

KIC 006522353

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})
006522353-01	OBS	6723.01	0.845098	132.124260	83.2	2.077	9.1	10.2	0.78	5252	0.87	1491.05

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006522353-01	OBS	FP	0.00	0	0	1	0	CENT_RESOLVED_OFFSET—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.

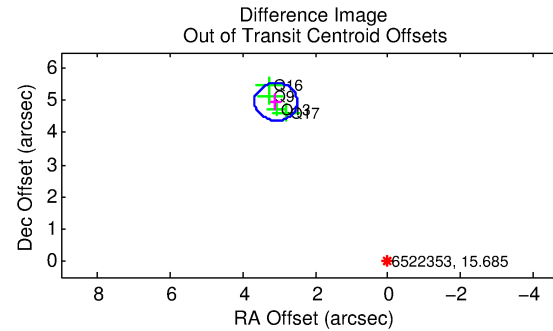
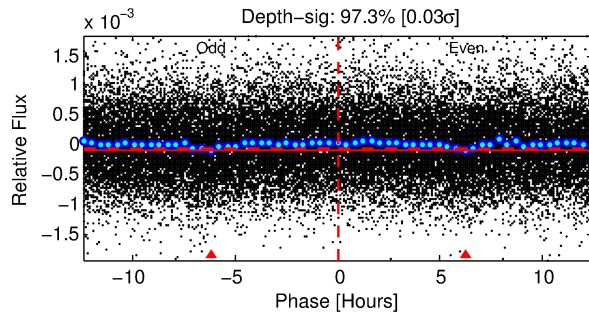
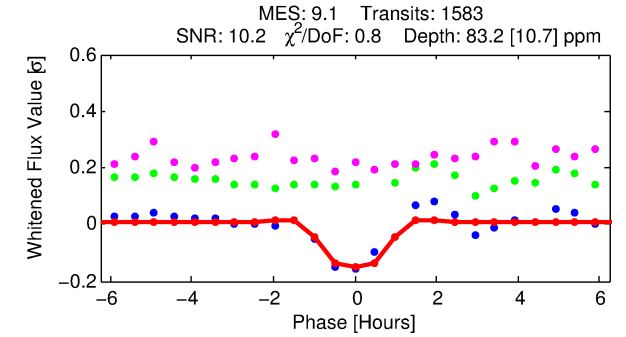
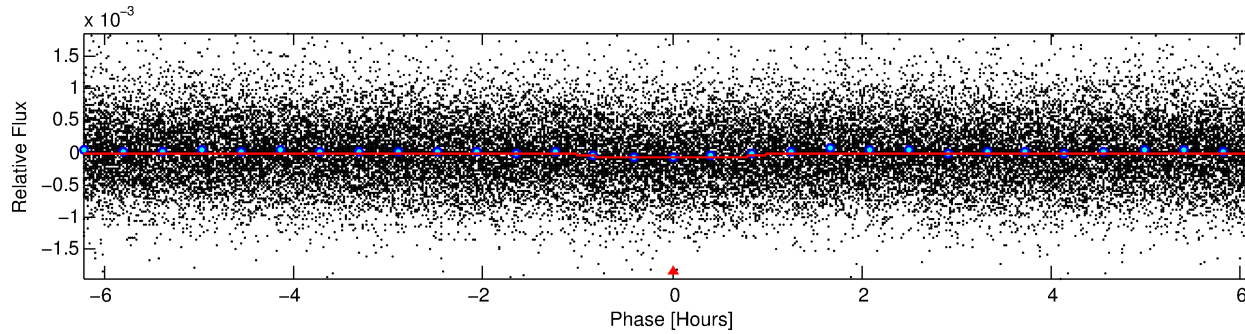
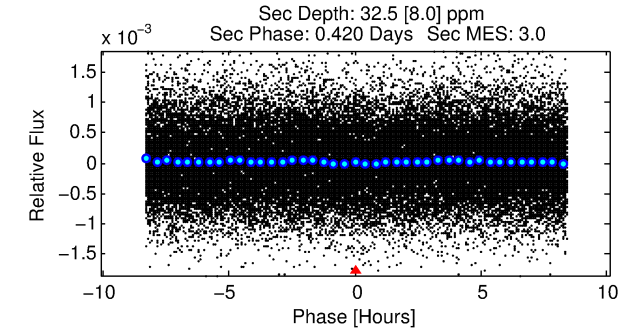
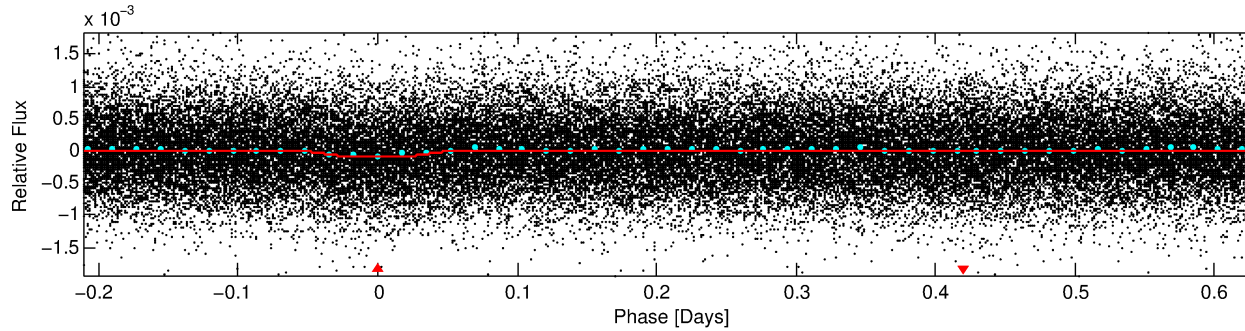
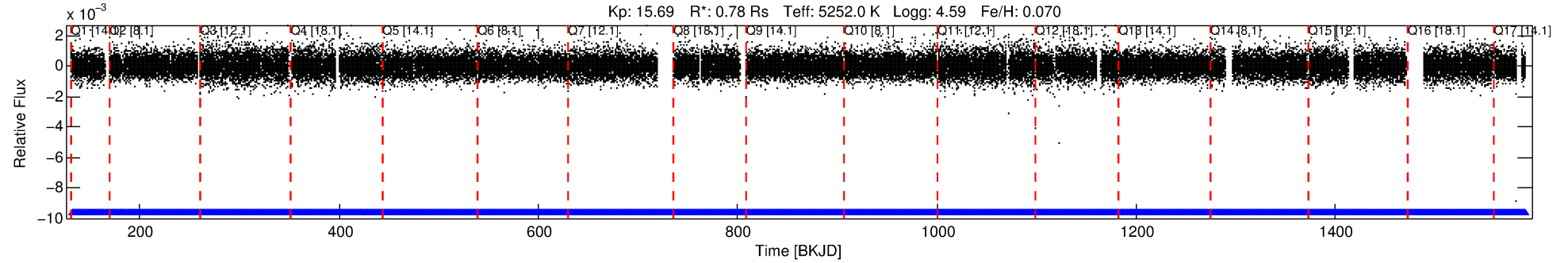
Ephemeris Match Information For 006522353-01

