

KIC 005982499

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})
005982499-01	OBS	No	204.718121	143.109045	1287.2	1.867	47.0	1.8	0.94	5457	3.47	1.70

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005982499-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_ZUMA_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT— 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.

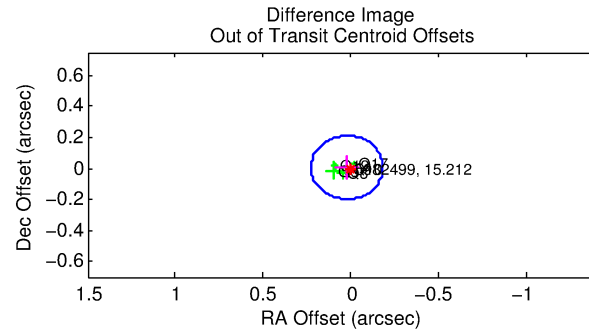
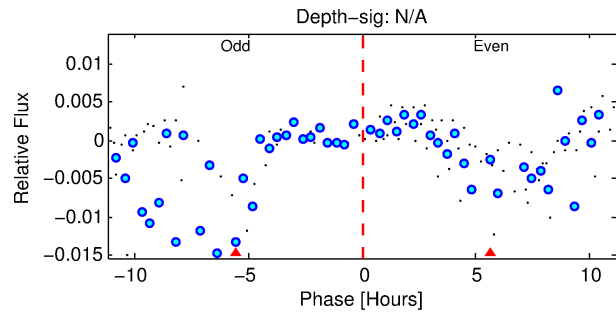
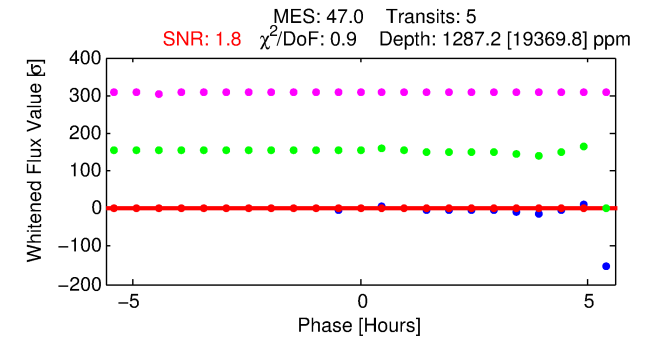
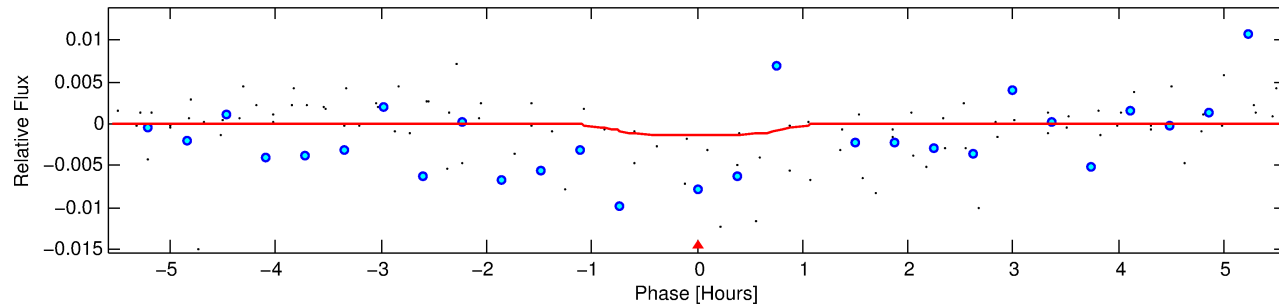
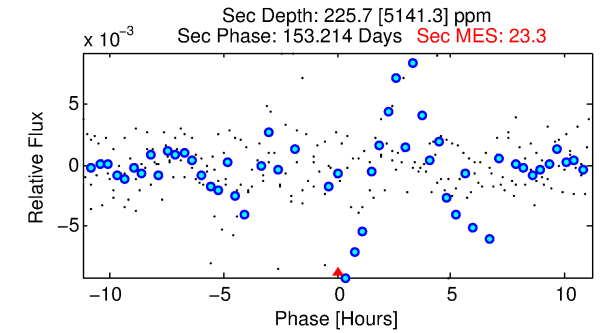
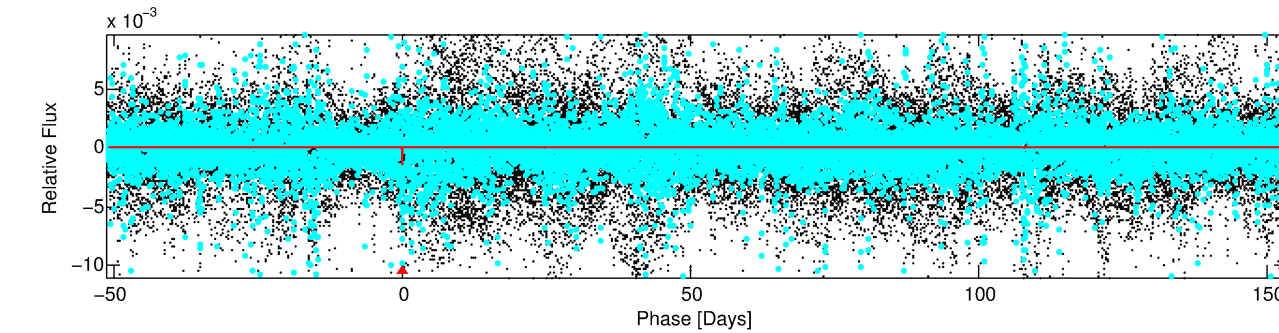
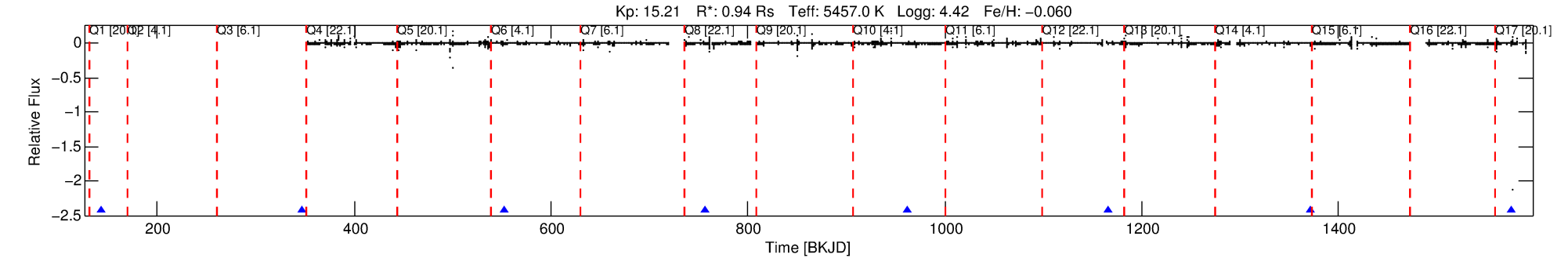
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005982499-01

No Significant Match Found

DV One-Page Summary

KIC: 5982499 Candidate: 1 of 1 Period: 204.718 d



DV Fit Results:

Period = 204.71812 [0.16471] d
Epoch = 143.1090 [0.6213] BKJD
Rp/R* = 0.0339 [6.2622]
a/R* = 734.66 [535080.10]
b = 0.55 [947.92]
Seff = 1.70 [0.61]
Teq = 291 [26] K
Rp = 3.47 [641.67] Re
a = 0.6416 [0.1419] AU
Ag = 4247.60 [1574332.90] [0.00σ]
Teff = 3635 [336845] K [0.01σ]

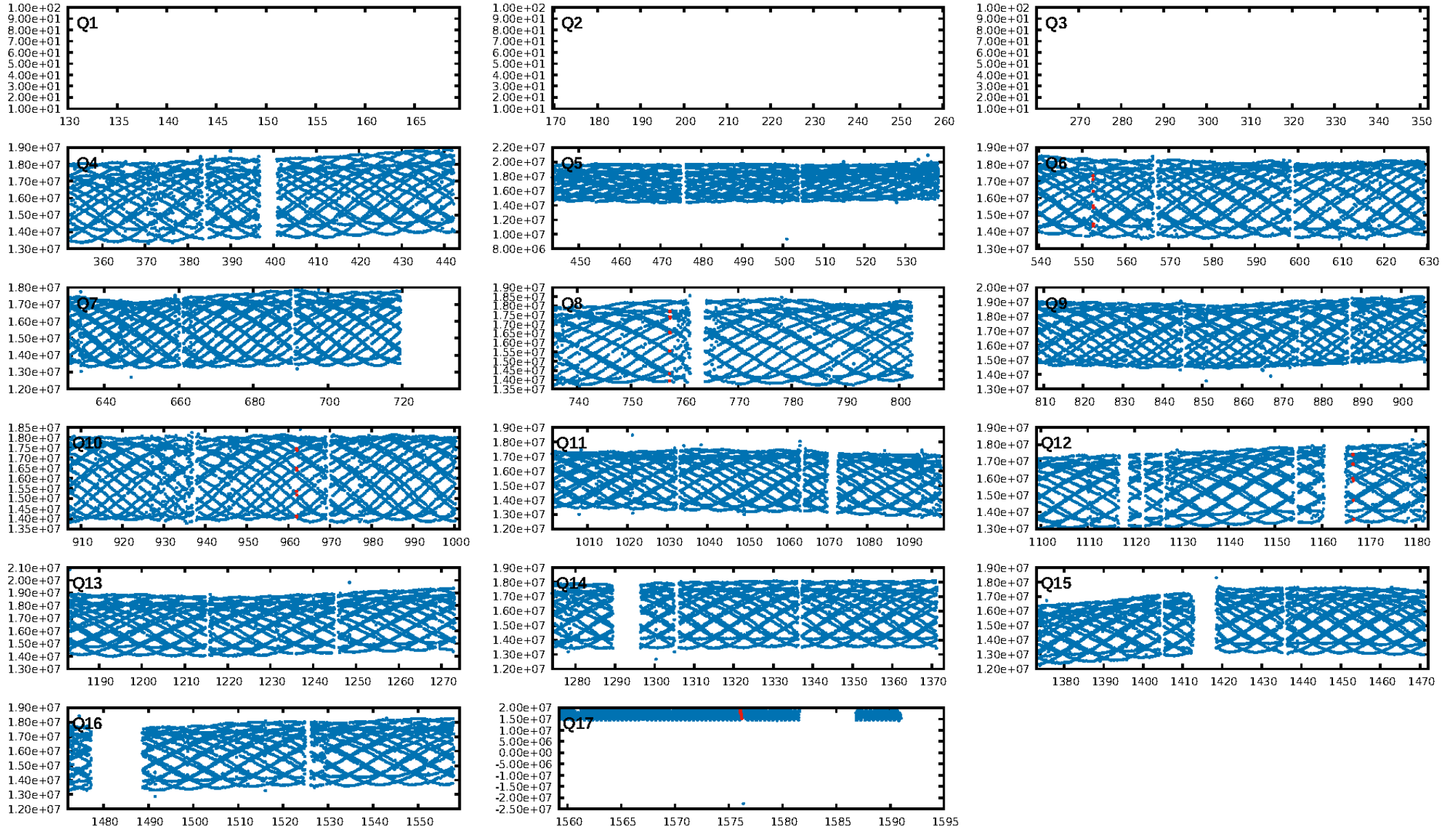
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.8%
ModelChiSquareGof-sig: 76.7%
Bootstrap-pfa: 1.40e-09
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: 1.002
Centroid-sig: 28.2%
Centroid-so: 2.489 arcsec [0.99σ]
OotOffset-rm: 0.024 arcsec [0.35σ]
KicOffset-rm: 0.186 arcsec [2.73σ]
OotOffset-st: 2/0/2/1 [5]
KicOffset-st: 2/0/2/1 [5]
DiffImageQuality-fgm: 0.40 [2/5]
DiffImageOverlap-fno: 1.00 [5/5]

