

KIC 005543630

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})
005543630-01	OBS	No	479.544986	134.712197	3119.1	15.567	23.3	27.9	153.06	3286	1722.23	1564.45

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005543630-01	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS—CENT_SATURATED—HALO_GHOST

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

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

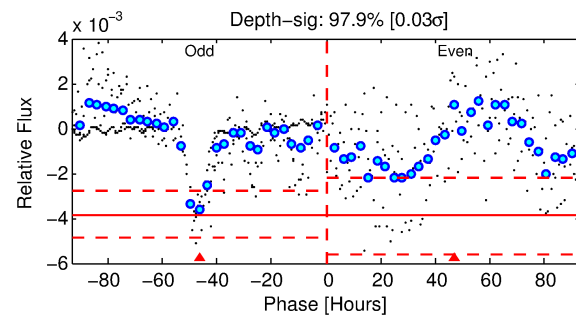
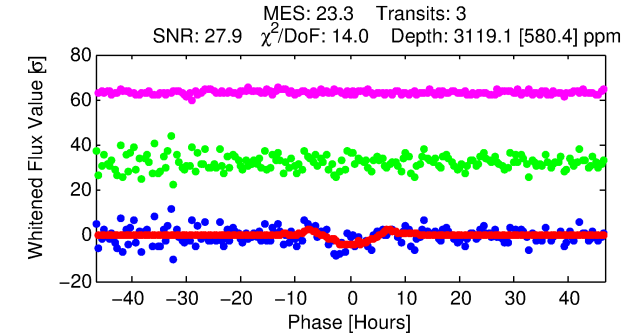
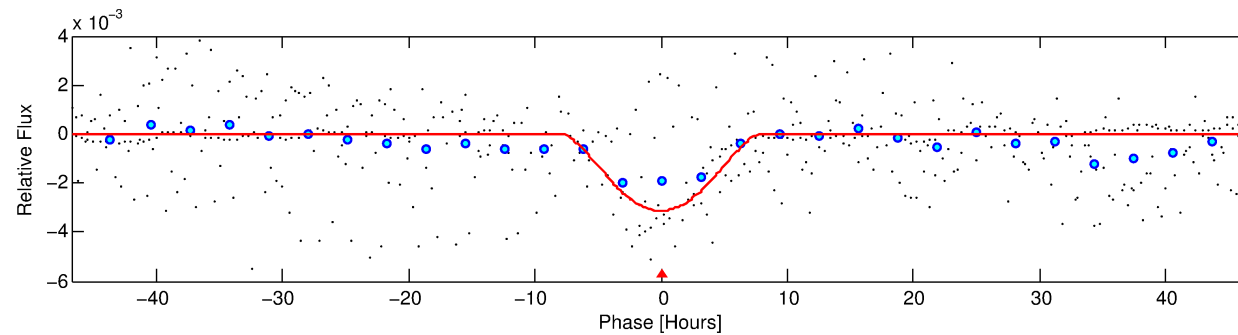
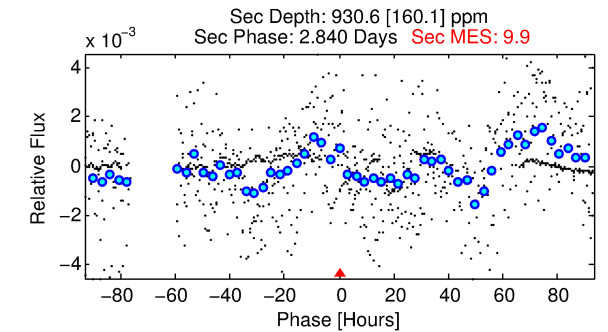
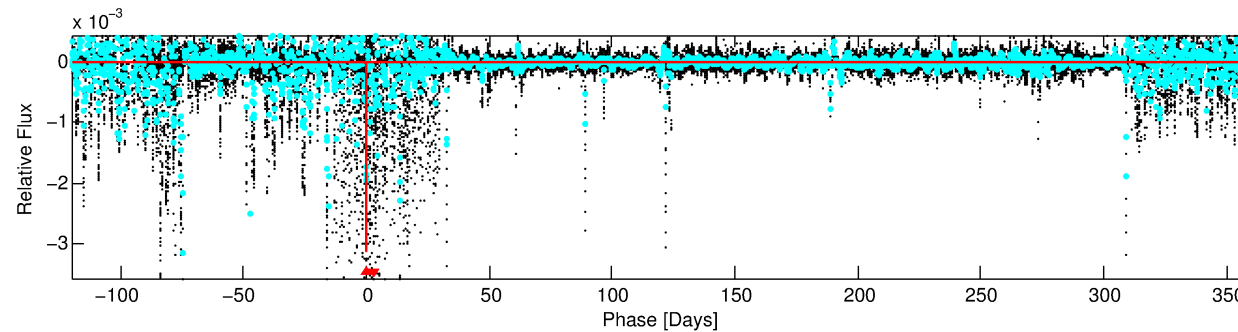
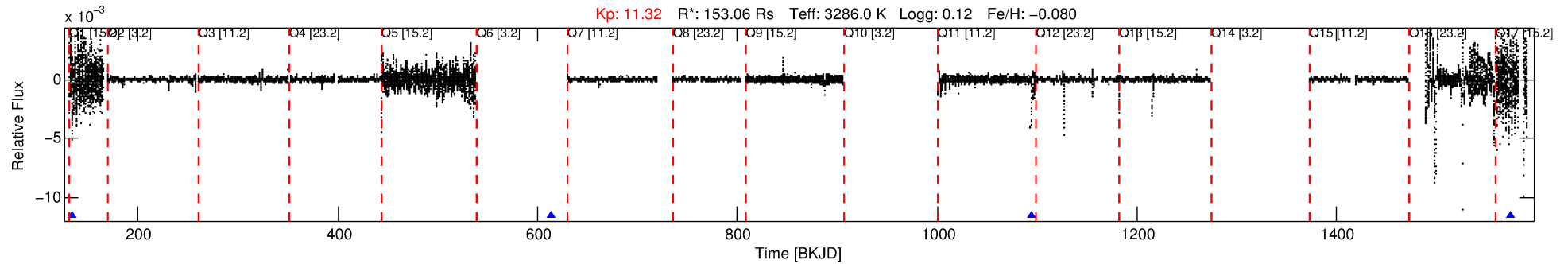
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005543630-01

