

KIC 008228581

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})
008228581-01	OBS	No	370.429483	299.817151	5718.6	39.344	14.6	15.9	1.00	5780	9.00	0.98

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008228581-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL—LPP_DV—ALL_TRANS_CHASES—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.

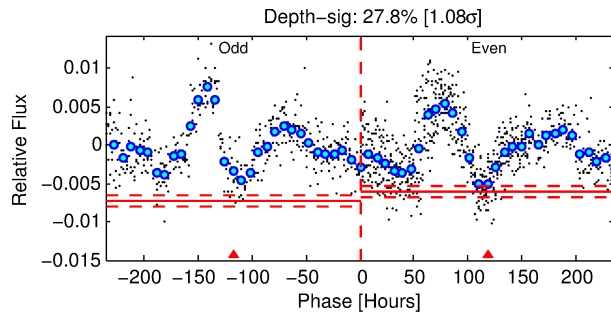
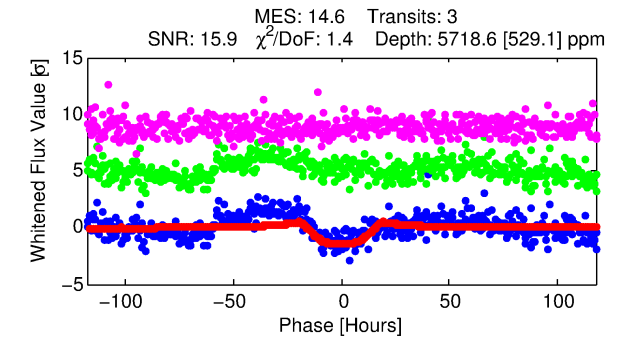
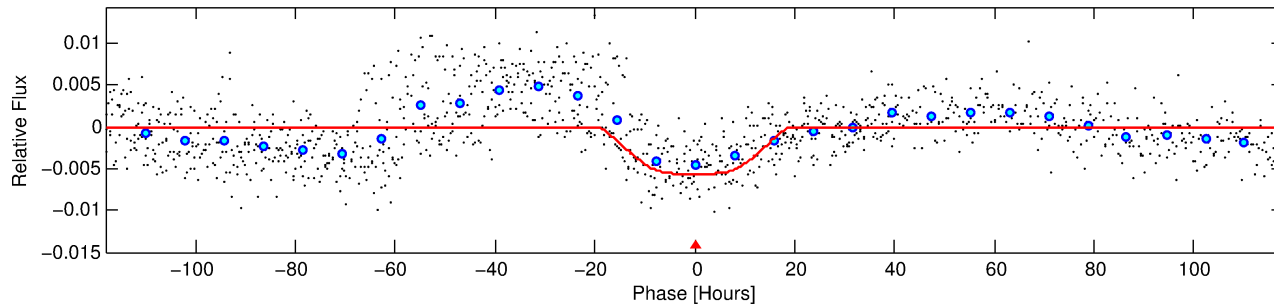
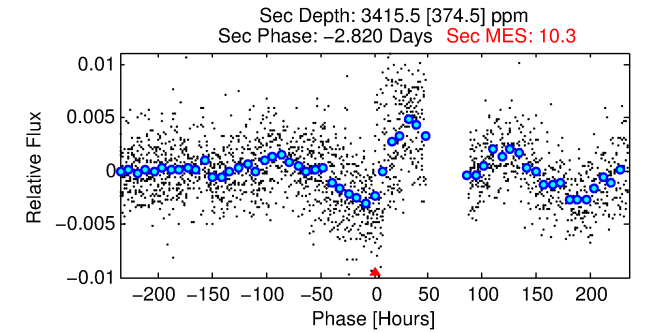
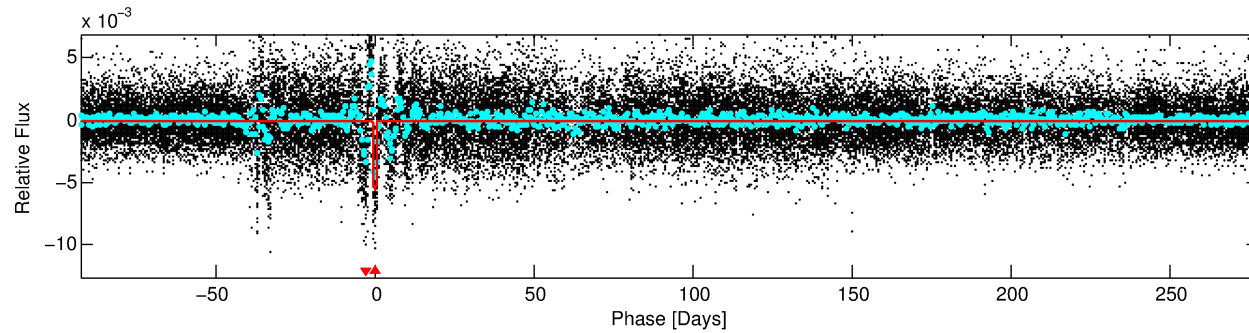
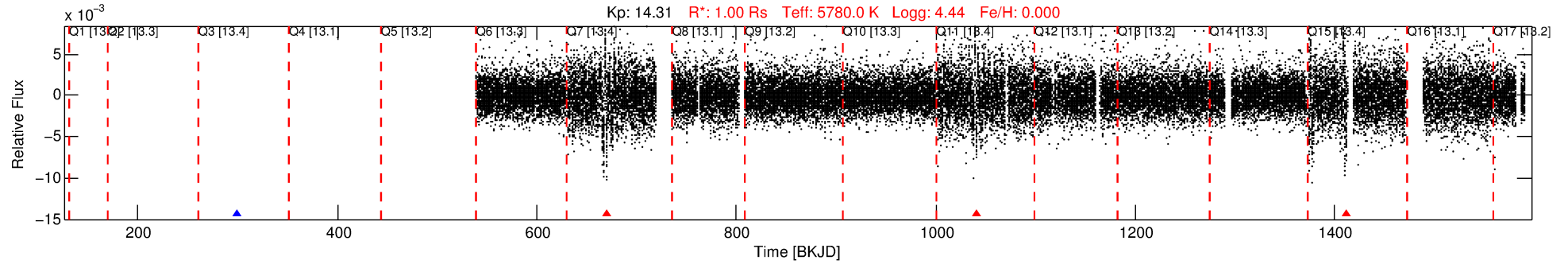
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008228581-01

