

KIC 011453592

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})
011453592-01	OBS	2705.01	2.886773	131.663092	606.0	0.975	35.1	45.7	0.39	3483	1.16	22.81

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011453592-01	OBS	PC	1.00	0	0	0	0	CENT_KIC_POS

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.

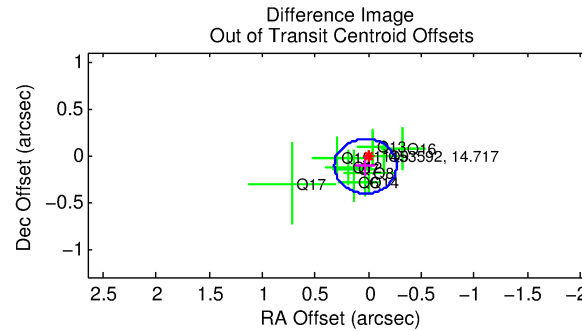
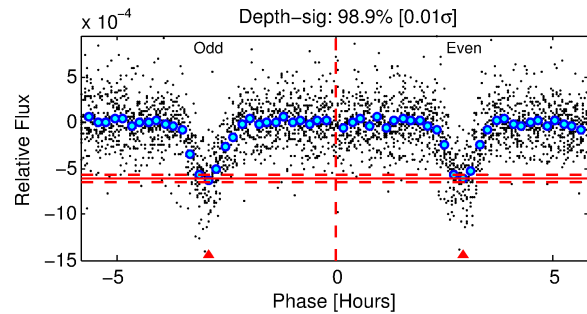
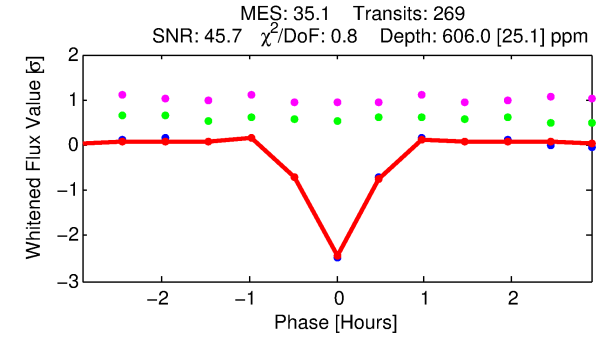
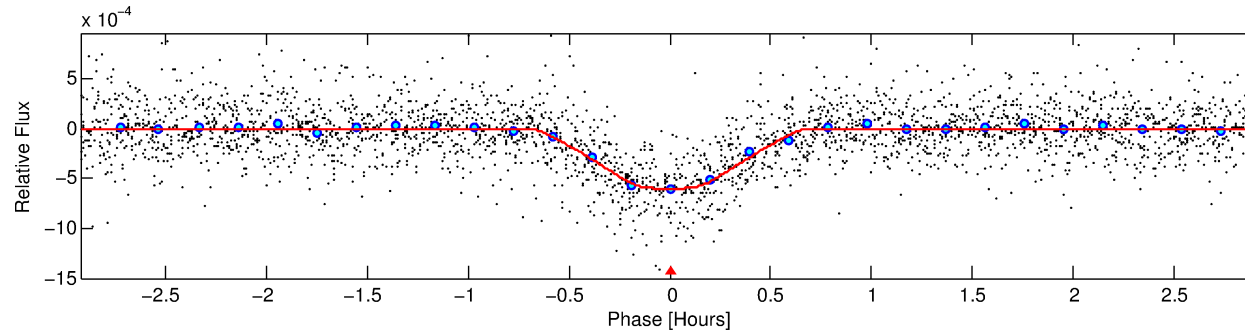
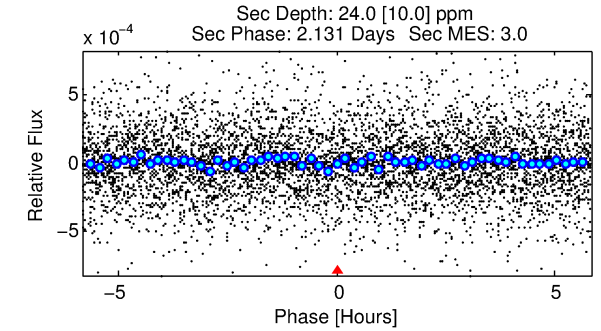
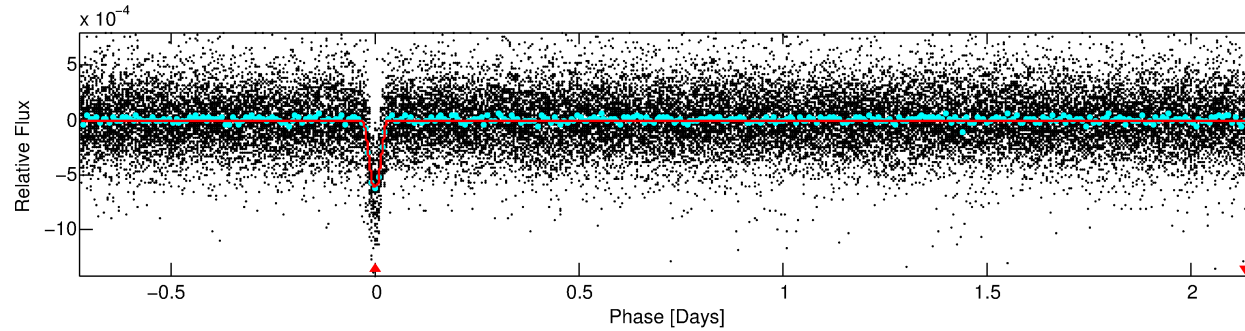
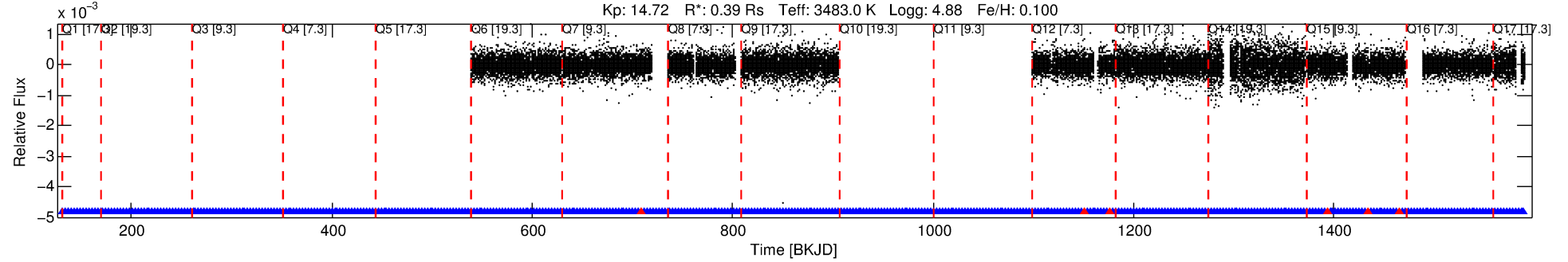
Ephemeris Match Information For 011453592-01

No Significant Match Found

DV One-Page Summary

KIC: 11453592 Candidate: 1 of 1 Period: 2.887 d

KOI: K02705.01 Corr: 0.950



DV Fit Results:

Period = 2.88677 [0.00000] d
Epoch = 131.6631 [0.0004] BKJD
Rp/R* = 0.0274 [0.0049]
a/R* = 11.24 [7.92]
b = 0.90 [0.15]
Seff = 22.81 [3.78]
Teq = 557 [23] K
Rp = 1.16 [0.28] Re
a = 0.0296 [0.0034] AU
Ag = 8.52 [4.82] [1.56σ]
Teffp = 1472 [204] K [4.45σ]

