

KIC 008025538

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})
008025538-01	OBS	No	405.580548	225.429953	199.3	13.589	7.1	7.6	1.30	6534	1.89	2.10

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008025538-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE—ALL_TRANS_CHASES—CENT_FEW_MEAS

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

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

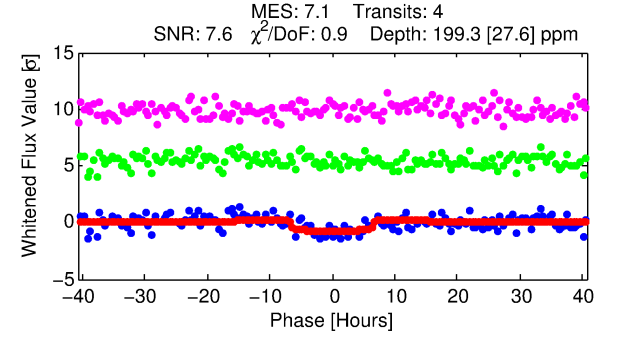
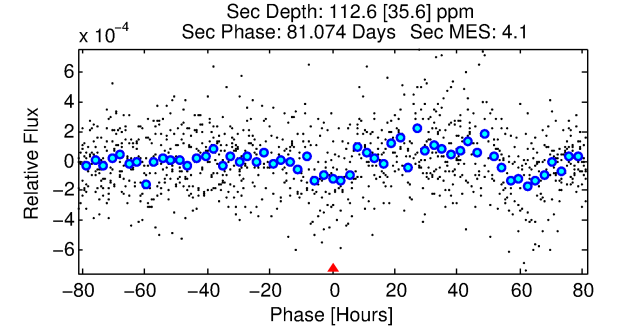
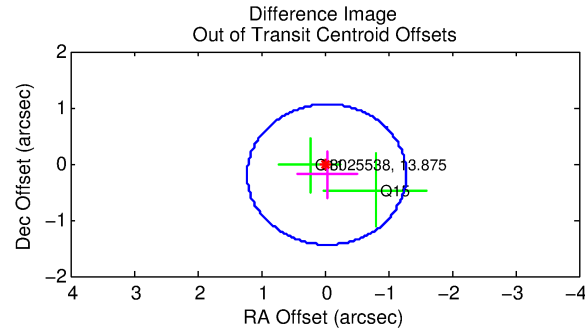
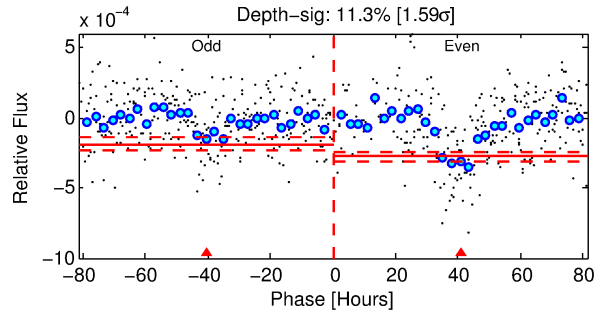
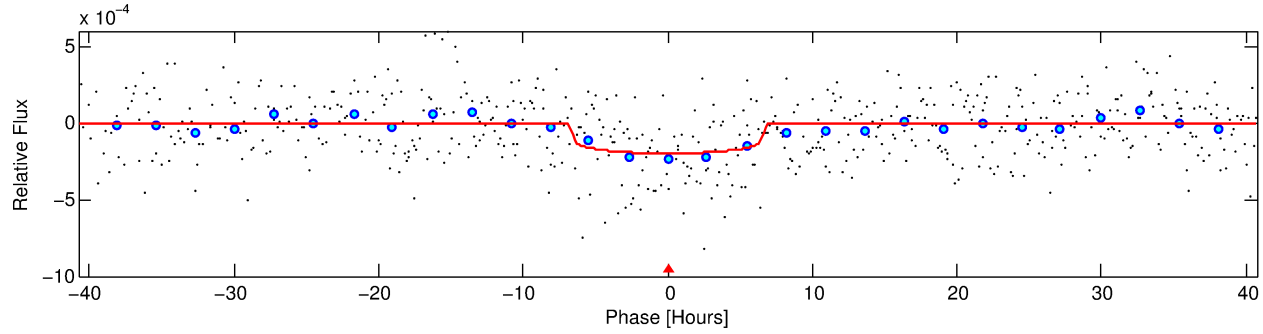
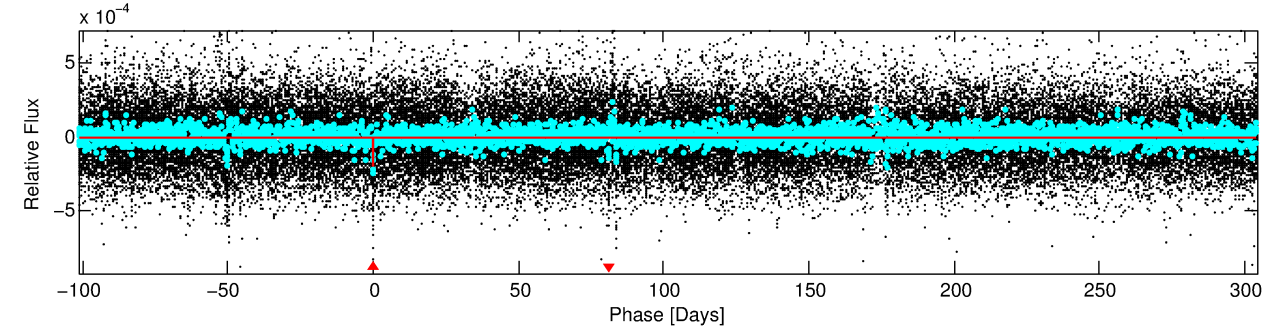
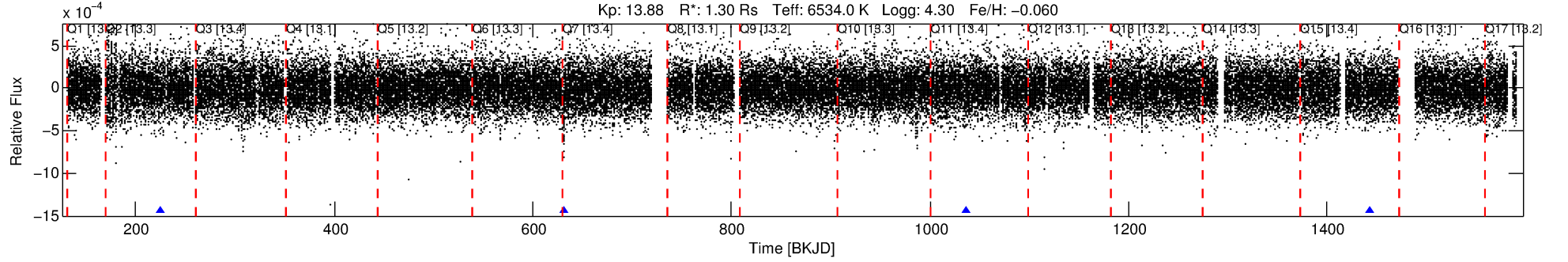
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008025538-01

No Significant Match Found

DV One-Page Summary

KIC: 8025538 Candidate: 1 of 1 Period: 405.581 d



DV Fit Results:

Period = 405.58055 [0.01279] d
Epoch = 225.4300 [0.0225] BKJD
Rp/R* = 0.0133 [0.0133]
a/R* = 203.95 [1088.55]
b = 0.48 [8.70]
Seff = 2.10 [0.85]
Teq = 307 [31] K
Rp = 1.89 [1.99] Re
a = 1.1462 [0.3117] AU
Ag = 22784.85 [46787.23] [0.49 σ]
Teffp = 5834 [2948] K [1.87 σ]