No Significant Match Found

DV One-Page Summary

KIC: 8228581 Candidate: 1 of 1 Period: 370.429 d



DV Fit Results:

Period = 370.42948 [0.03818] d
Epoch = 299.8172 [0.0795] BKJD
Rp/R* = 0.0825 [0.0055]
a/R* = 43.86 [5.49]
b = 0.89 [0.03]
Seff = 0.98 [0.00]
Teq = 254 [0] K
Rp = 9.00 [0.60] Re
a = 1.0096 [0.0001] AU
Ag = 23640.06 [4085.64] [5.79 σ]
Teffp = 4865 [210] K [21.94 σ]

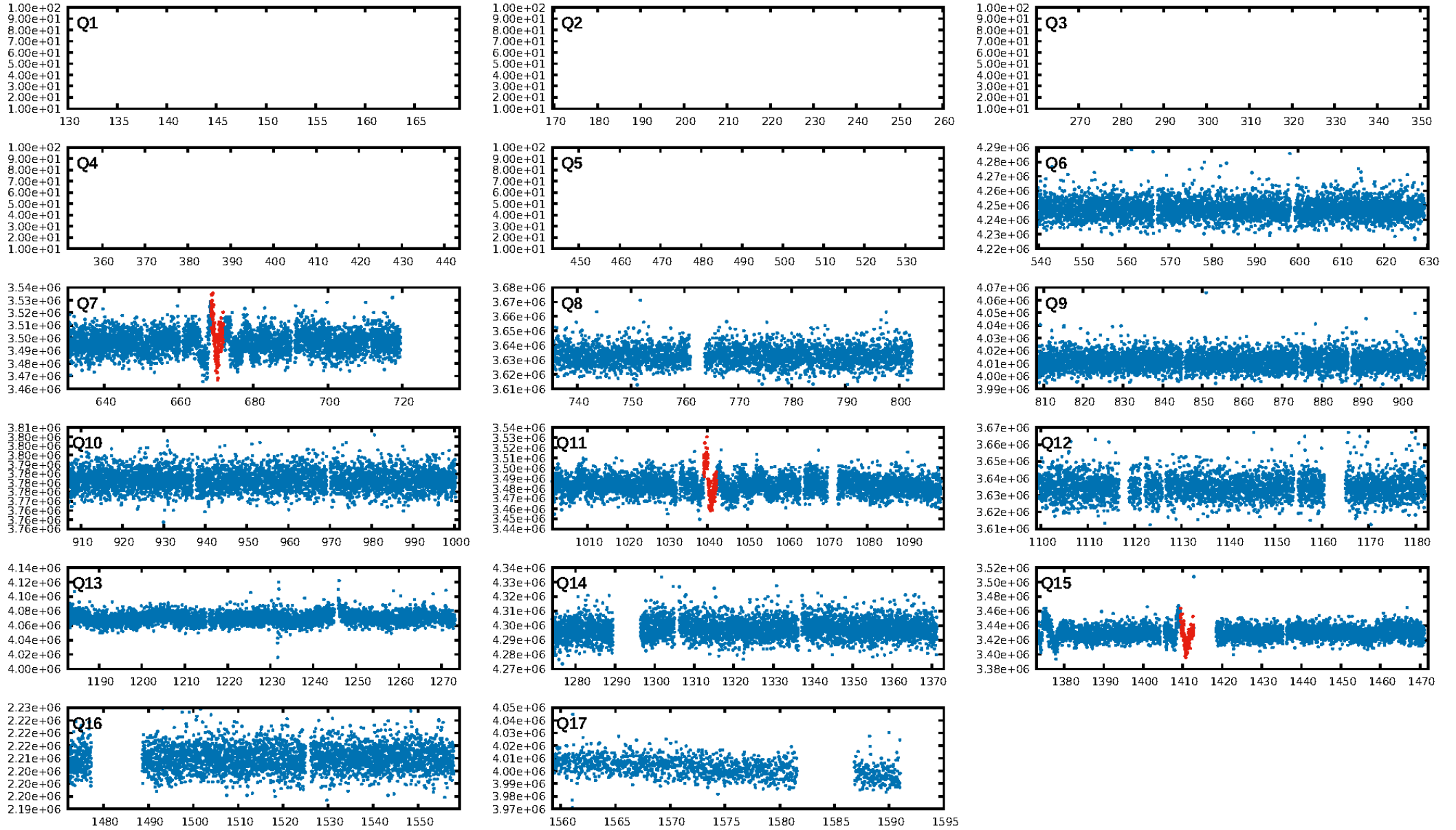
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 71.8%
ModelChiSquareGoF-sig: 96.5%
Bootstrap-pfa: 3.29e-22
RollingBand-fgt: 0.00 [0/3]
GhostDiagnostic-chr: 2.268
Centroid-sig: 0.0%
Centroid-so: 3.895 arcsec [4.37 σ]
OotOffset-rm: N/A
KicOffset-rm: N/A
OotOffset-st: 0/0/0/0 [0]
KicOffset-st: 0/0/0/0 [0]
DiffImageQuality-fgm: N/A
DiffImageOverlap-fno: 1.00 [1/1]