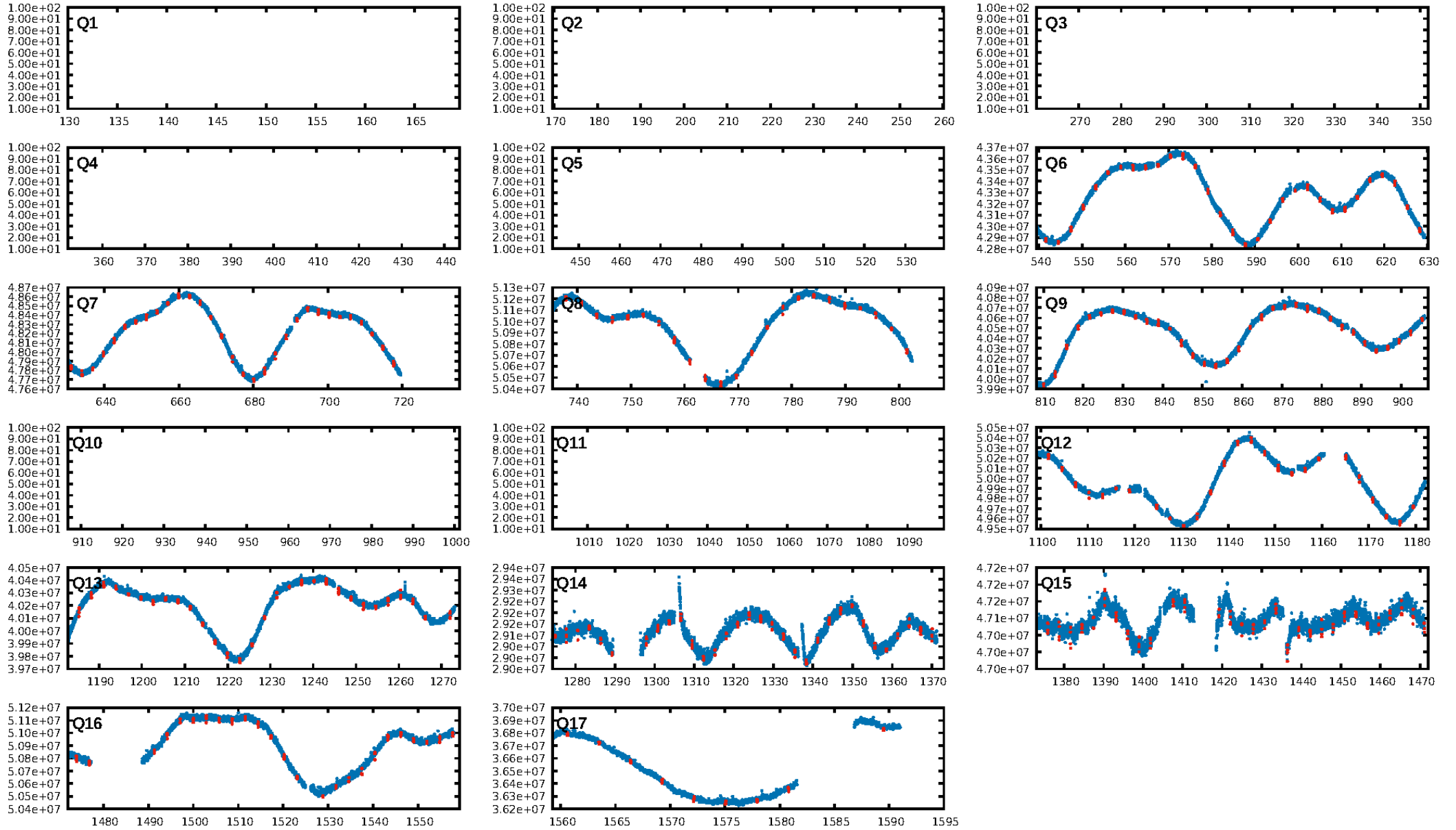
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 4.16e-248
RollingBand-fgt: 0.98 [254/260]
GhostDiagnostic-chr: 2.718
Centroid-sig: 0.0%
Centroid-so: 1.264 arcsec [4.87σ]
OotOffset-rm: 0.120 arcsec [1.23σ]
OotOffset-st: 2/2/3/3 [10]
KicOffset-rm: 1.374 arcsec [11.63σ]
KicOffset-st: 2/2/3/3 [10]
DiffImageQuality-fgm: 1.00 [10/10]
DiffImageOverlap-fno: 1.00 [10/10]

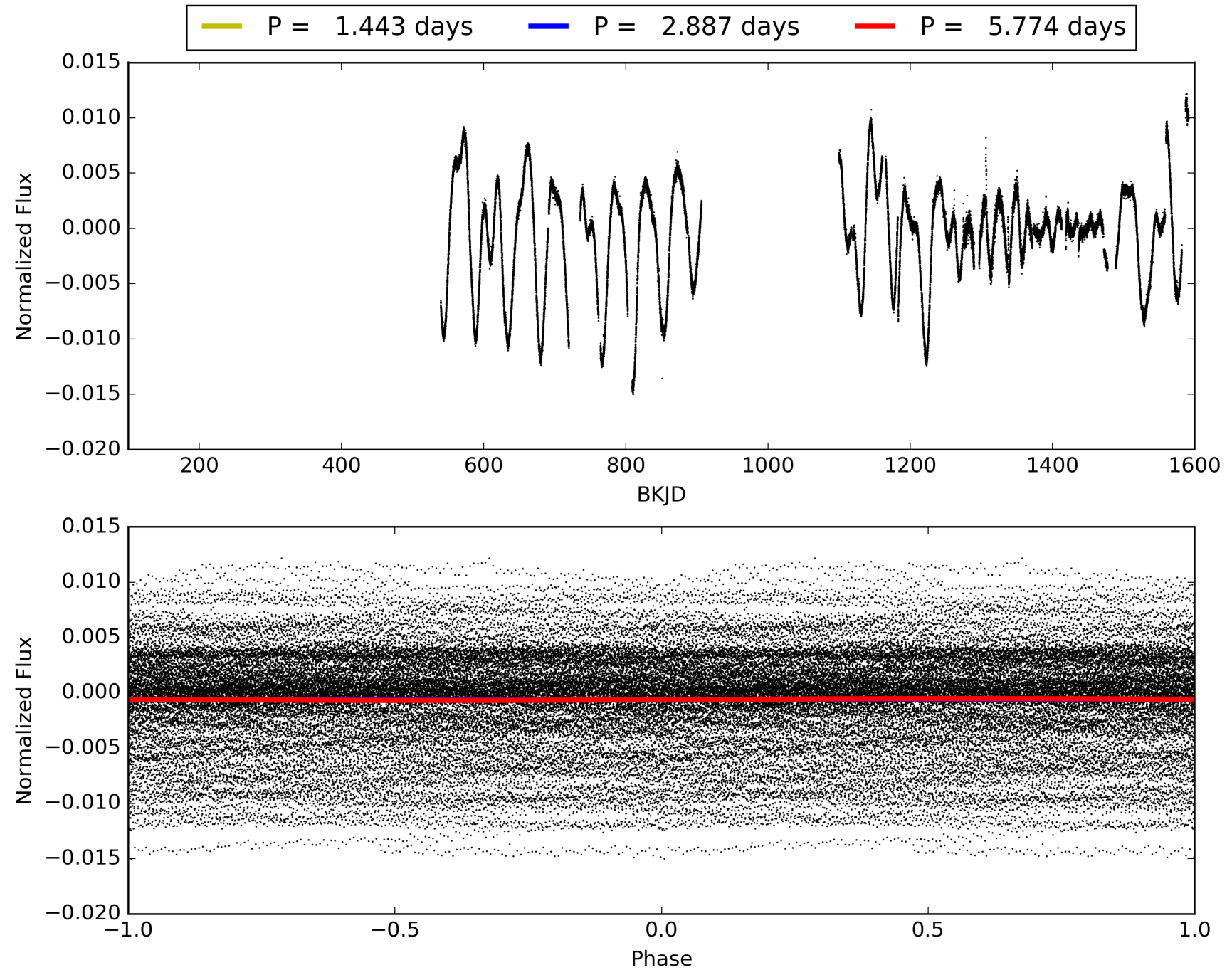
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 21:54:45 Z