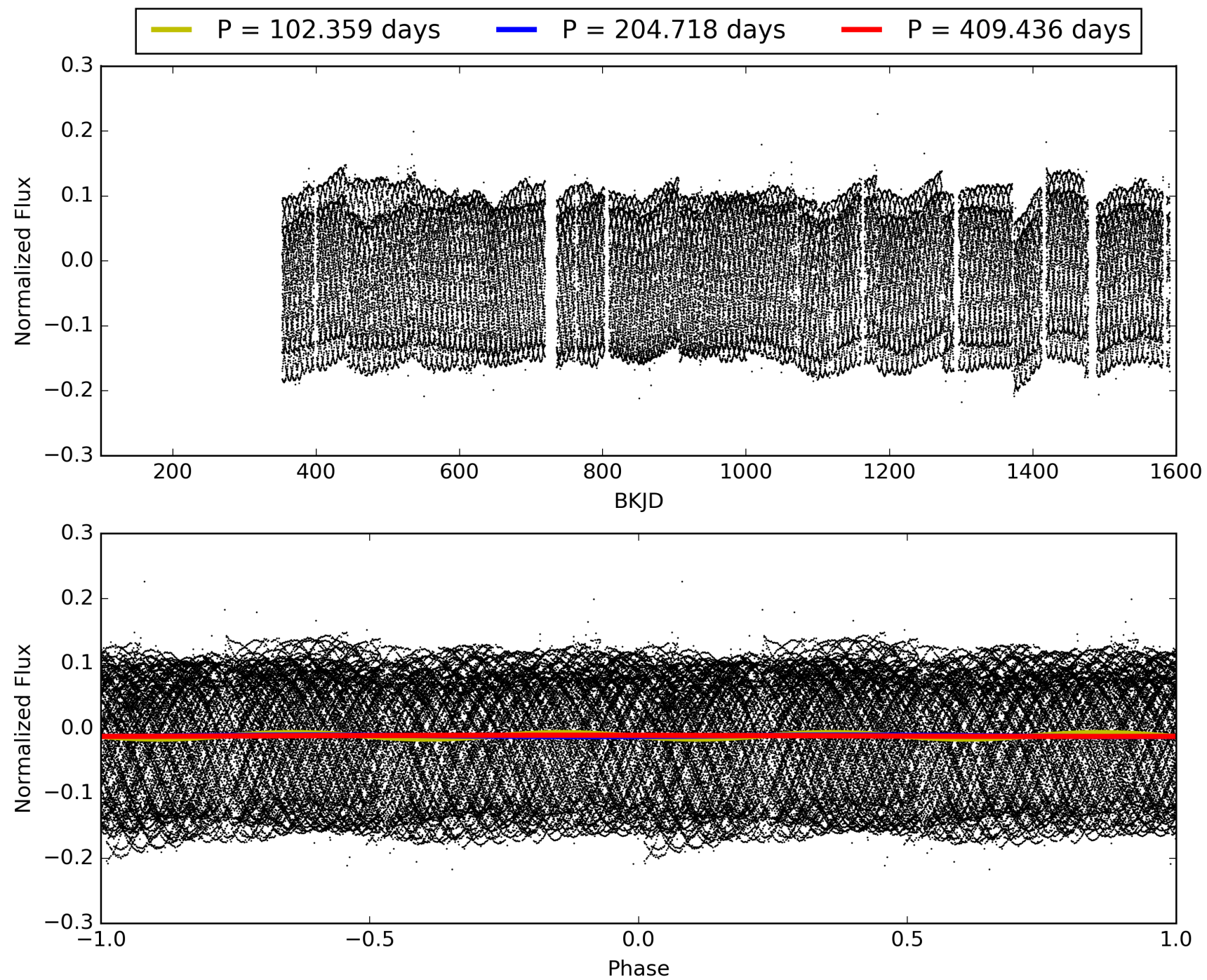
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 13:38:50 Z