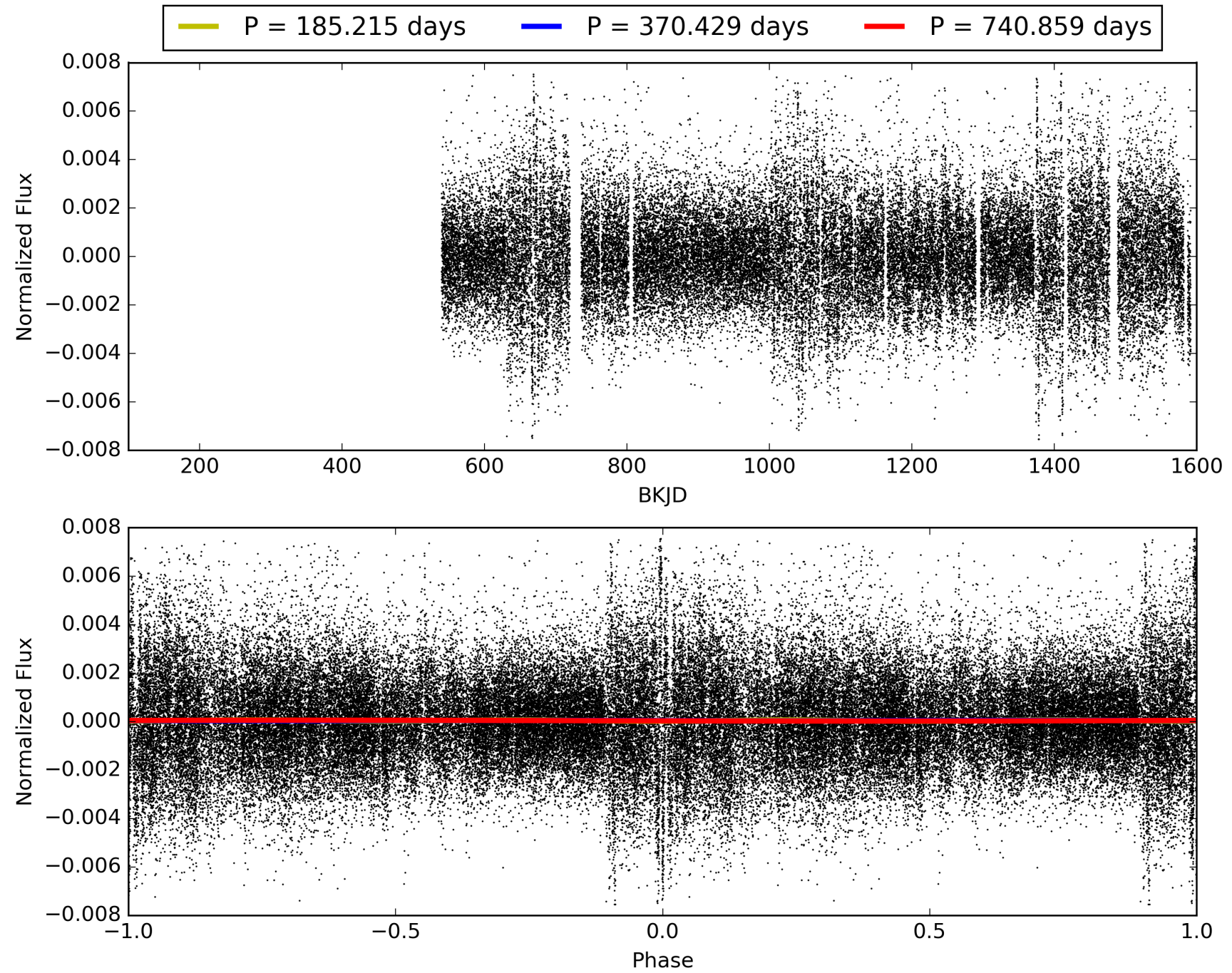
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 14:18:14 Z