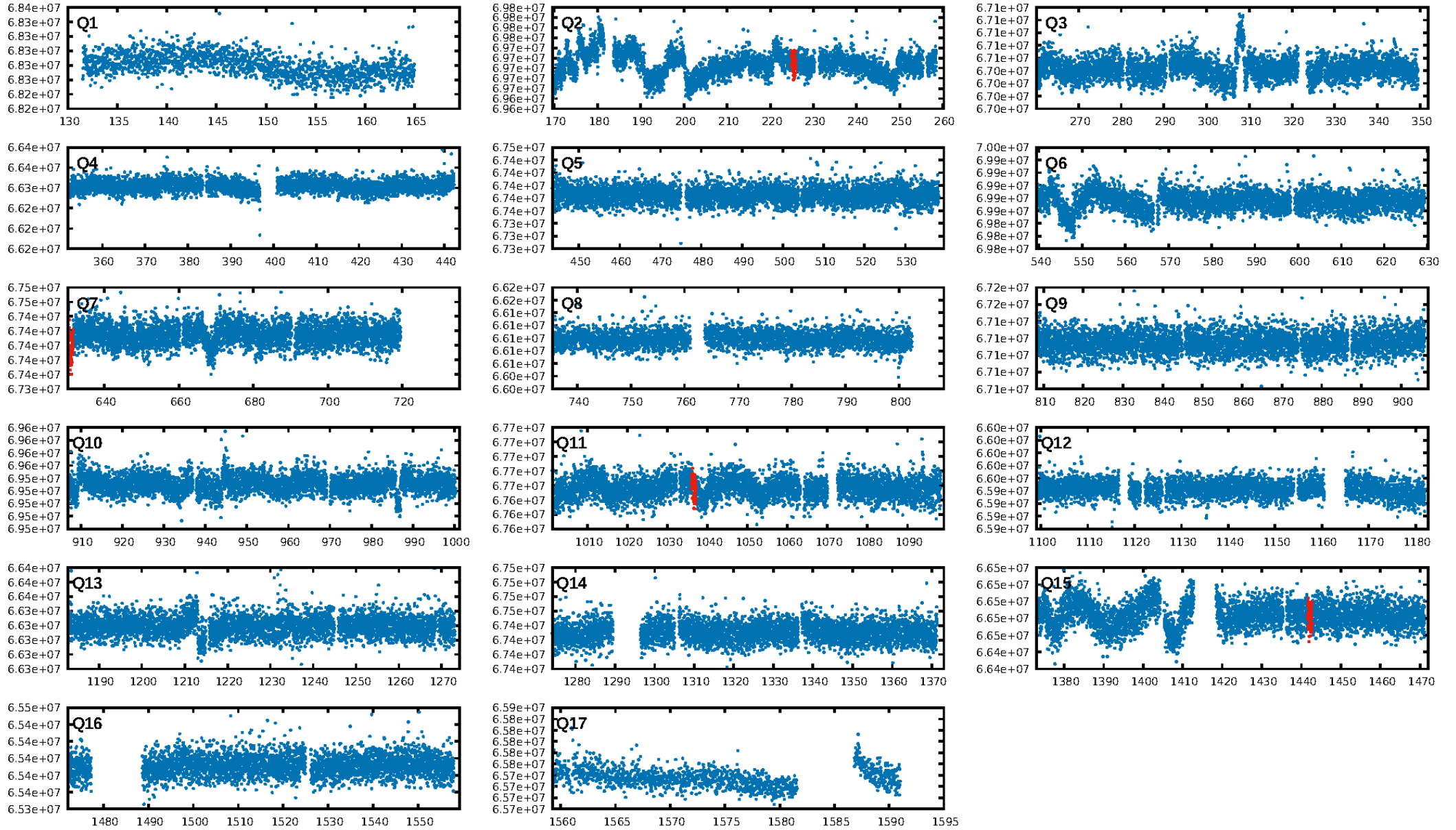
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 95.5%
Bootstrap-pfa: 1.51e-08
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: 1.361
Centroid-sig: 0.0%
Centroid-so: 4.854 arcsec [2.35 σ]
OotOffset-rm: 0.196 arcsec [0.47 σ]
KicOffset-rm: 0.356 arcsec [0.84 σ]
OotOffset-st: 0/2/0/0 [2]
KicOffset-st: 0/2/0/0 [2]
DiffImageQuality-fgm: 1.00 [2/2]
DiffImageOverlap-fno: 1.00 [3/3]

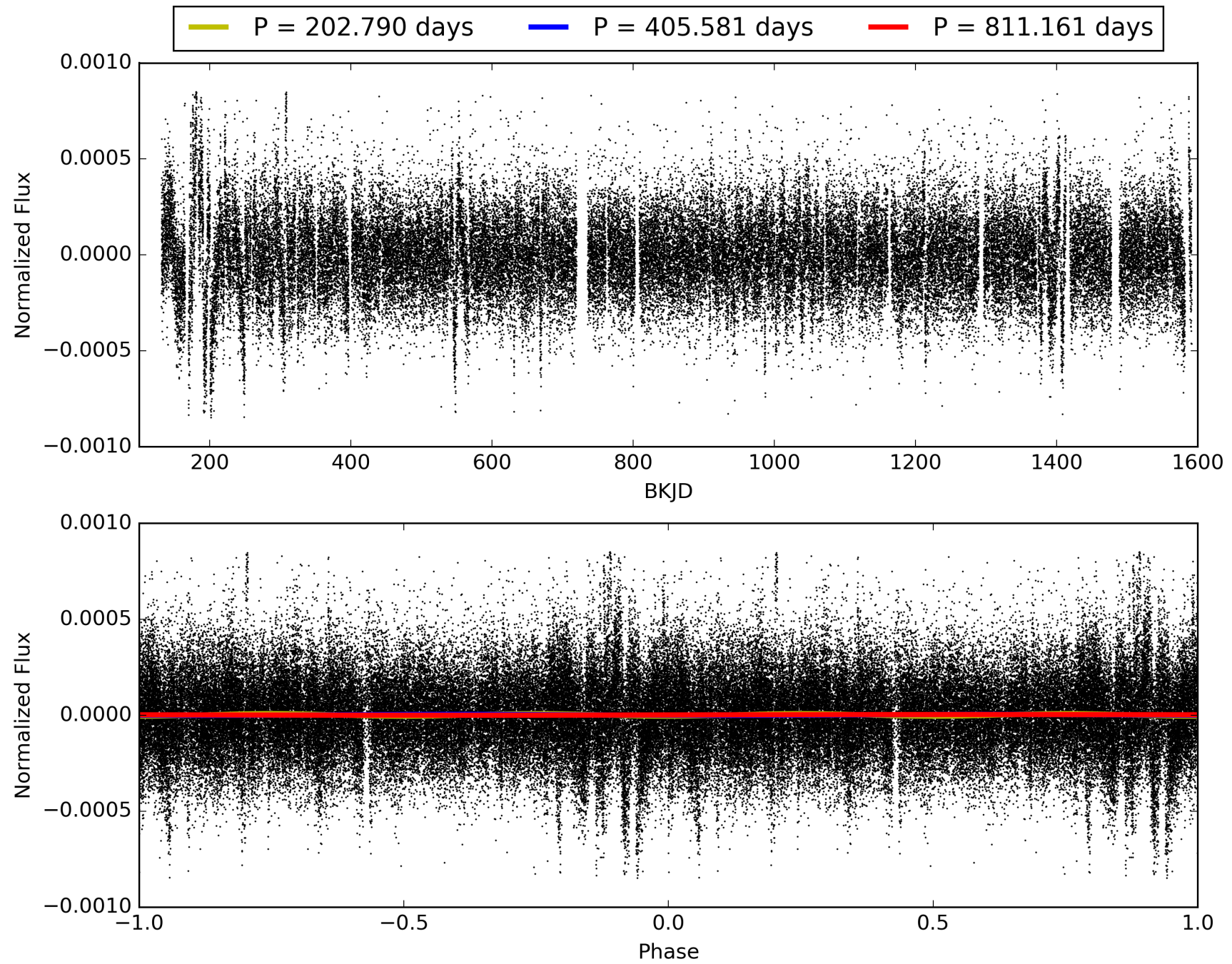
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 13:27:25 Z