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

TCE 005982499-01, PDC Light Curves

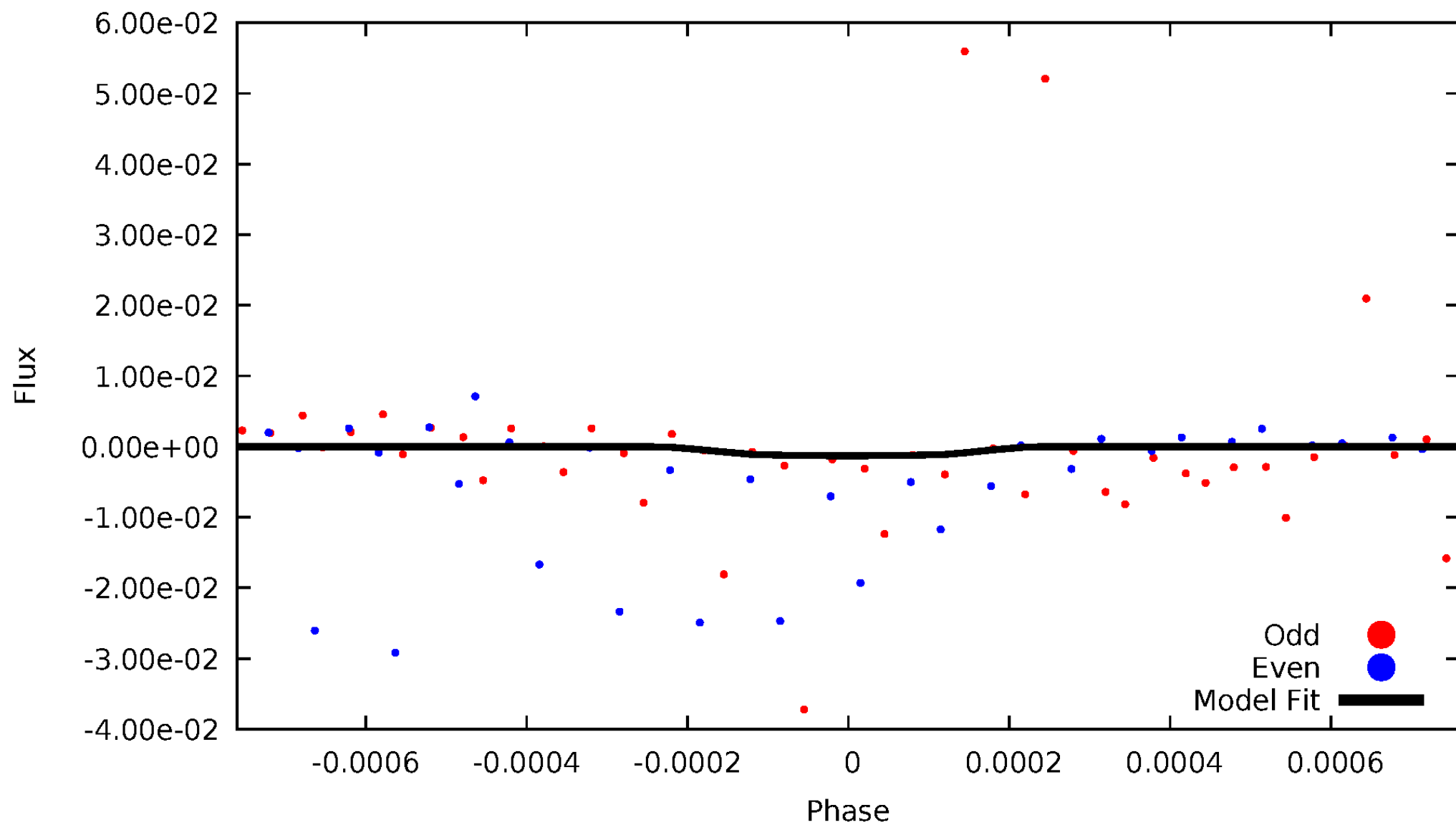


TCE 005982499-01



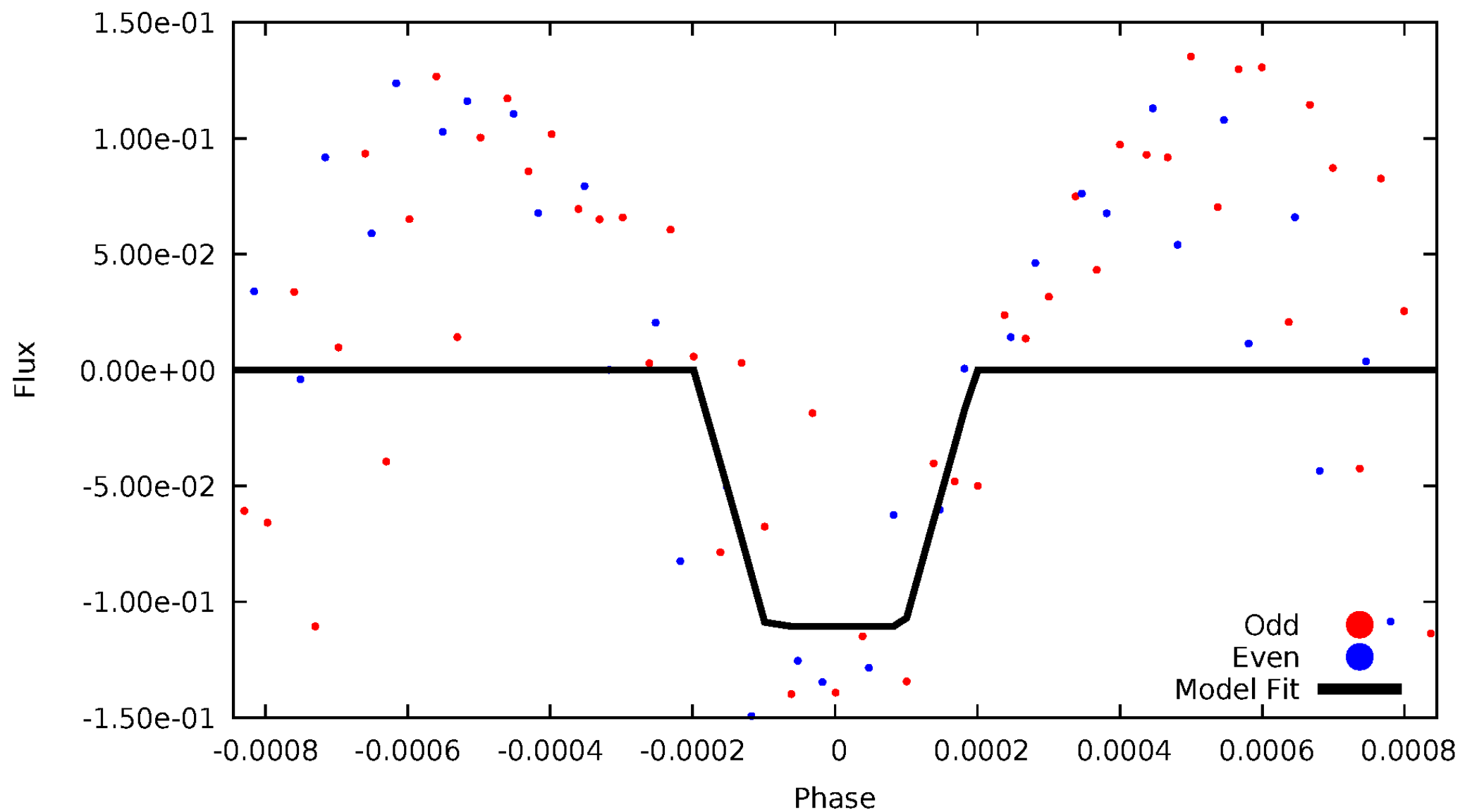
DV Odd/Even

TCE 005982499-01



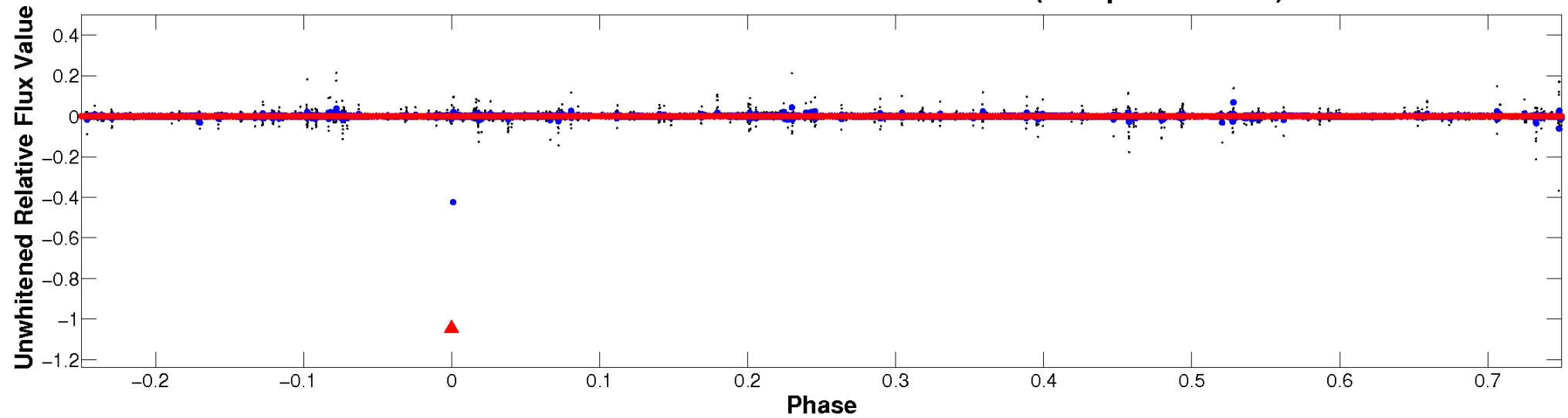
ALT Odd/Even

TCE 005982499-01

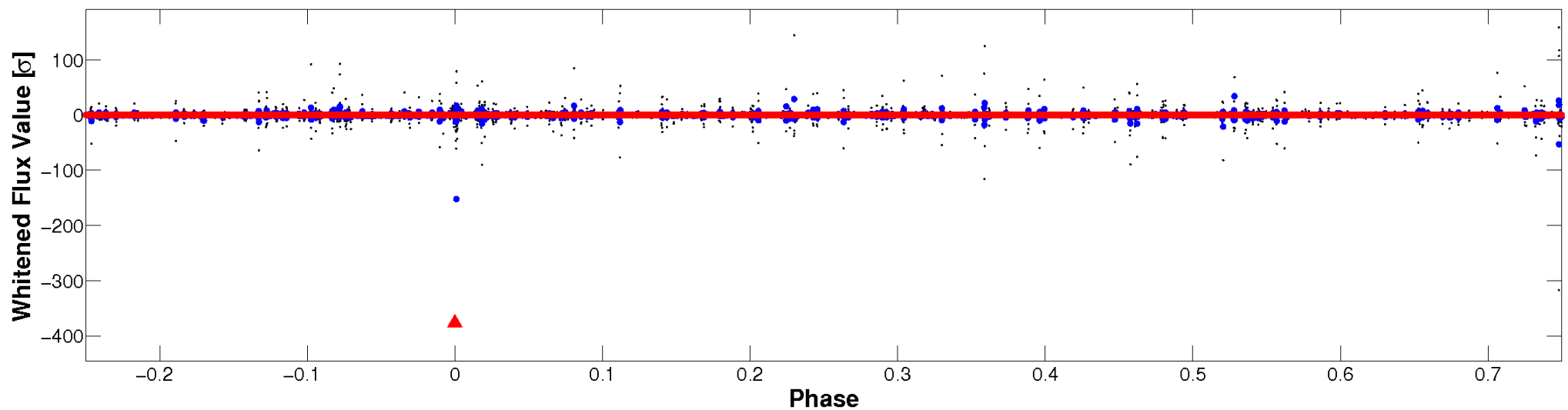


Non-Whitened Vs. Whitened Light Curve

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