No Significant Match Found

DV One-Page Summary

KIC: 5543630 Candidate: 1 of 1 Period: 479.545 d



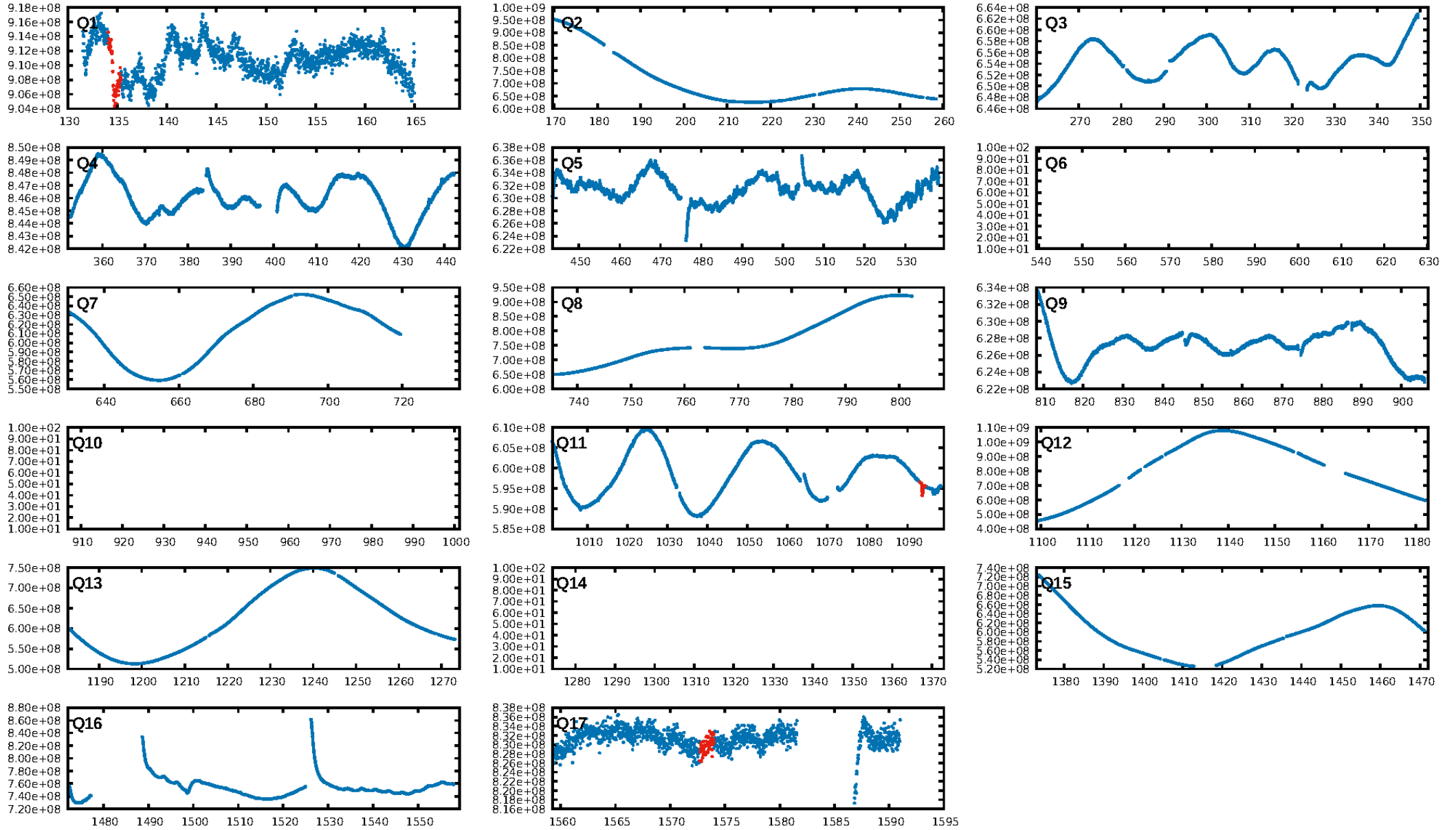
DV Fit Results:

Period = 479.54499 [0.01723] d
Epoch = 134.7122 [0.0379] BKJD
Rp/R* = 0.1031 [0.2316]
a/R* = 112.45 [45.25]
b = 0.99 [0.34]
Seff = 1564.45 [561.83]
Teq = 1604 [144] K
Rp = 1722.23 [3880.87] Re
a = 1.2507 [0.2438] AU
Ag = 0.27 [1.22] [-0.60σ]
Teffp = 1787 [2010] K [0.09σ]

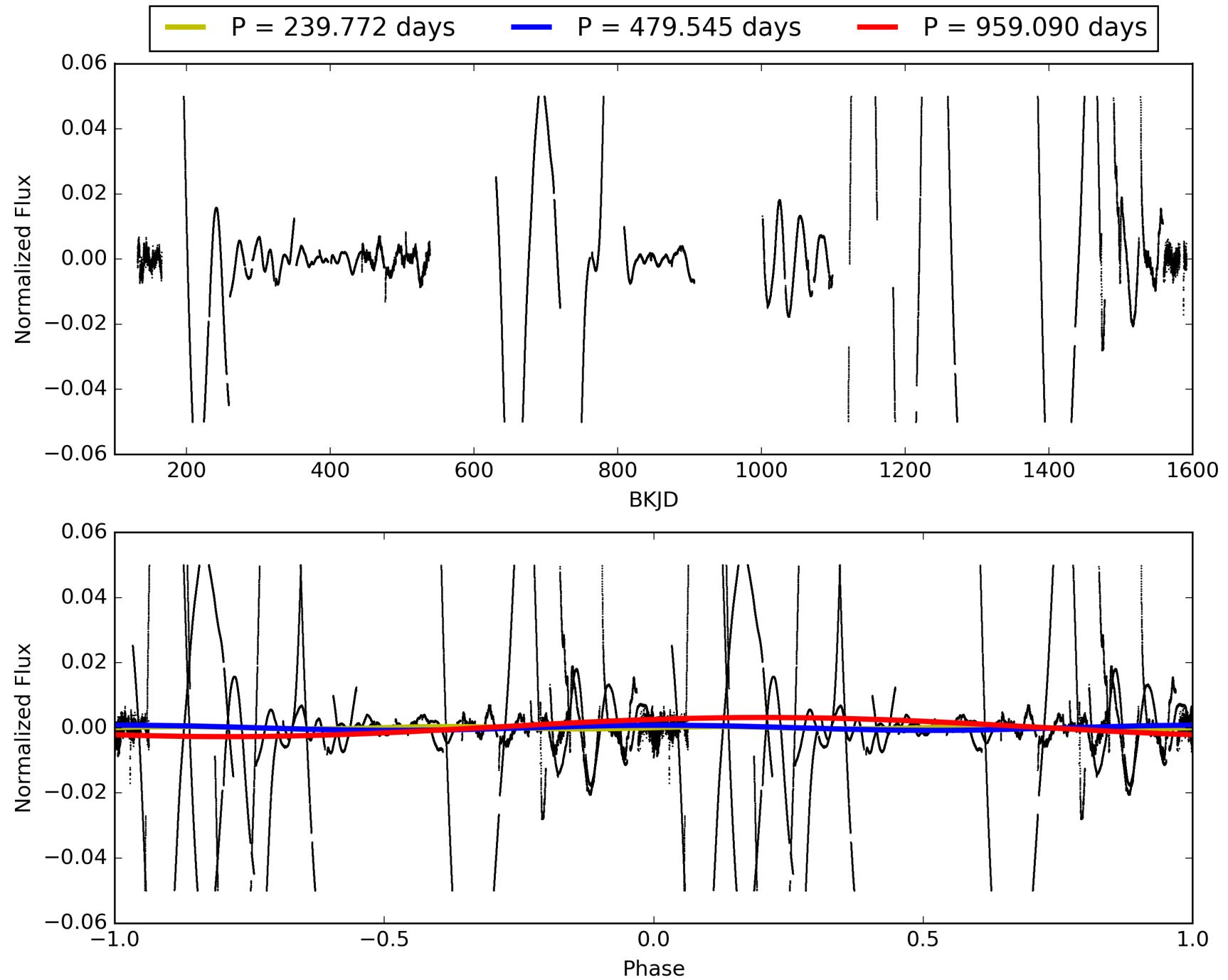
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 0.0%
Bootstrap-pfa: 7.40e-06
RollingBand-fgt: 1.00 [1/1]
GhostDiagnostic-chr: -0.1788
Centroid-sig: 49.3%
Centroid-so: 0.100 arcsec [0.35σ]
OotOffset-rm: N/A
OotOffset-st: 0/0/0/0 [0]
KicOffset-rm: N/A
KicOffset-st: 0/0/0/0 [0]
DiffImageQuality-fgm: N/A
DiffImageOverlap-fno: 1.00 [2/2]