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

TCE 008025538-01, PDC Light Curves

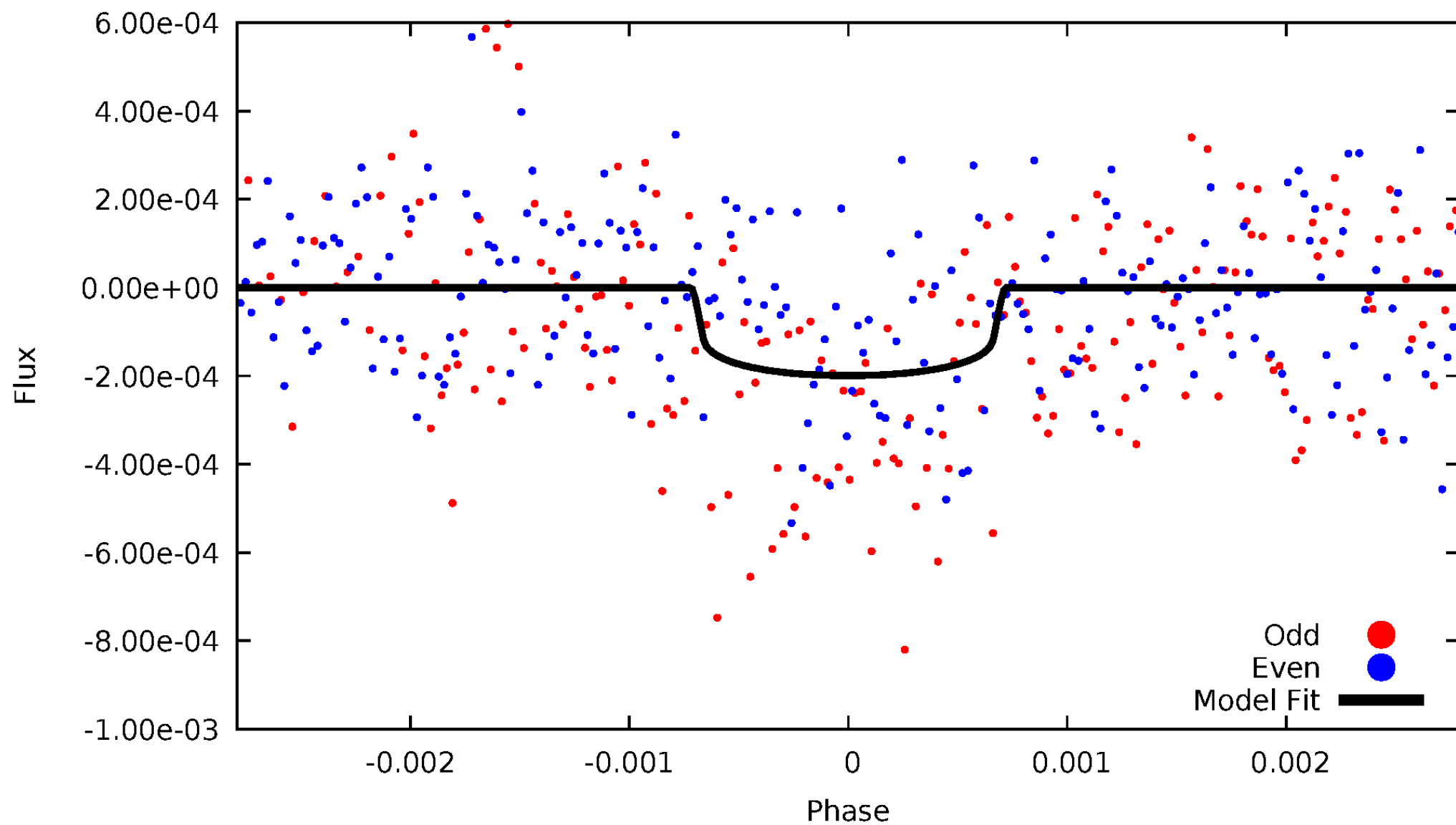


TCE 008025538-01



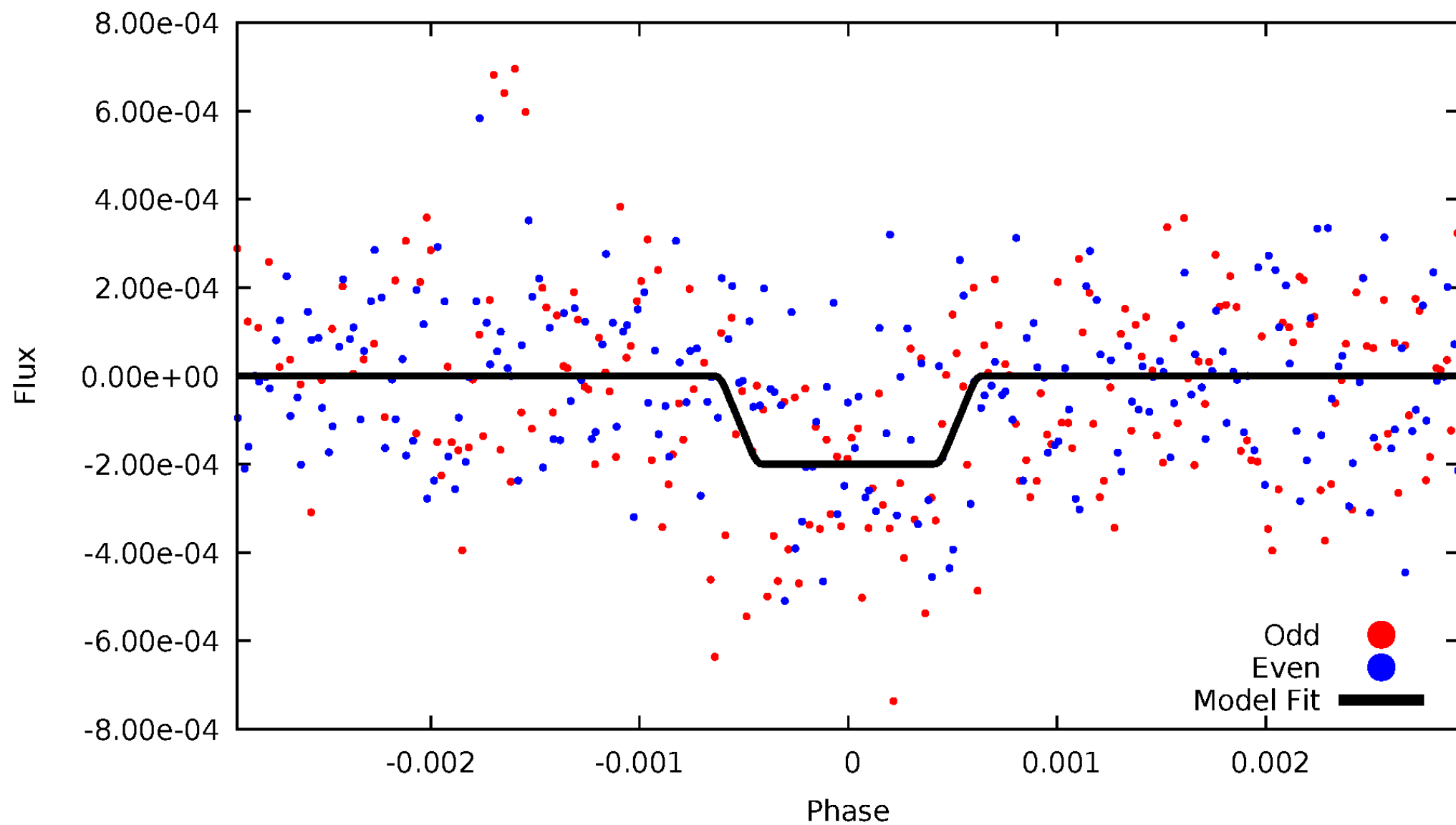
DV Odd/Even

TCE 008025538-01

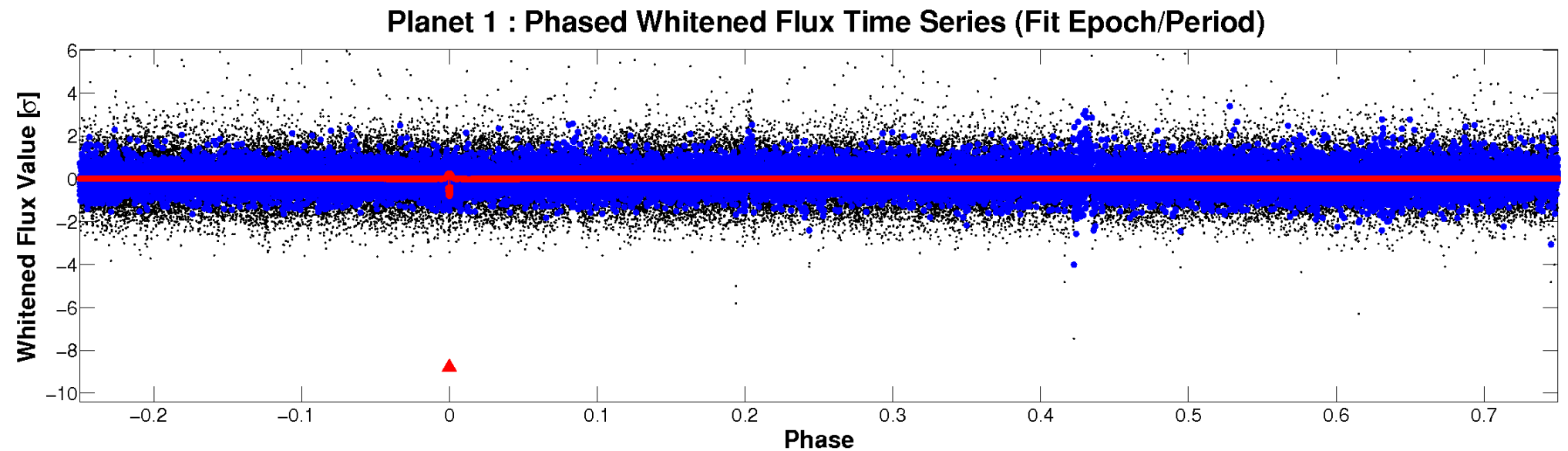
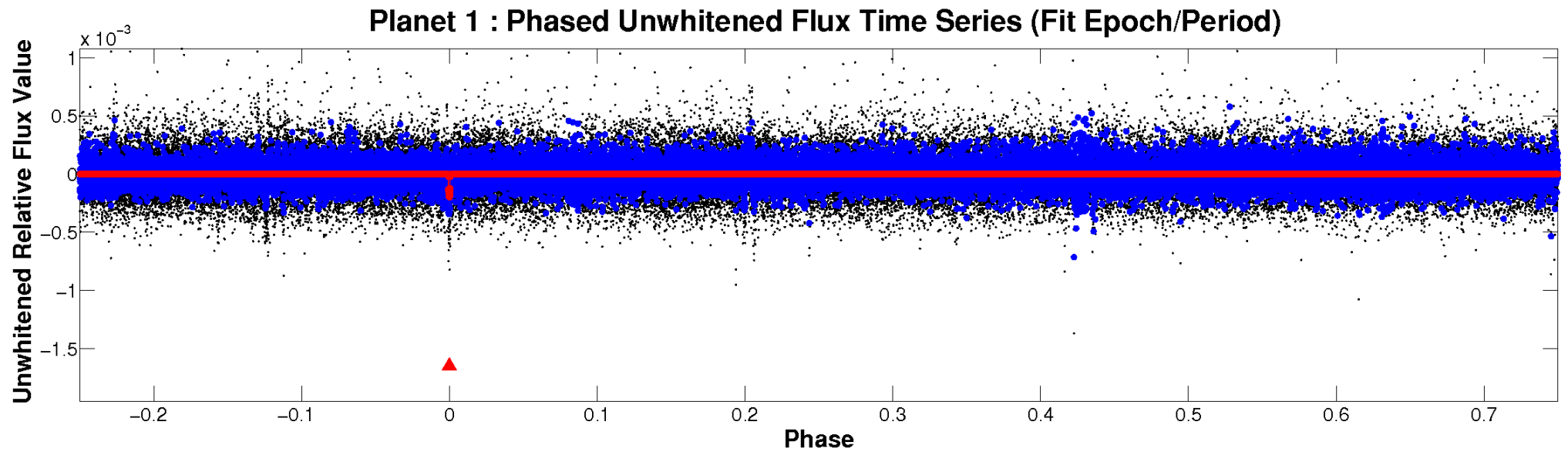