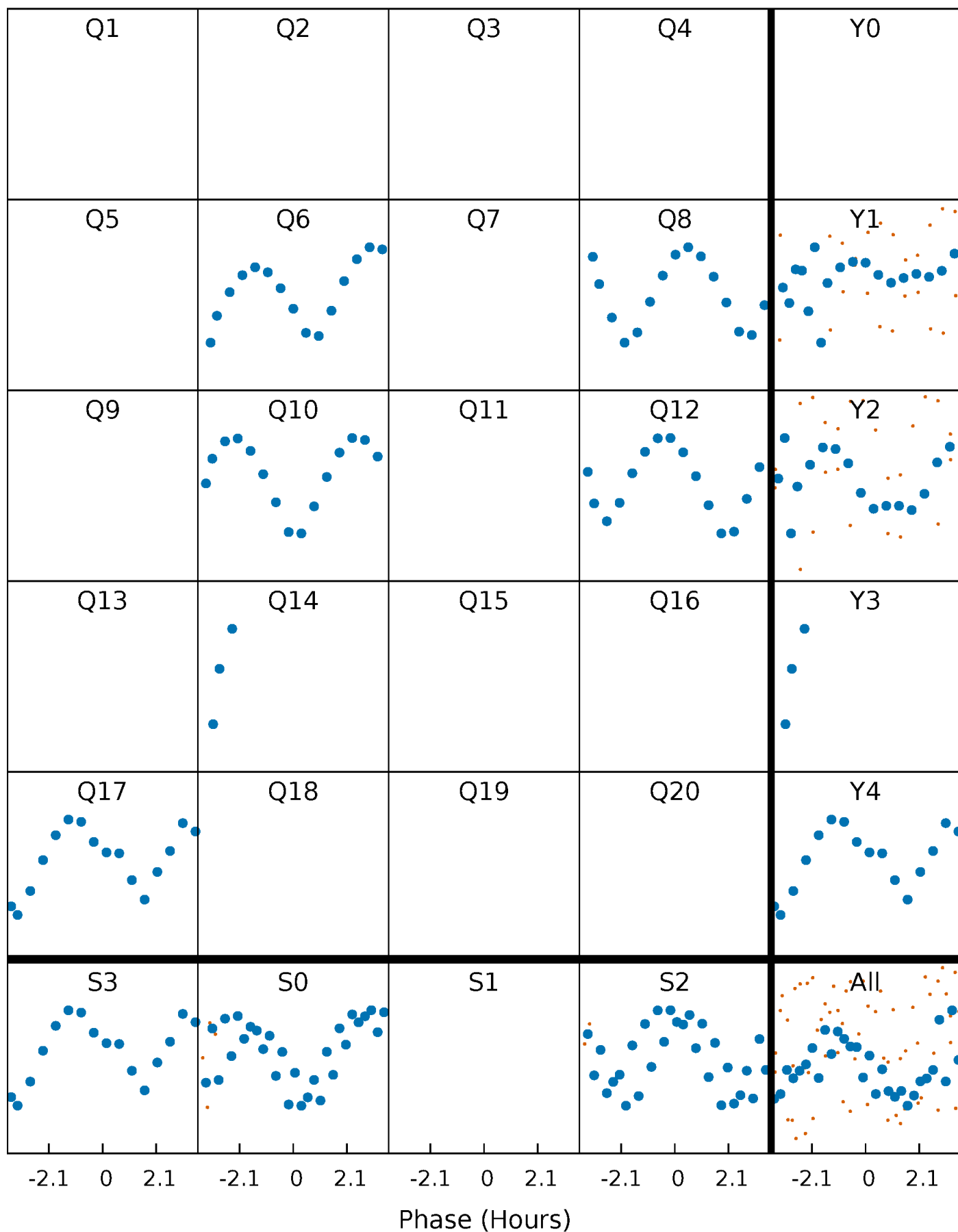


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



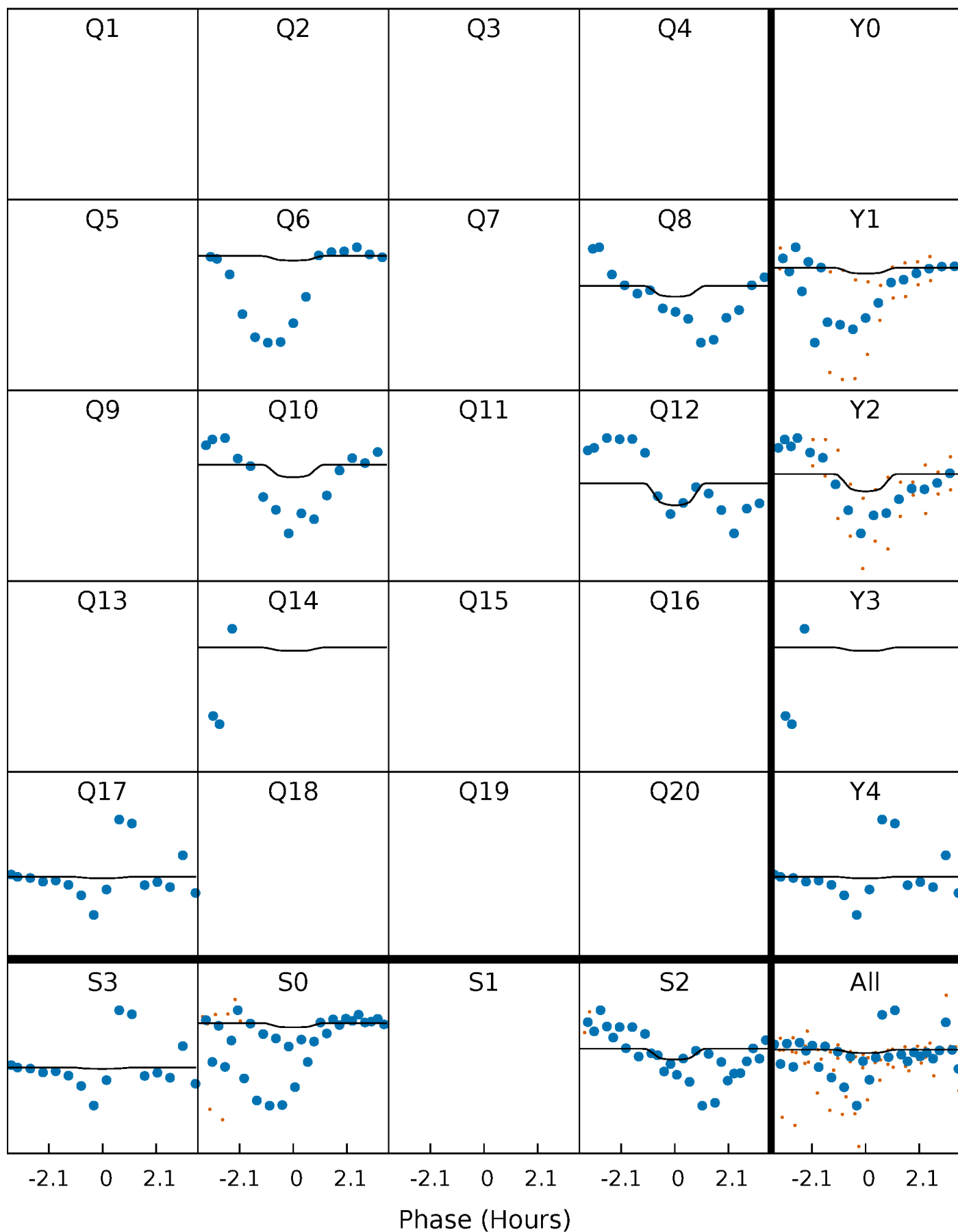
PDC Quarter-Phased Transit Curves

TCE 005982499-01 P=204.718121 Days $T_0=143.109045$ (BKJD)



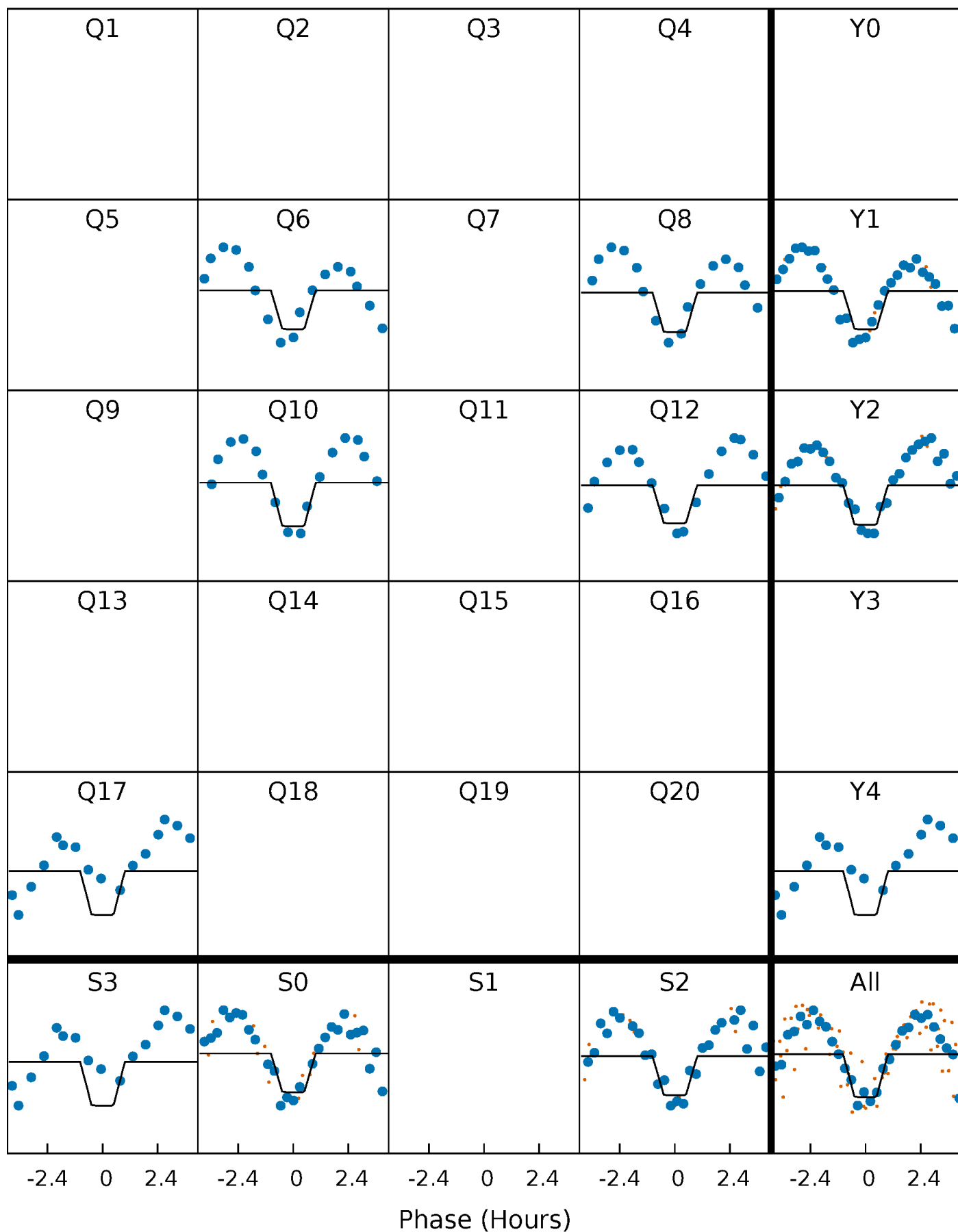
DV Quarter-Phased Transit Curves

TCE 005982499-01 P=204.718121 Days $T_0=143.109045$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

