

KIC 008350993

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})
008350993-01	OBS	No	450.430192	192.962158	669.7	4.010	7.7	7.6	0.93	5984	2.67	0.75

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008350993-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_SKYE—MOD_NONUNIQ_ALT—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.

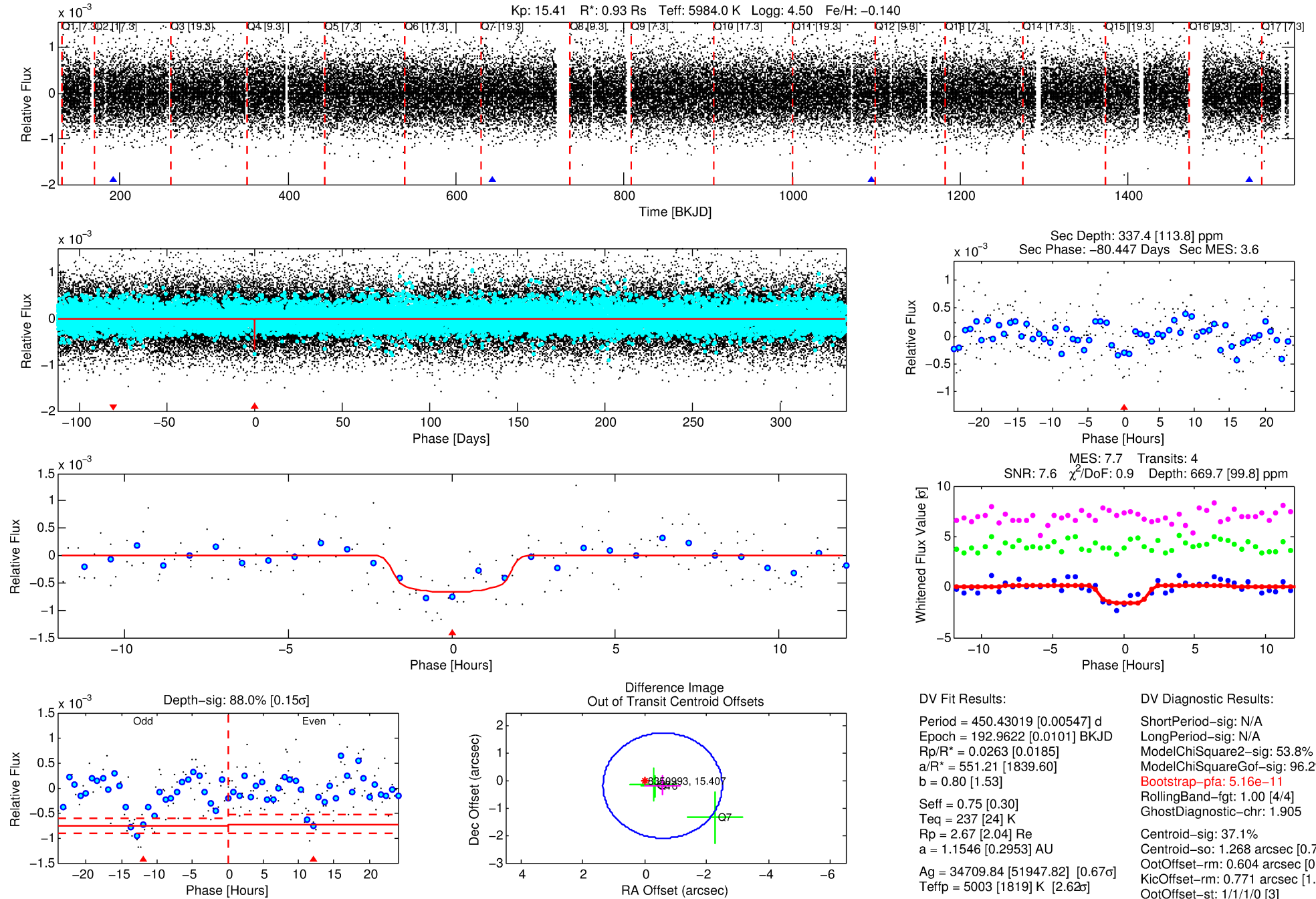
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008350993-01

No Significant Match Found

DV One-Page Summary

KIC: 8350993 Candidate: 1 of 1 Period: 450.430 d



DV Fit Results:

Period = 450.43019 [0.00547] d
Epoch = 192.9622 [0.0101] BKJD
Rp/R* = 0.0263 [0.0185]
a/R* = 551.21 [1839.60]
b = 0.80 [1.53]
Seff = 0.75 [0.30]
Teq = 237 [24] K
Rp = 2.67 [2.04] Re
a = 1.1546 [0.2953] AU
Ag = 34709.84 [51947.82] [0.67 σ]
Teff = 5003 [1819] K [2.62 σ]

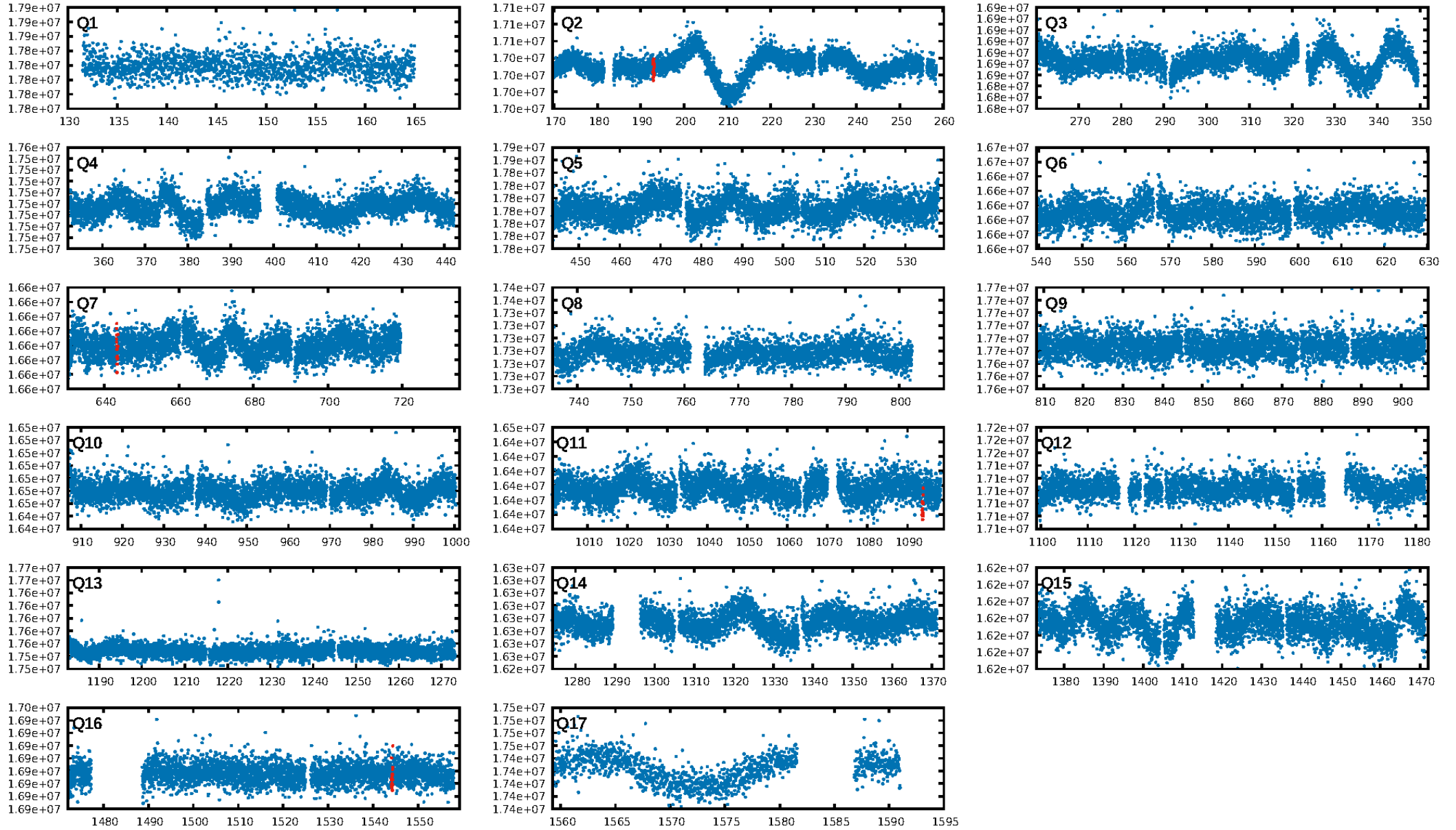
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 53.8%
ModelChiSquareGof-sig: 96.2%
Bootstrap-pfa: 5.16e-11
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: 1.905
Centroid-sig: 37.1%
Centroid-so: 1.268 arcsec [0.76 σ]
OotOffset-rm: 0.604 arcsec [0.94 σ]
KicOffset-rm: 0.771 arcsec [1.00 σ]
OotOffset-st: 1/1/1/0 [3]
KicOffset-st: 1/1/1/0 [3]
DiffImageQuality-fgm: 0.67 [2/3]
DiffImageOverlap-fno: 1.00 [3/3]