ALT Odd/Even

TCE 008025538-01

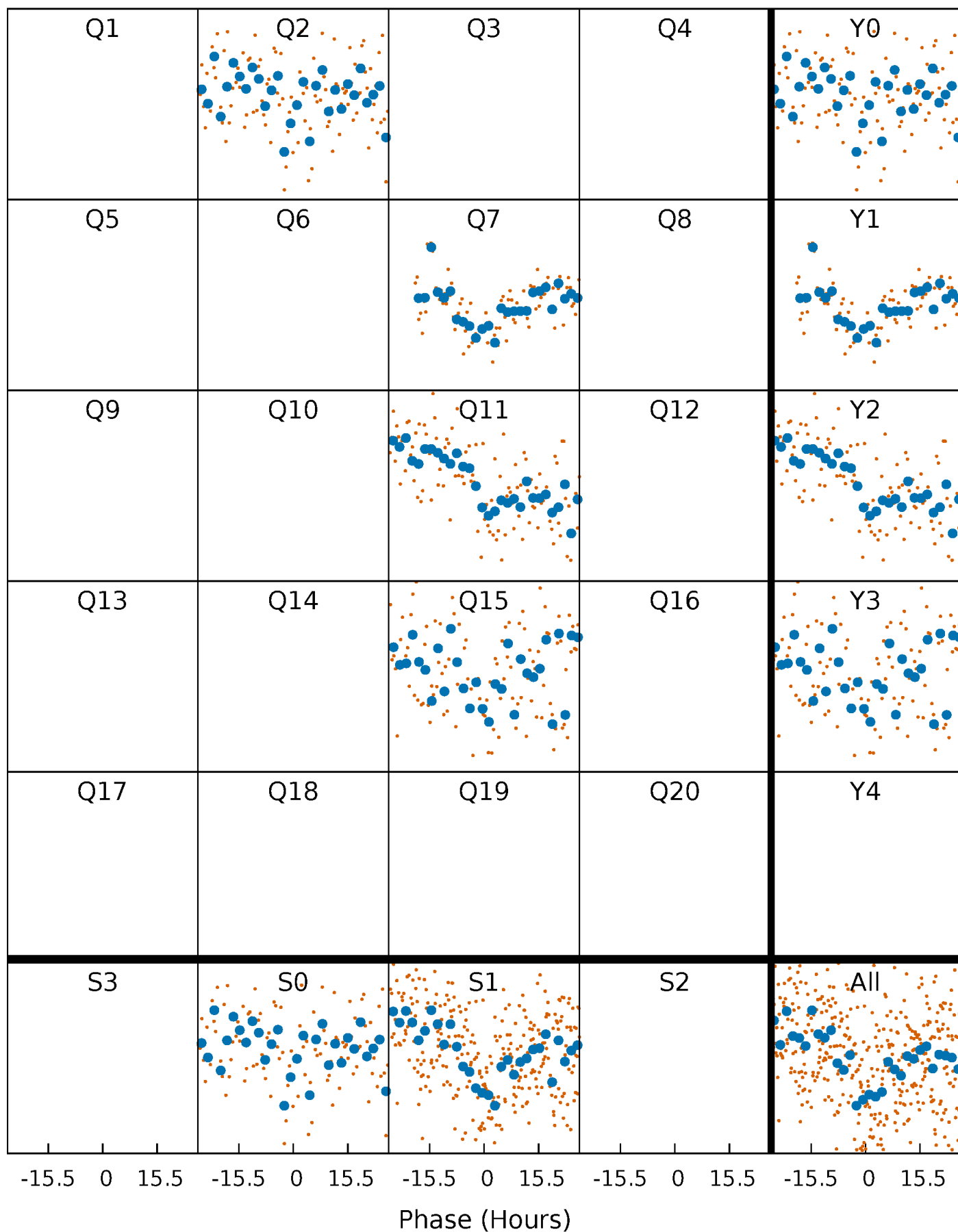


Non-Whitened Vs. Whitened Light Curve



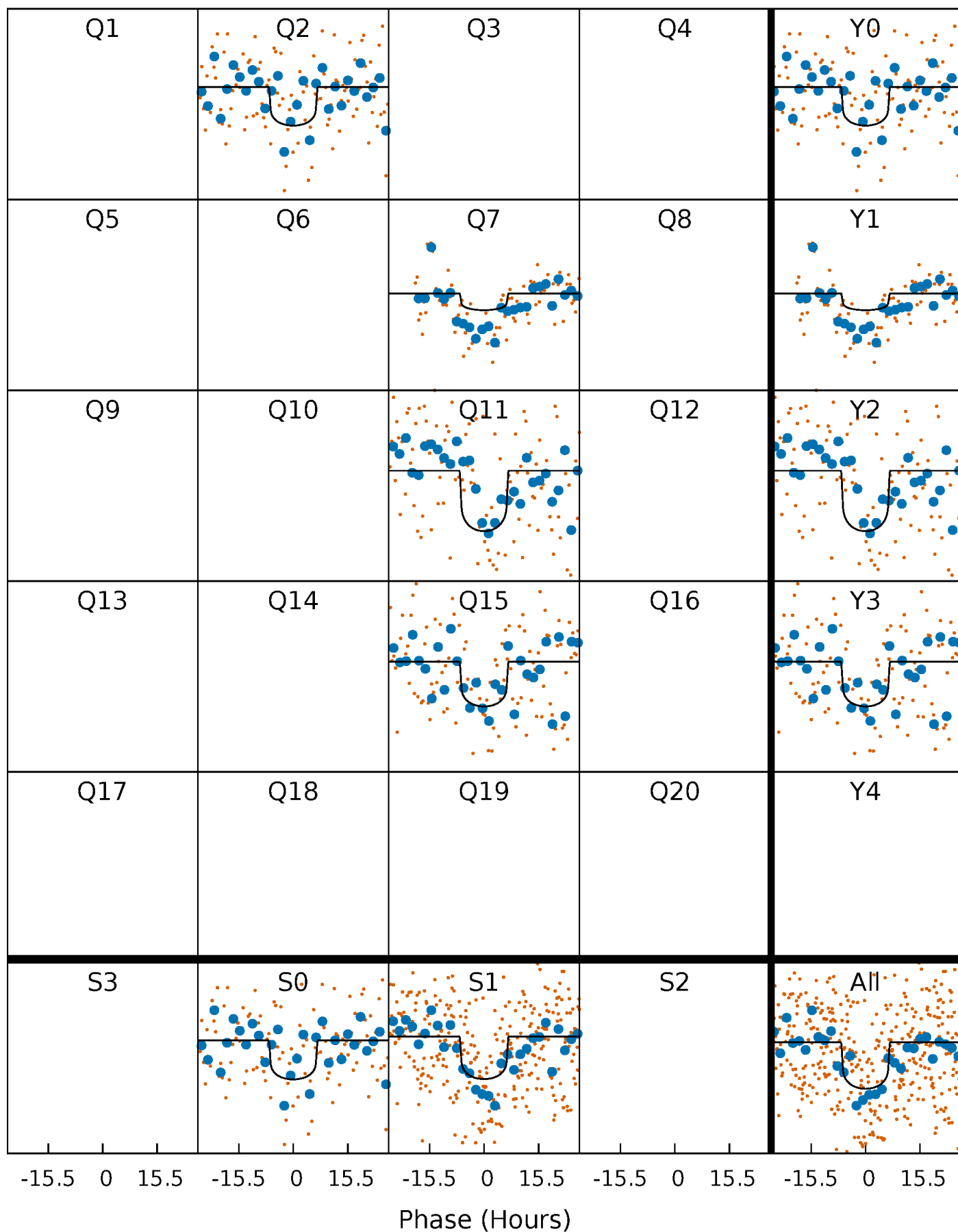
PDC Quarter-Phased Transit Curves

TCE 008025538-01 P=405.580548 Days $T_0=225.429953$ (BKJD)