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

TCE 011453592-01, PDC Light Curves

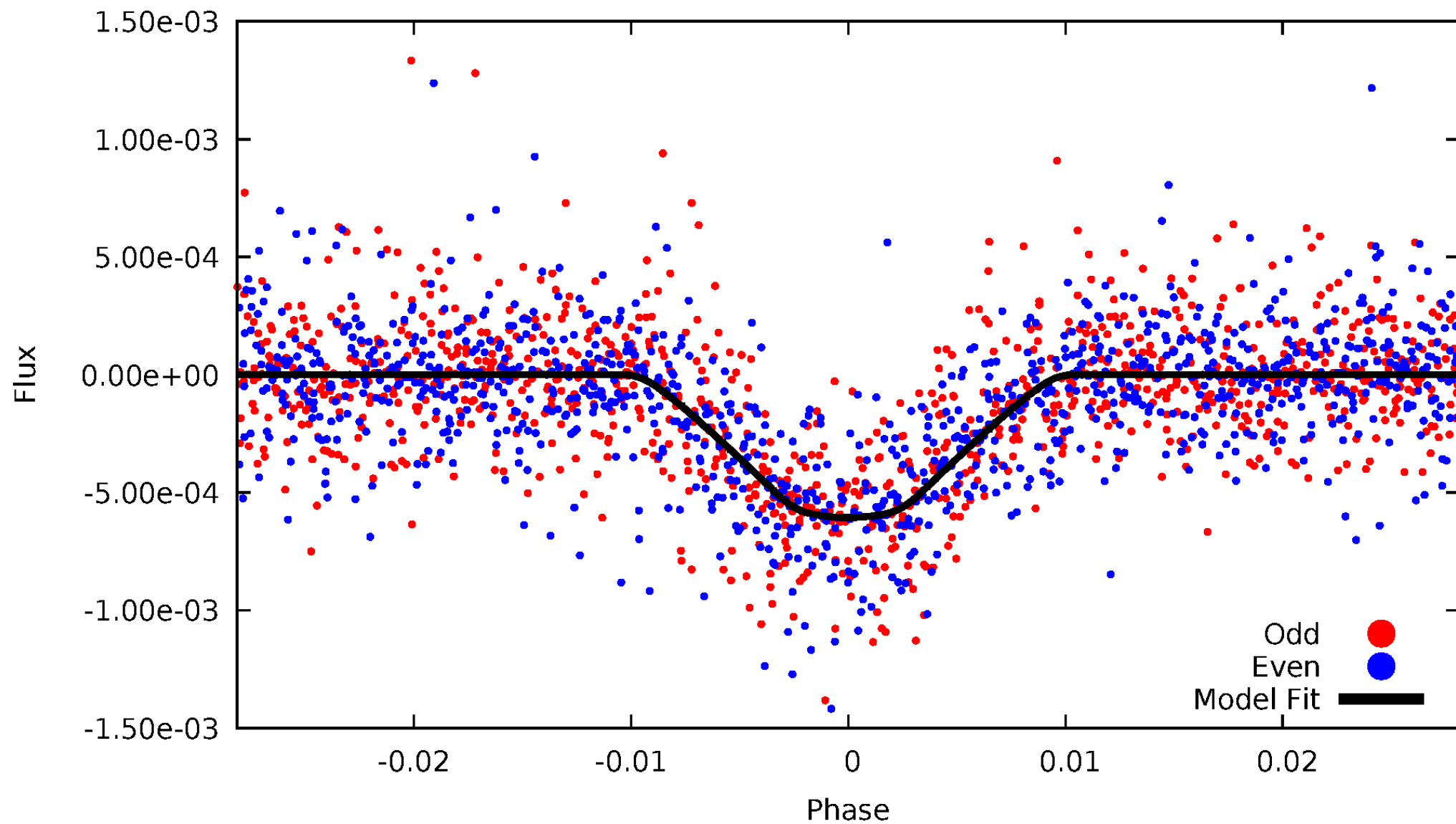


TCE 011453592-01



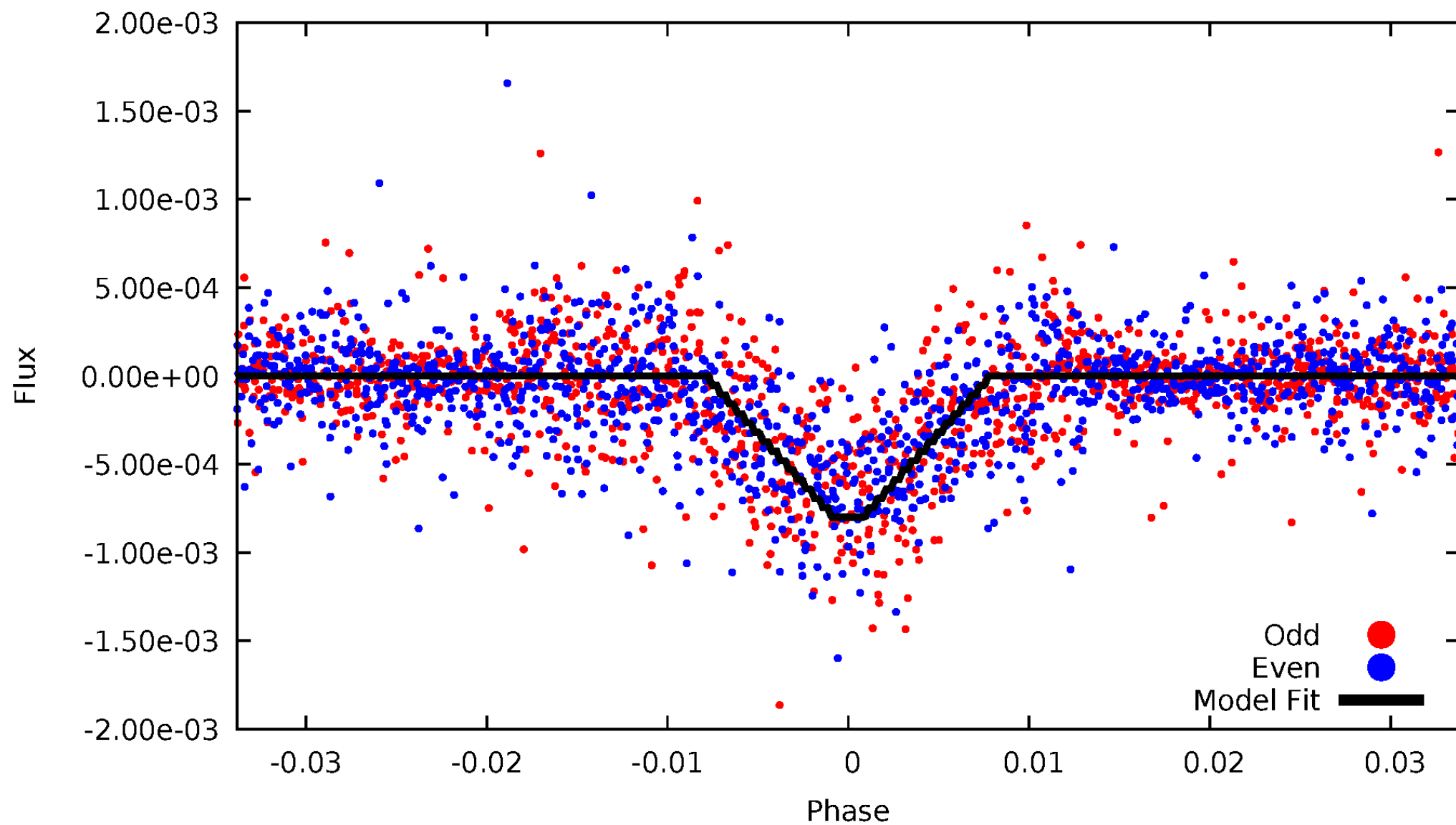
DV Odd/Even

TCE 011453592-01



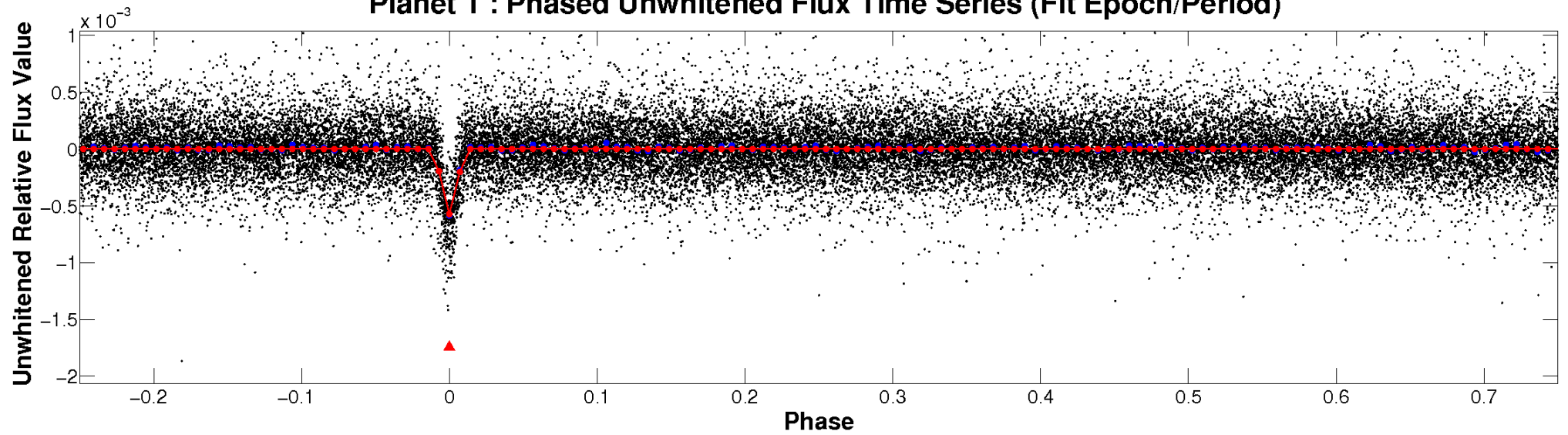
ALT Odd/Even

TCE 011453592-01

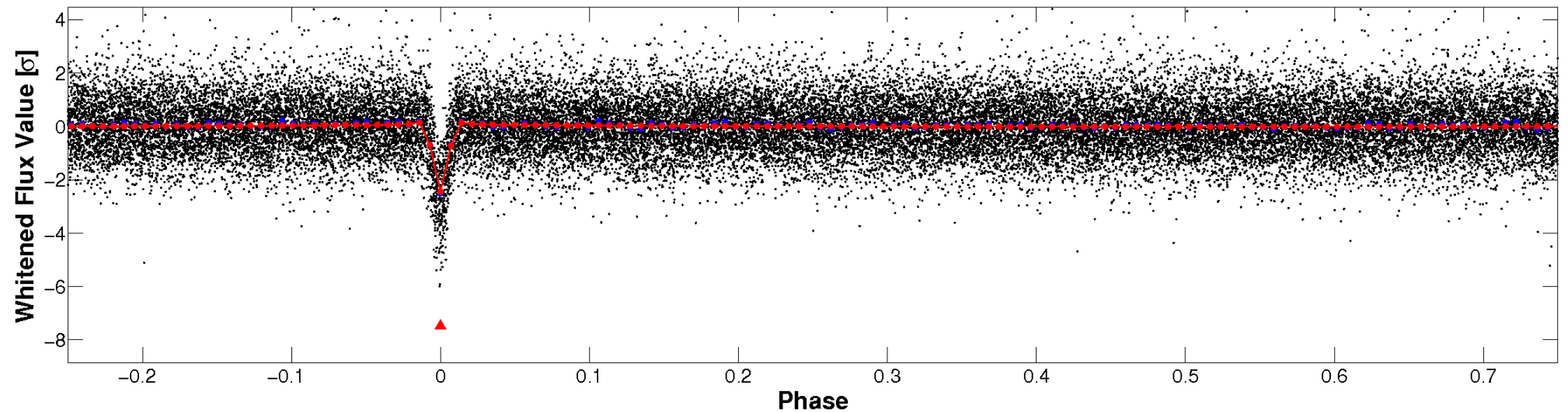


Non-Whitened Vs. Whitened Light Curve

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