TCE 005543630-01, PDC Light Curves

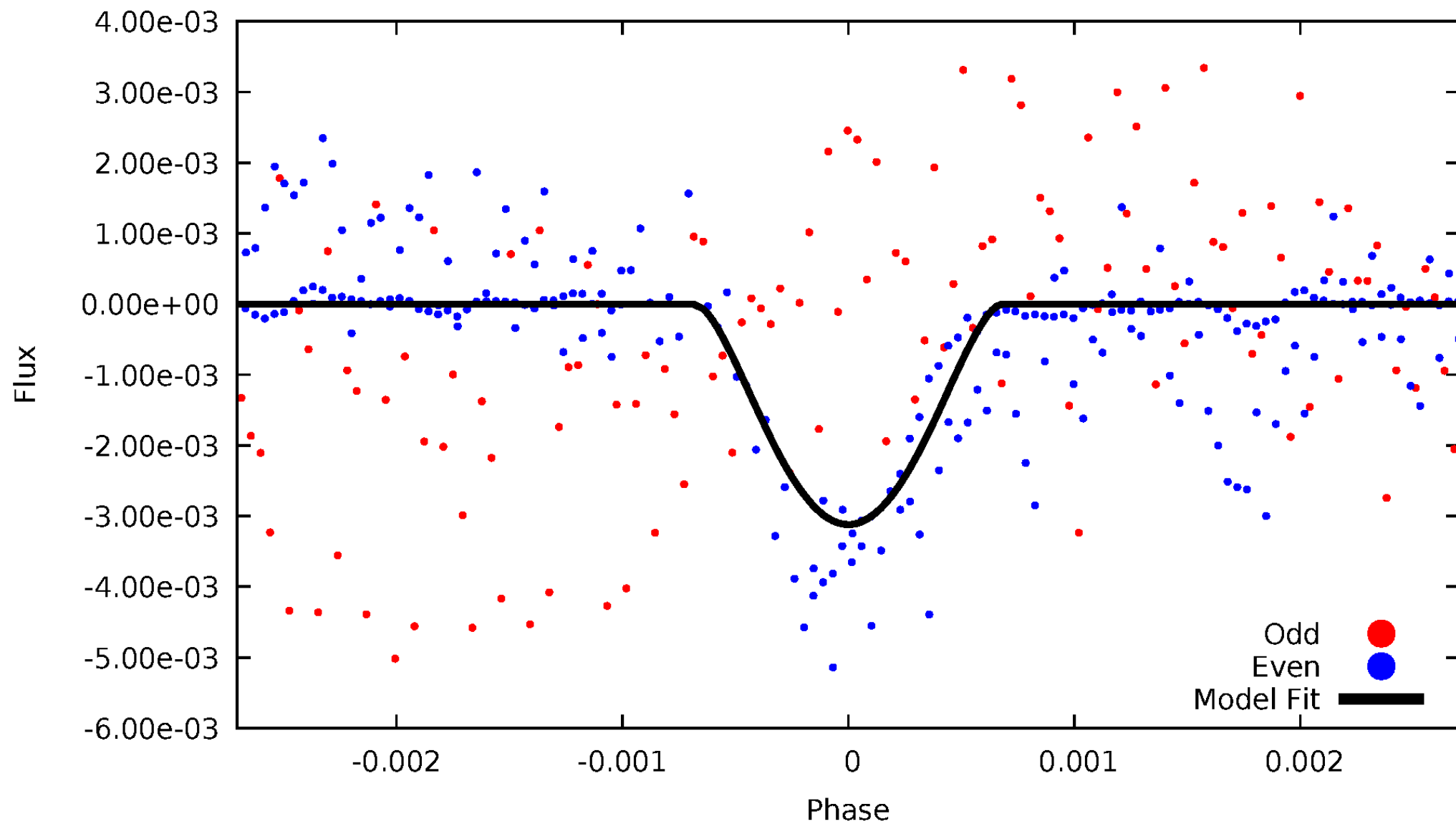


TCE 005543630-01



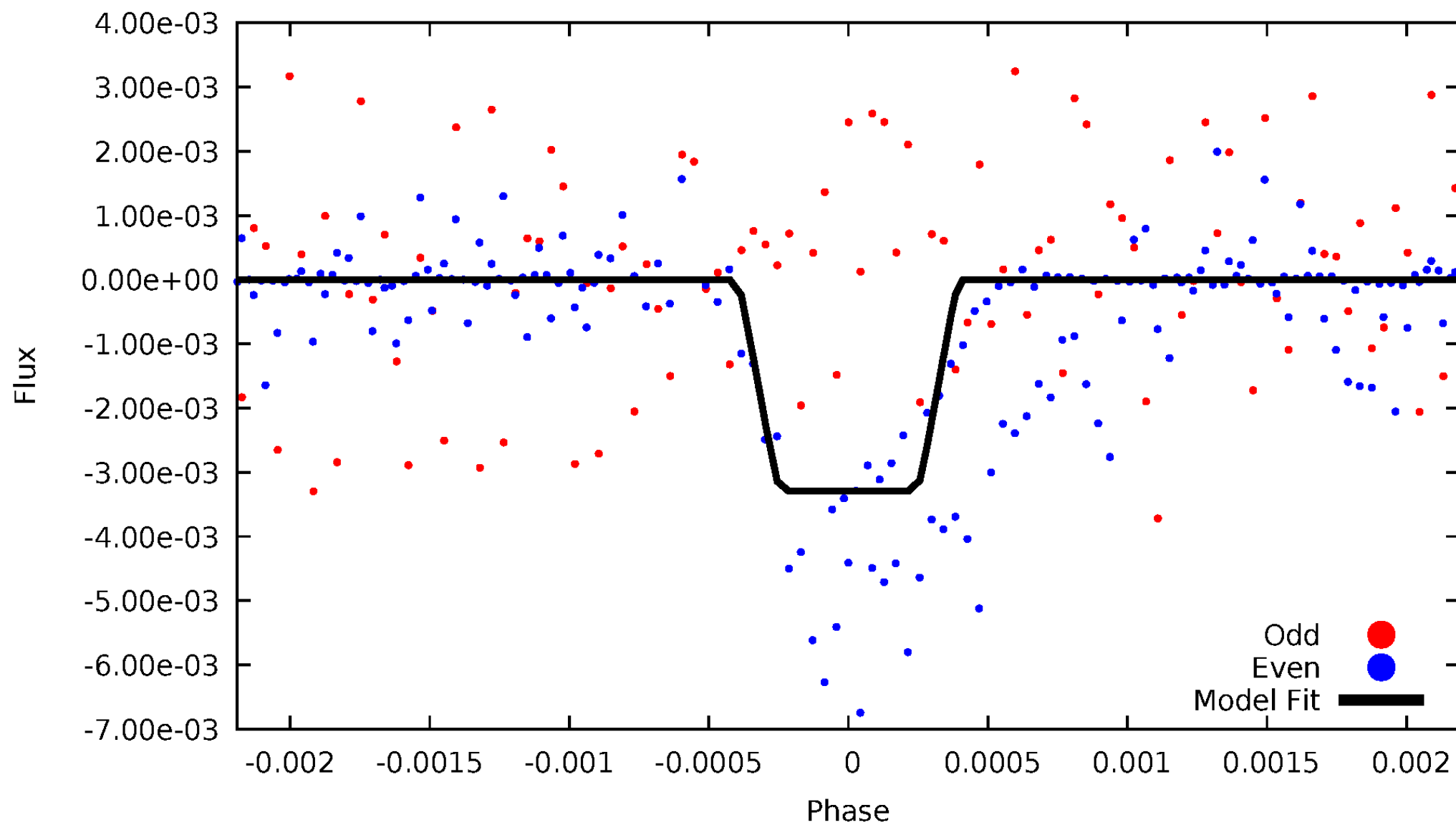
DV Odd/Even

TCE 005543630-01



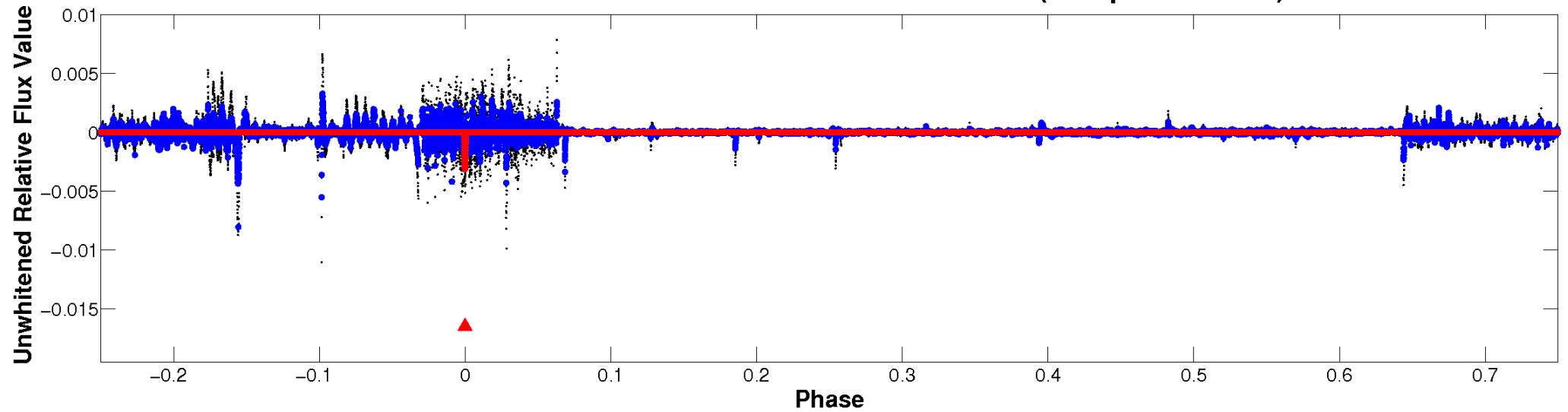