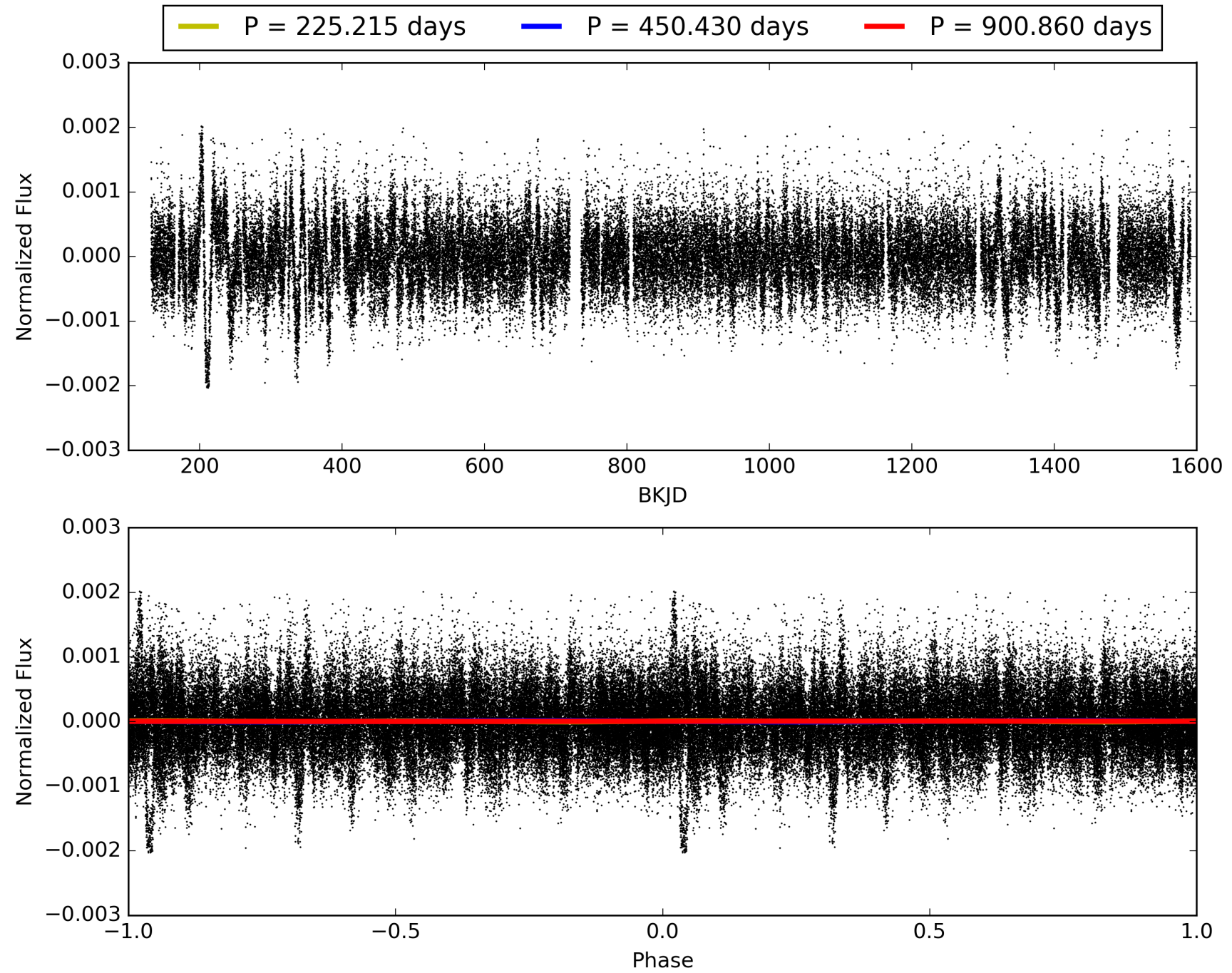
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 22:07:06 Z