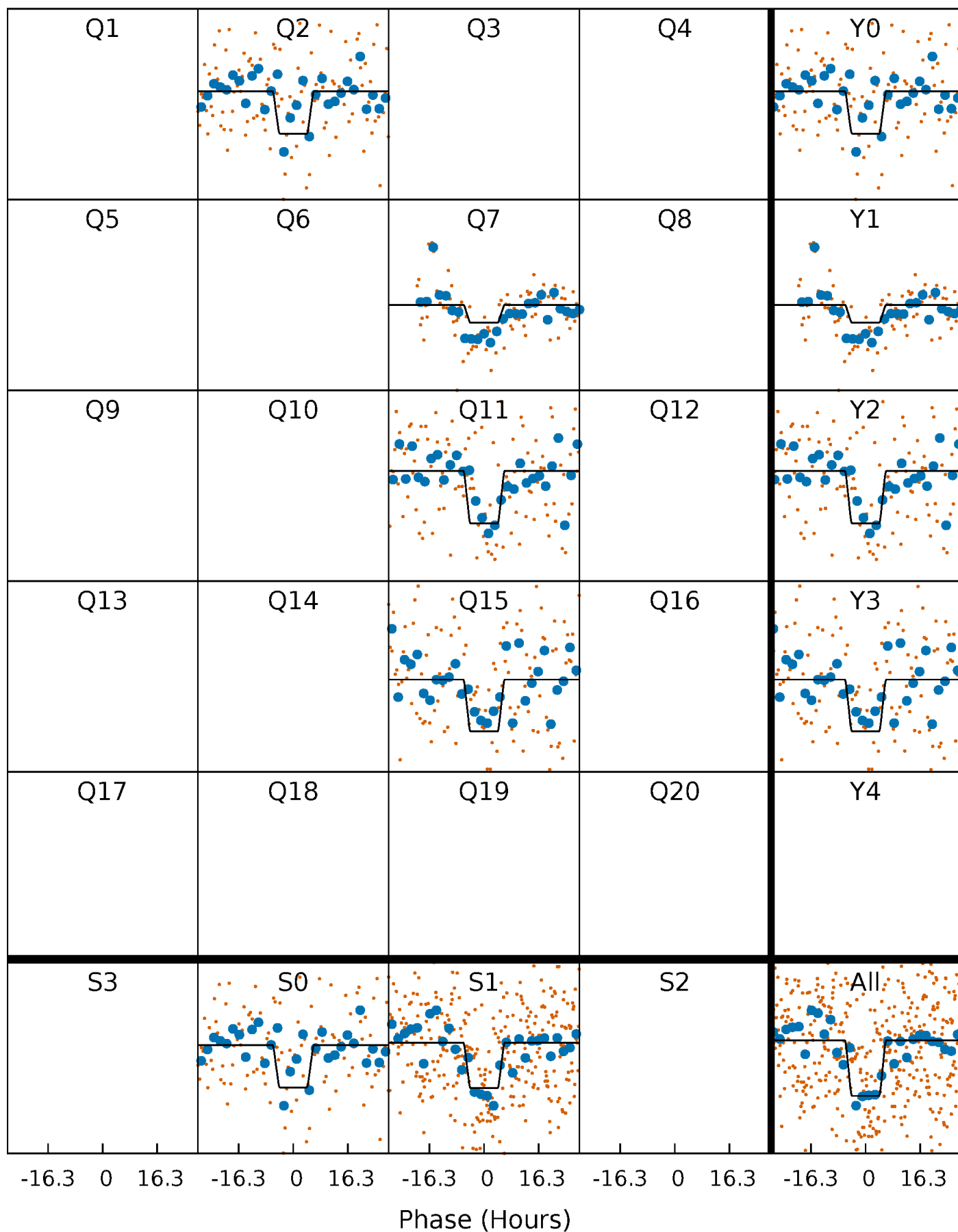
DV Quarter-Phased Transit Curves

TCE 008025538-01 P=405.580548 Days $T_0=225.429953$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

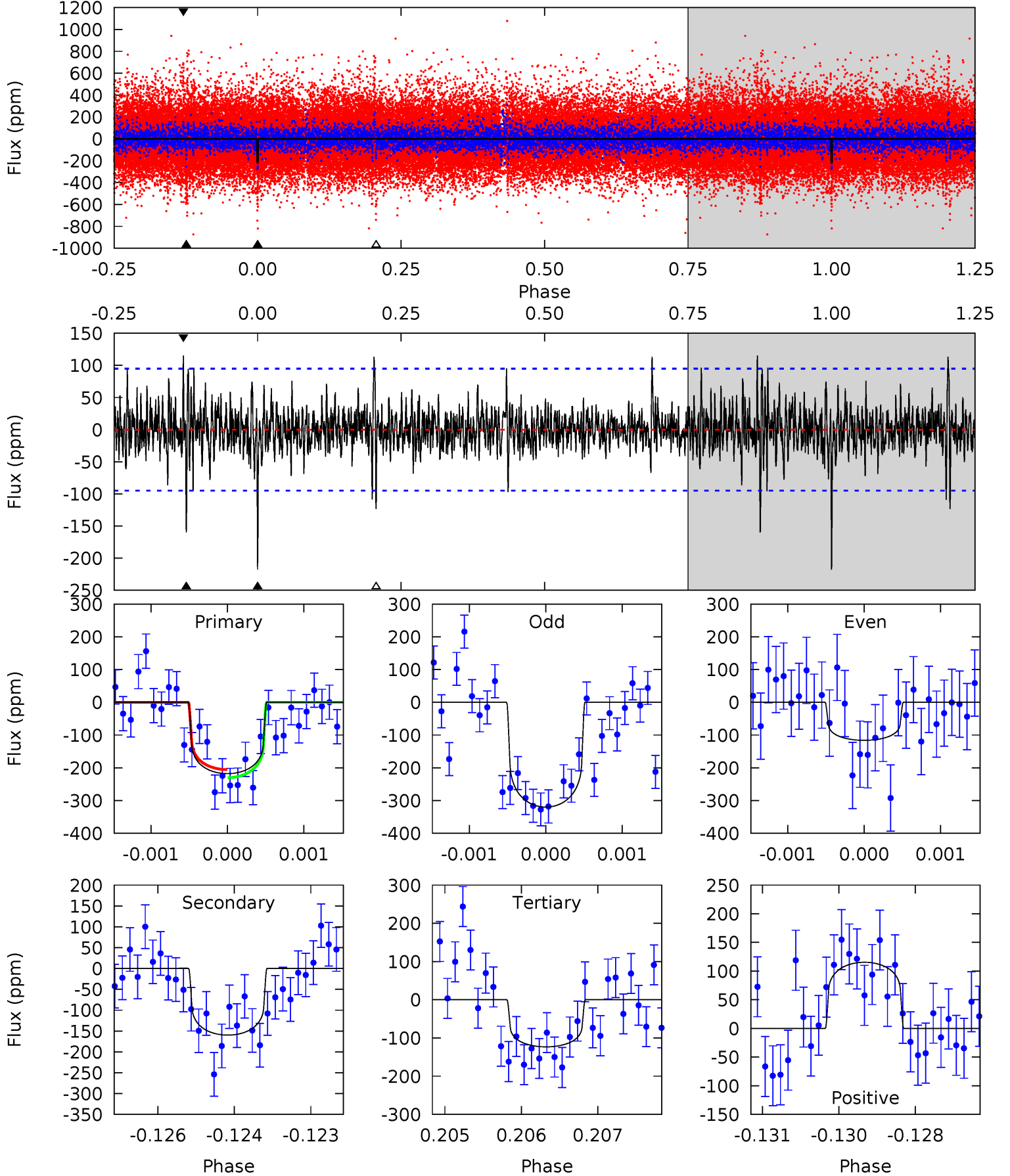
TCE 008025538-01 P=405.578921 Days $T_0=225.448257$ (BKJD)