ALT Odd/Even

TCE 005543630-01

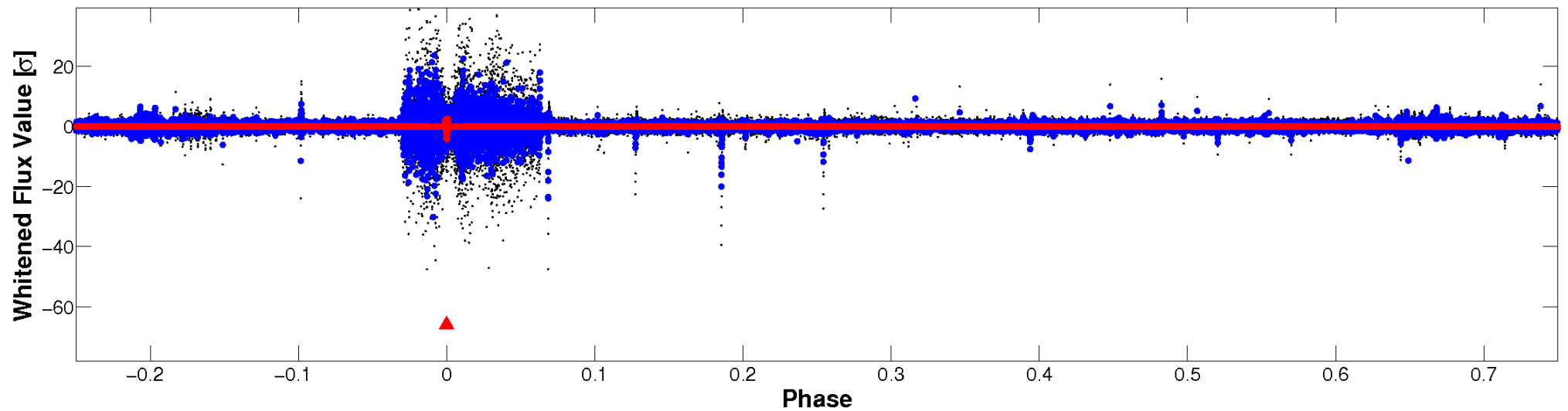


Non-Whitened Vs. Whitened Light Curve

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

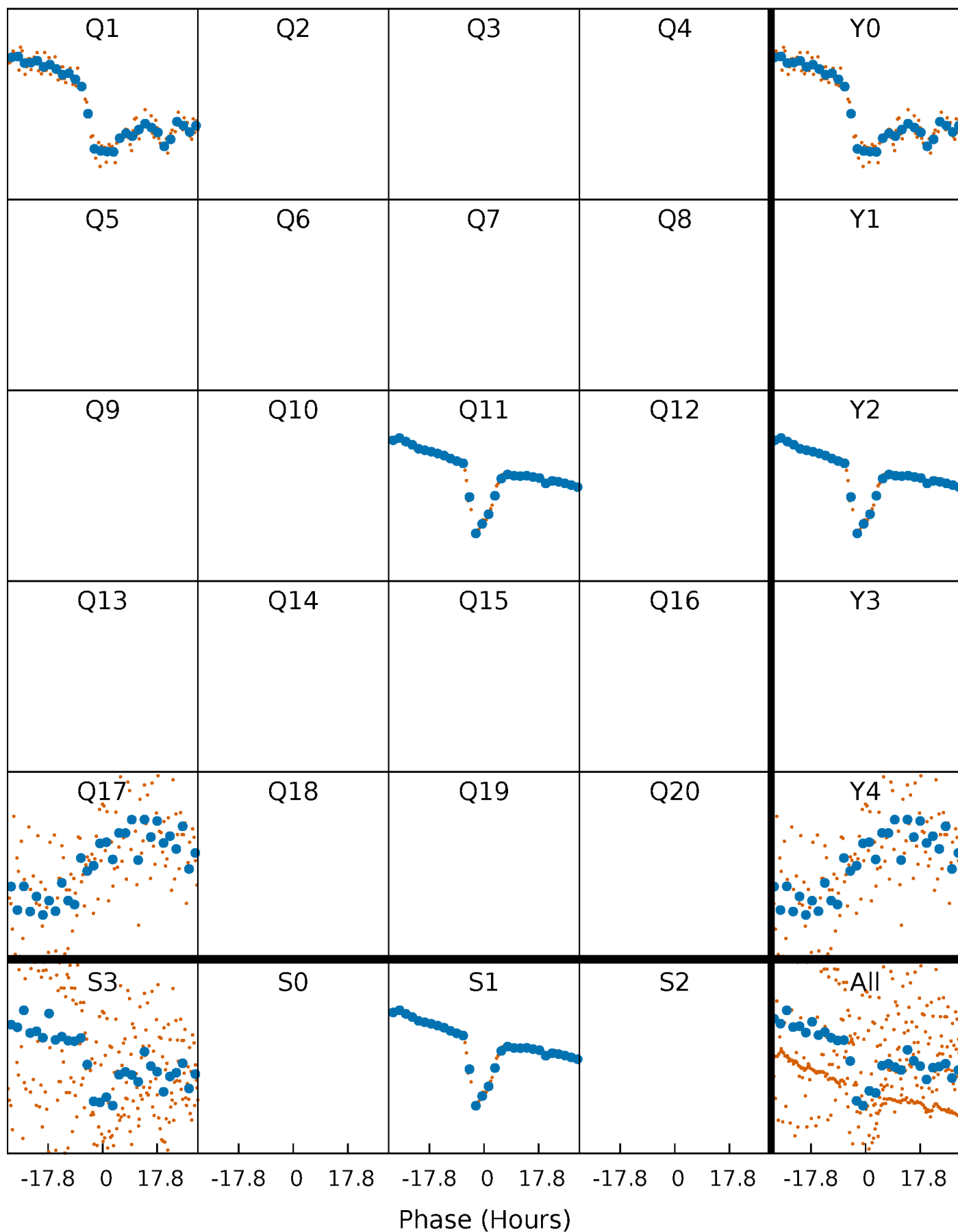