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

TCE 008350993-01, PDC Light Curves

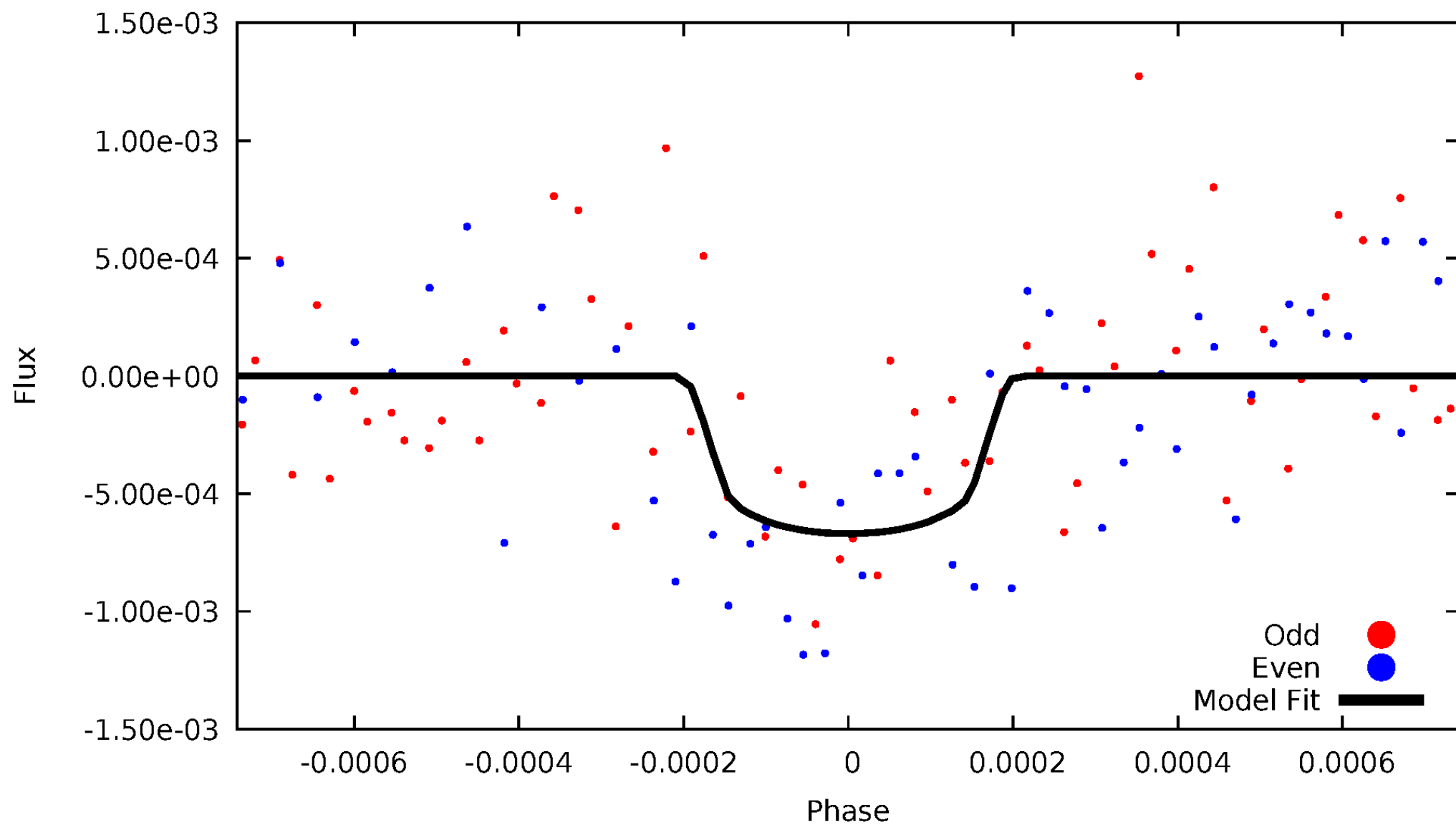


TCE 008350993-01



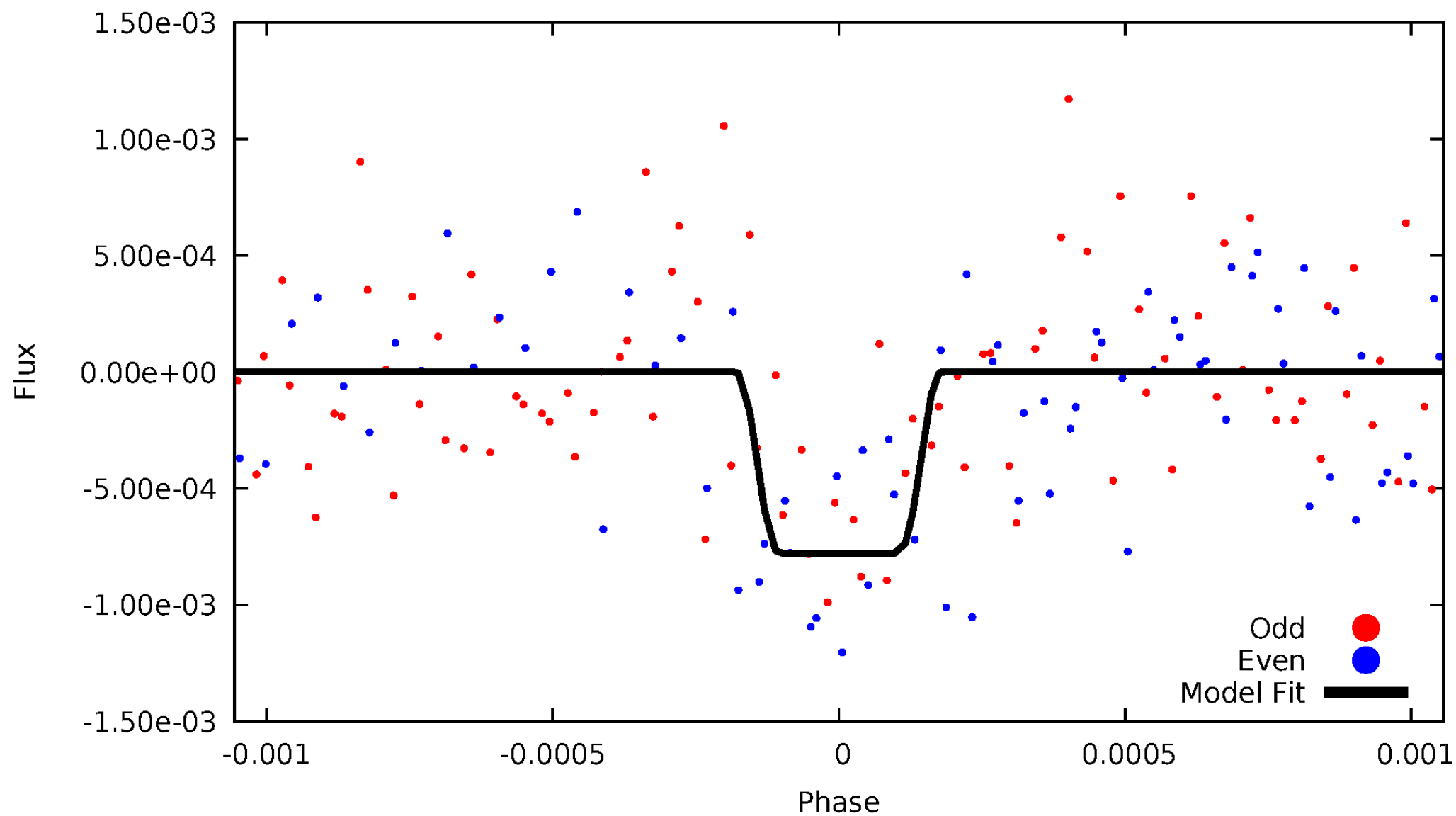
DV Odd/Even

TCE 008350993-01

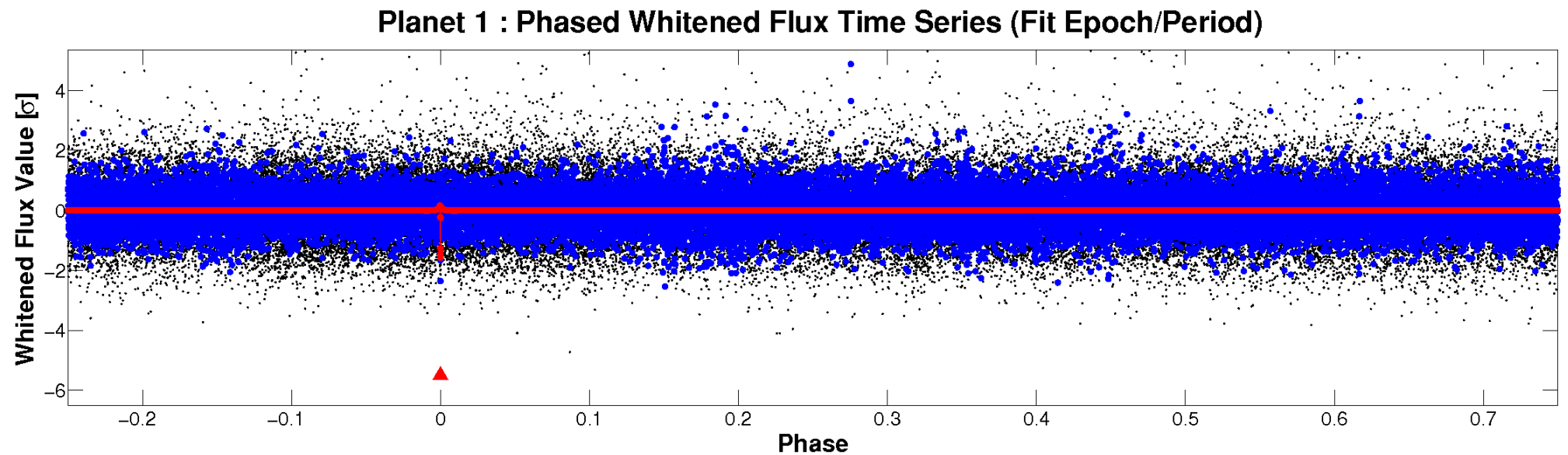
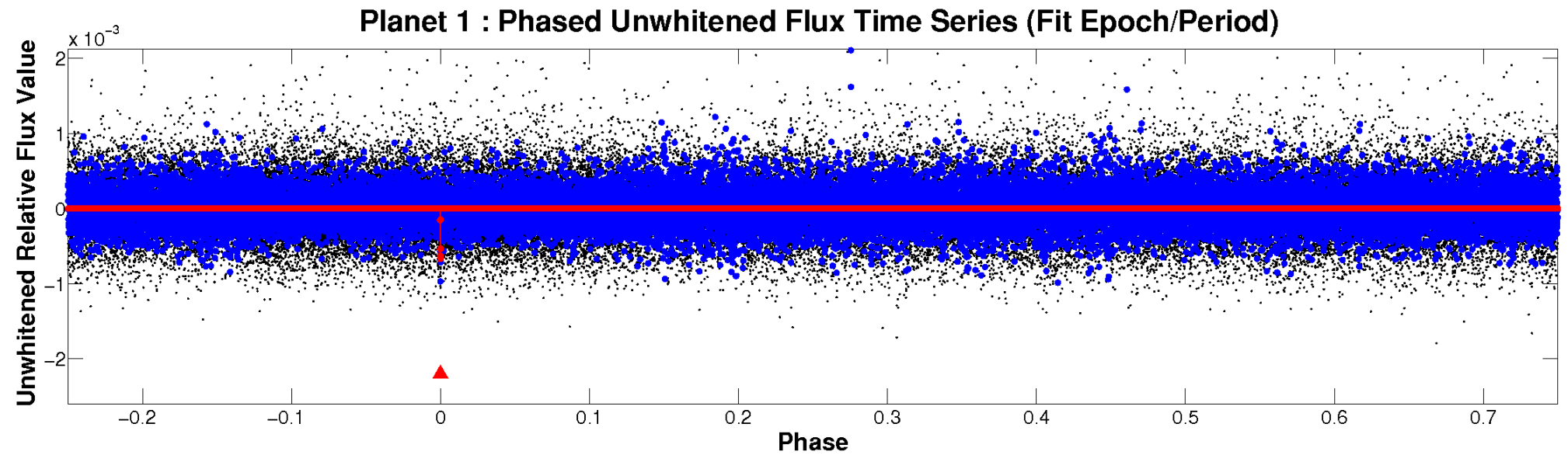