DV Model-Shift Uniqueness Test

008025538-01, P = 405.580548 Days, E = 225.429953 Days

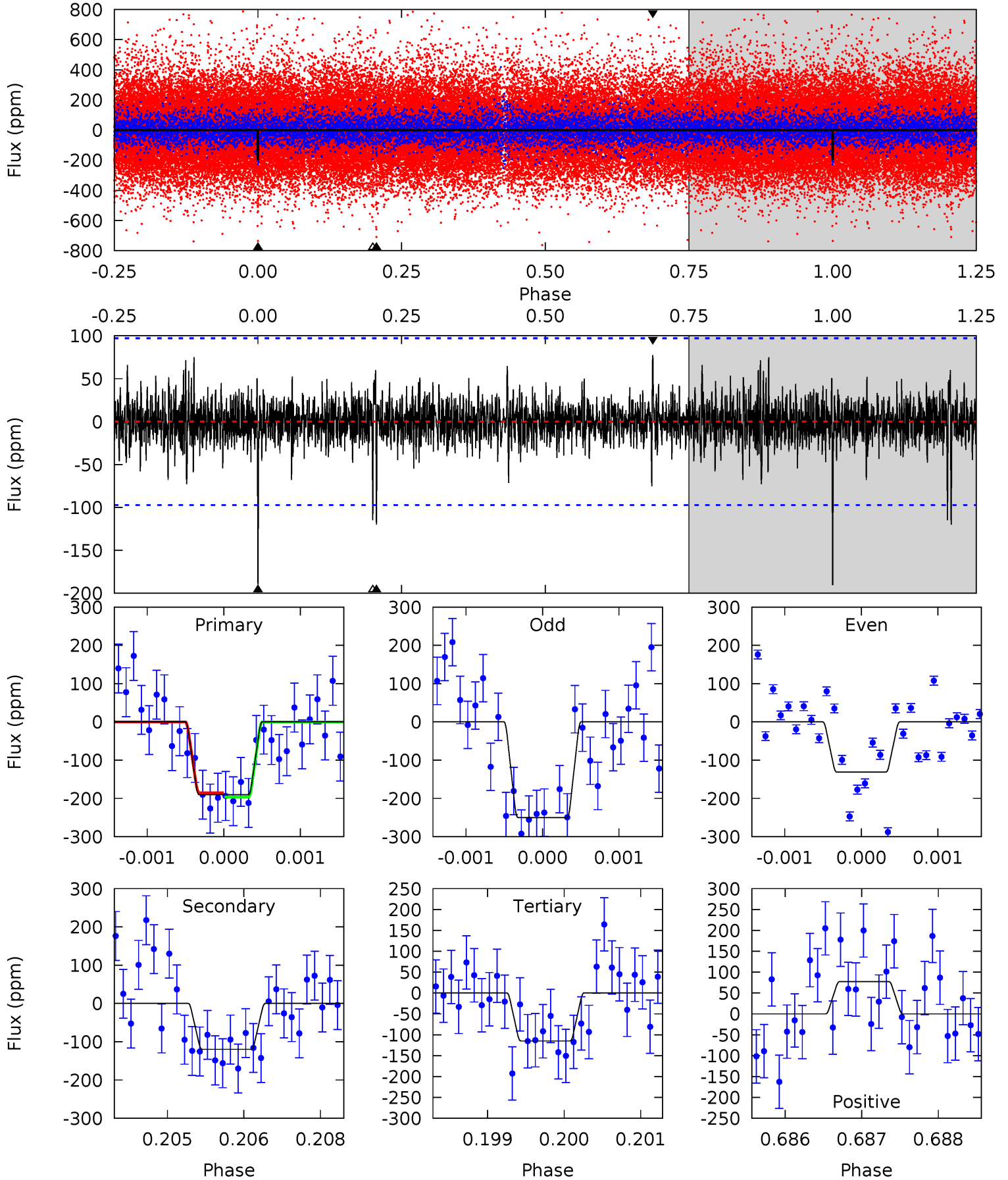
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.4	9.08	7.01	6.56	5.39	3.19	1.46	5.38	5.83	2.08	2.52	5.80	1.52	0.35	0.70



Alt Model-Shift Uniqueness Test

008025538-01, P = 405.578921 Days, E = 225.448257 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.6	6.67	6.39	4.30	5.41	3.22	1.02	4.21	6.30	0.28	2.38	3.31	1.36	0.29	0.30



Stellar Parameters For KIC 008025538

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6534^{+155}_{-214}	$4.296^{+0.101}_{-0.203}$	$-0.060^{+0.250}_{-0.300}$	$1.301^{+0.435}_{-0.186}$	$1.225^{+0.188}_{-0.169}$	$0.783^{+0.373}_{-0.400}$
	+2%/-3%	+2%/-5%	+417%/-500%	+33%/-14%	+15%/-14%	+48%/-51%
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 008025538-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-160 ± 18	$2.29^{+1.83}_{-1.37}$	435^{+32}_{-25}	5885^{+4037}_{-1338}	$22315^{+108915}_{-15722}$
Alt.	-120 ± 18	$2.34^{+1.83}_{-1.40}$	430^{+34}_{-21}	5354^{+3161}_{-1080}	15385^{+79406}_{-10418}

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 $A_{obs} \gg 1.0$

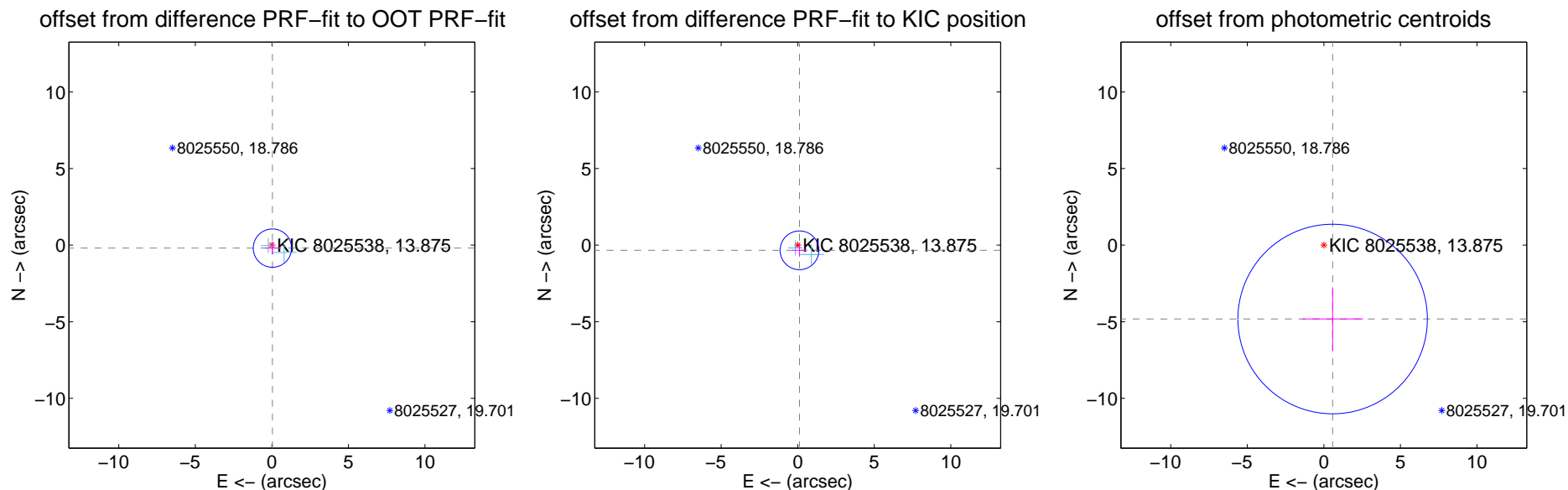
DV Centroid Data

Supplemental centroid analysis for 008025538-01. Kepler magnitude: 13.88. Transit SNR 7.55