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

TCE 008228581-01, PDC Light Curves

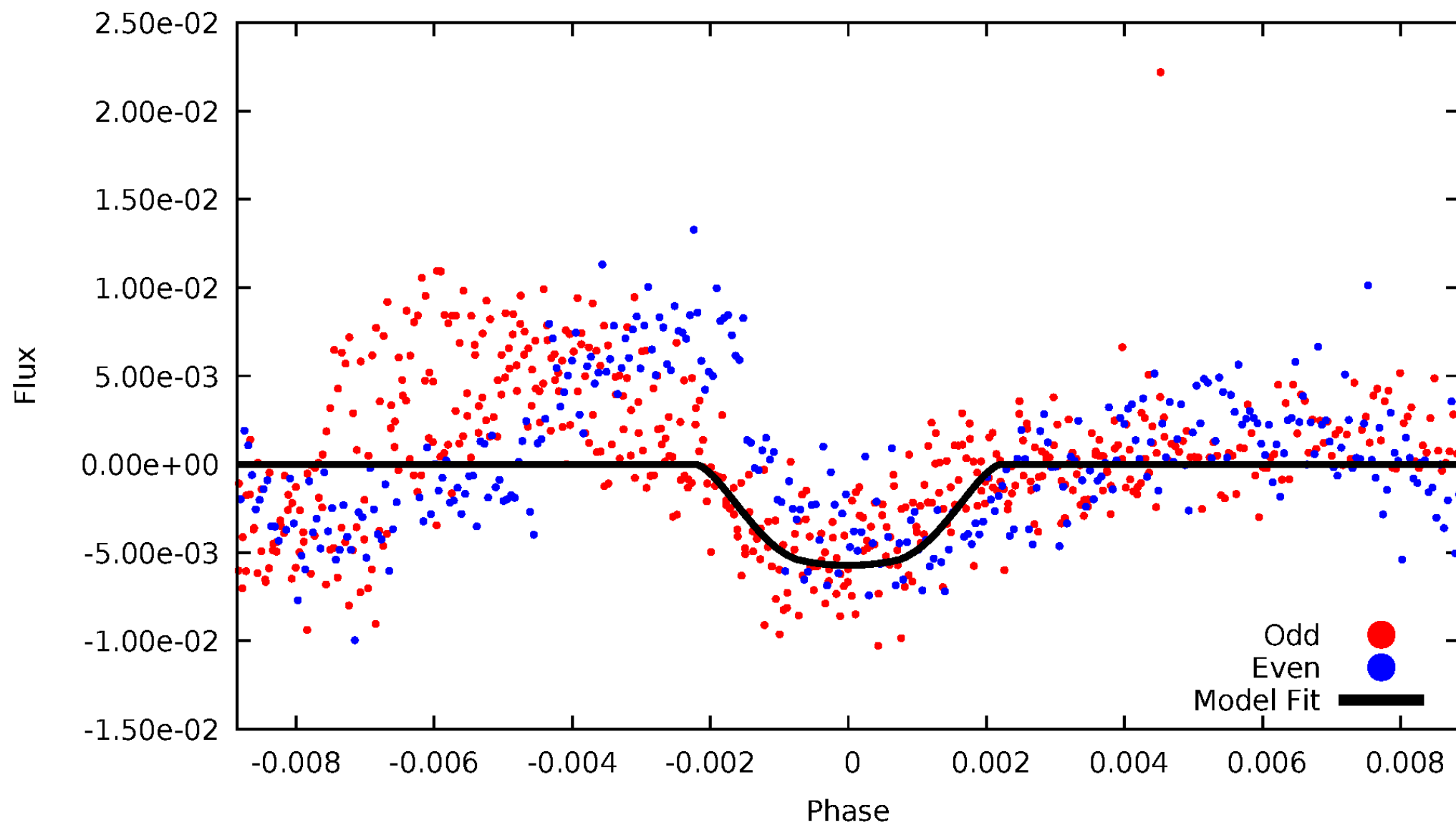


TCE 008228581-01



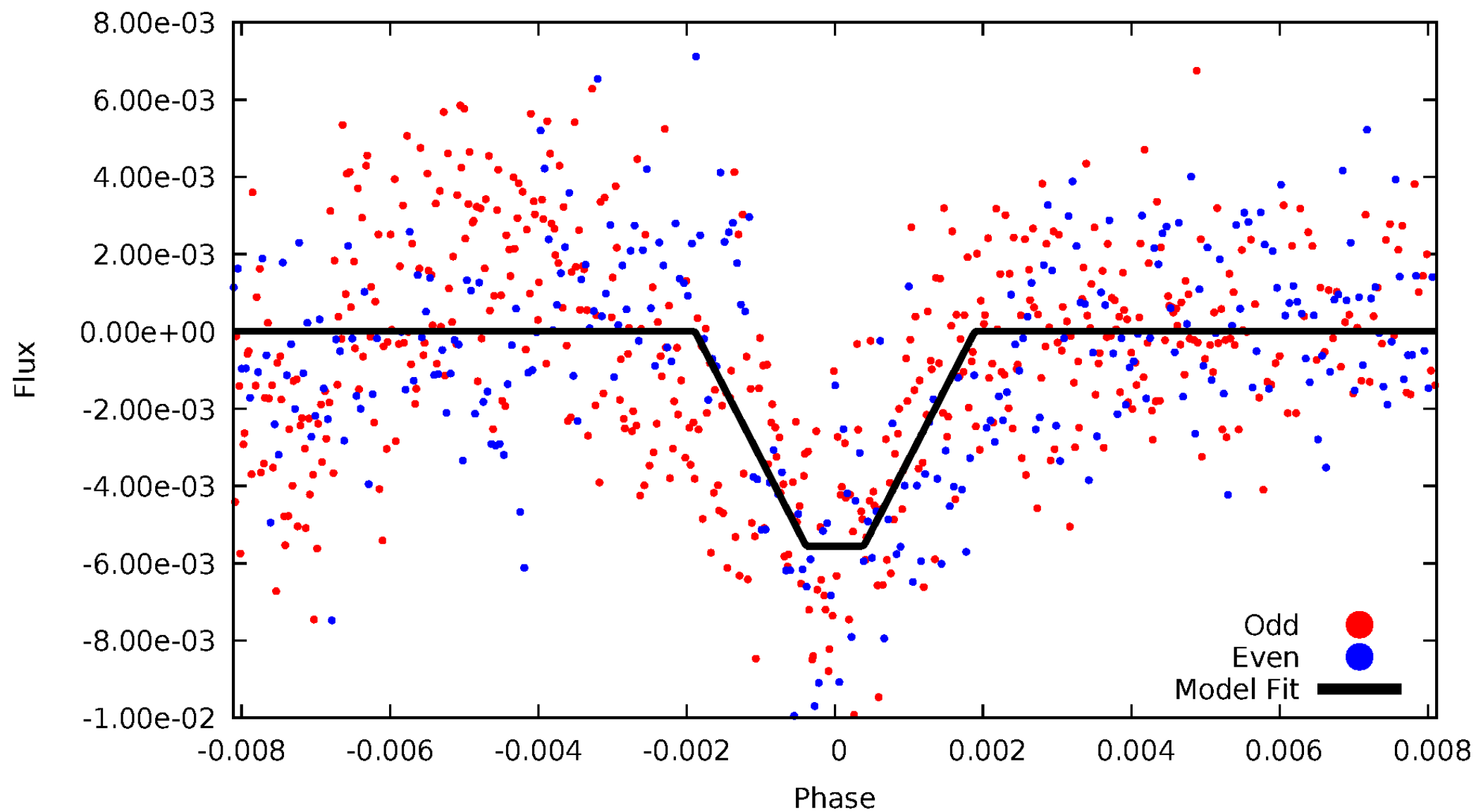
DV Odd/Even

TCE 008228581-01



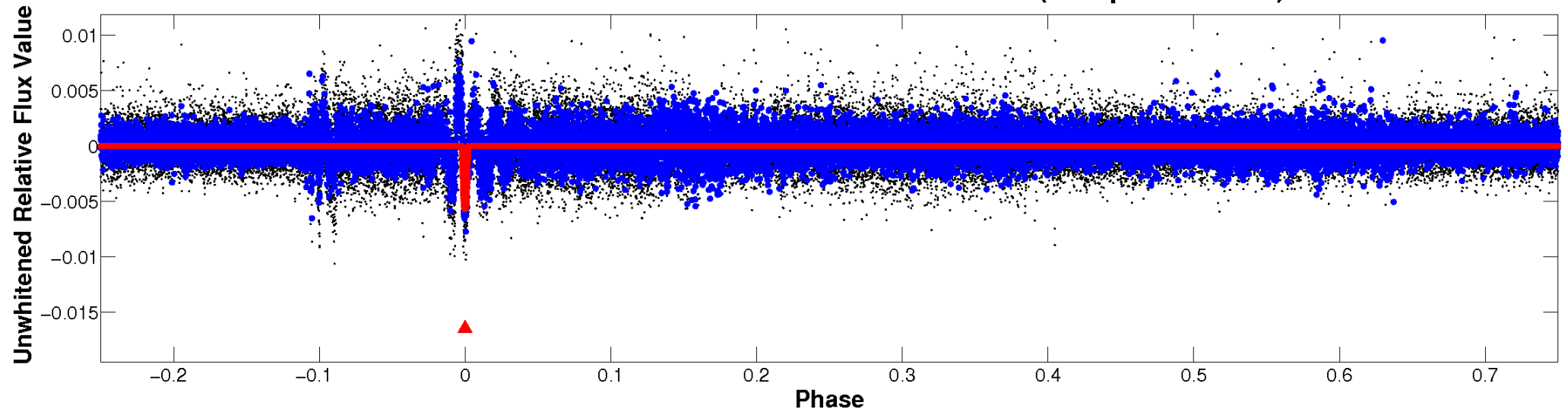
ALT Odd/Even

TCE 008228581-01

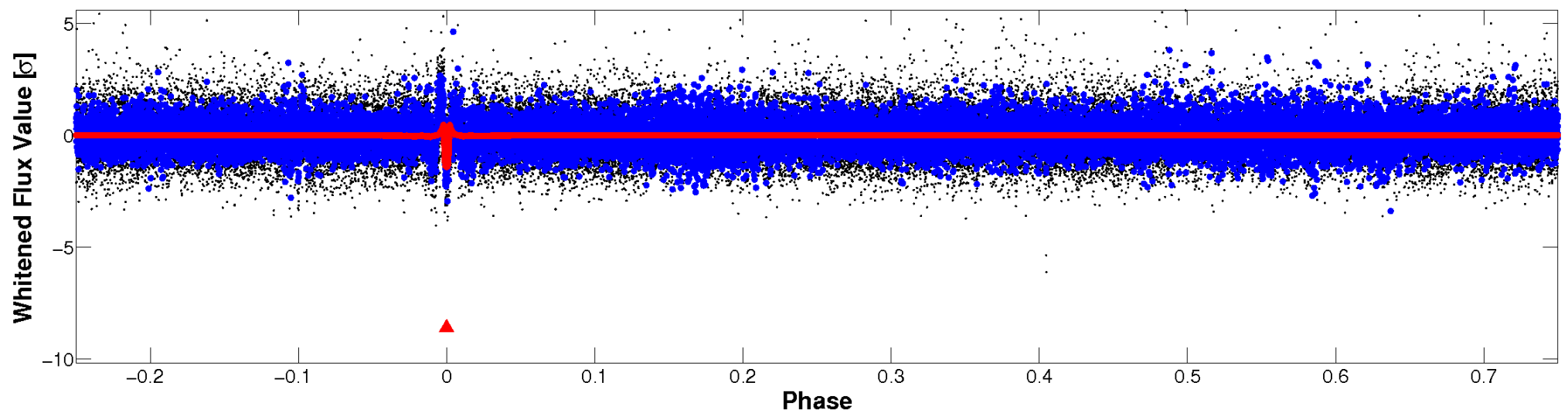