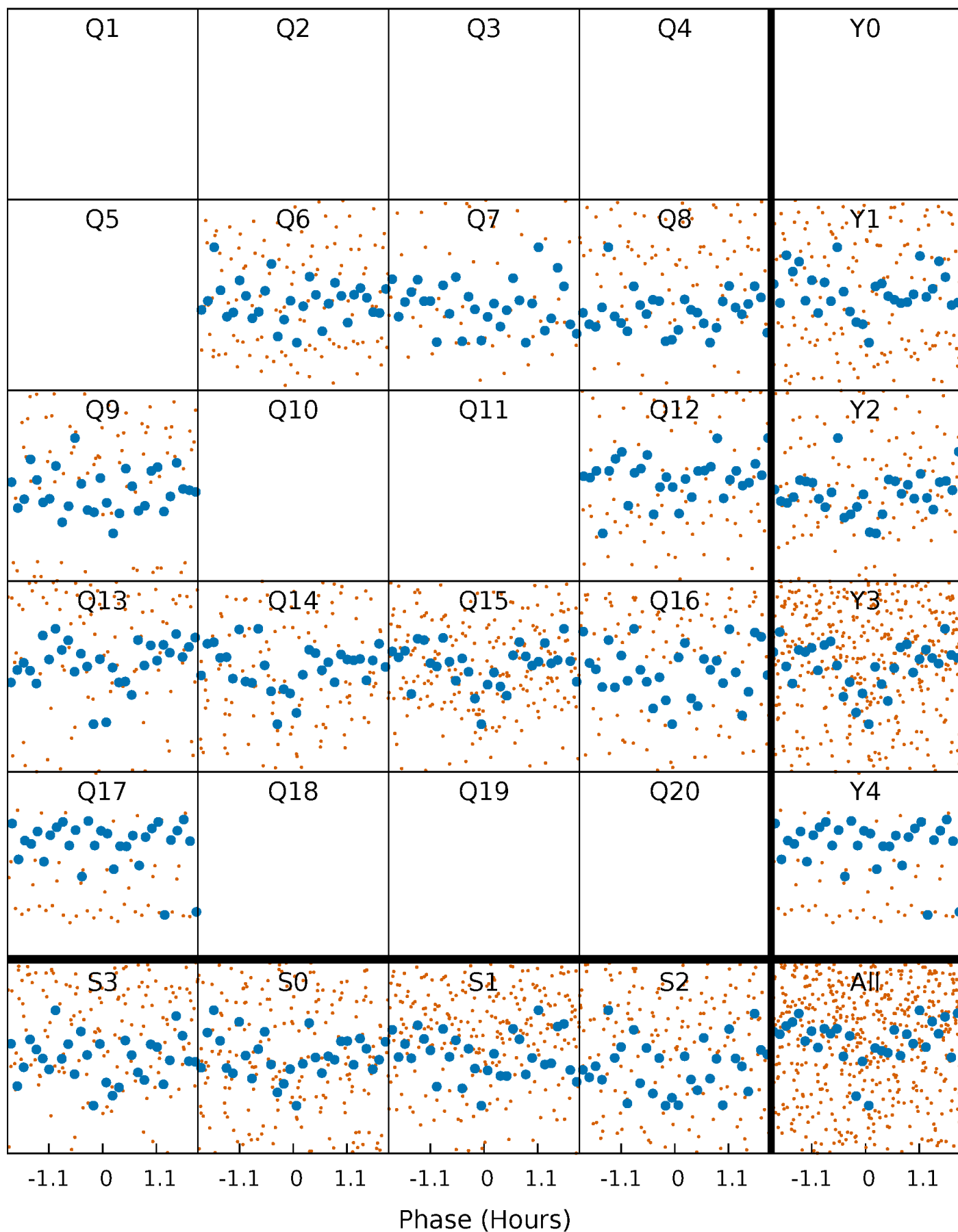


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



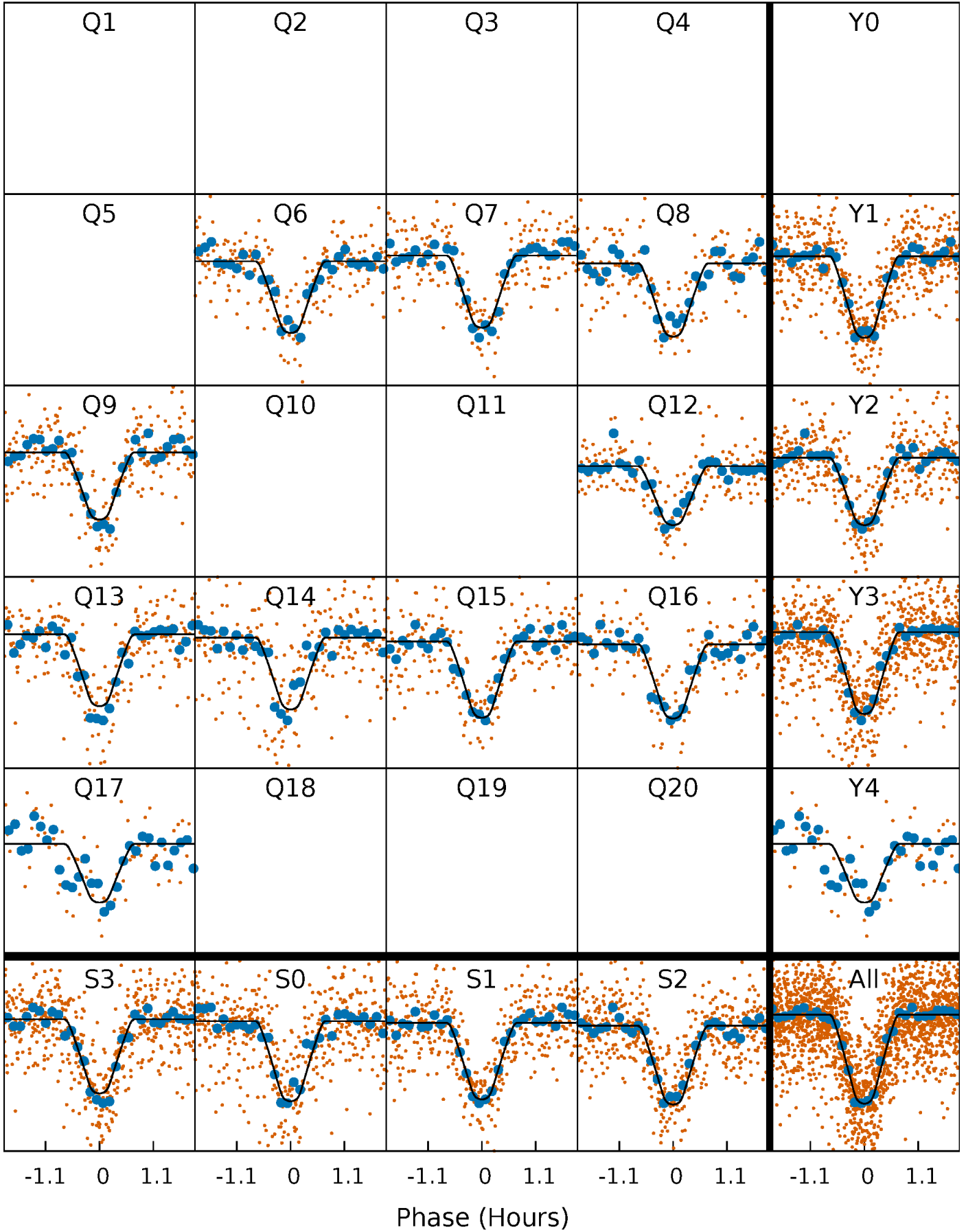
PDC Quarter-Phased Transit Curves

TCE 011453592-01 P= 2.886773 Days $T_0=131.663092$ (BKJD)



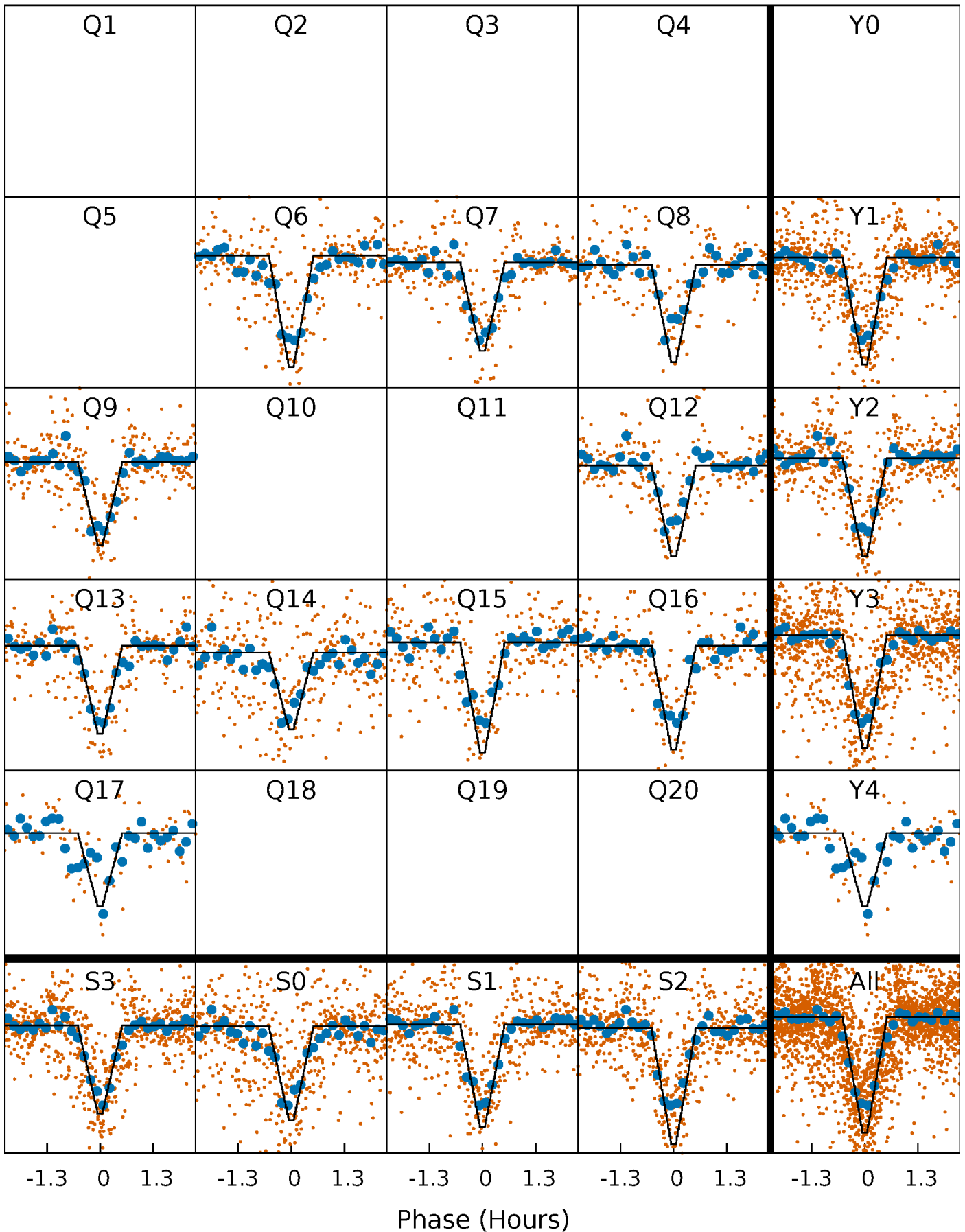
DV Quarter-Phased Transit Curves

TCE 011453592-01 P= 2.886773 Days $T_0=131.663092$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