ALT Odd/Even

TCE 008350993-01

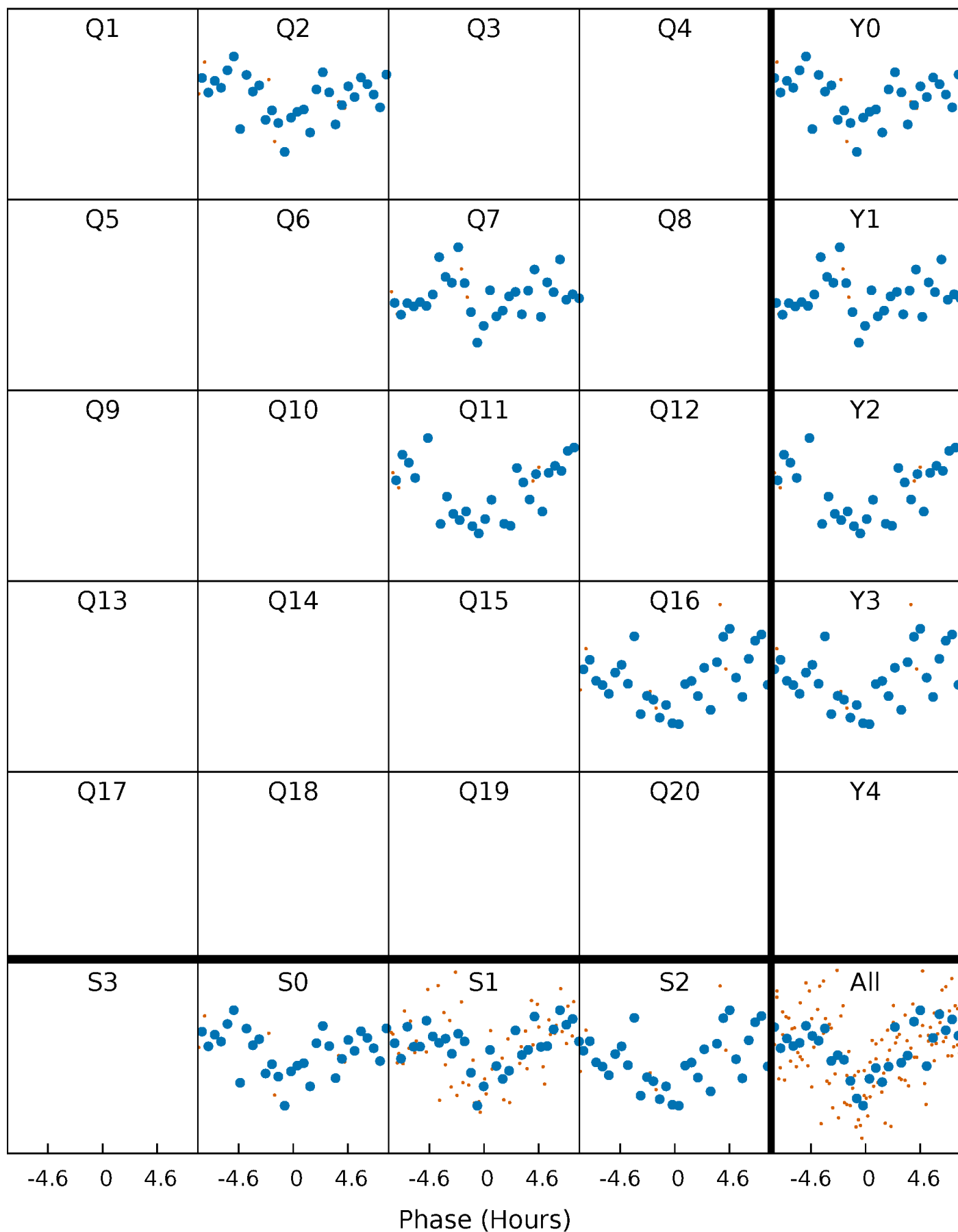


Non-Whitened Vs. Whitened Light Curve



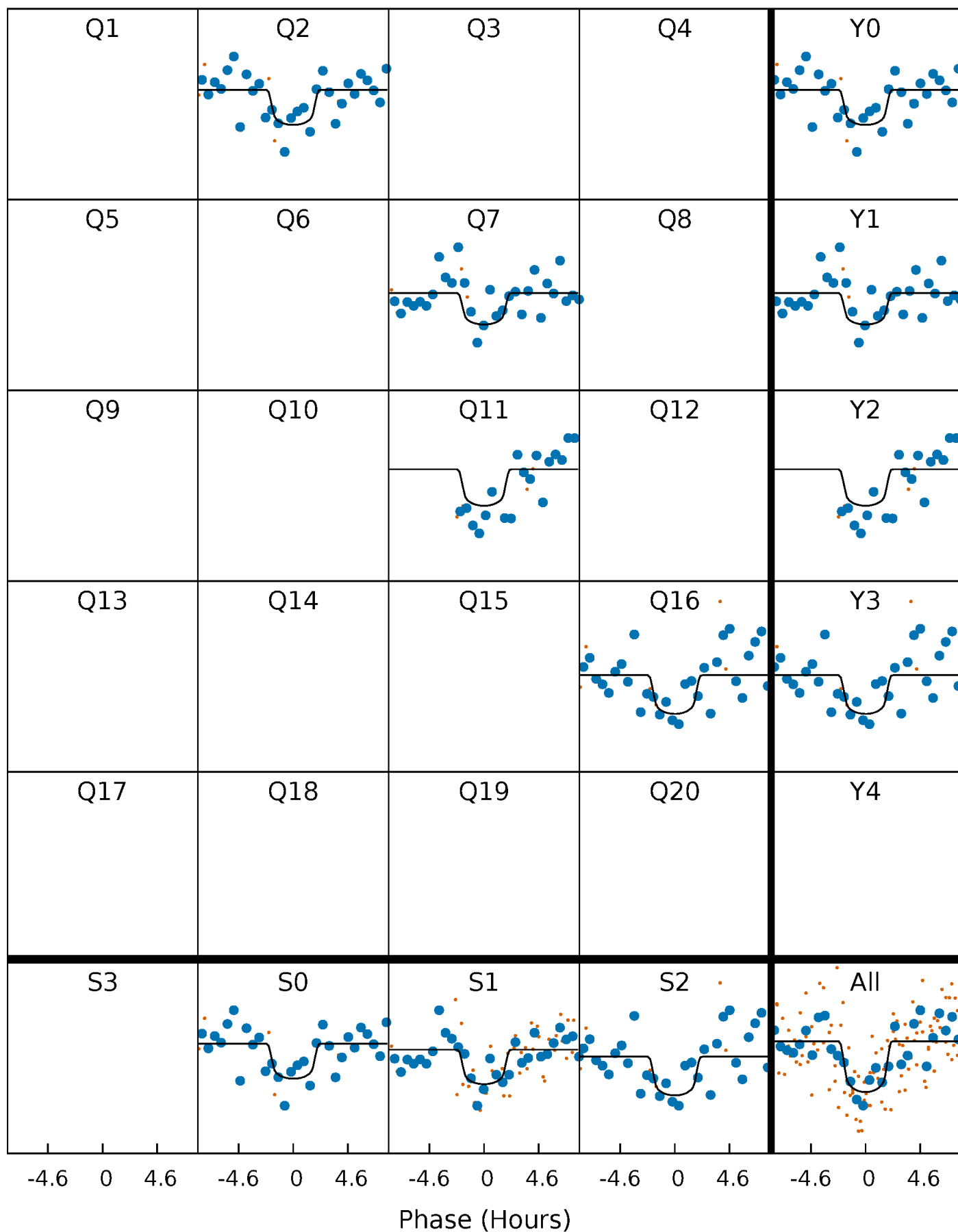
PDC Quarter-Phased Transit Curves

TCE 008350993-01 P=450.430192 Days $T_0=192.962158$ (BKJD)