Non-Whitened Vs. Whitened Light Curve

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 008228581-01 P=370.429483 Days $T_0=299.817151$ (BKJD)



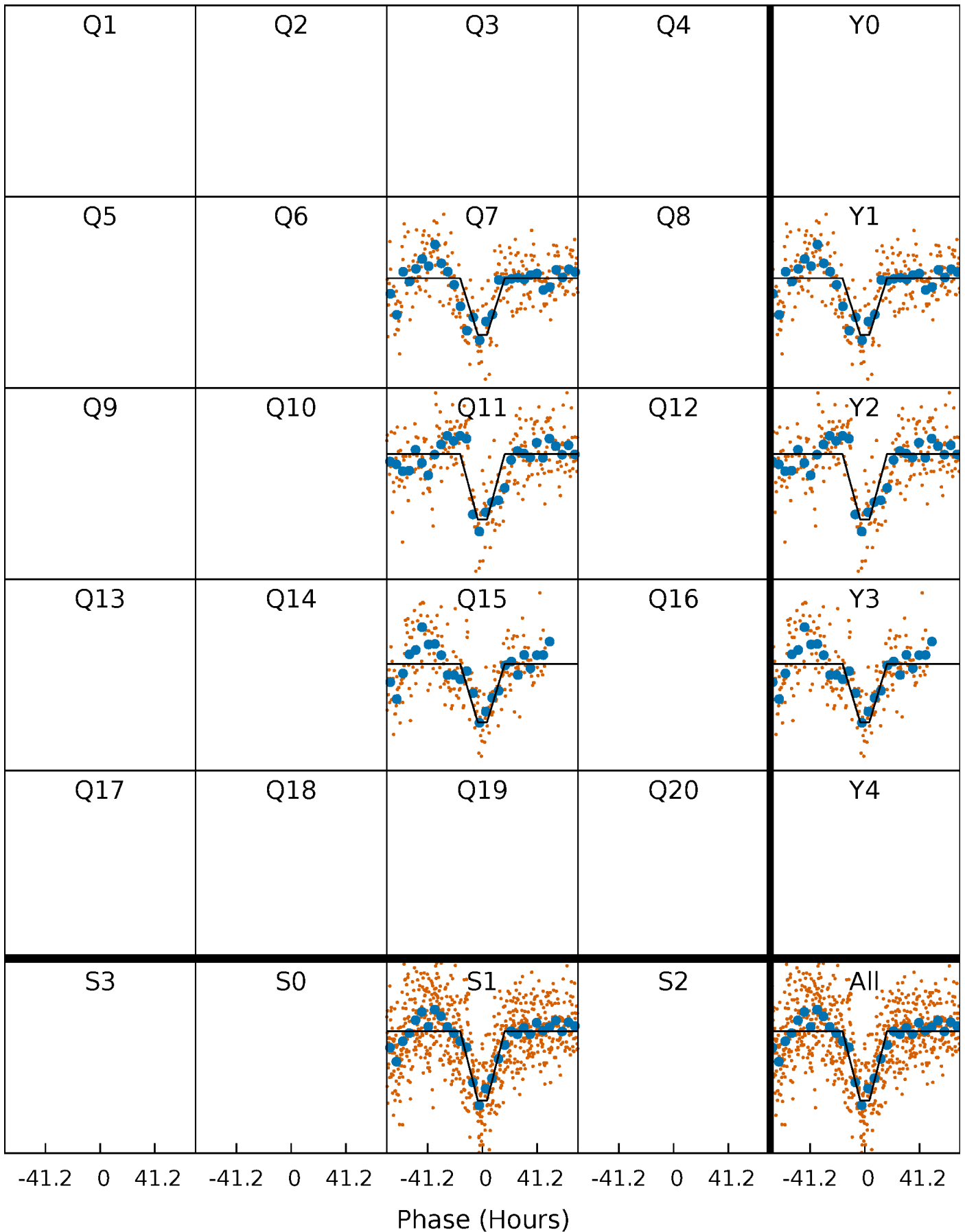
DV Quarter-Phased Transit Curves

TCE 008228581-01 P=370.429483 Days $T_0=299.817151$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