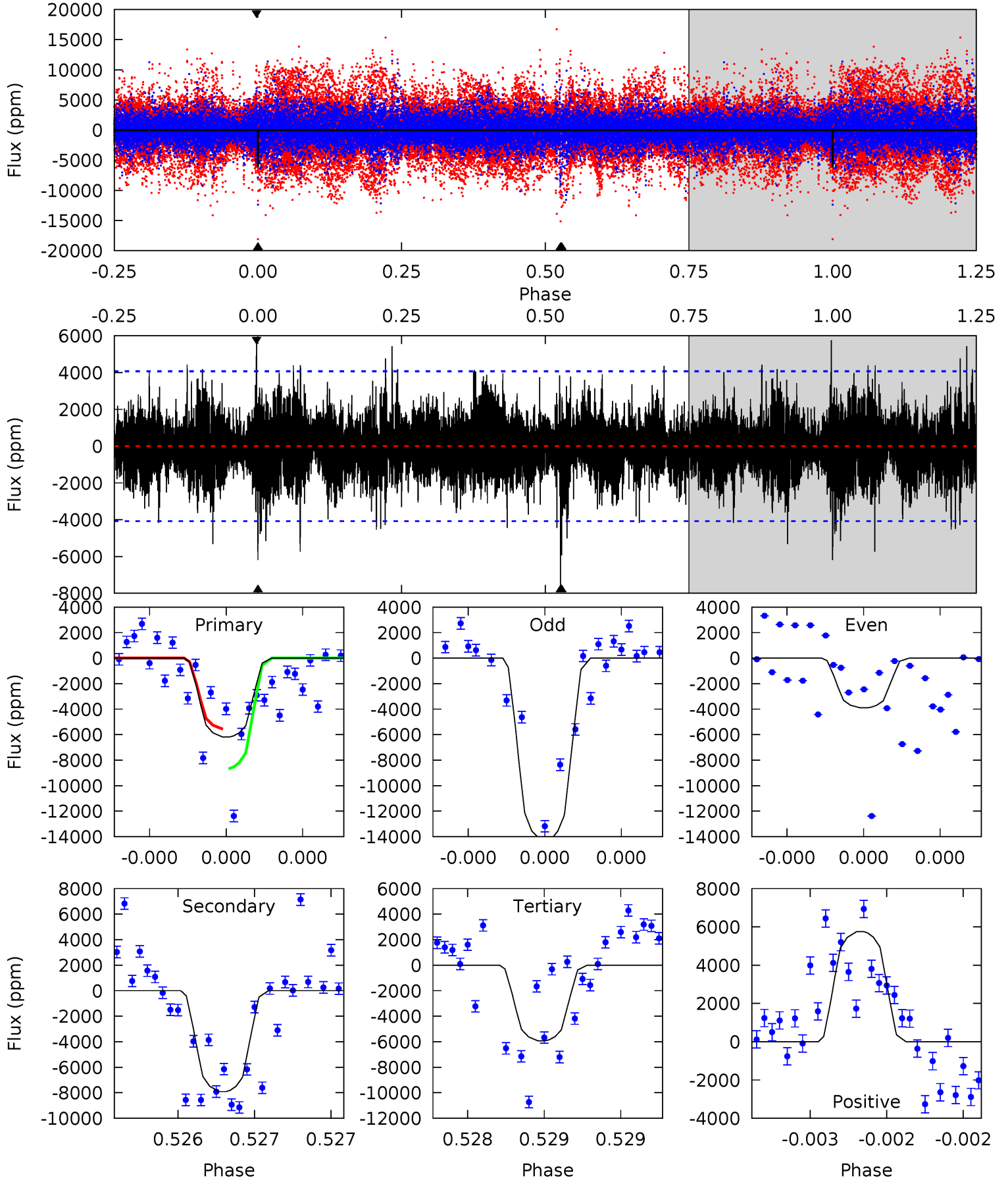
TCE 005982499-01 P=204.789389 Days $T_0=142.830199$ (BKJD)



DV Model-Shift Uniqueness Test

005982499-01, P = 204.718121 Days, E = 143.109045 Days

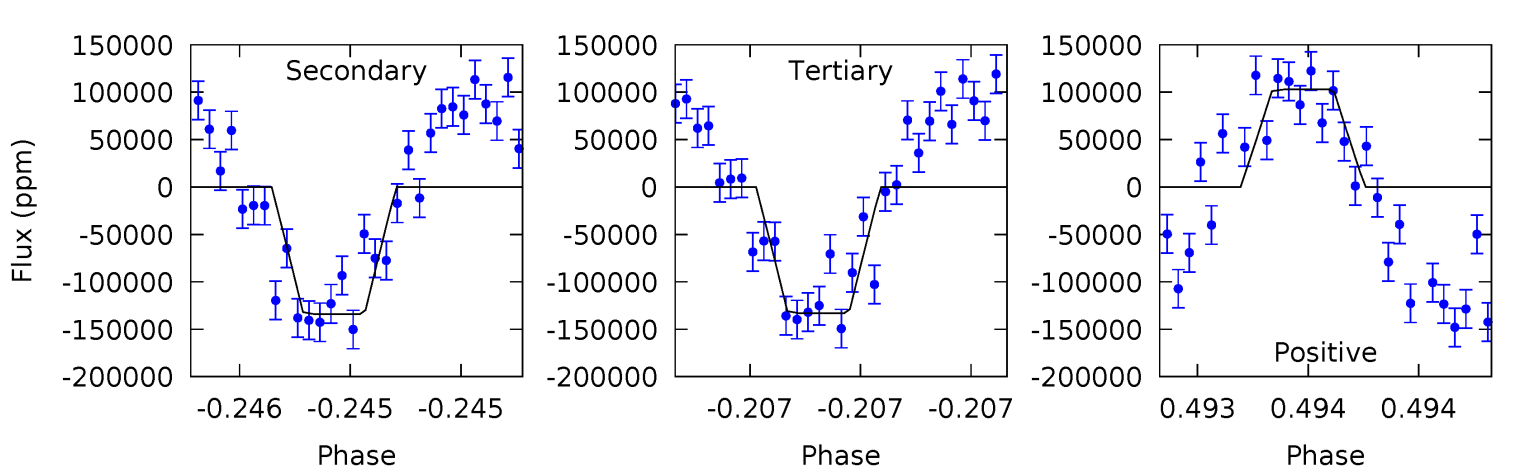
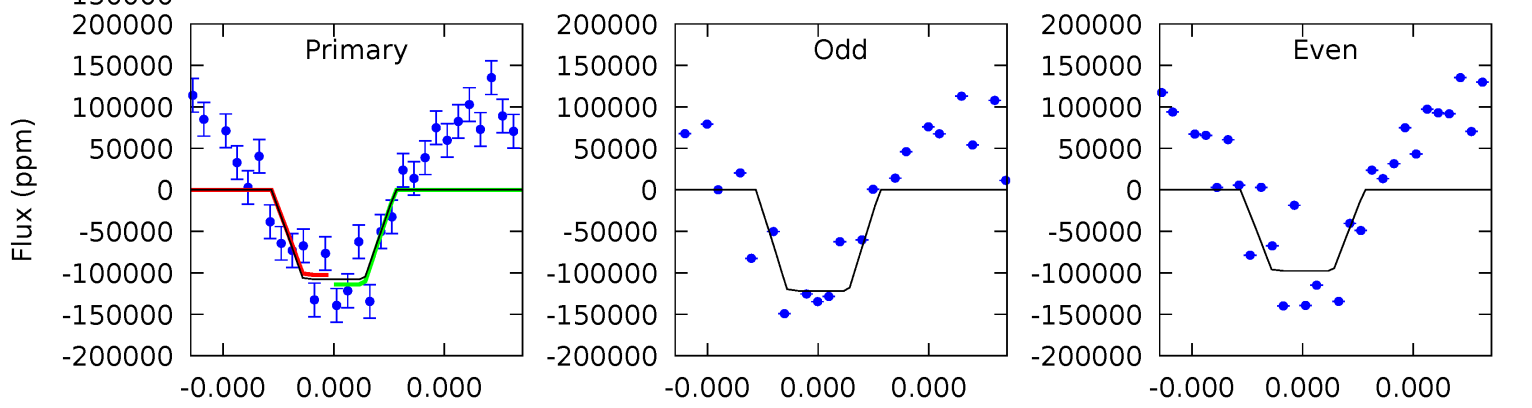
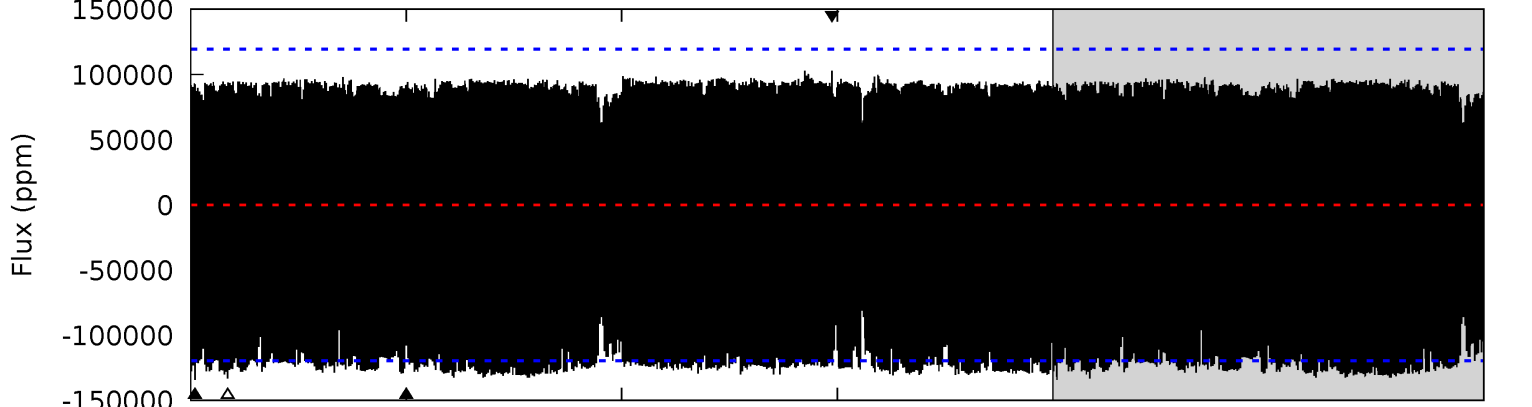
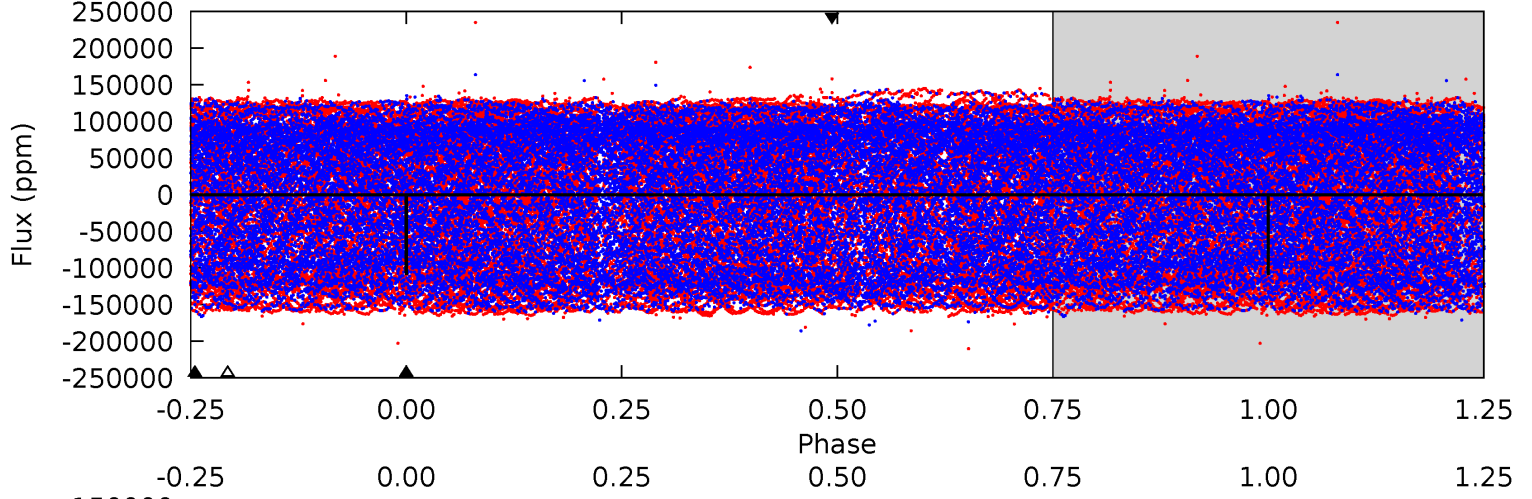
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.48	10.8	8.13	7.89	5.59	3.50	1.74	0.35	0.59	2.71	2.95	7.21	1.26	0.42	2.20