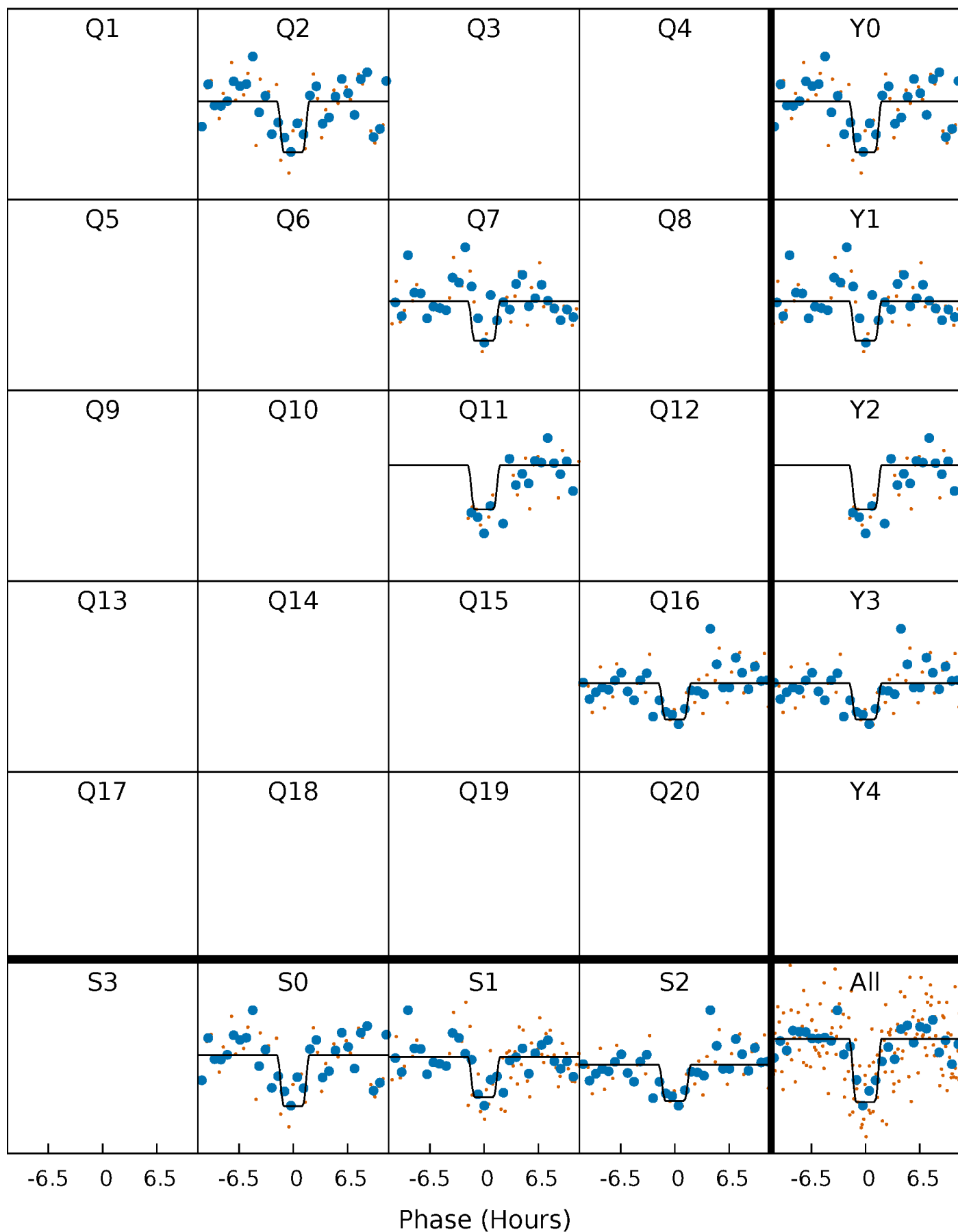
DV Quarter-Phased Transit Curves

TCE 008350993-01 P=450.430192 Days $T_0=192.962158$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

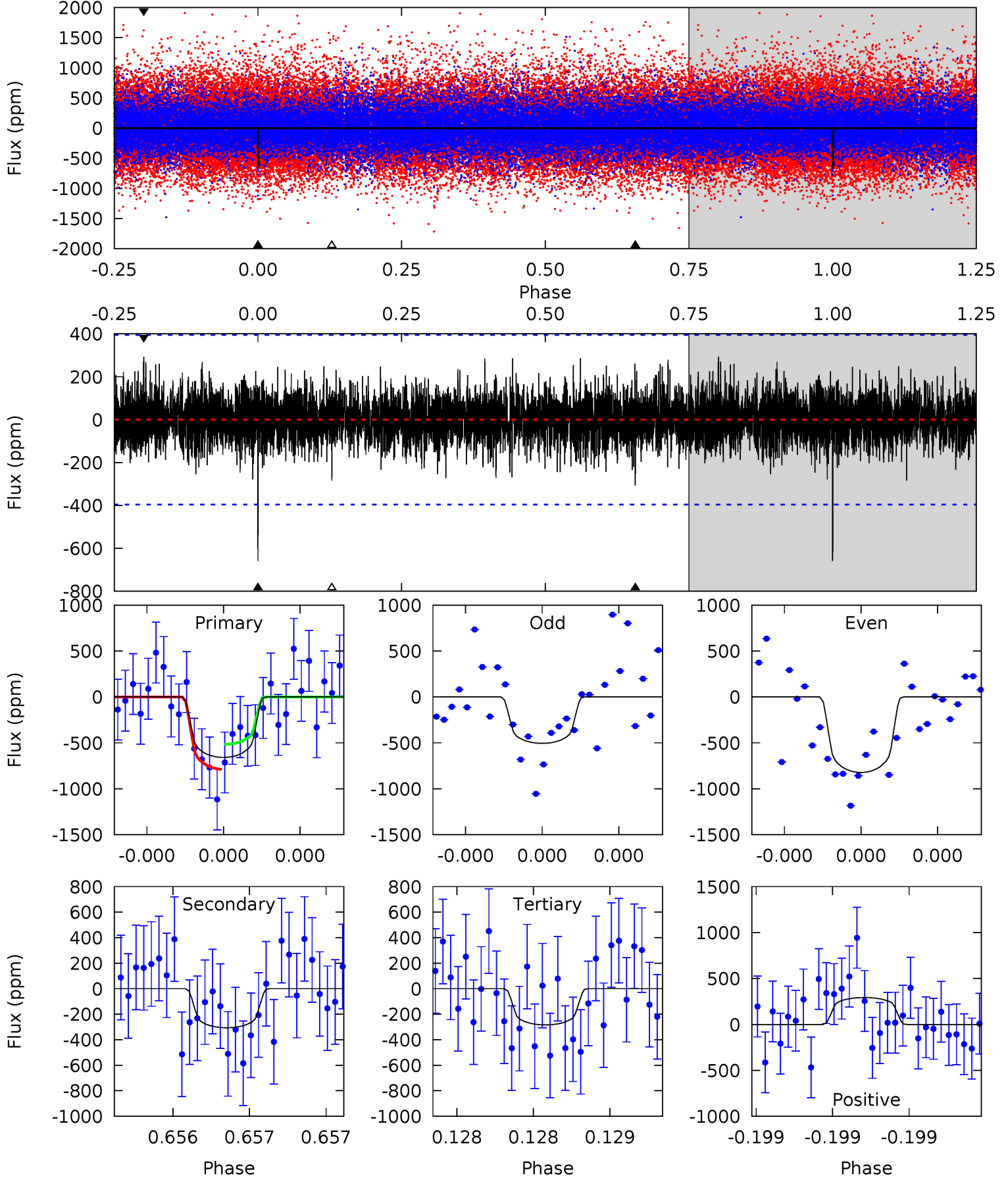
TCE 008350993-01 P=450.423774 Days $T_0=192.959503$ (BKJD)