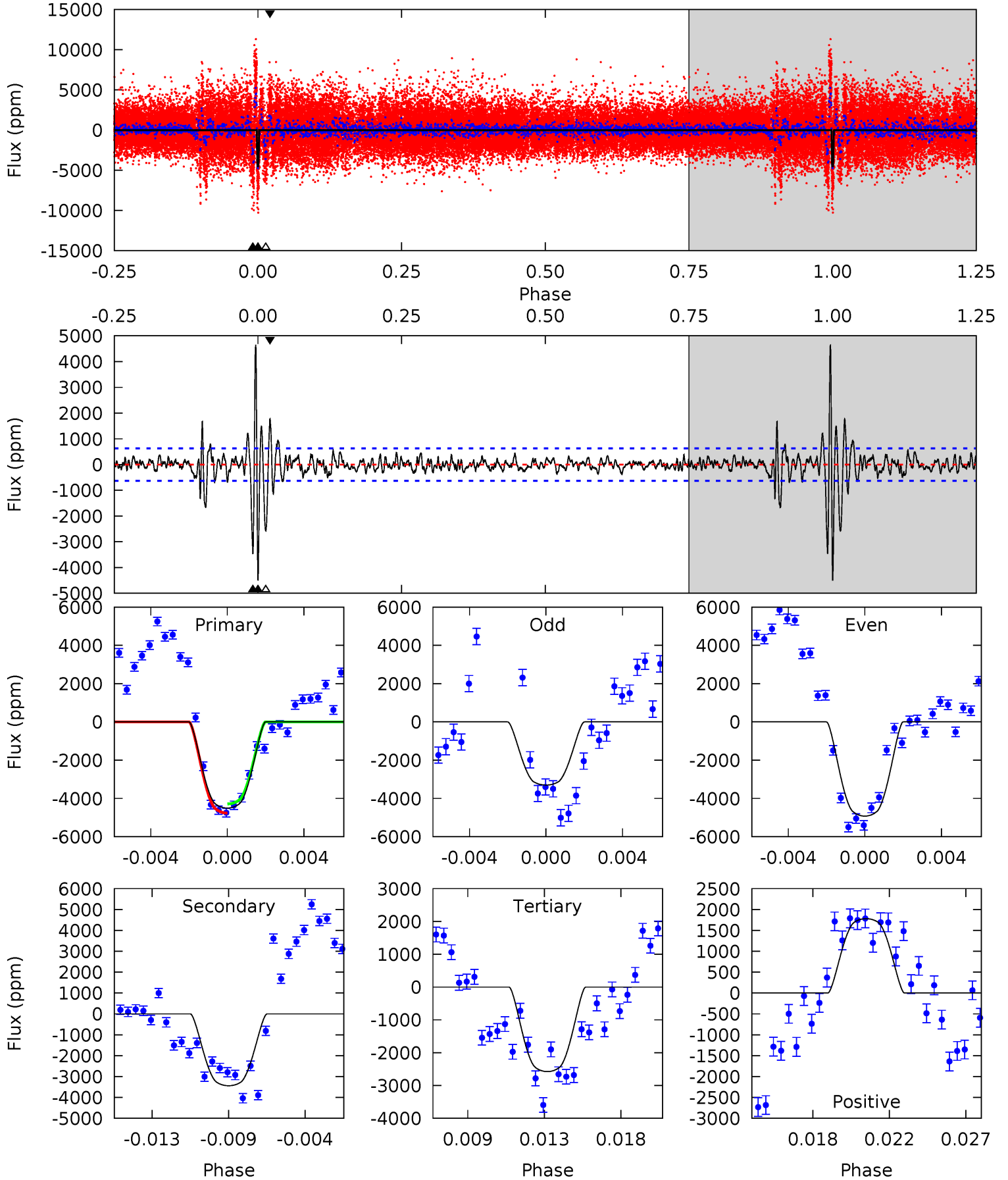
TCE 008228581-01 P=370.228862 Days $T_0=300.082825$ (BKJD)



DV Model-Shift Uniqueness Test

008228581-01, P = 370.429483 Days, E = 299.817151 Days

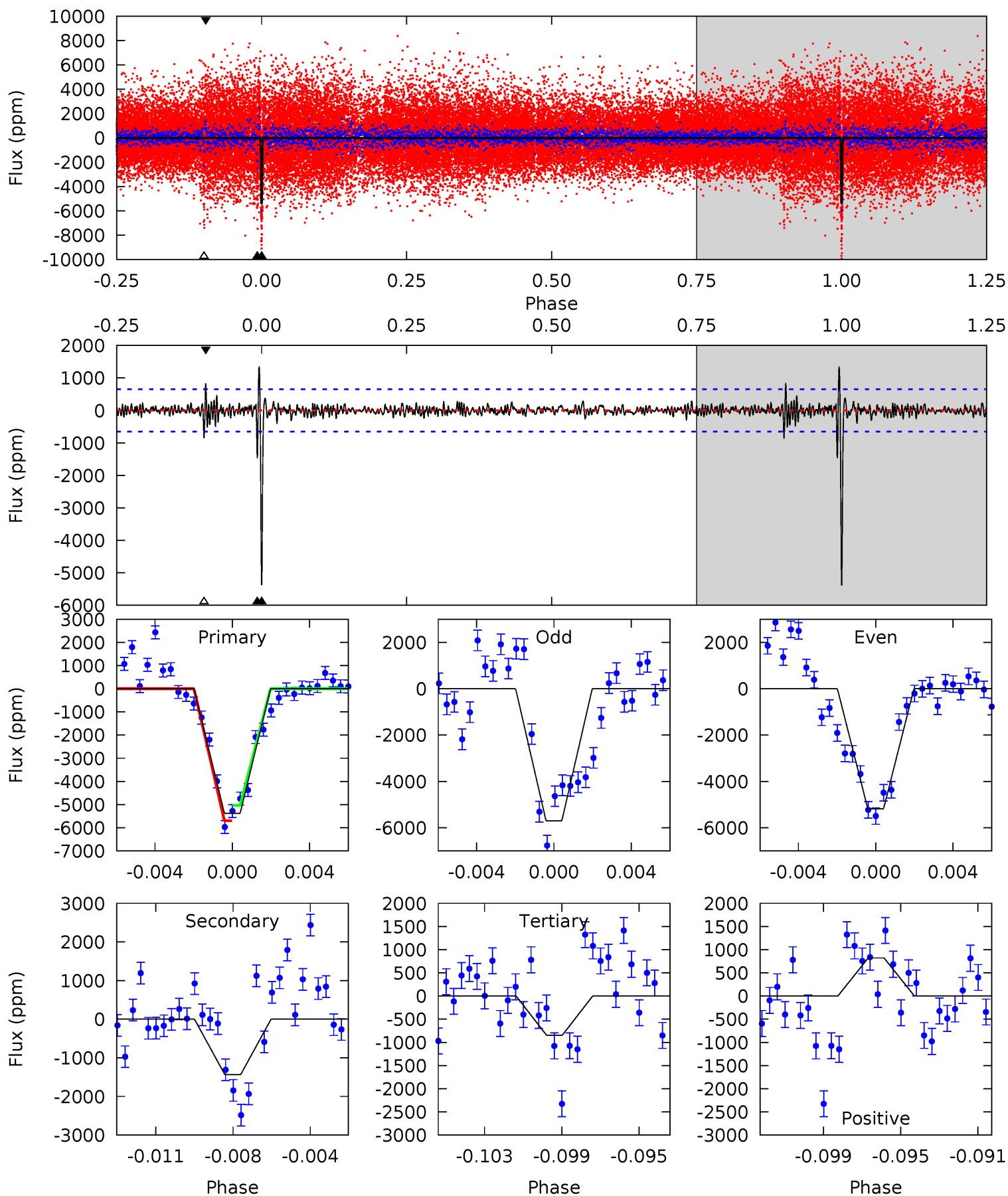
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
37.0	28.3	21.2	14.6	5.18	2.84	2.74	15.8	22.4	7.09	13.6	6.39	0.90	0.51	1.94



