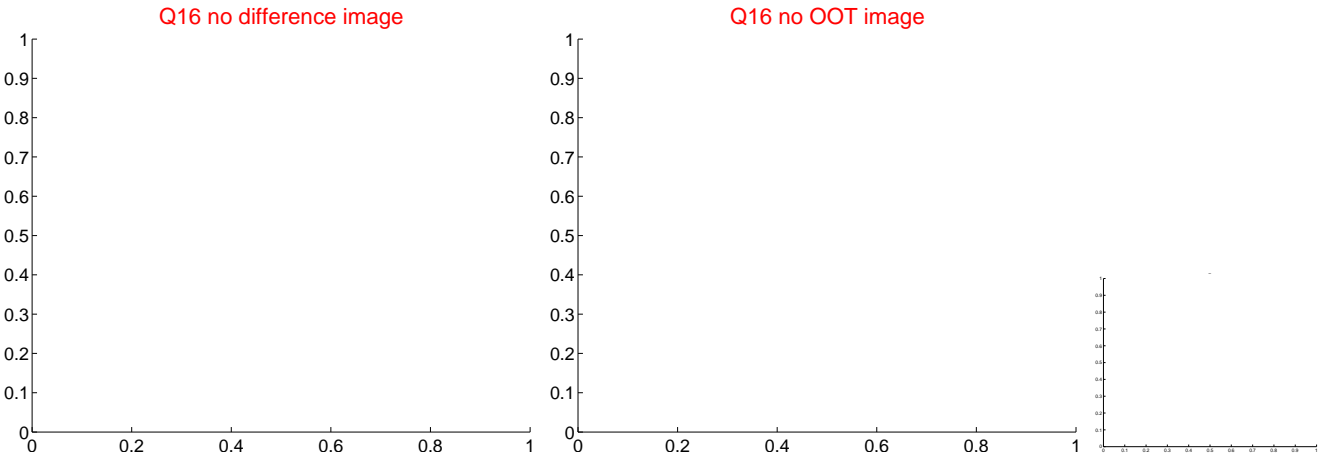
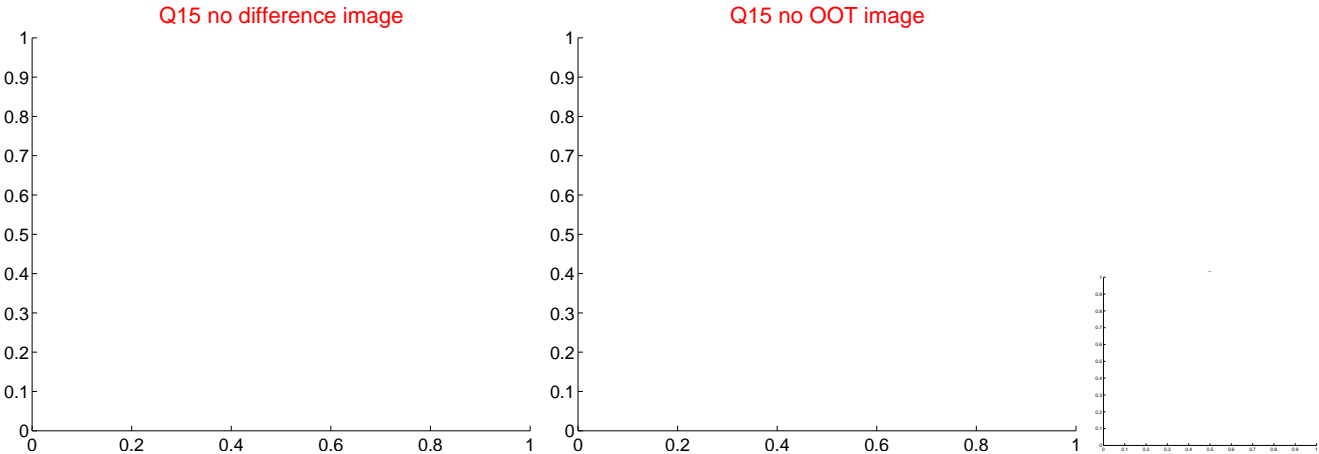
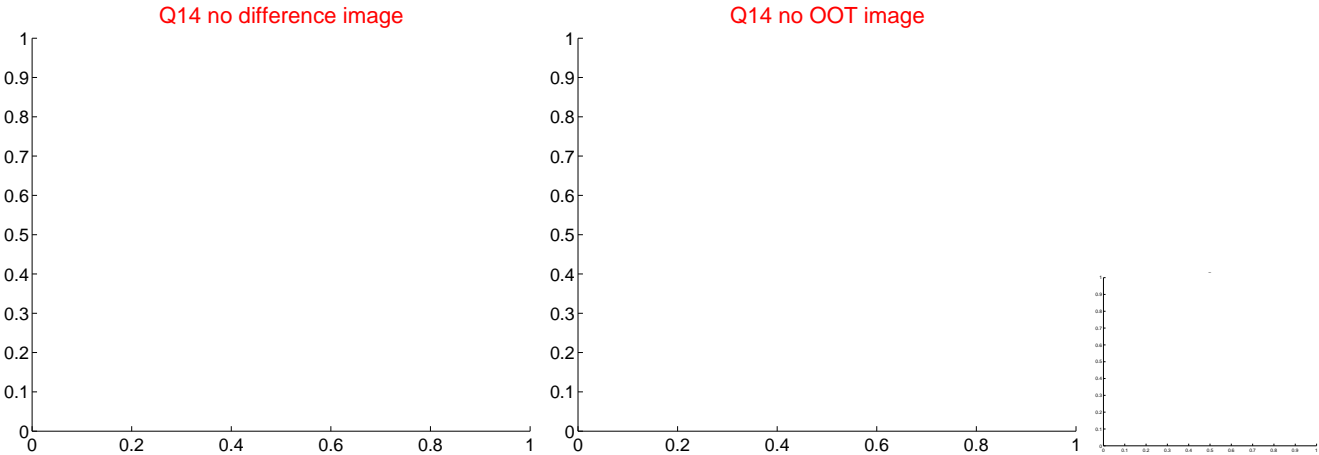