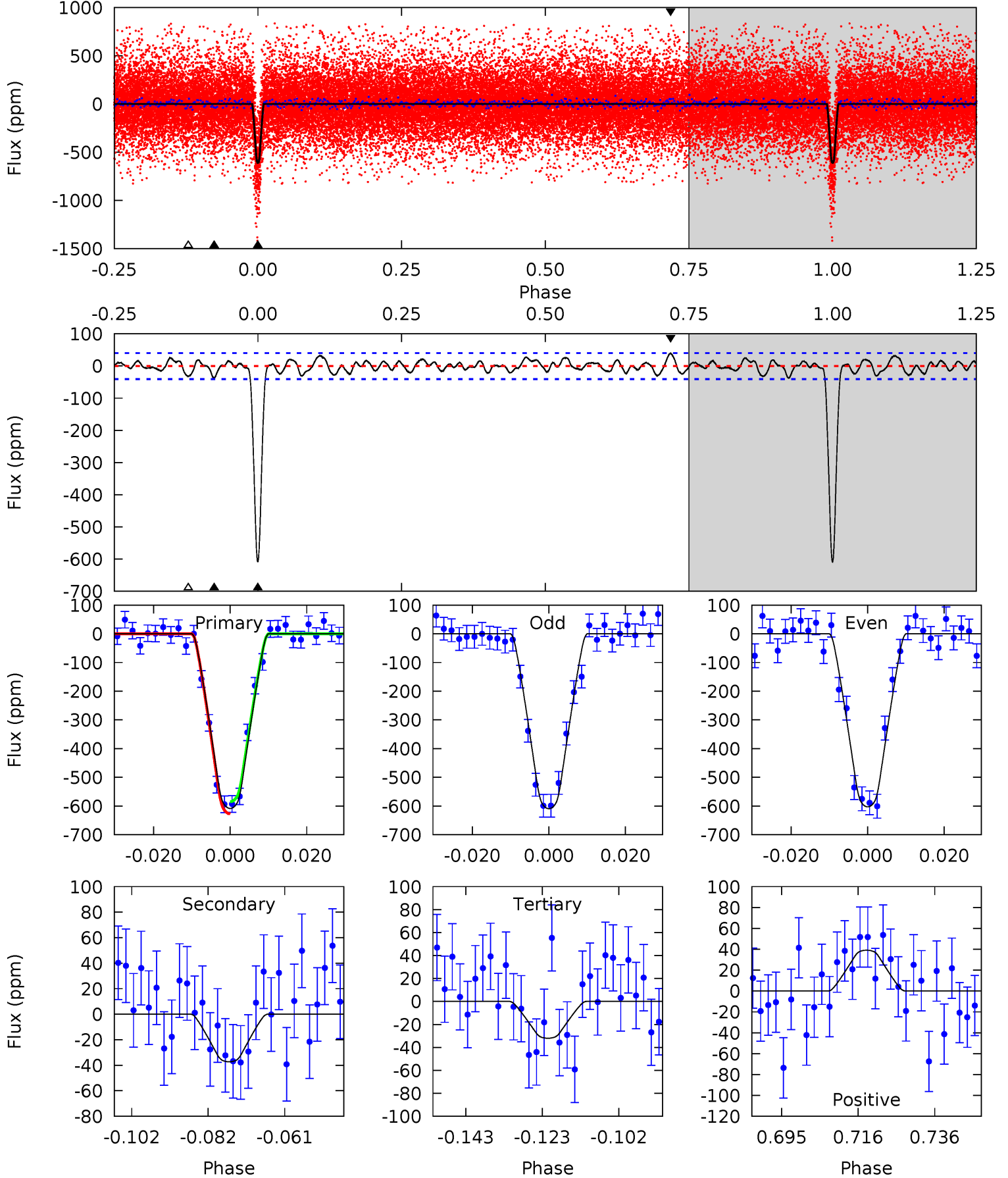
TCE 011453592-01 P= 2.886770 Days $T_0=131.663626$ (BKJD)



DV Model-Shift Uniqueness Test

011453592-01, P = 2.886773 Days, E = 131.663092 Days

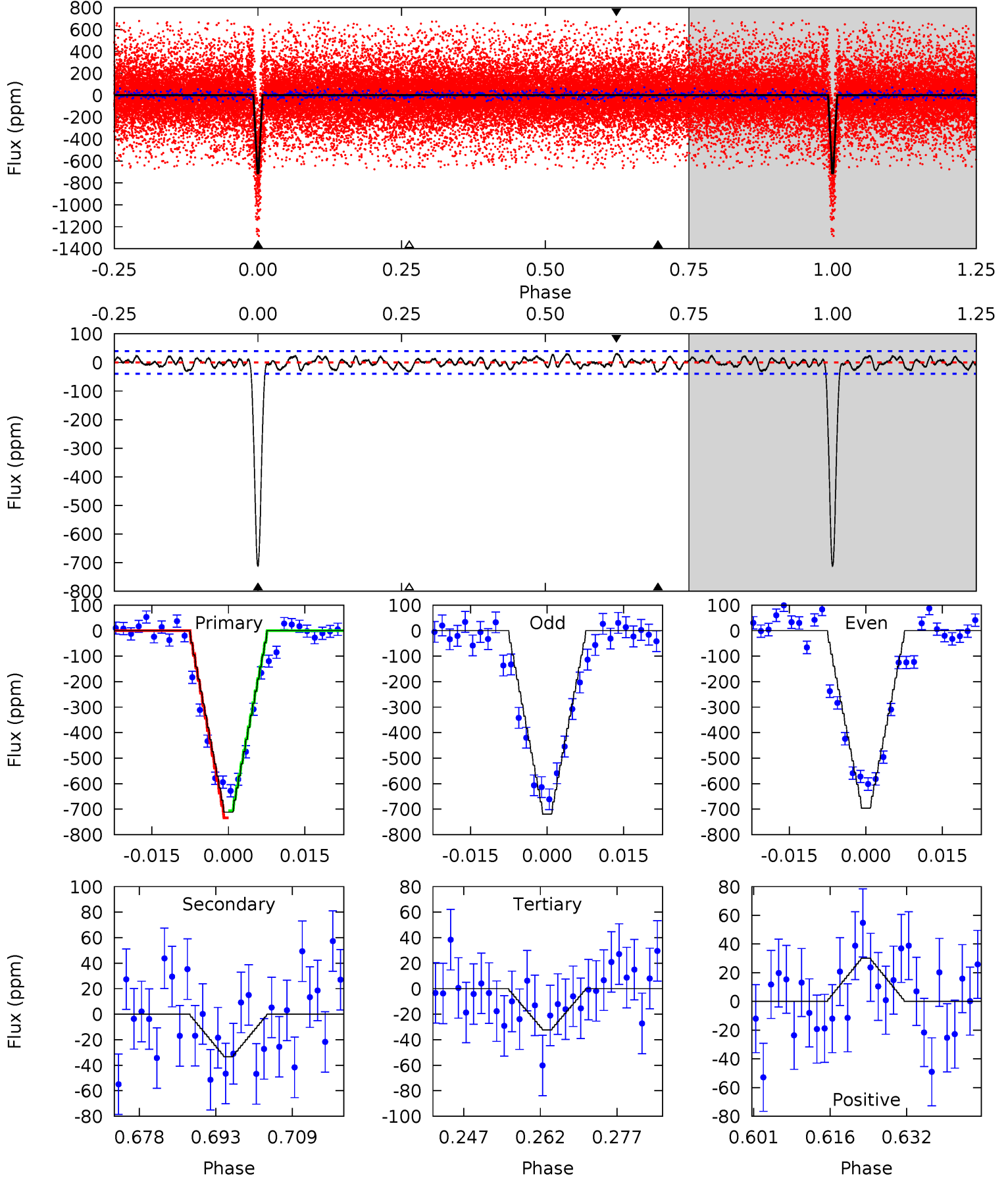
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
73.4	4.49	3.86	4.71	4.89	2.32	1.68	69.5	68.7	0.63	-0.22	0.39	1.01	0.06	2.58



Alt Model-Shift Uniqueness Test

011453592-01, P = 2.886770 Days, E = 131.663626 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
88.5	4.14	4.02	3.75	4.94	2.42	1.56	84.5	84.8	0.12	0.39	1.47	1.03	0.04	1.75



Stellar Parameters For KIC 011453592

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	3483^{+78}_{-78}	$4.875^{+0.060}_{-0.060}$	$0.100^{+0.150}_{-0.150}$	$0.389^{+0.055}_{-0.061}$	$0.415^{+0.052}_{-0.078}$	$9.955^{+3.361}_{-2.520}$
	+2%/-2%	+1%/-1%	+150%/-150%	+14%/-16%	+13%/-19%	+34%/-25%
Source	SPE70	PHO54	SPE70	DSEP		

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

Secondary Eclipse Parameters for KIC 011453592-01 / KOI 2705.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-37 ± 8	$1.16^{+0.22}_{-0.24}$	780^{+29}_{-29}	2326^{+138}_{-121}	13^{+8}_{-5}
Alt.	-33 ± 8	$1.20^{+0.23}_{-0.22}$	780^{+27}_{-29}	2272^{+120}_{-112}	11^{+6}_{-4}

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 $T_{\text{obs}} \gg T_{\text{max}}$ AND $A_{\text{obs}} \gg 1.0$