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



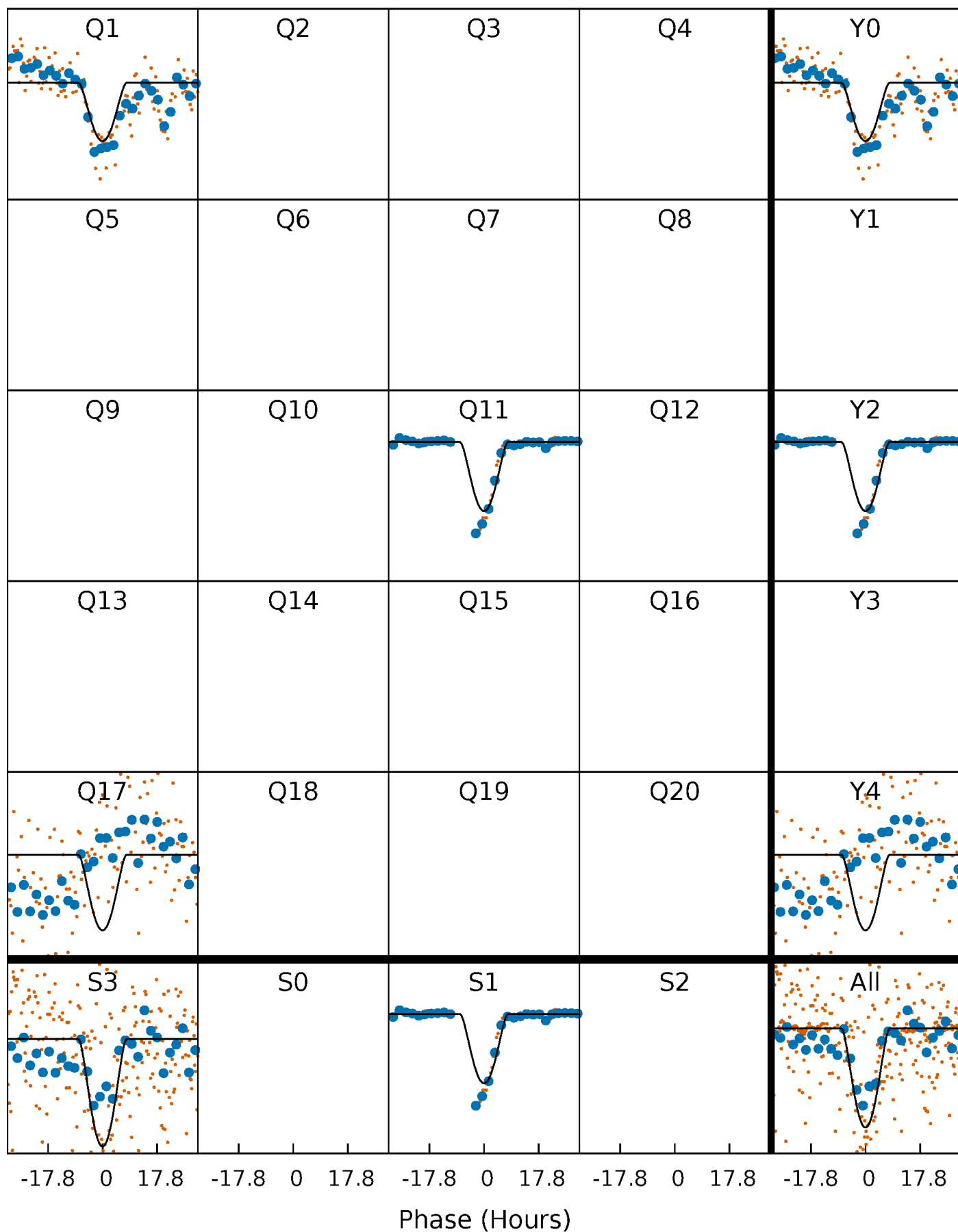
PDC Quarter-Phased Transit Curves

TCE 005543630-01 P=479.544986 Days $T_0=134.712197$ (BKJD)