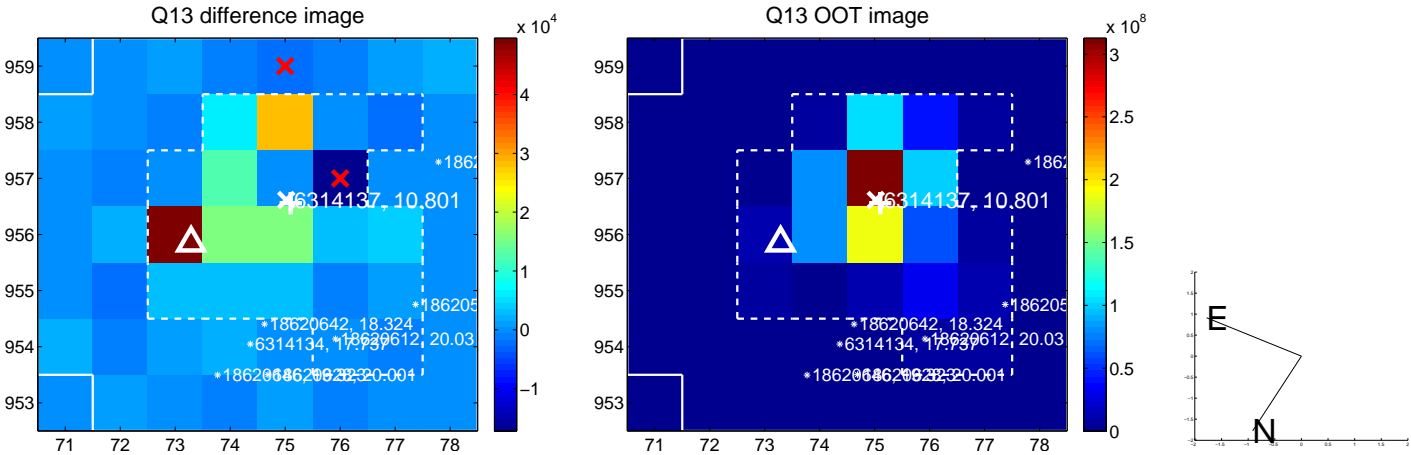
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