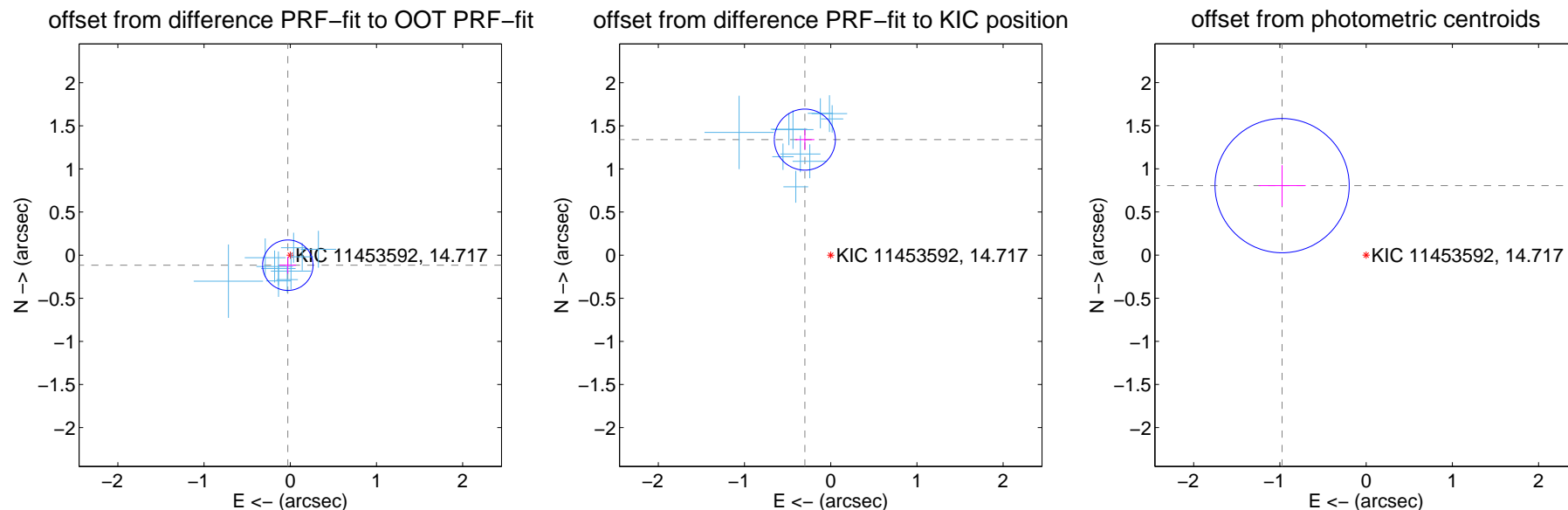
DV Centroid Data

Supplemental centroid analysis for 011453592-01. Kepler magnitude: 14.72. Transit SNR 45.70

There are 10 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 1.76 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.120 ± 0.098	1.23	0.028 ± 0.096	-0.117 ± 0.098
PRF-fit source offset from KIC position	1.374 ± 0.118	11.63	0.300 ± 0.111	1.340 ± 0.118
photometric centroid source offset	1.26 ± 0.26	4.87	0.97 ± 0.27	0.81 ± 0.24