There are 2 quarters with good PRF difference image offsets

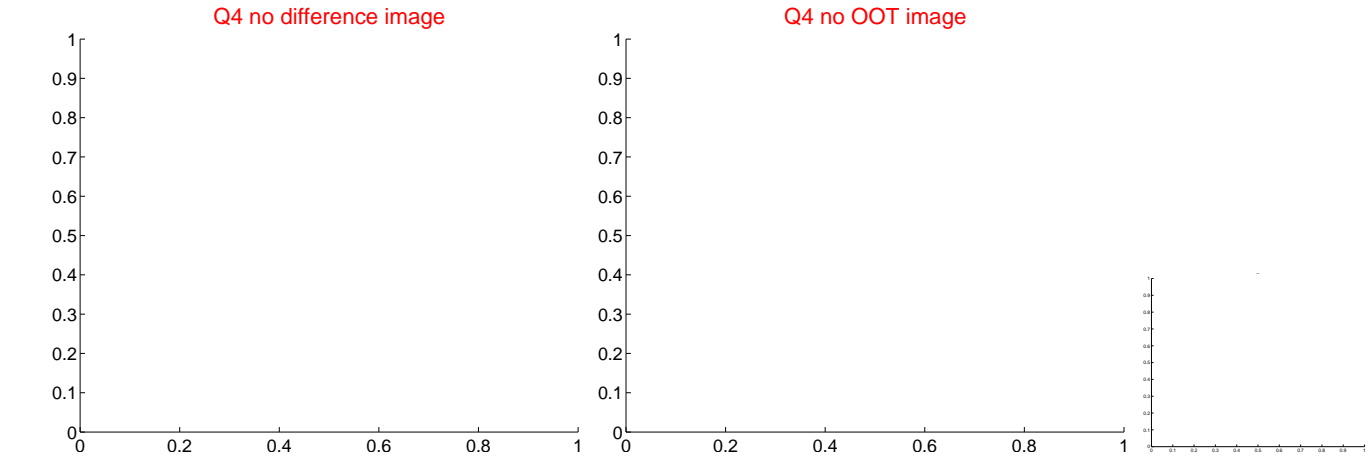
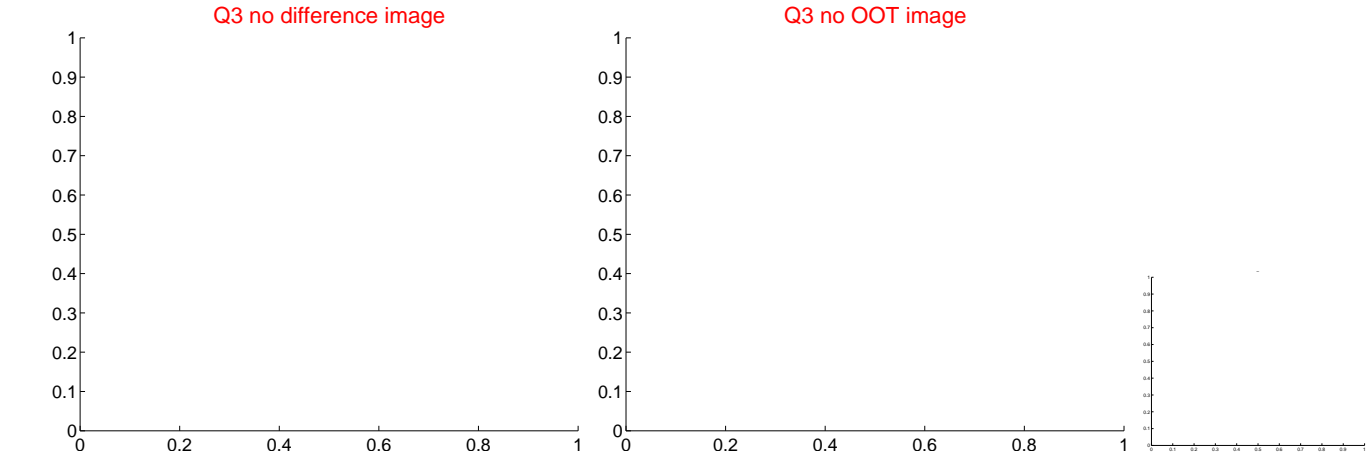
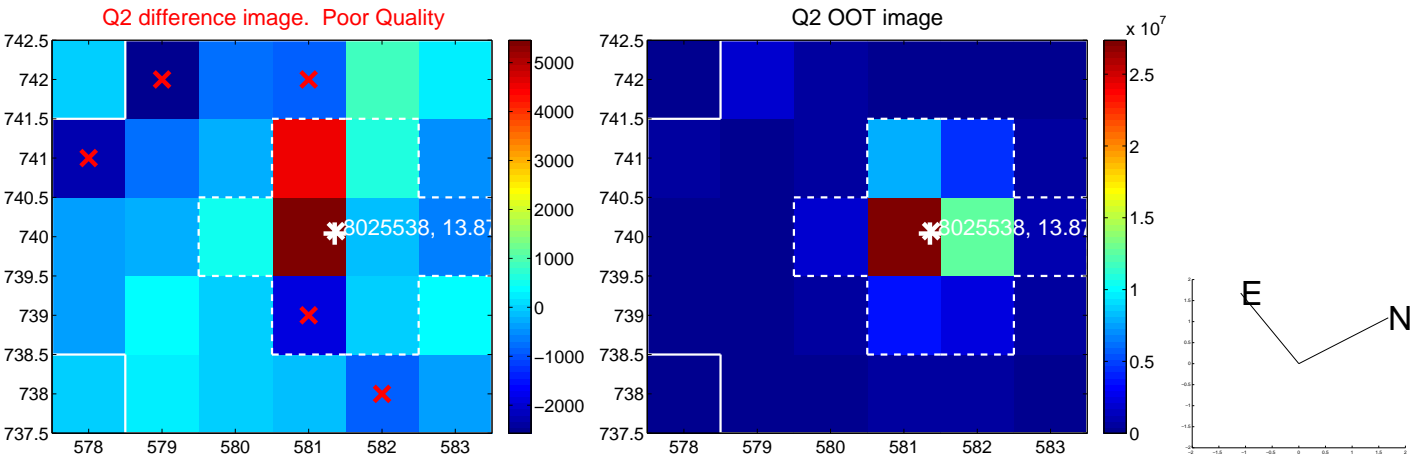
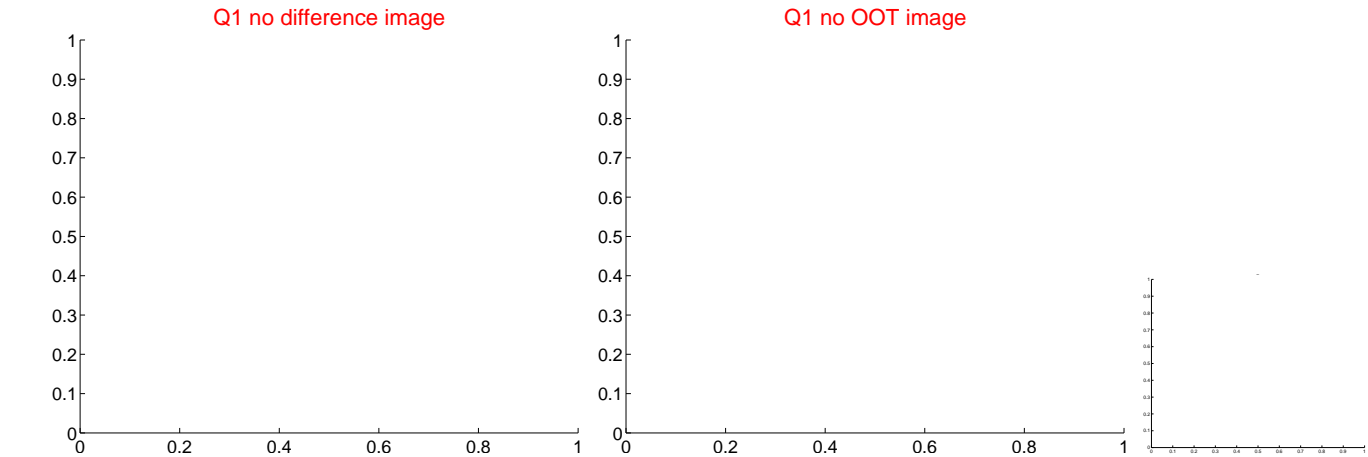
The direct PRF centroid is offset from the target star catalog position by about 0.17 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.196 ± 0.417	0.47	-0.033 ± 0.472	-0.193 ± 0.415
PRF-fit source offset from KIC position	0.356 ± 0.421	0.84	-0.116 ± 0.472	-0.337 ± 0.415
photometric centroid source offset	4.85 ± 2.06	2.35	-0.57 ± 1.99	-4.82 ± 2.06



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.

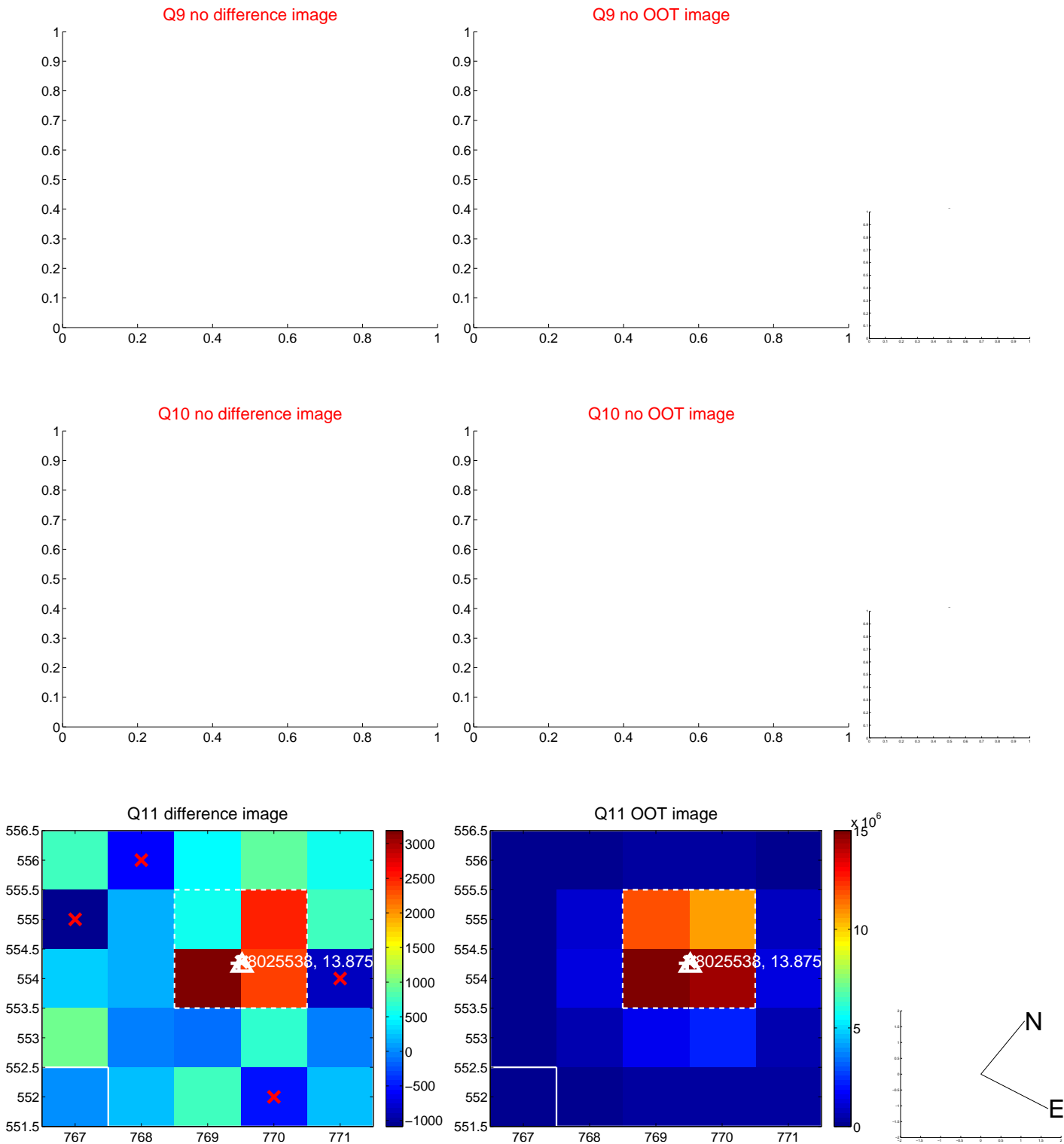
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