DV Model-Shift Uniqueness Test

008350993-01, P = 450.430192 Days, E = 192.962158 Days

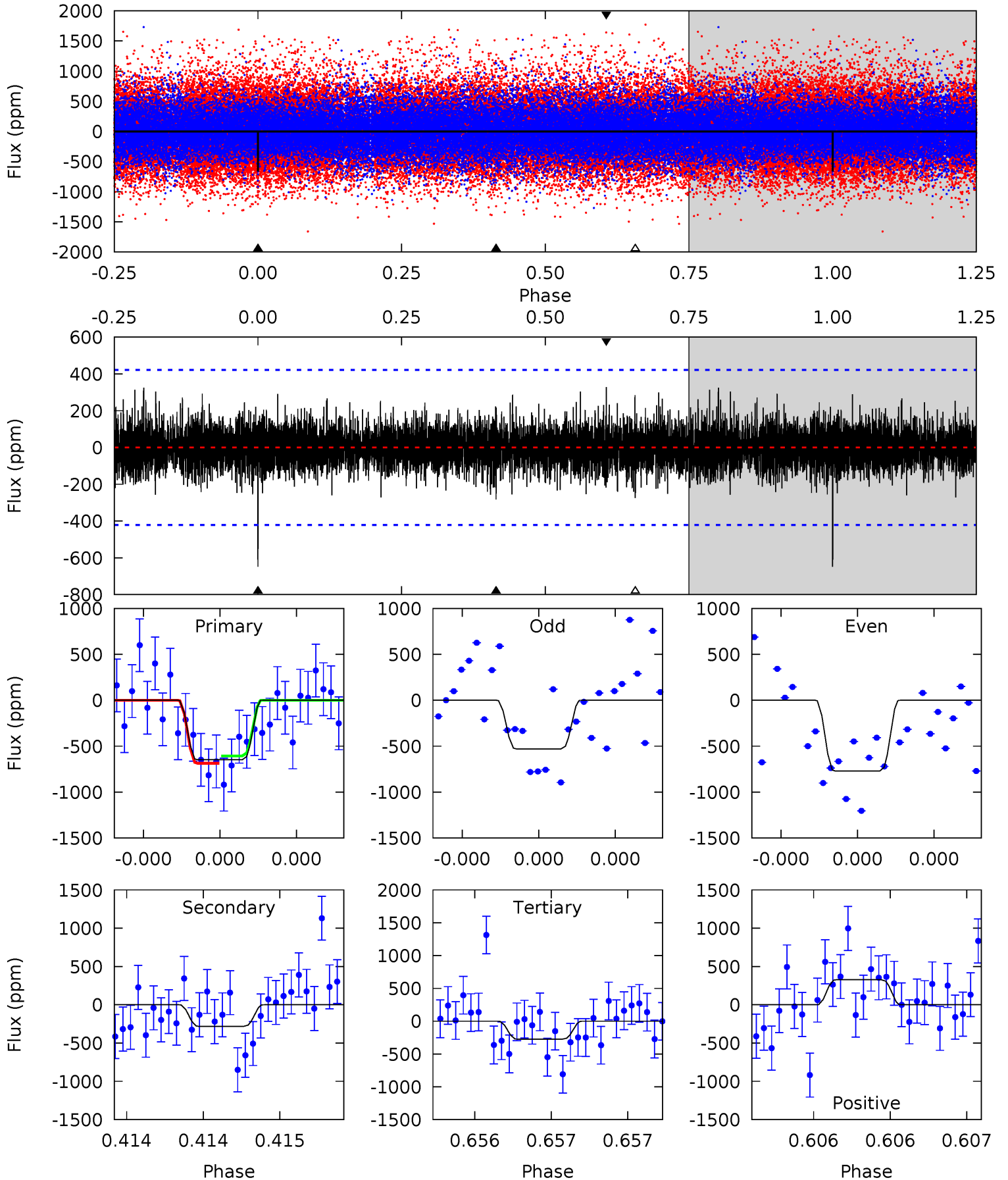
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.34	4.35	4.02	4.15	5.62	3.55	1.12	5.32	5.19	0.32	0.20	2.25	1.04	0.31	1.93



Alt Model-Shift Uniqueness Test

008350993-01, P = 450.423774 Days, E = 192.959503 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.68	3.77	3.67	4.38	5.64	3.59	1.06	5.01	4.30	0.10	-0.61	1.62	0.98	0.34	0.53



Stellar Parameters For KIC 008350993

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5984^{+161}_{-197}	$4.505^{+0.052}_{-0.208}$	$-0.140^{+0.300}_{-0.300}$	$0.931^{+0.279}_{-0.093}$	$1.011^{+0.131}_{-0.131}$	$1.768^{+0.478}_{-0.902}$
	+3%/-3%	+1%/-5%	+214%/-214%	+30%/-10%	+13%/-13%	+27%/-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 008350993-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-306 ± 70	$2.92^{+1.94}_{-1.64}$	339^{+25}_{-17}	4857^{+2563}_{-882}	$25021^{+120222}_{-16601}$
Alt.	-282 ± 75	$3.04^{+1.95}_{-1.75}$	337^{+23}_{-16}	4680^{+2476}_{-773}	21824^{+93885}_{-13982}

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 $A_{obs} \gg 1.0$

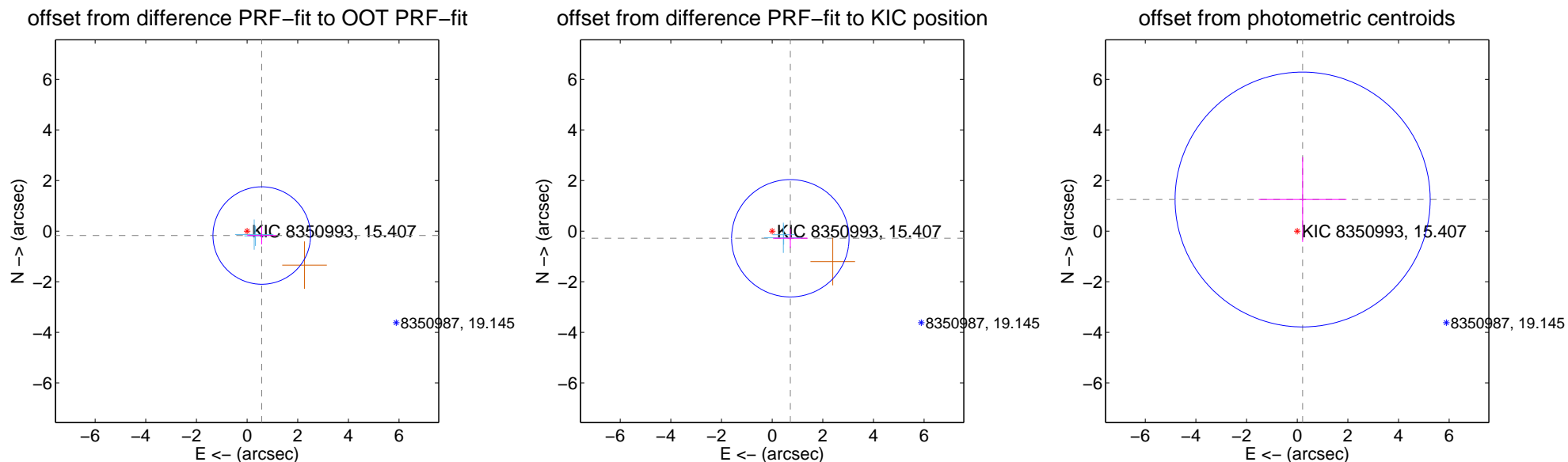
DV Centroid Data

Supplemental centroid analysis for 008350993-01. Kepler magnitude: 15.41. Transit SNR 7.63