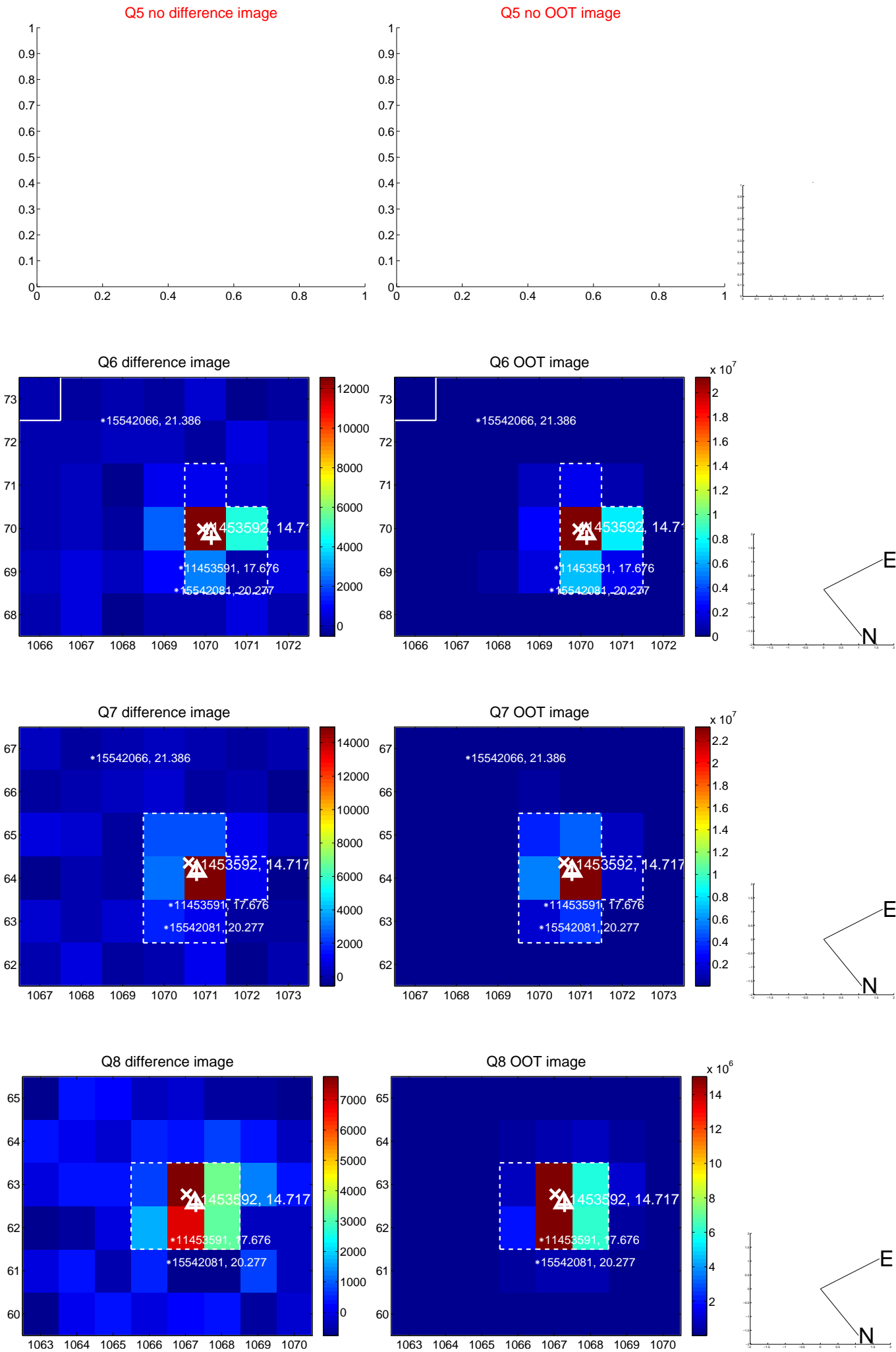


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

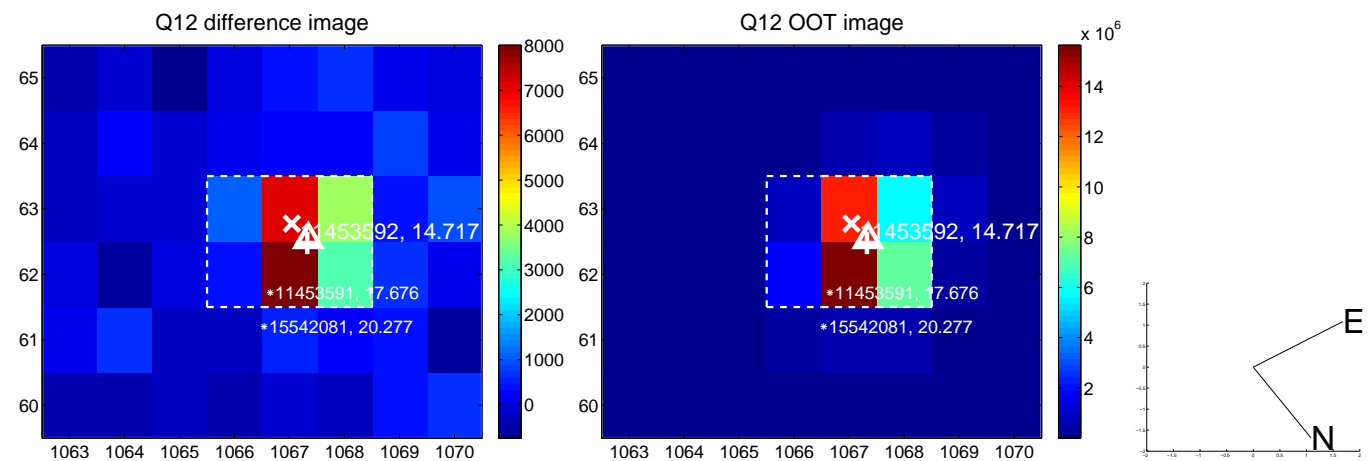
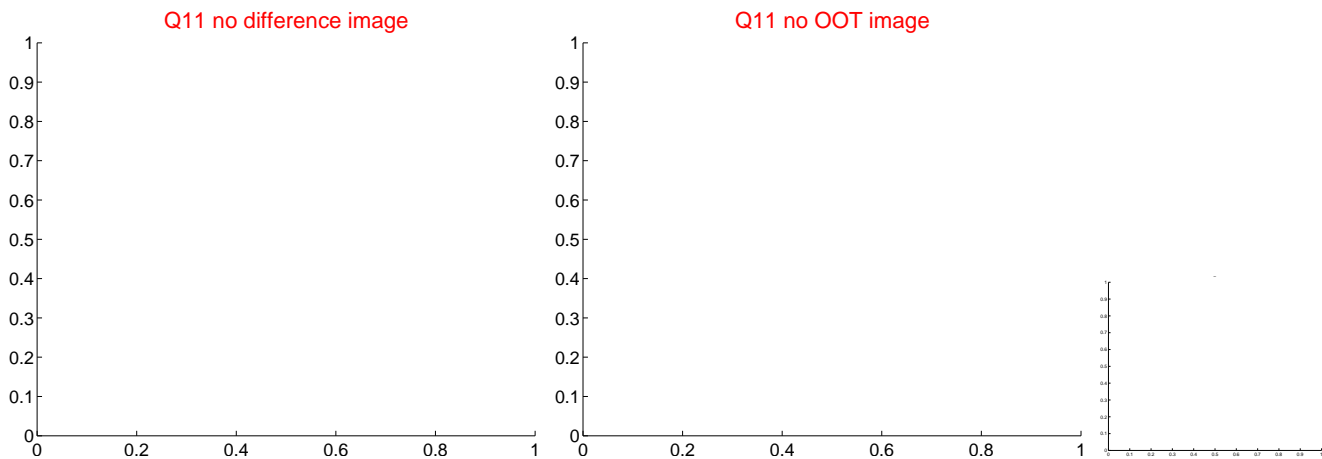
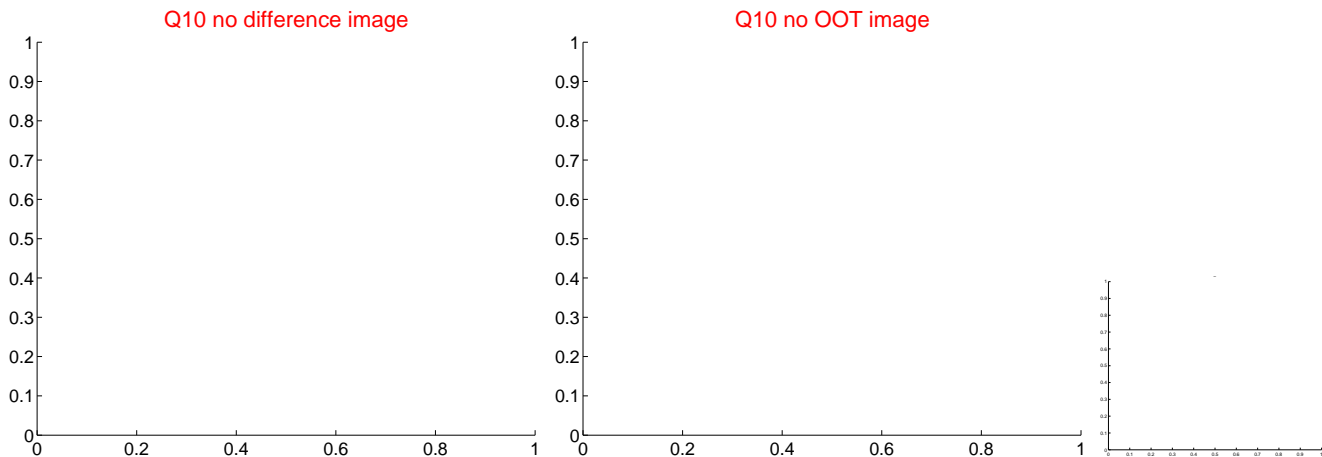
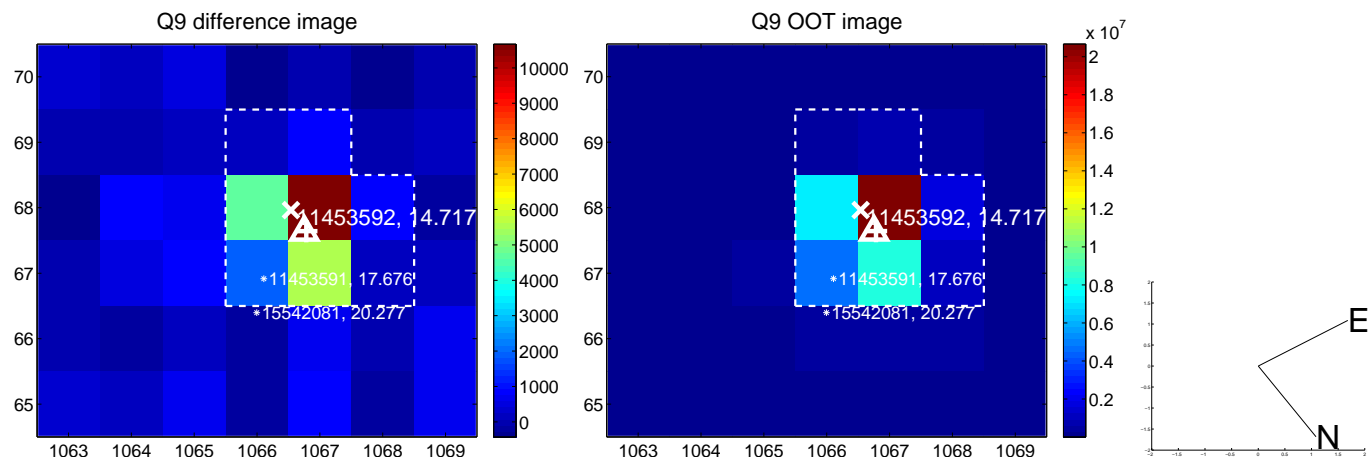
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