Alt Model-Shift Uniqueness Test

005982499-01, P = 204.789389 Days, E = 142.830199 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.09	6.33	6.28	4.85	5.63	3.57	3.28	-1.19	0.24	0.05	1.48	0.57	0.85	0.43	0.27



Stellar Parameters For KIC 005982499

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5457^{+180}_{-180}	$4.417^{+0.139}_{-0.186}$	$-0.060^{+0.300}_{-0.300}$	$0.939^{+0.238}_{-0.147}$	$0.841^{+0.111}_{-0.070}$	$1.430^{+0.810}_{-0.657}$
	+3%/-3%	+3%/-4%	+500%/-500%	+25%/-16%	+13%/-8%	+57%/-46%
Source	KIC0	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 005982499-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-7908 ± 729	$445.67^{+483.69}_{-308.26}$	407^{+33}_{-24}	1812^{+511}_{-246}	$8.996^{+83.122}_{-6.935}$
Alt.	-134148 ± 21200	$463.74^{+473.87}_{-322.68}$	410^{+29}_{-23}	2485^{+960}_{-374}	168^{+1640}_{-128}

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 $A_{obs} \gg 1.0$

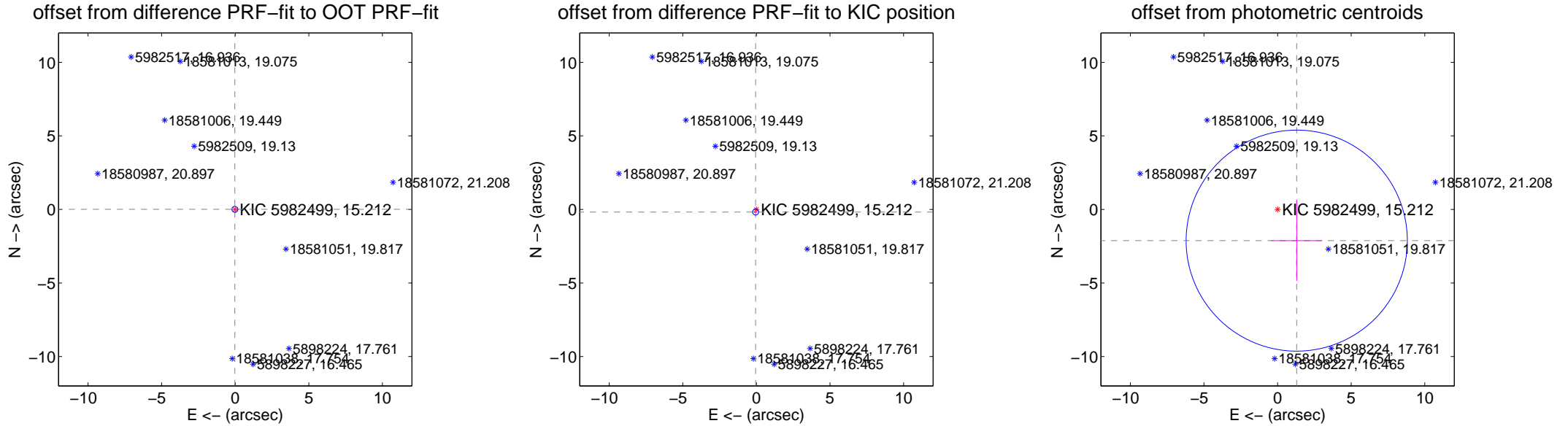
DV Centroid Data

Supplemental centroid analysis for 005982499-01. Kepler magnitude: 15.21. Transit SNR 1.77

There are 2 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.21 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.024 ± 0.068	0.35	0.023 ± 0.068	0.007 ± 0.067
PRF-fit source offset from KIC position	0.186 ± 0.068	2.73	0.054 ± 0.068	-0.178 ± 0.068
photometric centroid source offset	2.49 ± 2.50	0.99	-1.30 ± 1.73	-2.12 ± 2.74