There are 2 quarters with good PRF difference image offsets

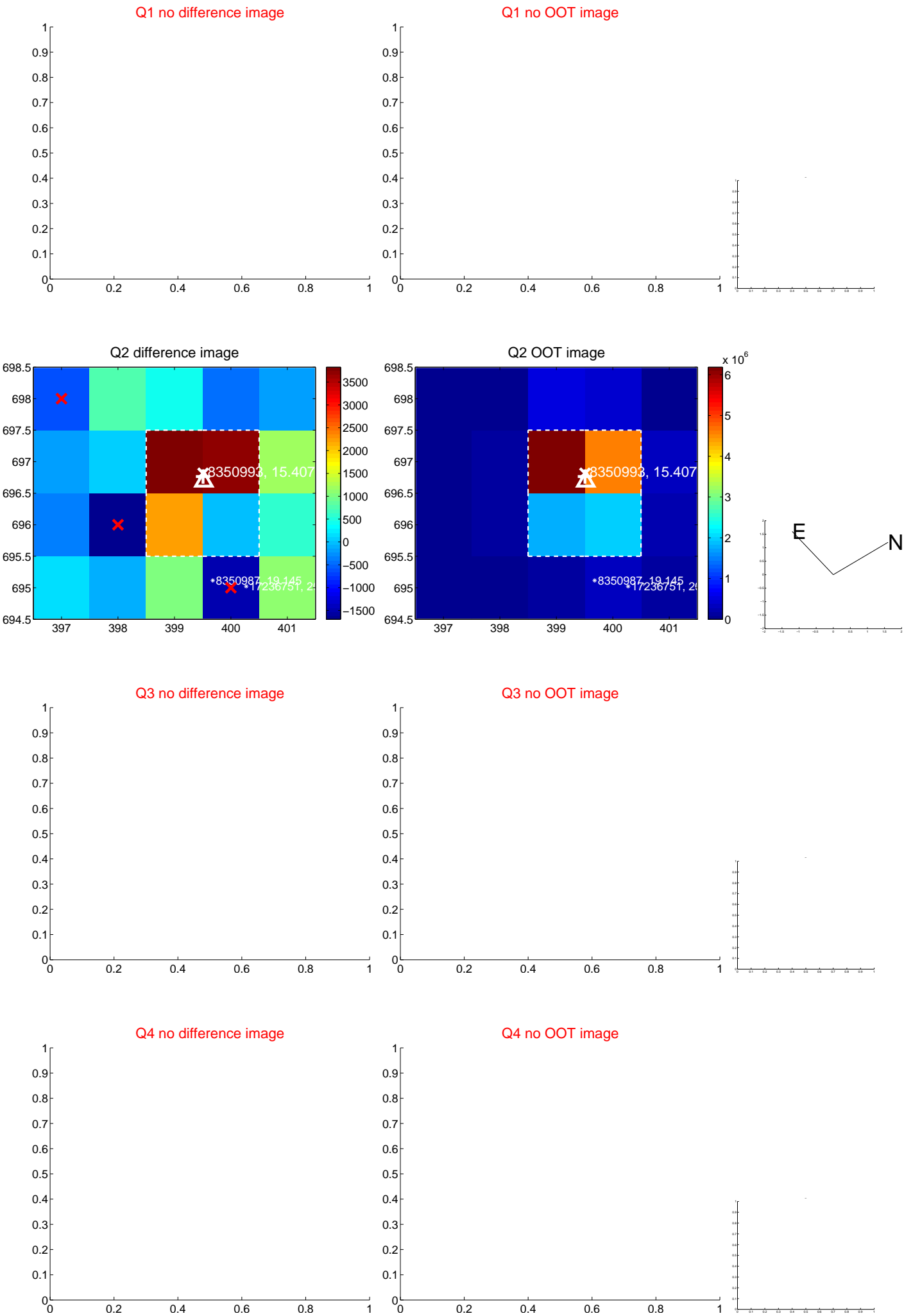
The direct PRF centroid is offset from the target star catalog position by about 0.13 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.604 ± 0.642	0.94	-0.579 ± 0.569	-0.174 ± 0.346
PRF-fit source offset from KIC position	0.771 ± 0.773	1.00	-0.717 ± 0.685	-0.282 ± 0.378
photometric centroid source offset	1.27 ± 1.68	0.76	-0.21 ± 1.73	1.25 ± 1.68

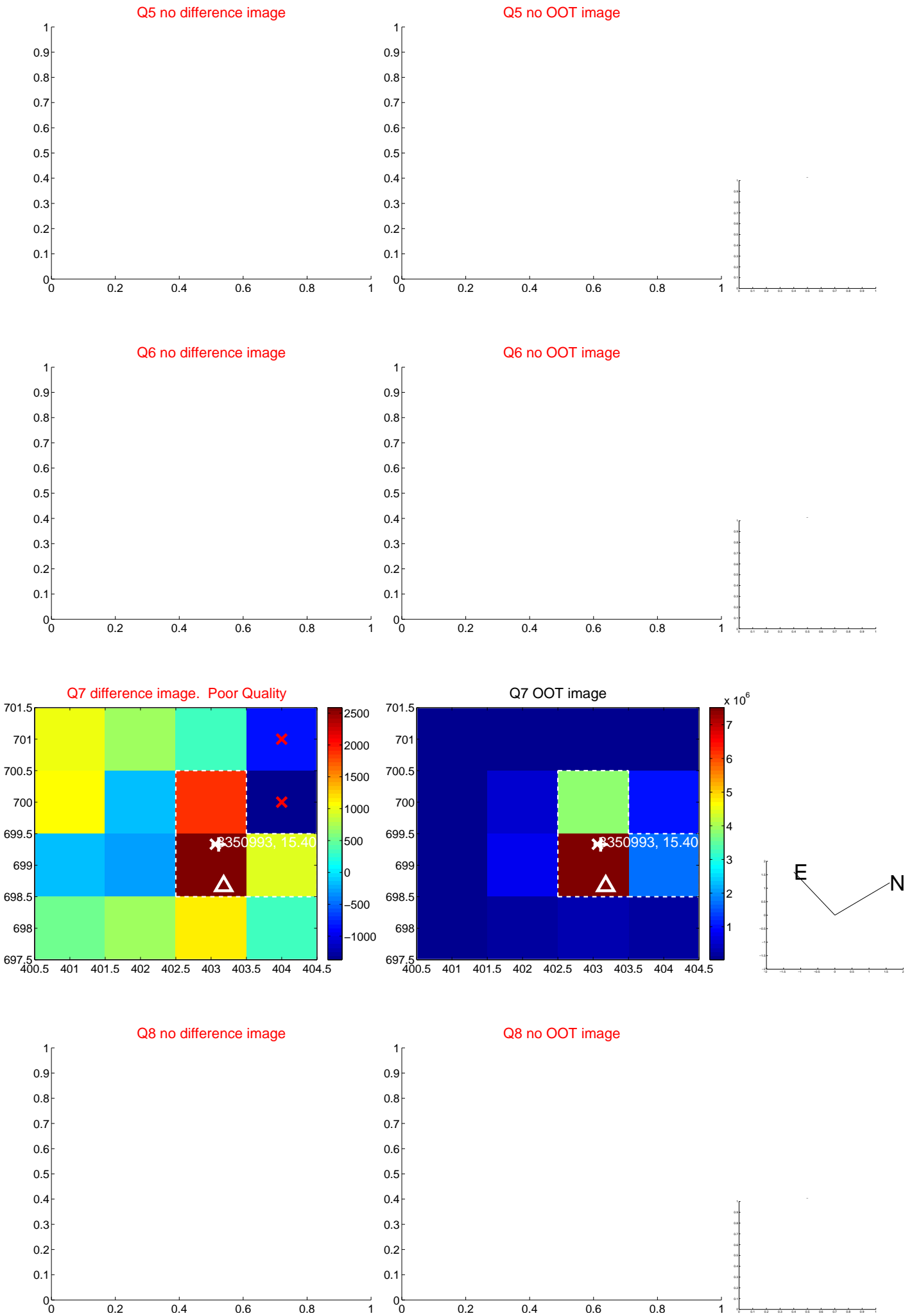


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . 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 ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