Alt Model-Shift Uniqueness Test

008228581-01, P = 370.228862 Days, E = 300.082825 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
43.1	11.5	6.78	6.58	5.21	2.89	0.91	36.3	36.5	4.73	4.93	2.01	0.97	0.20	2.62



Stellar Parameters For KIC 008228581

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5780^{+1}_{-1}	$4.438^{+1.000}_{-1.000}$	$0.000^{+1.000}_{-1.000}$	$1.000^{+1.000}_{-1.000}$	$-1.000^{+1.000}_{-1.000}$	$-1.000^{+1.000}_{-1.000}$
	+0%/-0%	+23%/-23%	+inf%/-inf%	+100%/-100%	+100%/-100%	+100%/-100%
Source	Solar	Solar	Solar	Solar		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 008228581-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-3441 ± 122	$8.97^{+0.93}_{-0.83}$	355^{+16}_{-17}	4970^{+229}_{-201}	24073^{+5126}_{-4259}
Alt.	-1437 ± 125	$8.13^{+0.83}_{-0.85}$	355^{+17}_{-16}	4344^{+206}_{-182}	12241^{+2923}_{-2238}

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 $A_{obs} \gg 1.0$

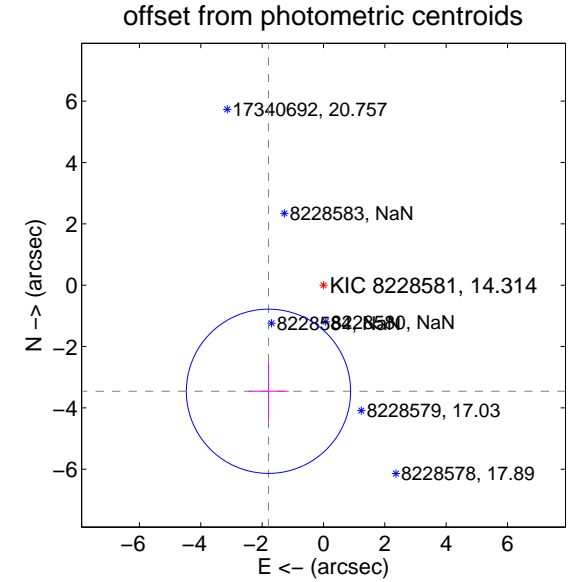
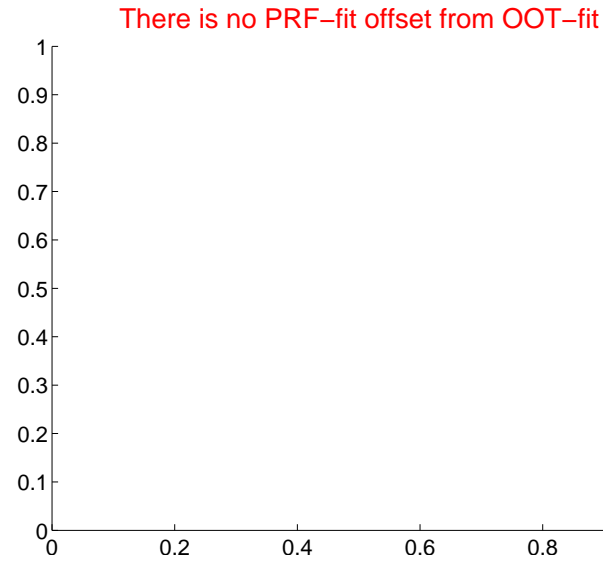
DV Centroid Data

Supplemental centroid analysis for 008228581-01. Kepler magnitude: 14.31. Transit SNR 15.91

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	3.90 ± 0.89	4.37	1.79 ± 0.66	-3.46 ± 0.94