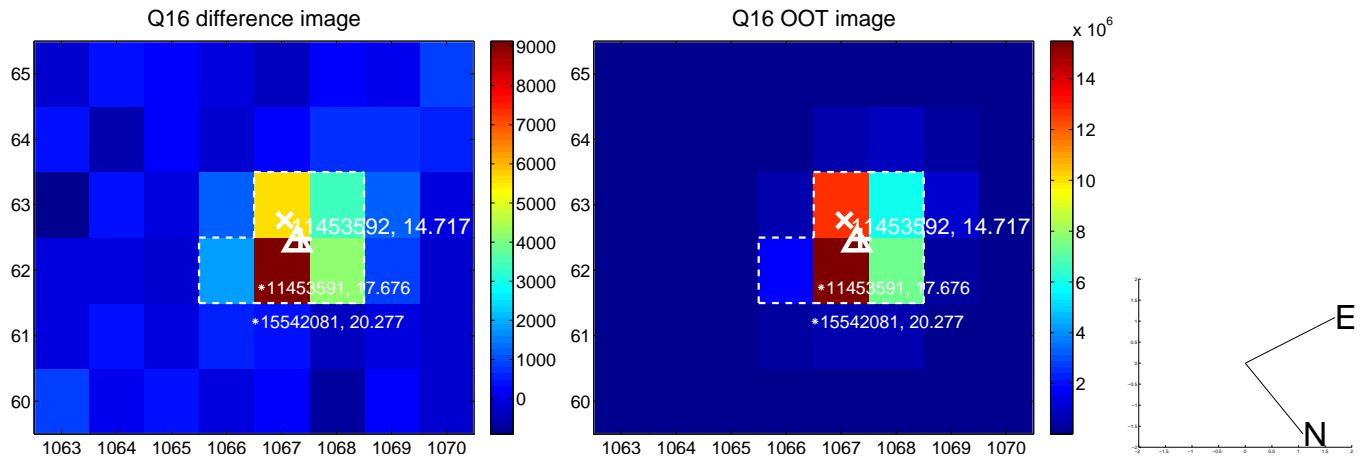
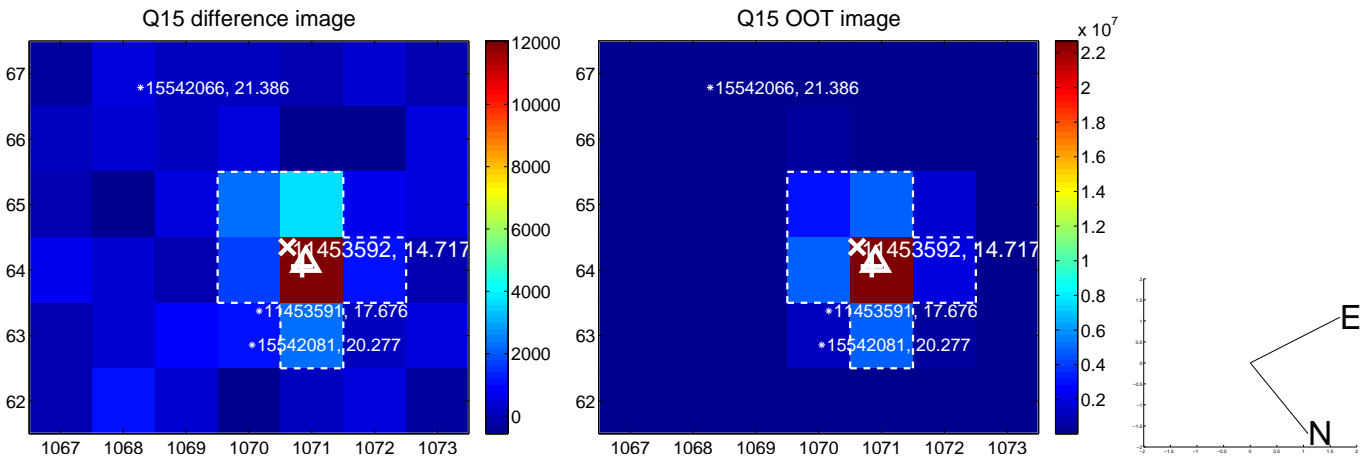
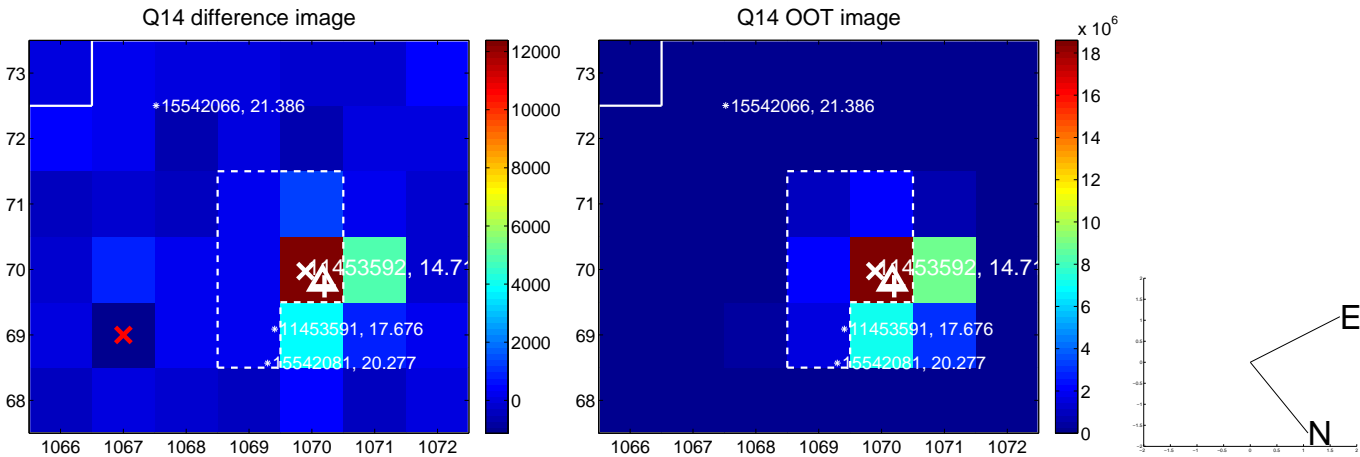
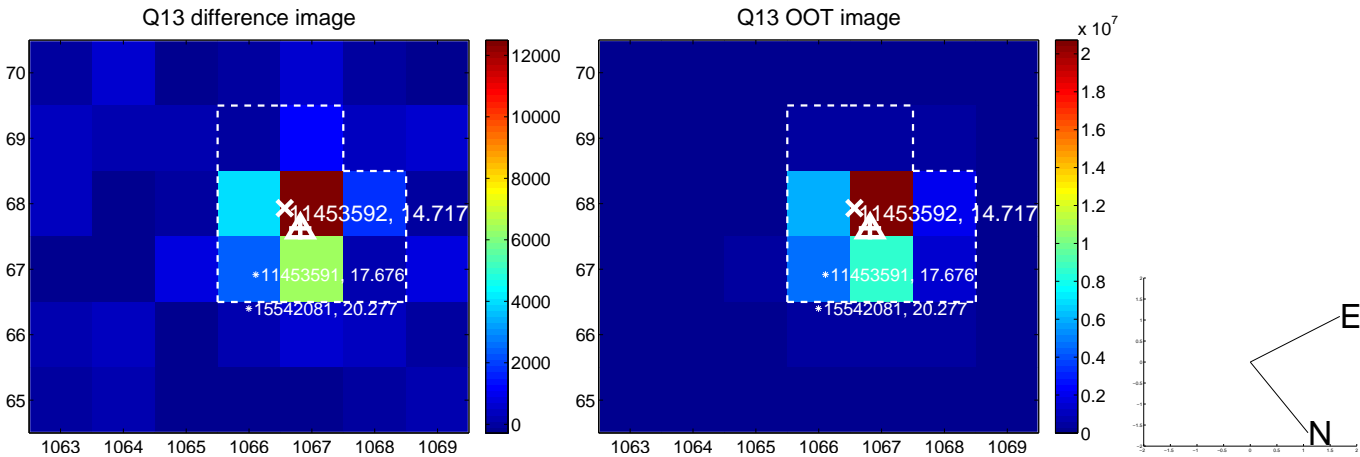
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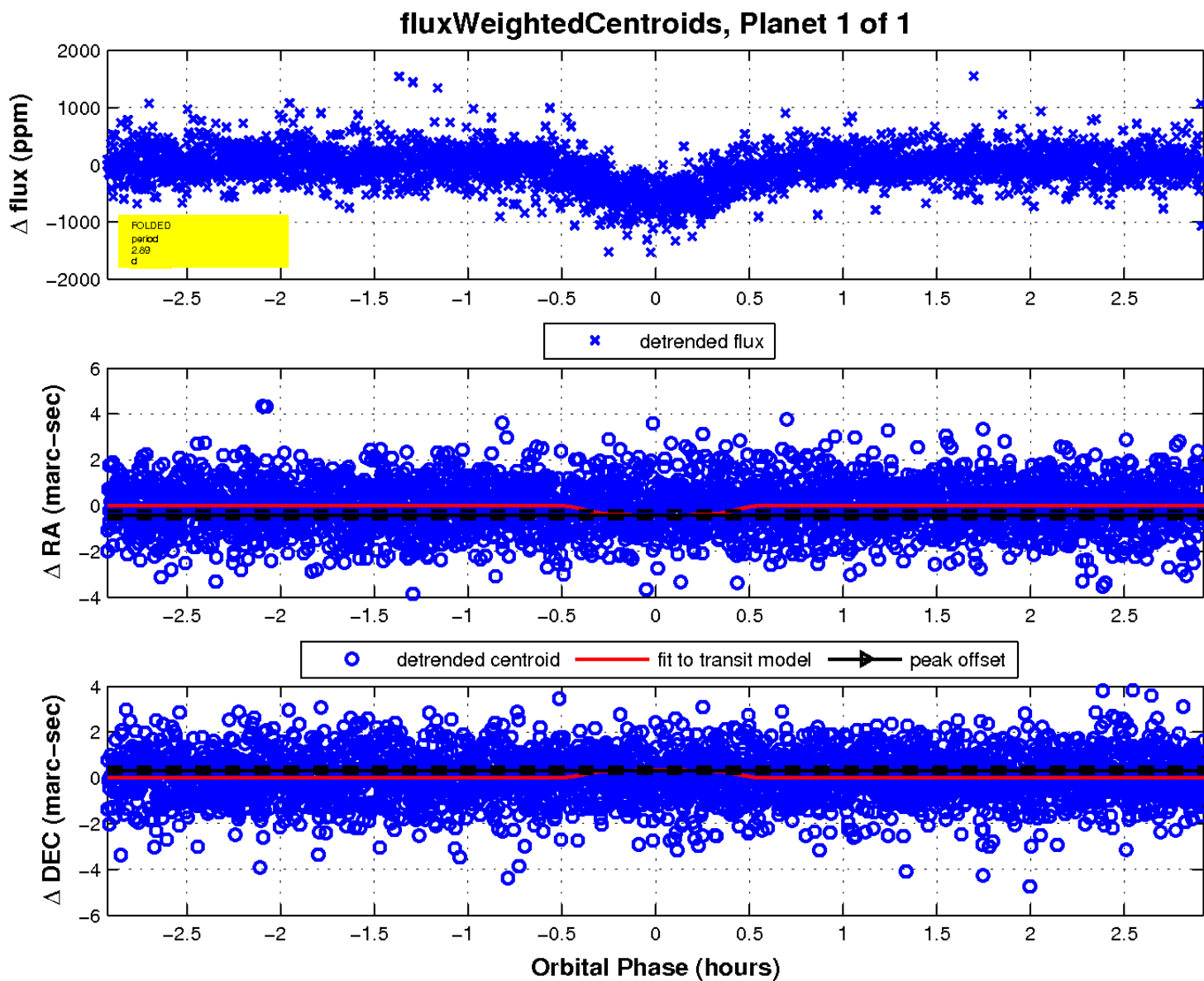
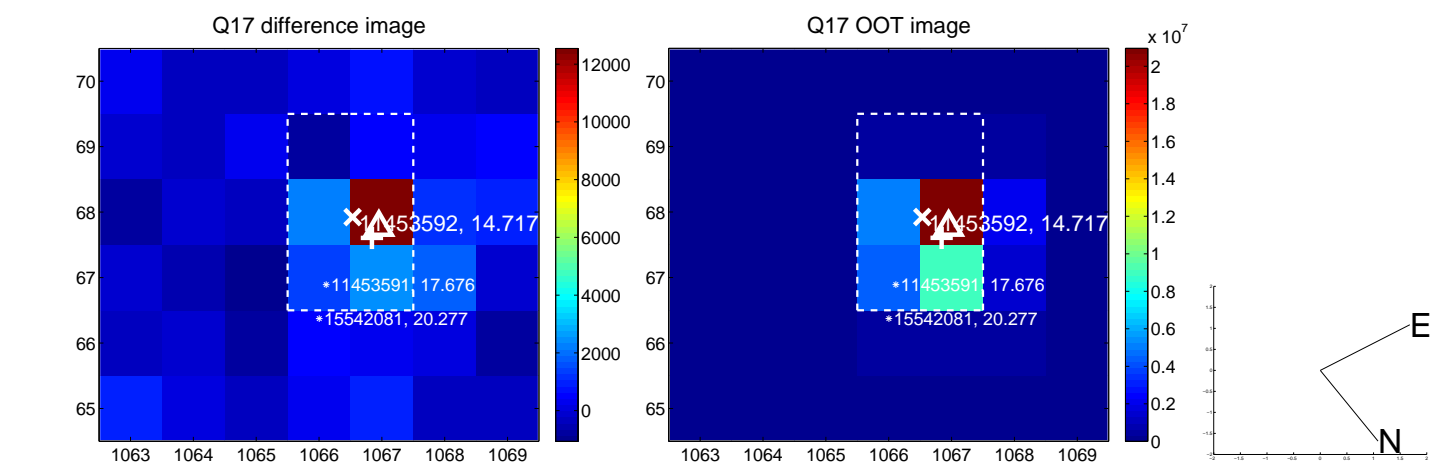
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UKIRT Image

Declination