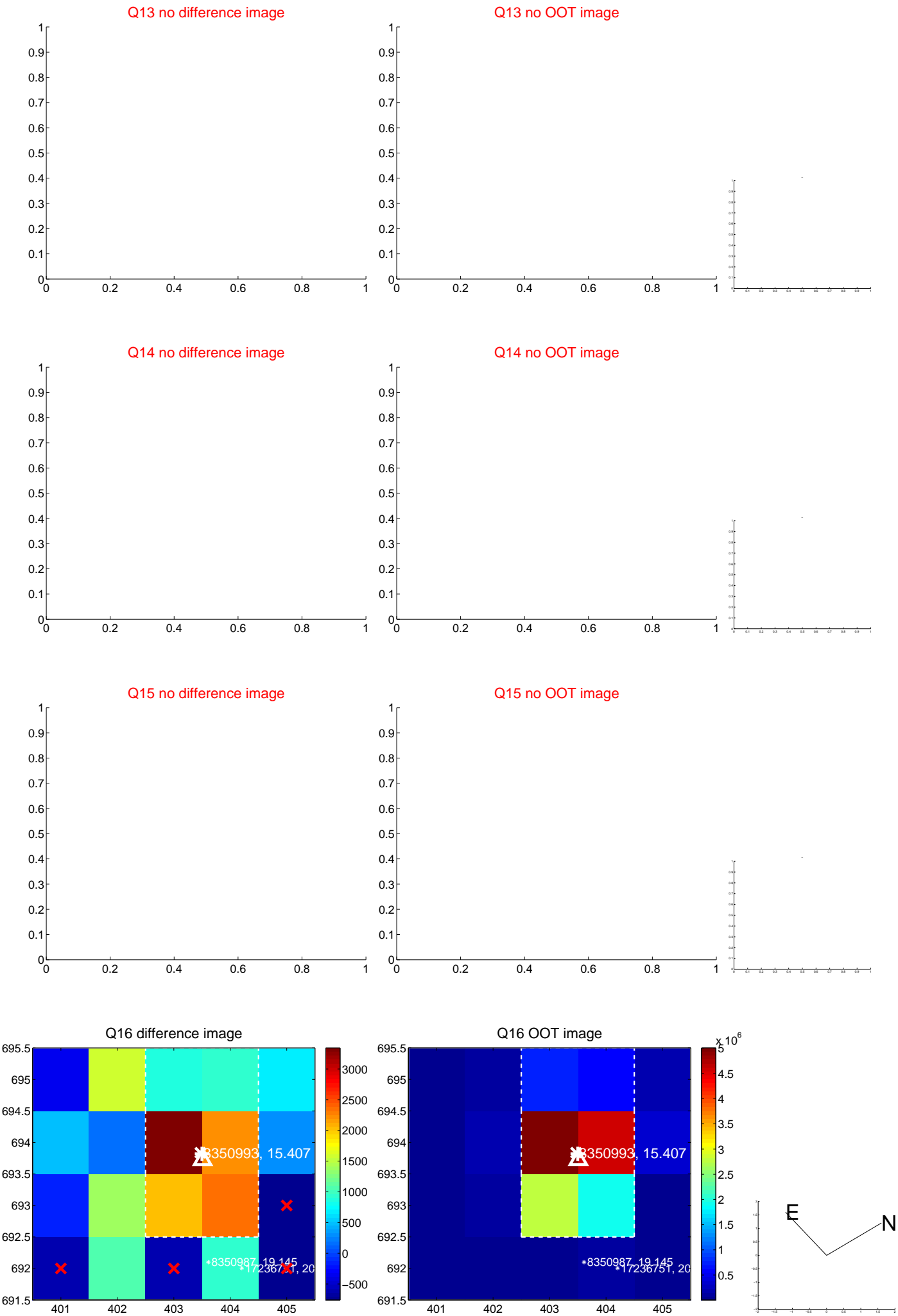
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



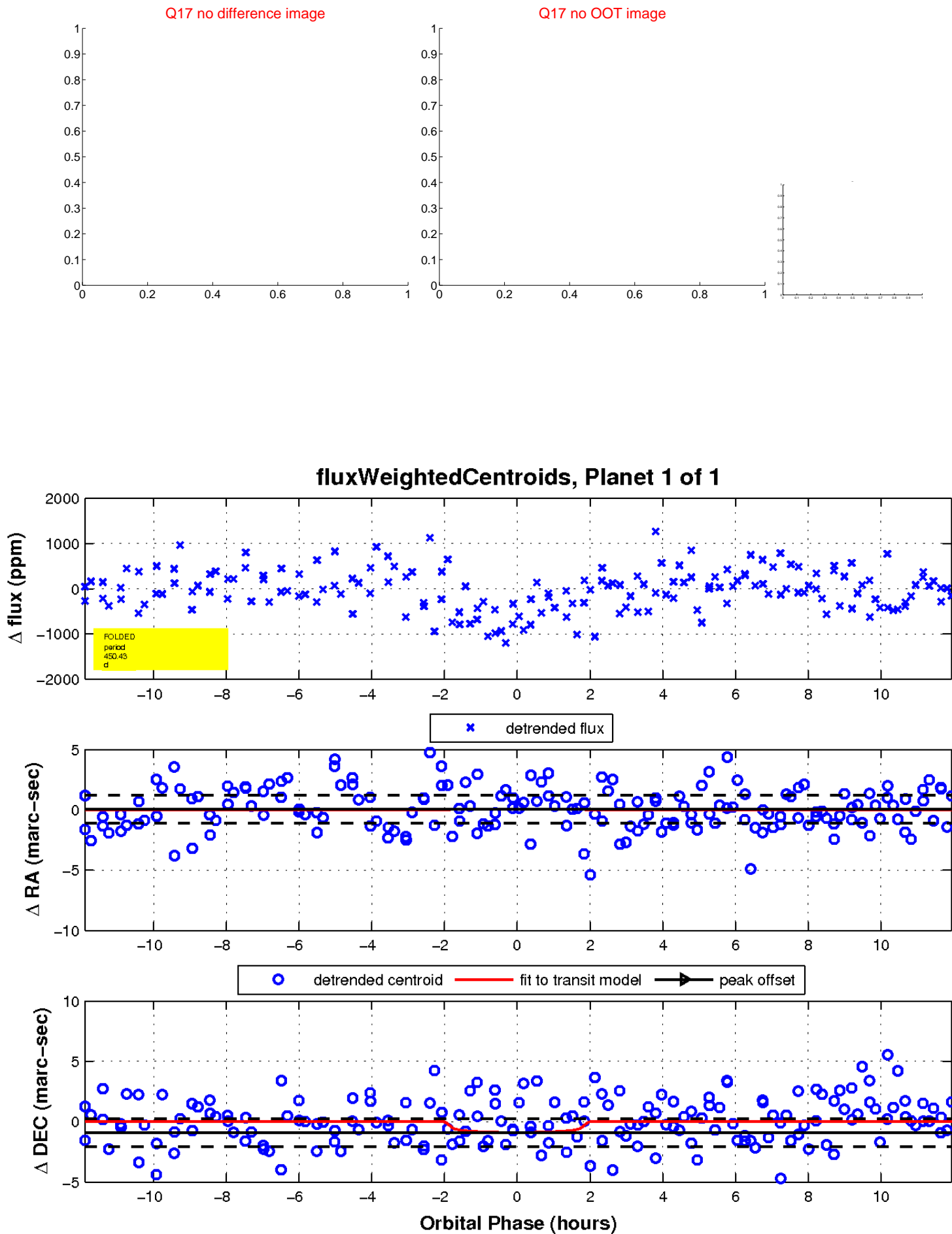
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UKIRT Image

Declination