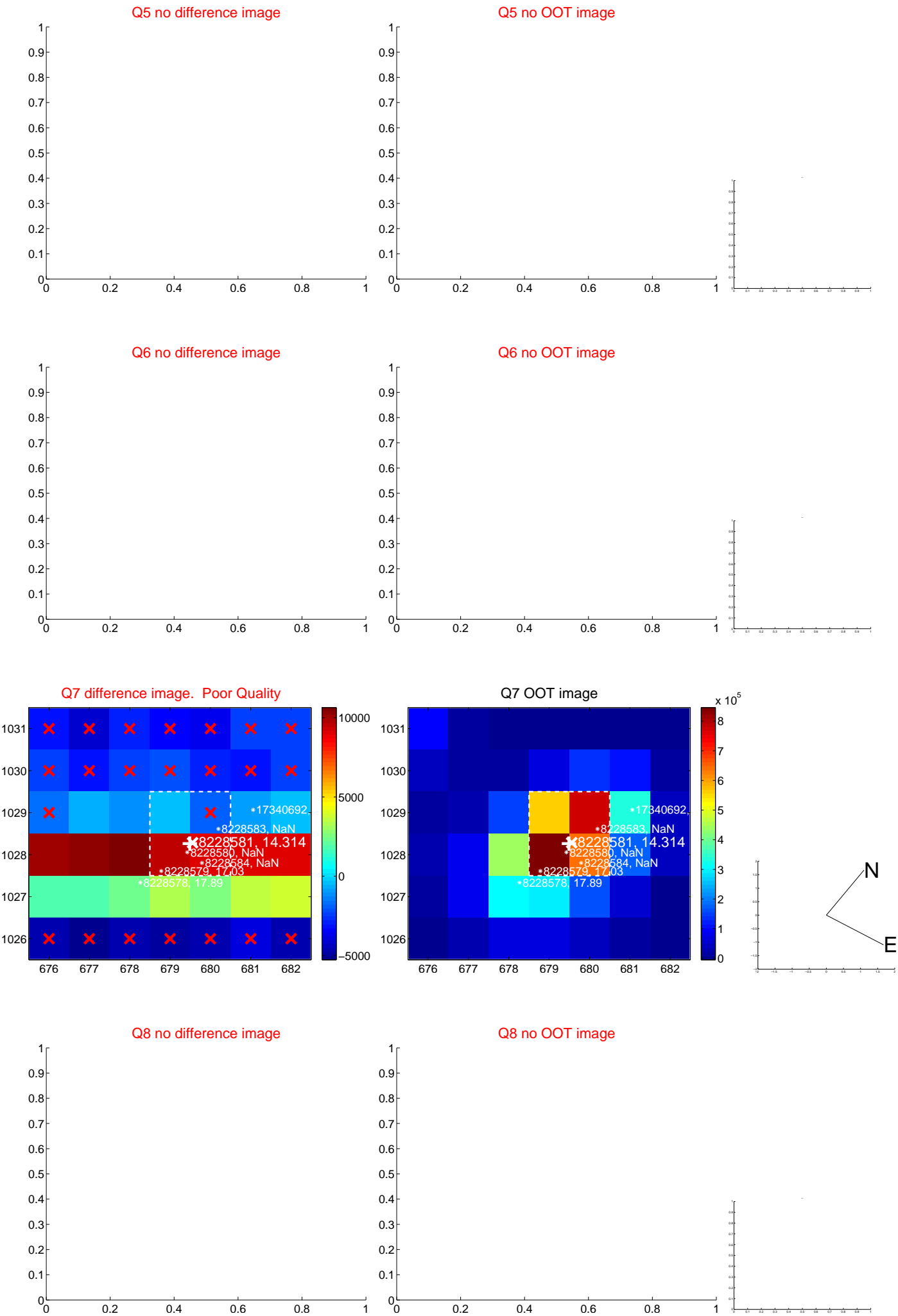


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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



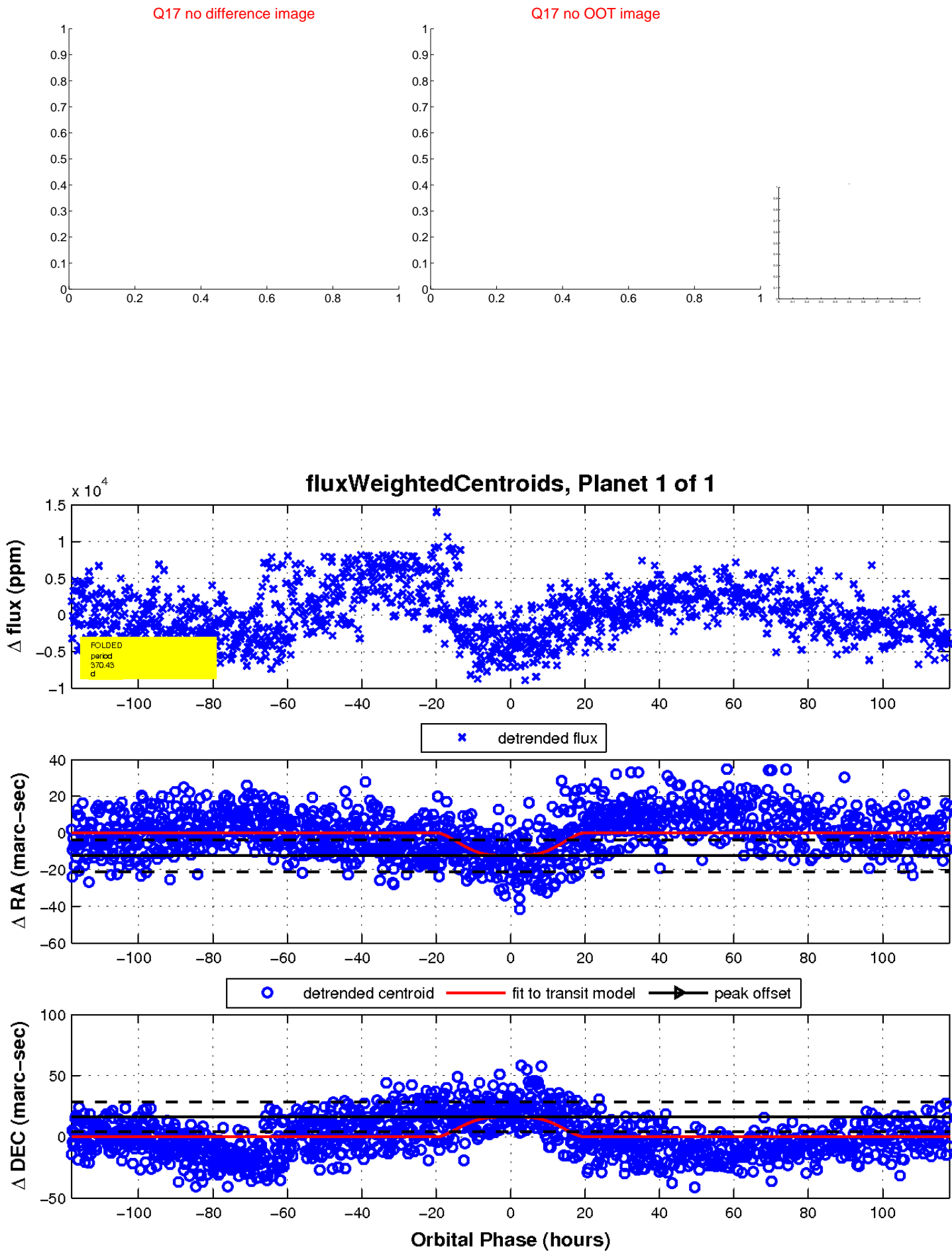
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

Declination