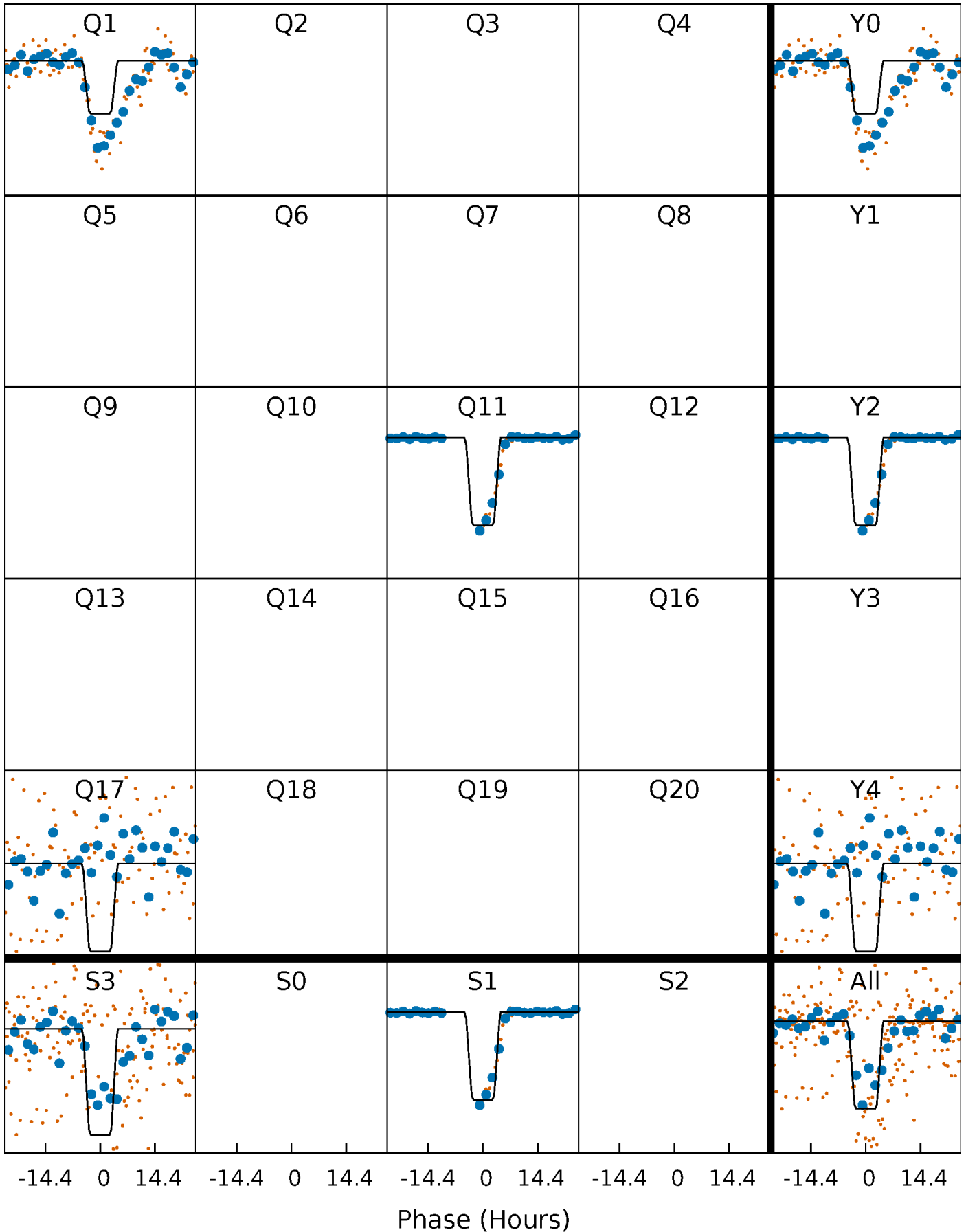
DV Quarter-Phased Transit Curves

TCE 005543630-01 P=479.544986 Days $T_0=134.712197$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

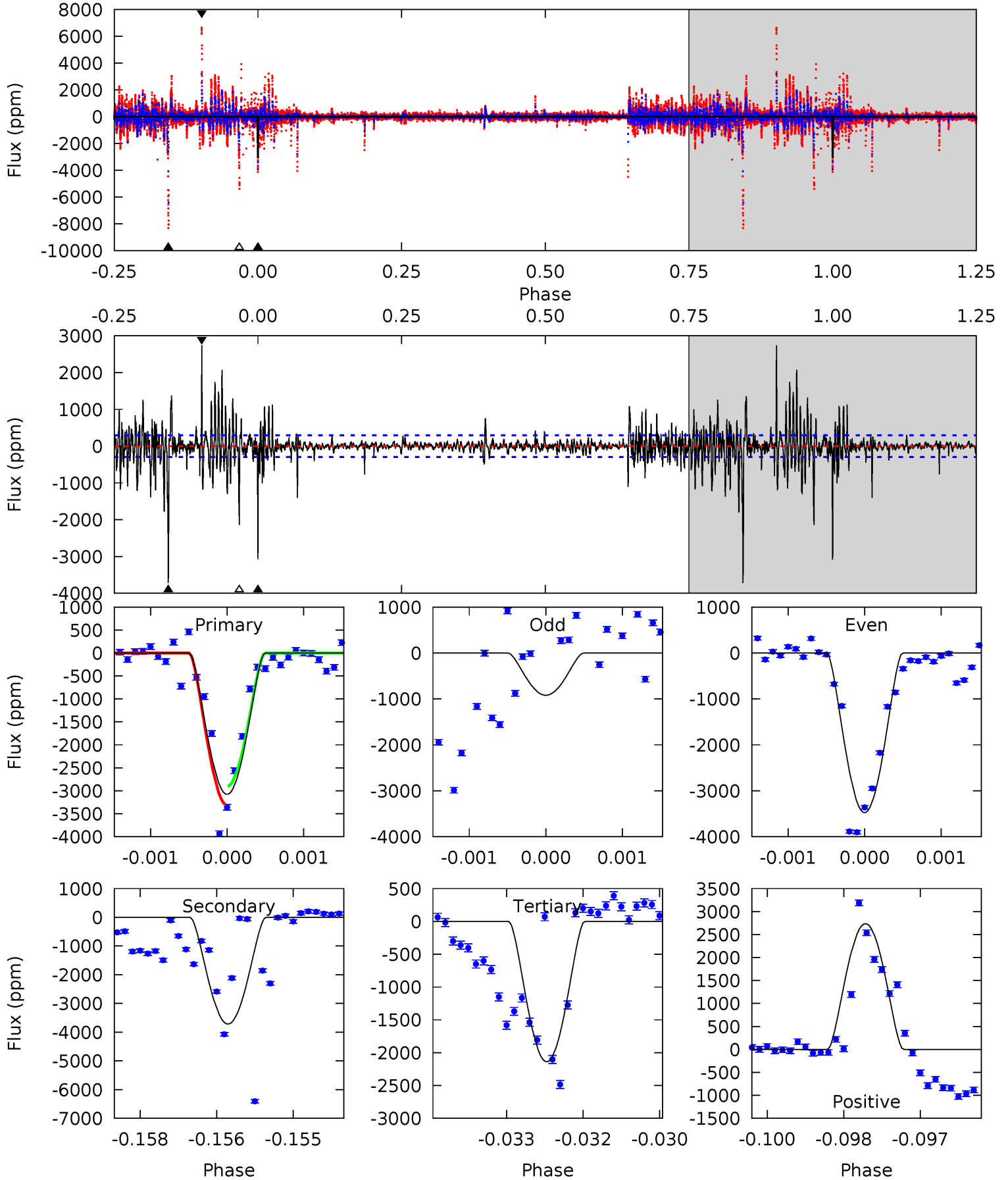
TCE 005543630-01 P=479.548408 Days $T_0=134.659203$ (BKJD)