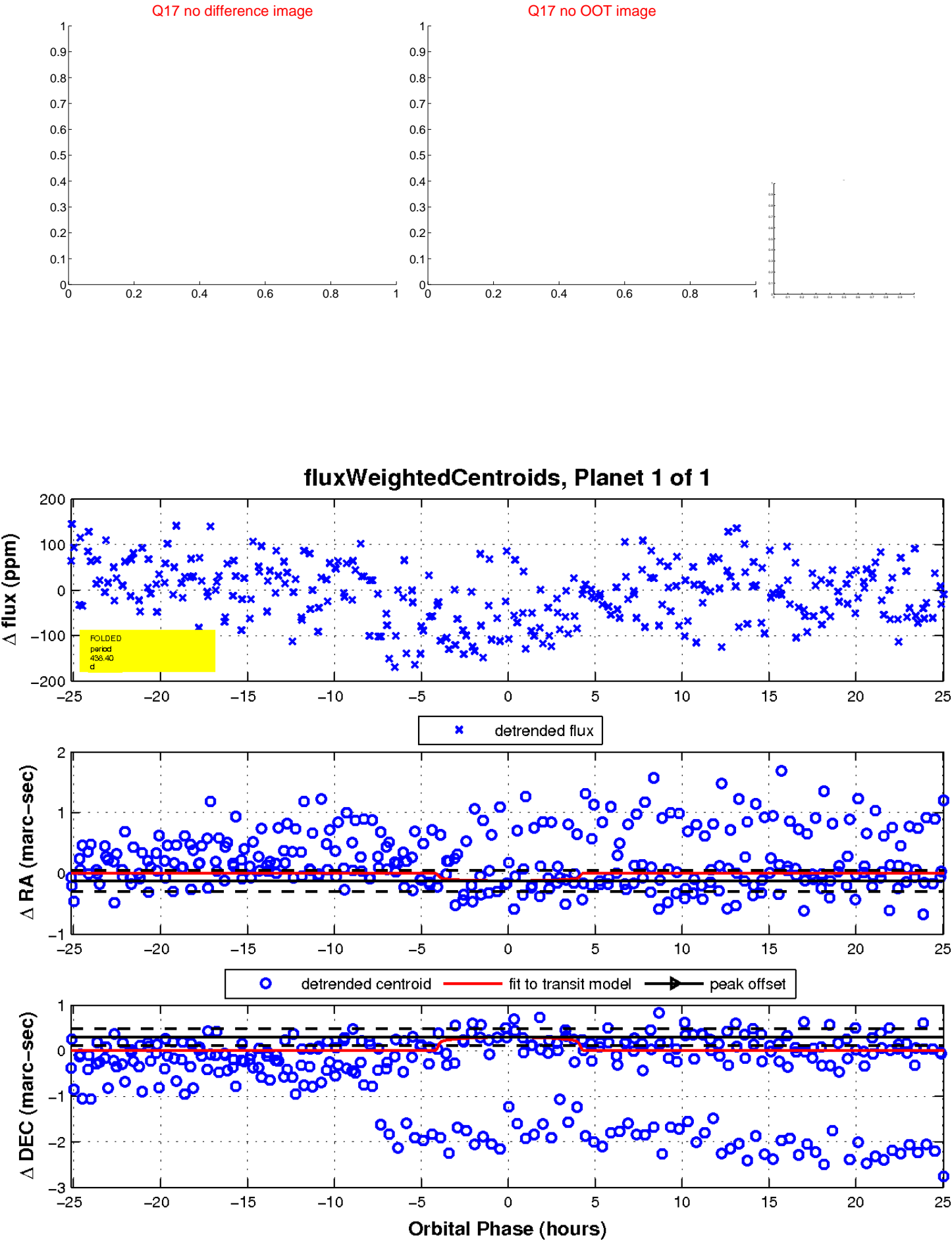
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination