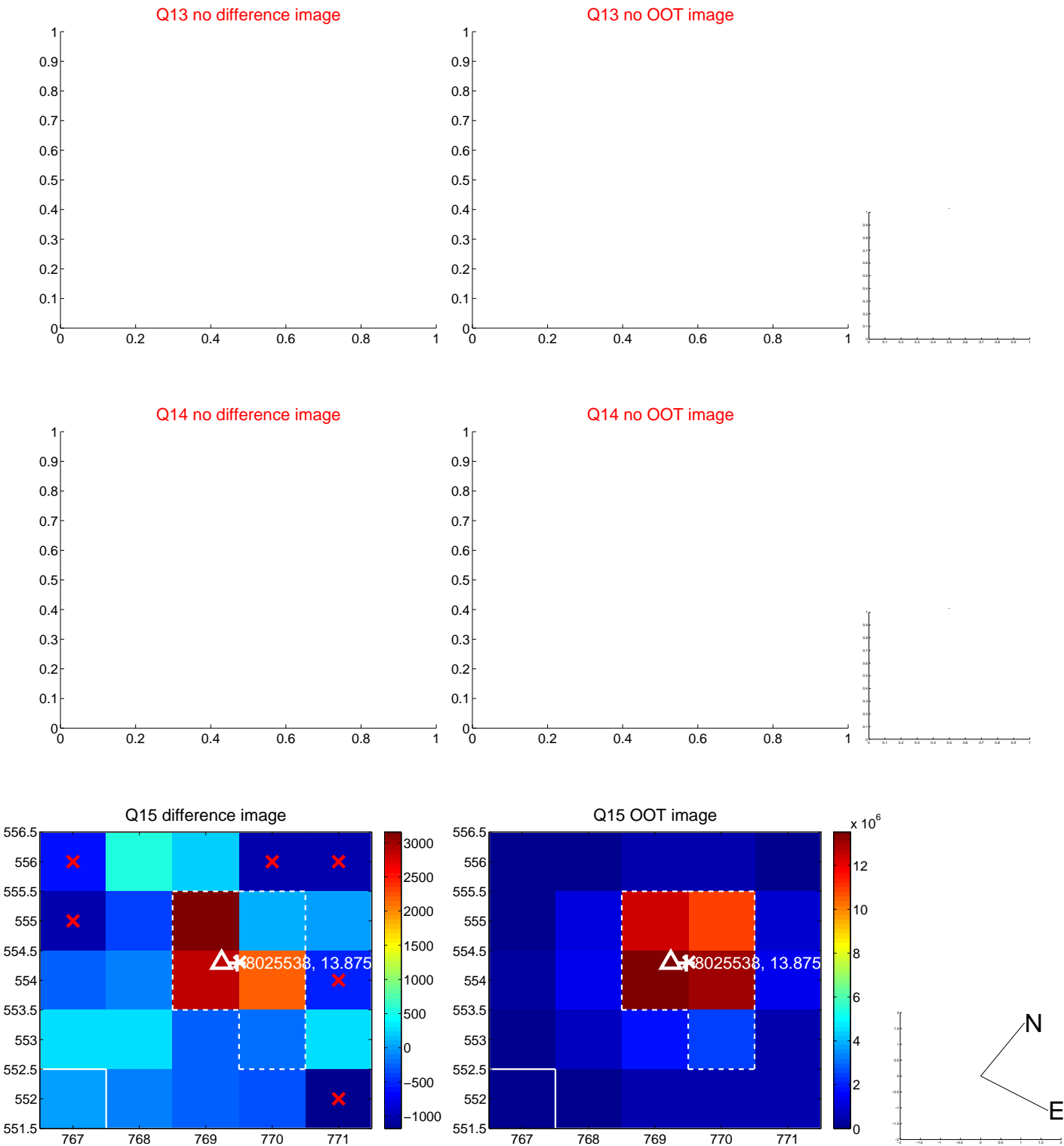
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



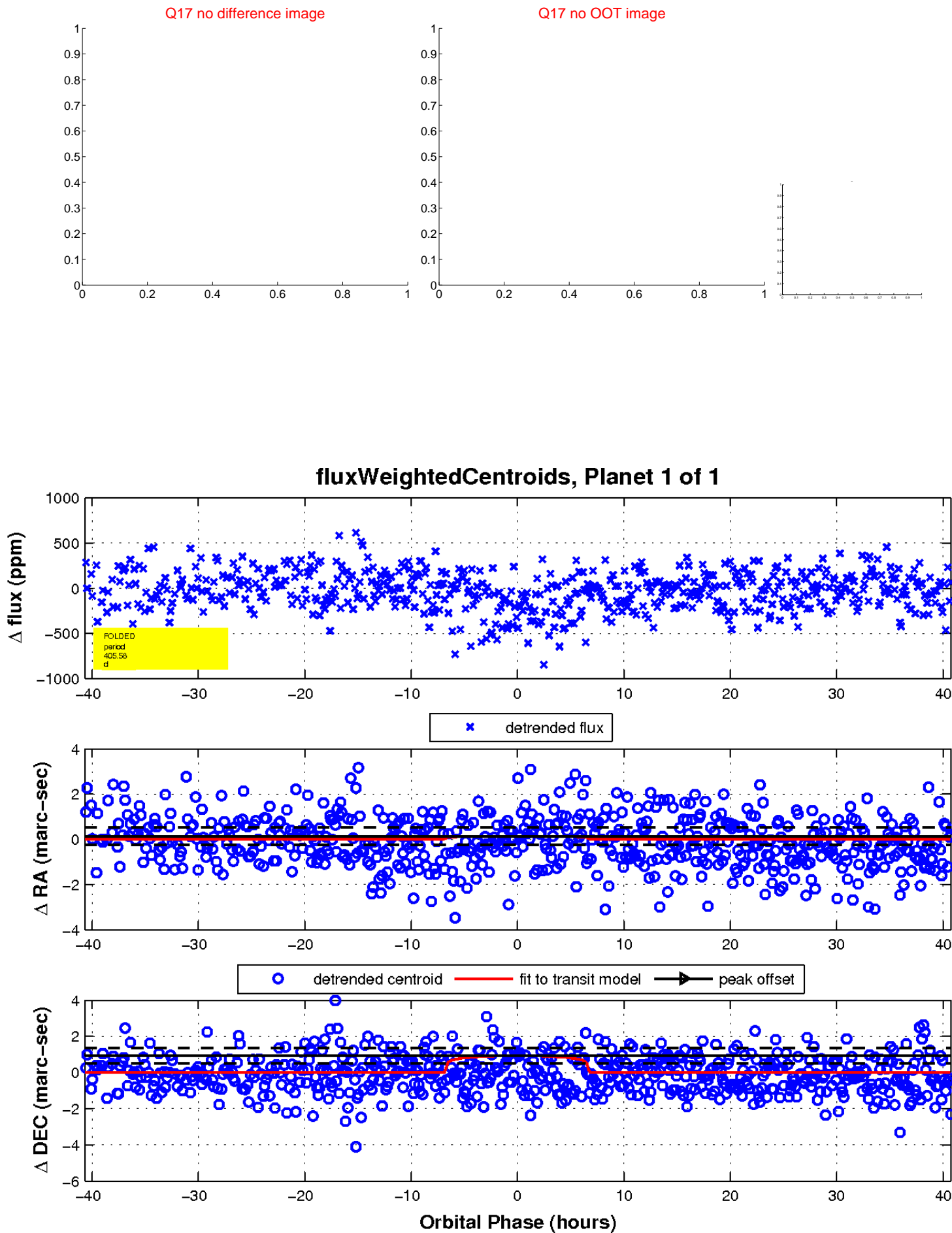
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