DV Model-Shift Uniqueness Test

005543630-01, P = 479.544986 Days, E = 134.712197 Days

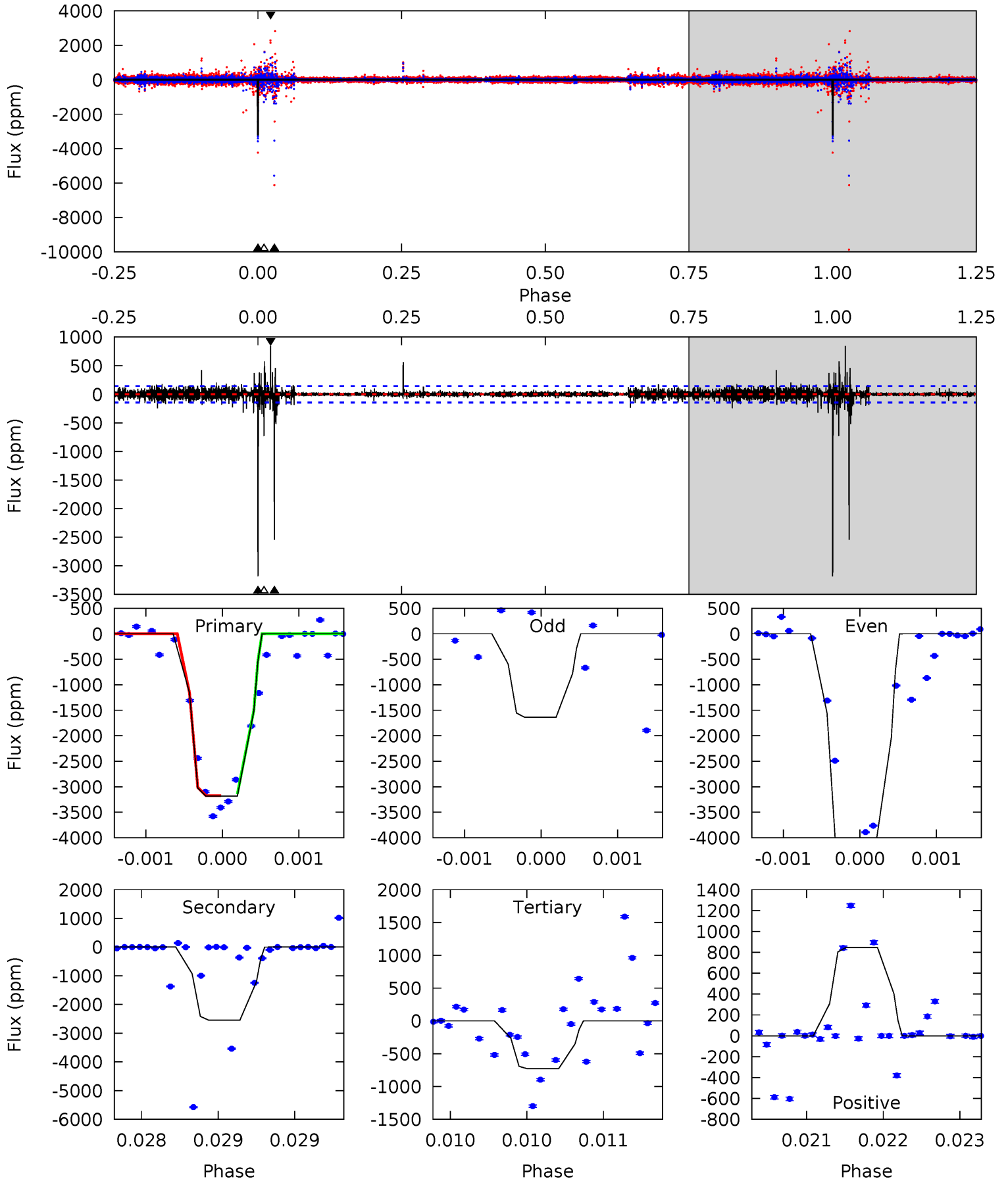
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
56.4	68.1	39.2	50.1	5.39	3.20	4.93	17.2	6.25	28.9	18.0	16.8	0.70	0.42	0



Alt Model-Shift Uniqueness Test

005543630-01, P = 479.548408 Days, E = 134.659203 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
121.1	96.7	27.7	32.2	5.49	3.36	1.48	93.4	88.9	69.0	64.6	32.5	0.80	0.21	0



Stellar Parameters For KIC 005543630

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	3286^{+117}_{-88}	$0.123^{+0.200}_{-0.050}$	$-0.080^{+0.250}_{-0.150}$	$153.058^{+9.192}_{-27.576}$	$1.134^{+0.189}_{-0.155}$	$0.000^{+0.000}_{-0.000}$
	+4%/-3%	+163%/-41%	+312%/-188%	+6%/-18%	+17%/-14%	+93%/-14%
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 005543630-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-3716 ± 55	$3398.51^{+3065.72}_{-2233.37}$	2203^{+106}_{-118}	-1799^{+4883}_{-520}	$0.279^{+2.041}_{-0.199}$
Alt.	-2543 ± 26	$2824.29^{+3309.06}_{-1976.75}$	2207^{+95}_{-116}	-1727^{+4900}_{-596}	$0.284^{+2.669}_{-0.225}$

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 $A_{obs} \gg 1.0$

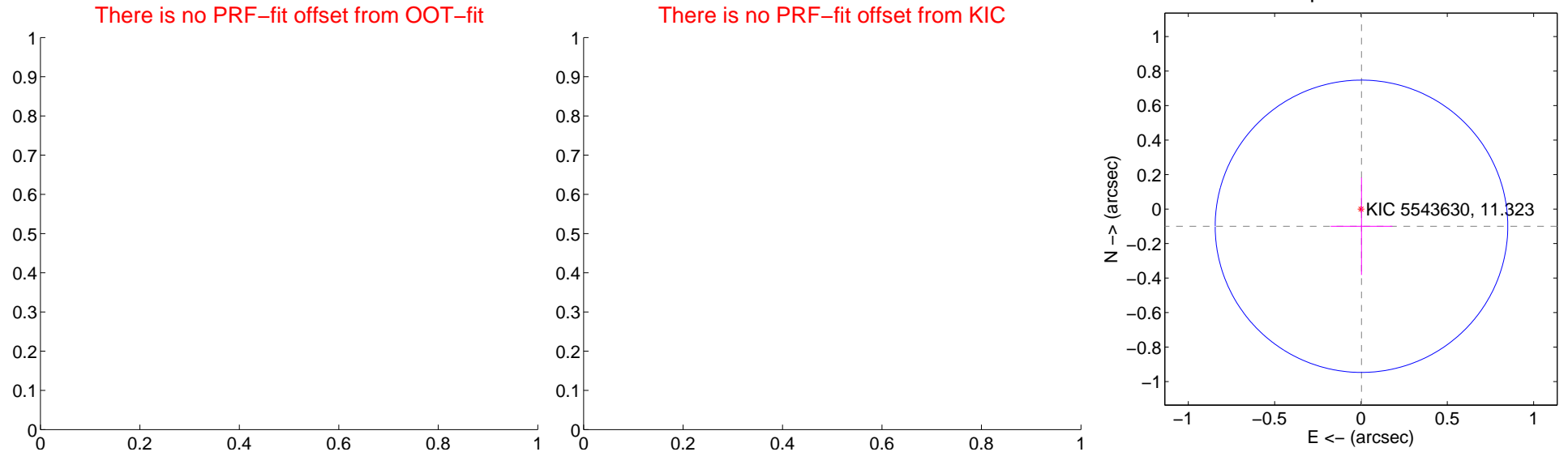
DV Centroid Data

Supplemental centroid analysis for 005543630-01. **Kepler magnitude: 11.32.** Transit SNR 27.88