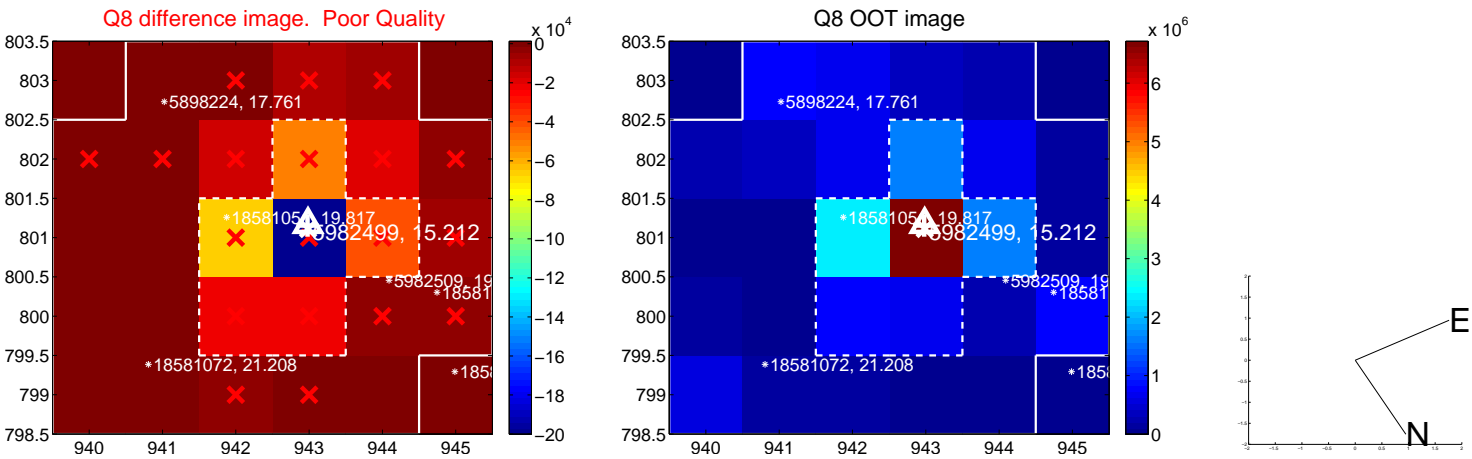
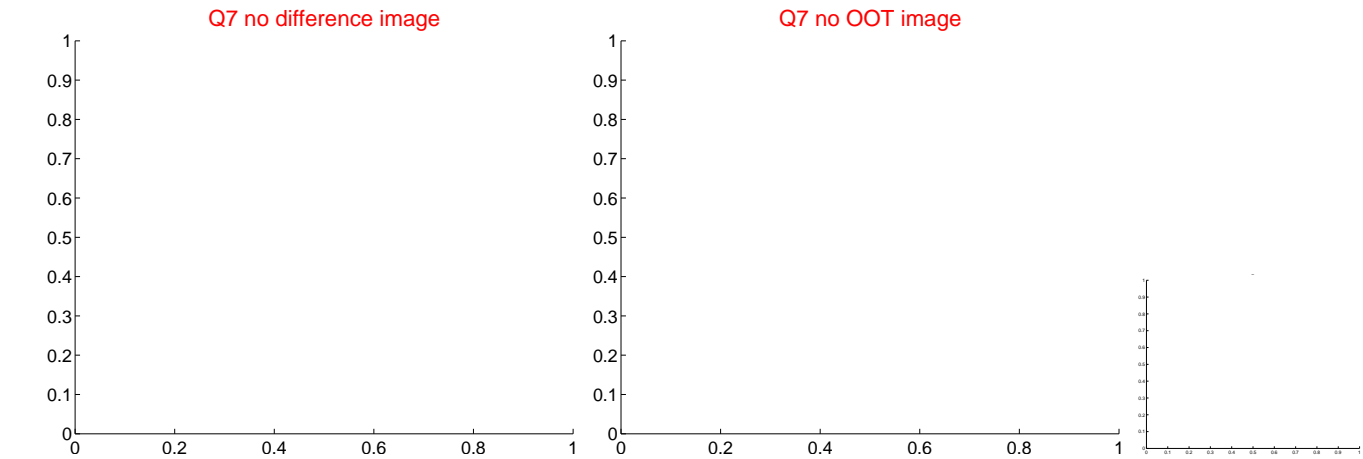
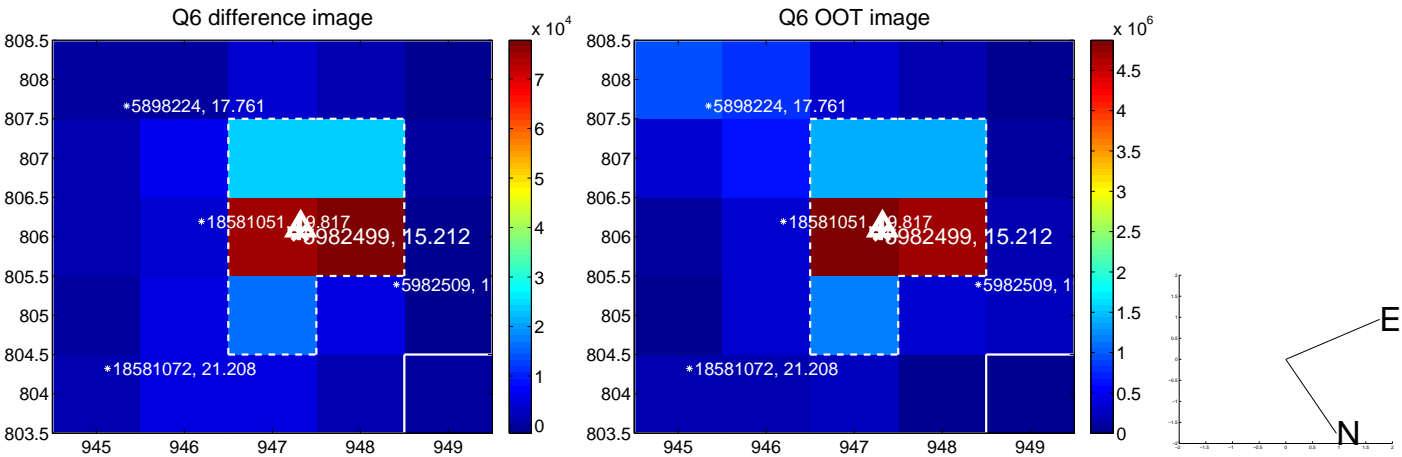
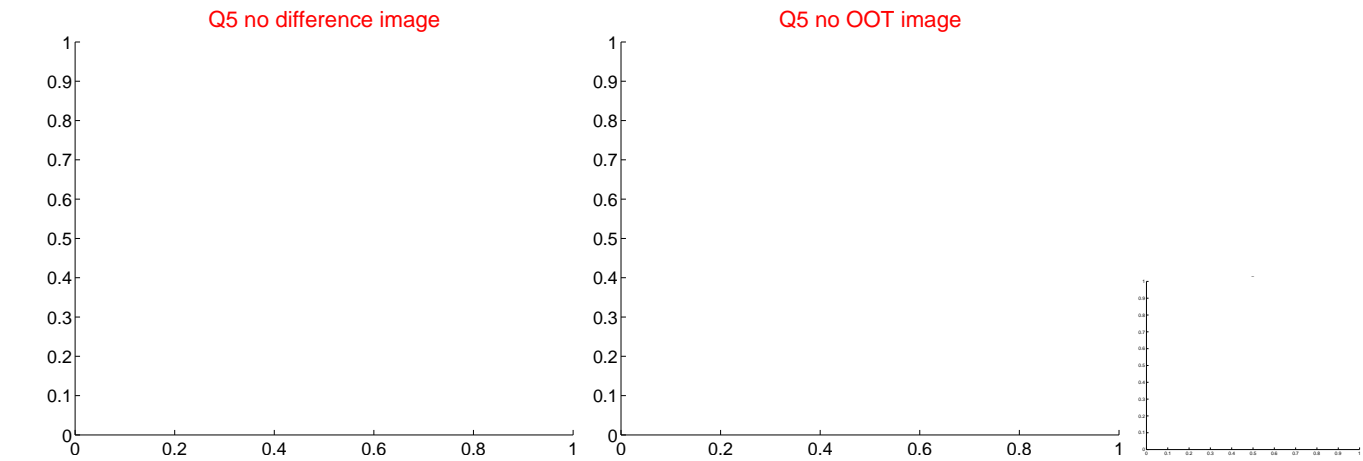


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

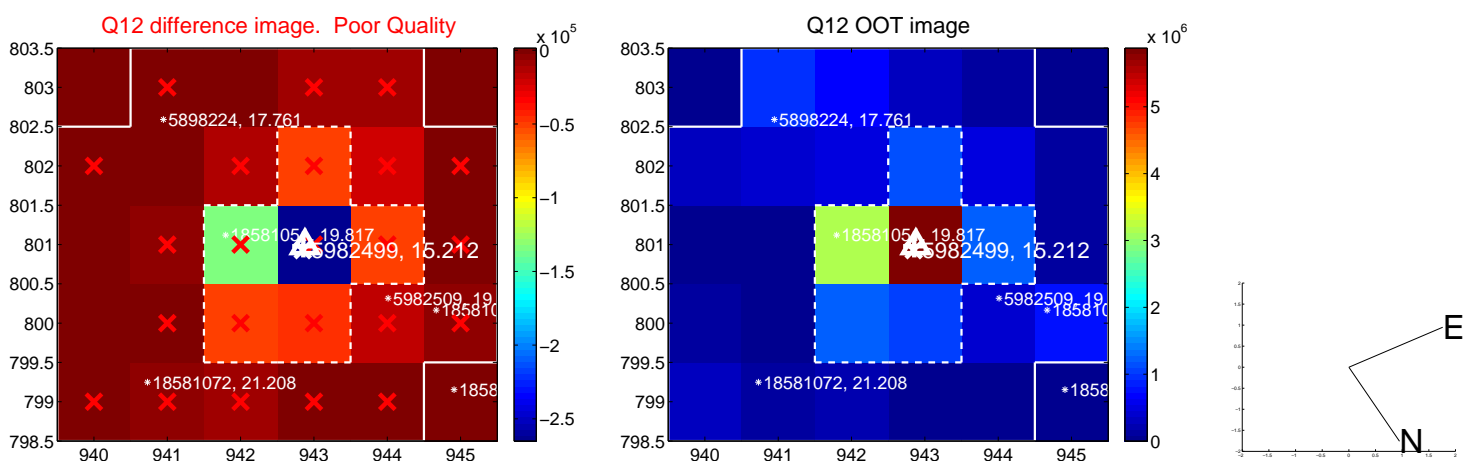
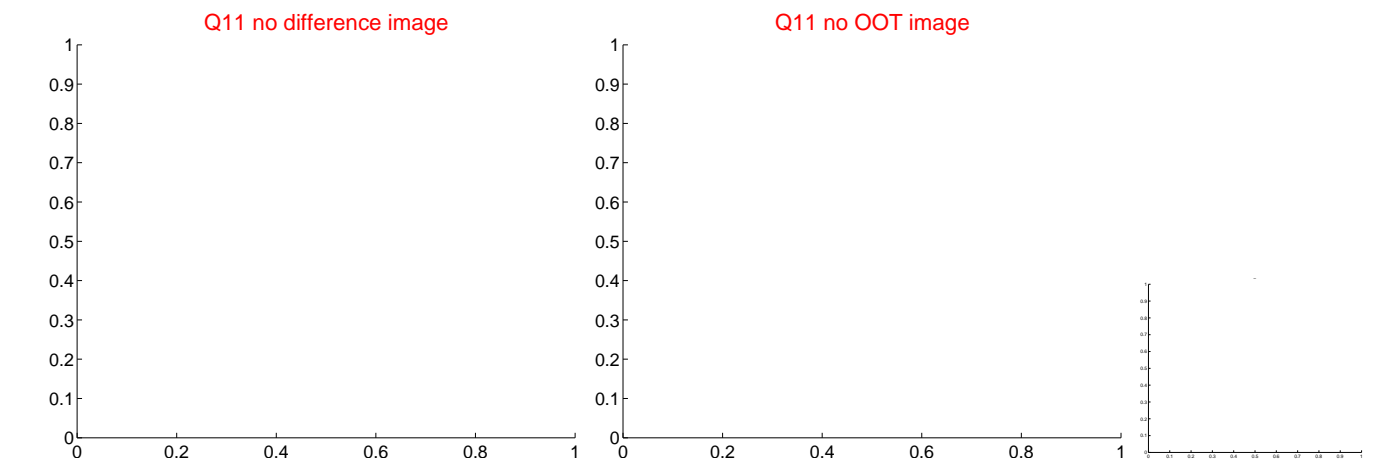
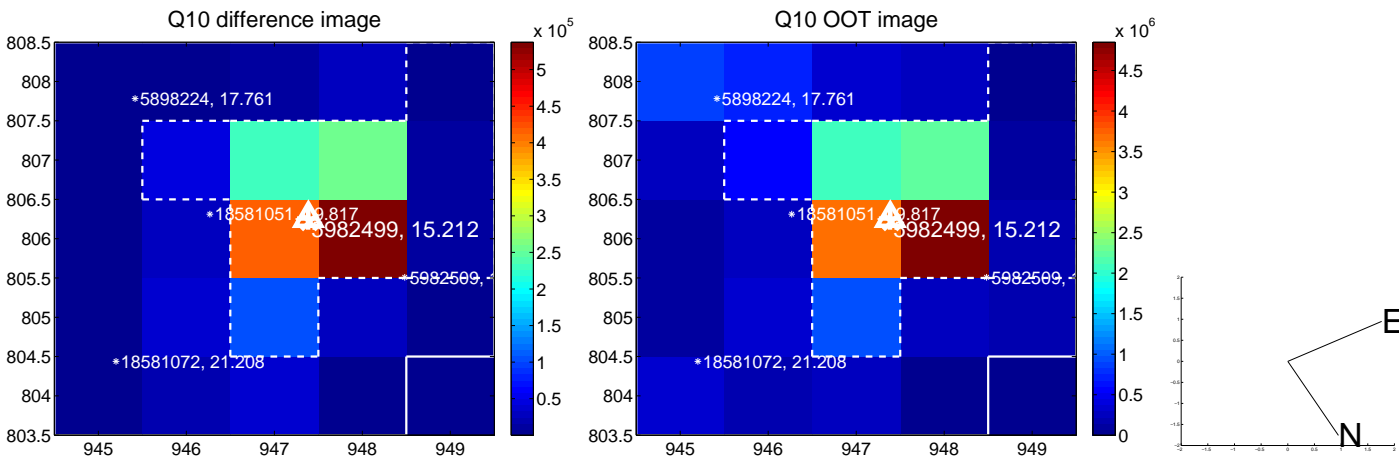
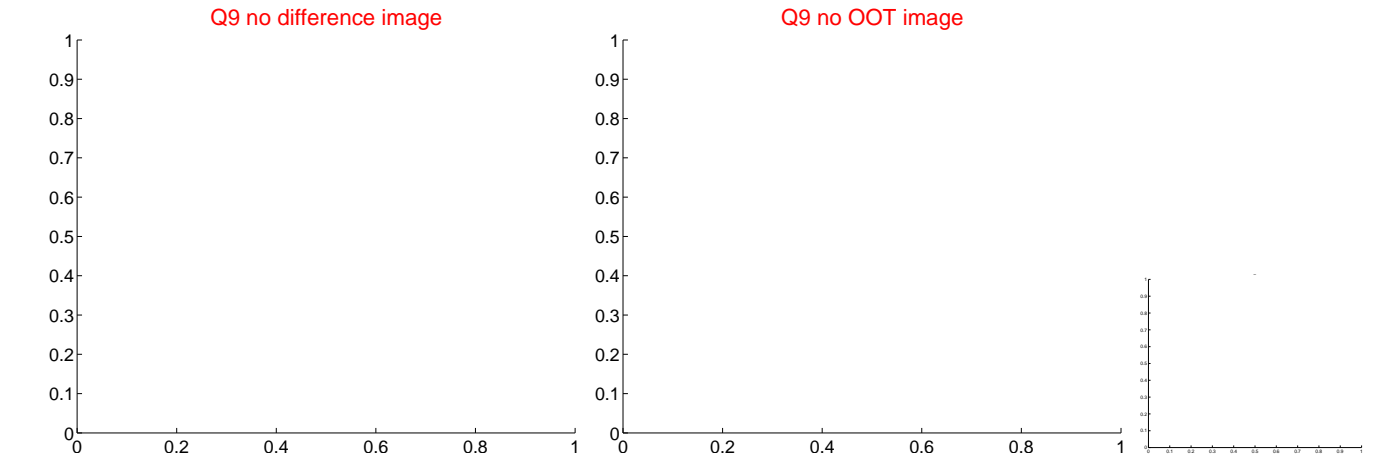
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



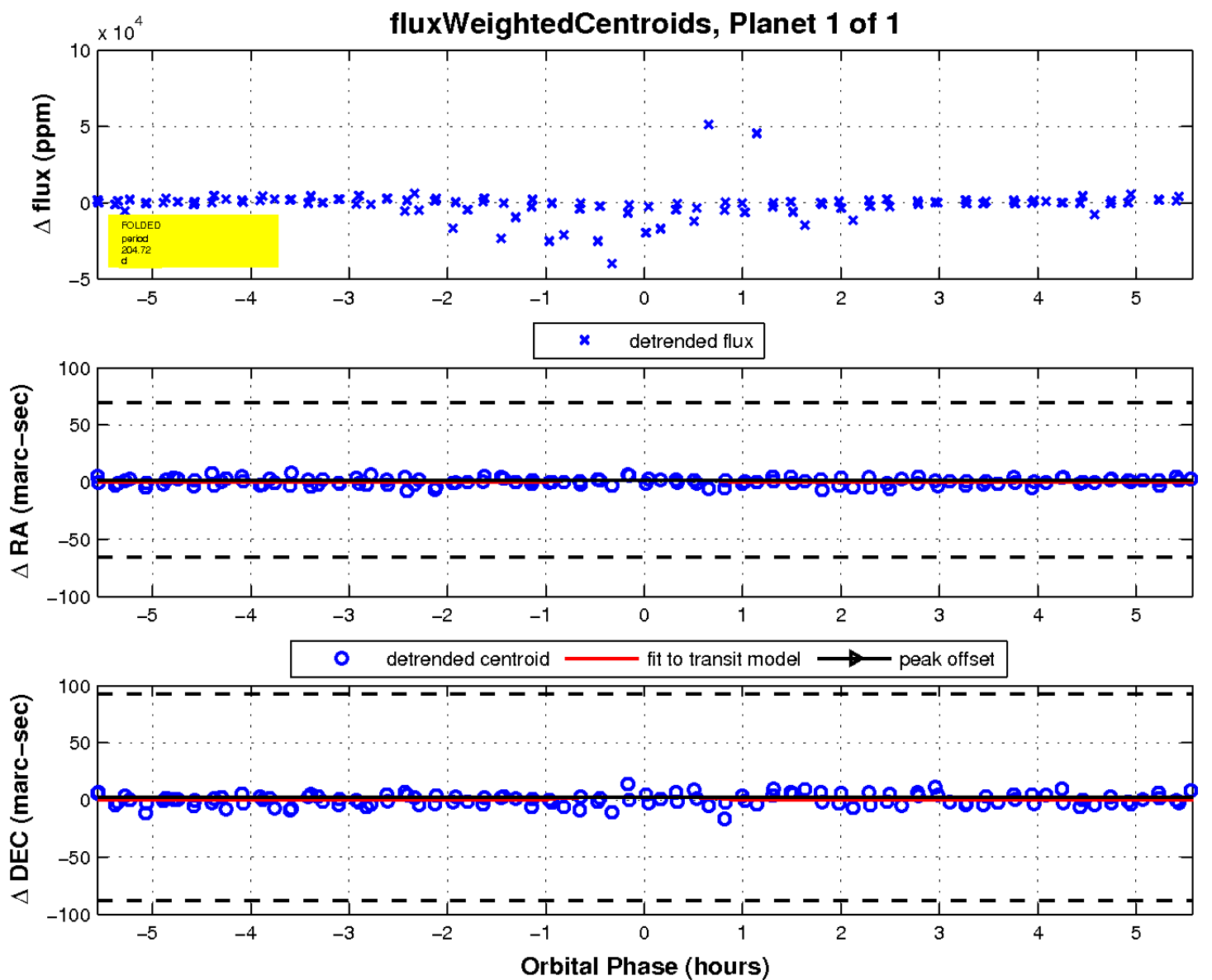
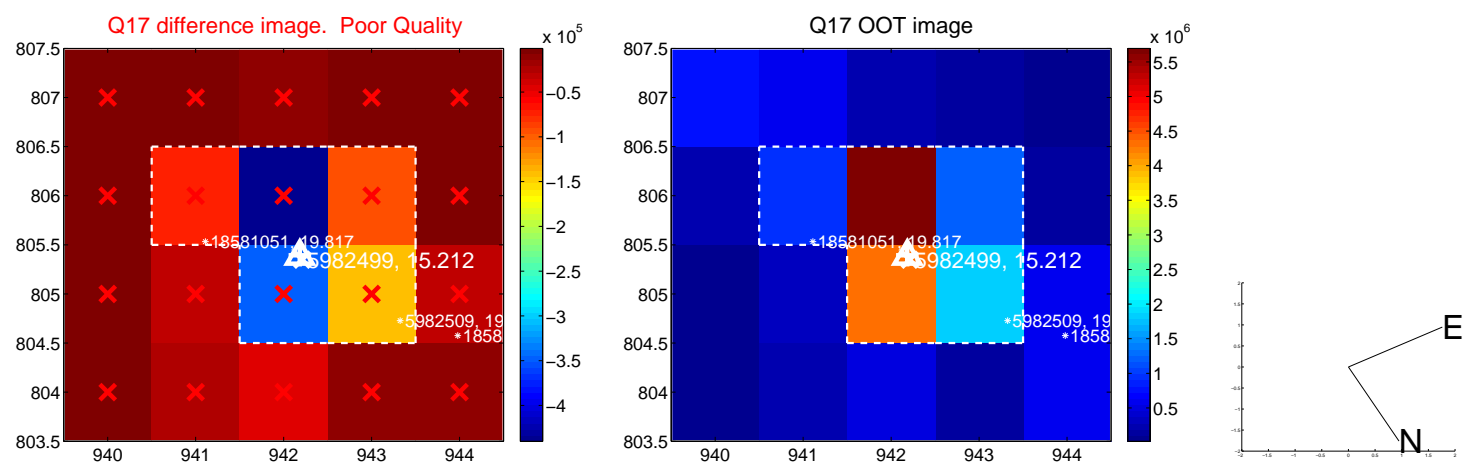
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UKIRT Image

Declination