There are 0 quarters with good PRF difference image offsets

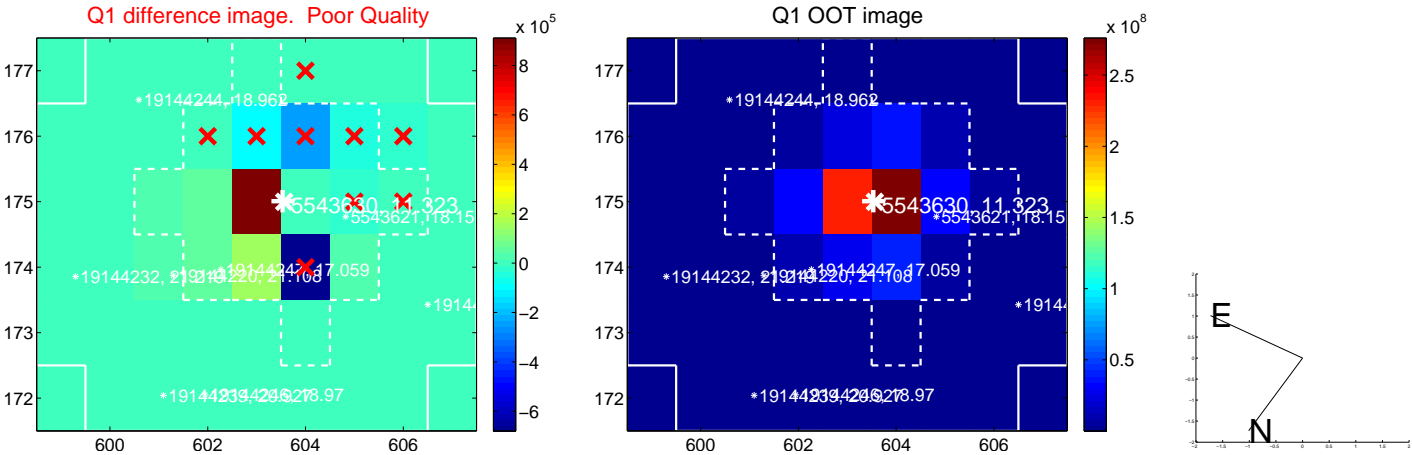
The direct PRF centroid is offset from the target star catalog position by about NaN arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	—	—	—	—
PRF-fit source offset from KIC position	—	—	—	—
photometric centroid source offset	0.10 ± 0.28	0.35	-0.00 ± 0.18	-0.10 ± 0.28



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.



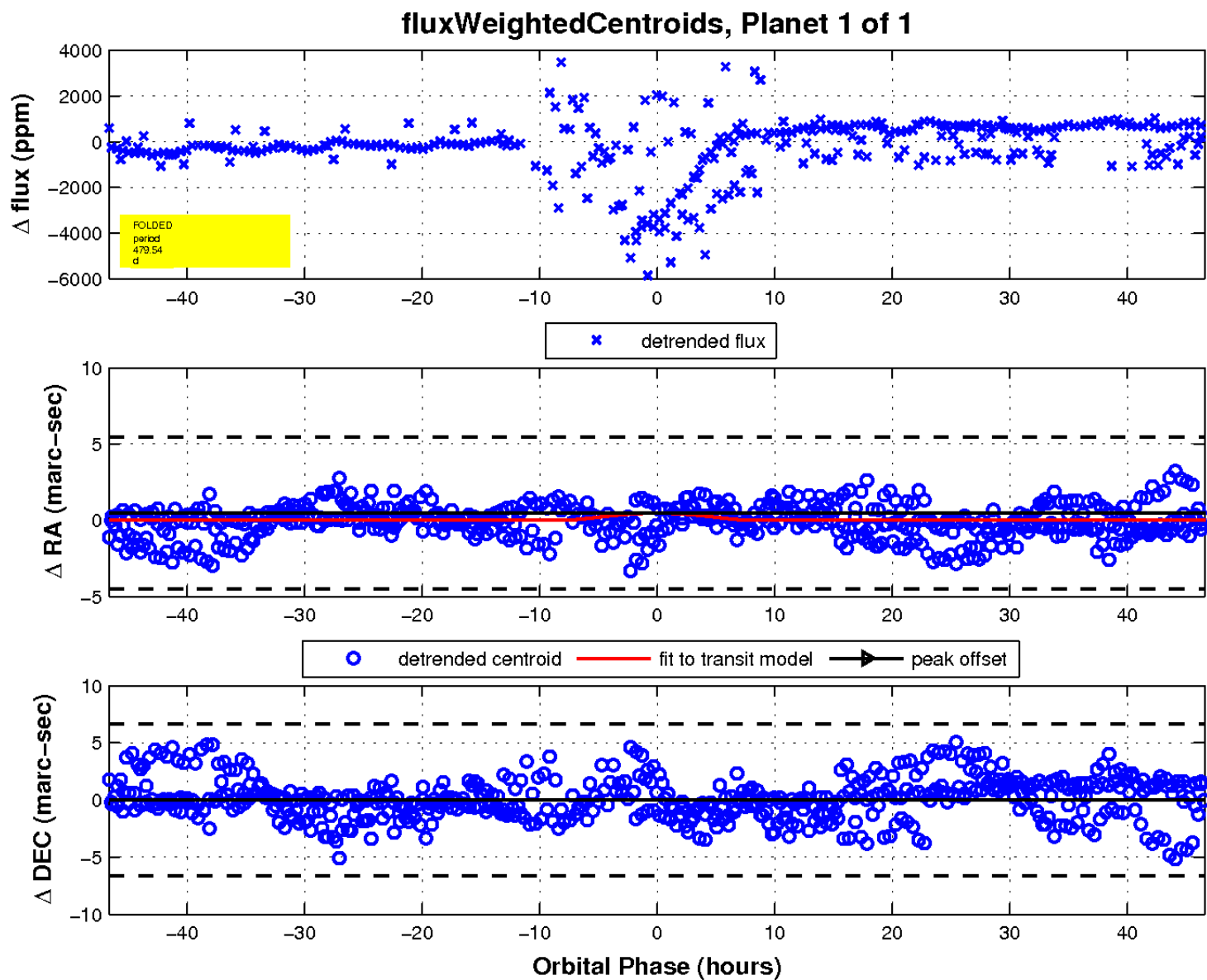
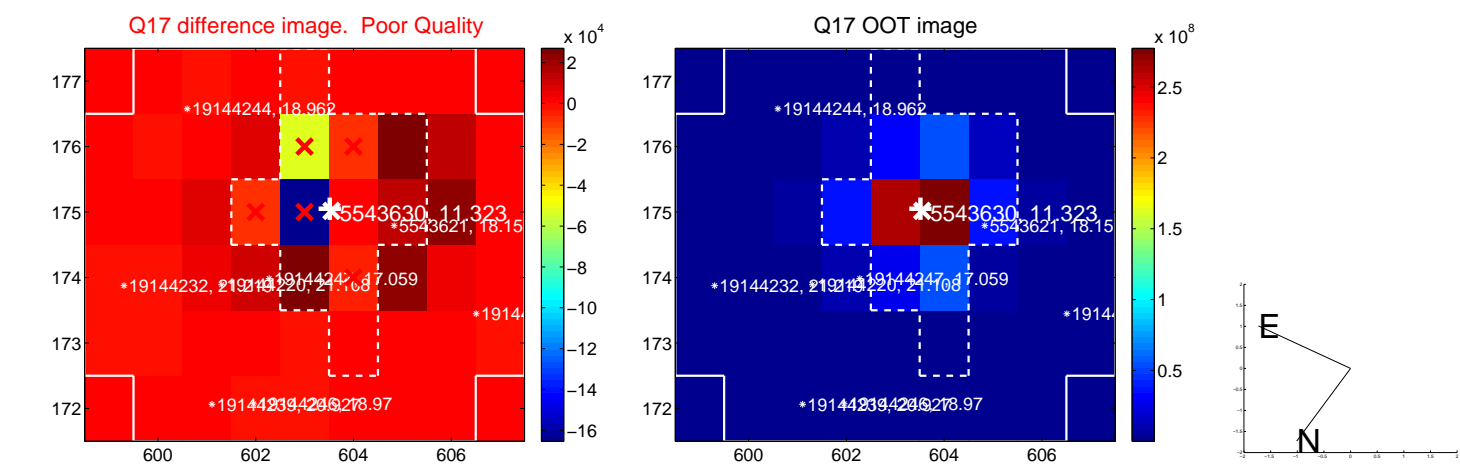
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \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.



UKIRT Image