No Significant Match Found

DV One-Page Summary

KIC: 6522353 Candidate: 1 of 1 Period: 0.845 d

KOI: K06723.01 Corr: 0.945



DV Fit Results:

Period = 0.84510 [0.00001] d
Epoch = 132.1243 [0.0026] BKJD
Rp/R* = 0.0101 [0.0085]
a/R* = 1.70 [3.95]
b = 0.90 [0.76]
Seff = 1491.05 [386.46]
Teq = 1585 [103] K
Rp = 0.87 [0.74] Re
a = 0.0167 [0.0025] AU
Ag = 6.67 [11.42] [0.50σ]
Teffp = 3938 [1676] K [1.40σ]

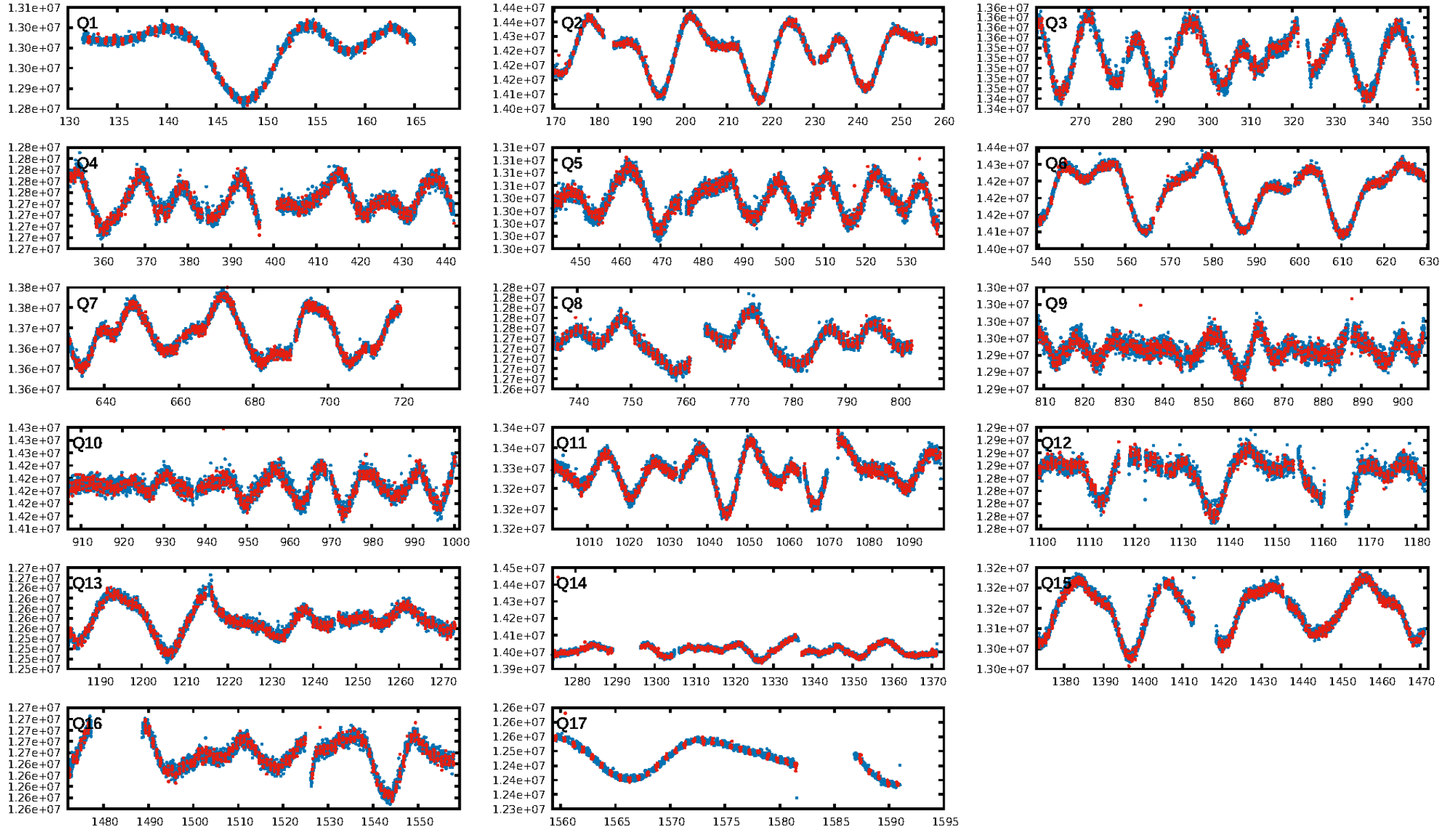
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 5.33e-20
RollingBand-fgt: 1.00 [1512/1512]
GhostDiagnostic-chr: -0.2491
Centroid-sig: 0.0%
Centroid-so: 14.272 arcsec [12.59σ]
OotOffset-rm: 5.840 arcsec [29.96σ]
KicOffset-rm: 5.852 arcsec [30.52σ]
OotOffset-st: 0/0/1/3 [4]
KicOffset-st: 0/0/1/3 [4]
DiffImageQuality-fgm: 1.00 [4/4]
DiffImageOverlap-fno: 1.00 [17/17]

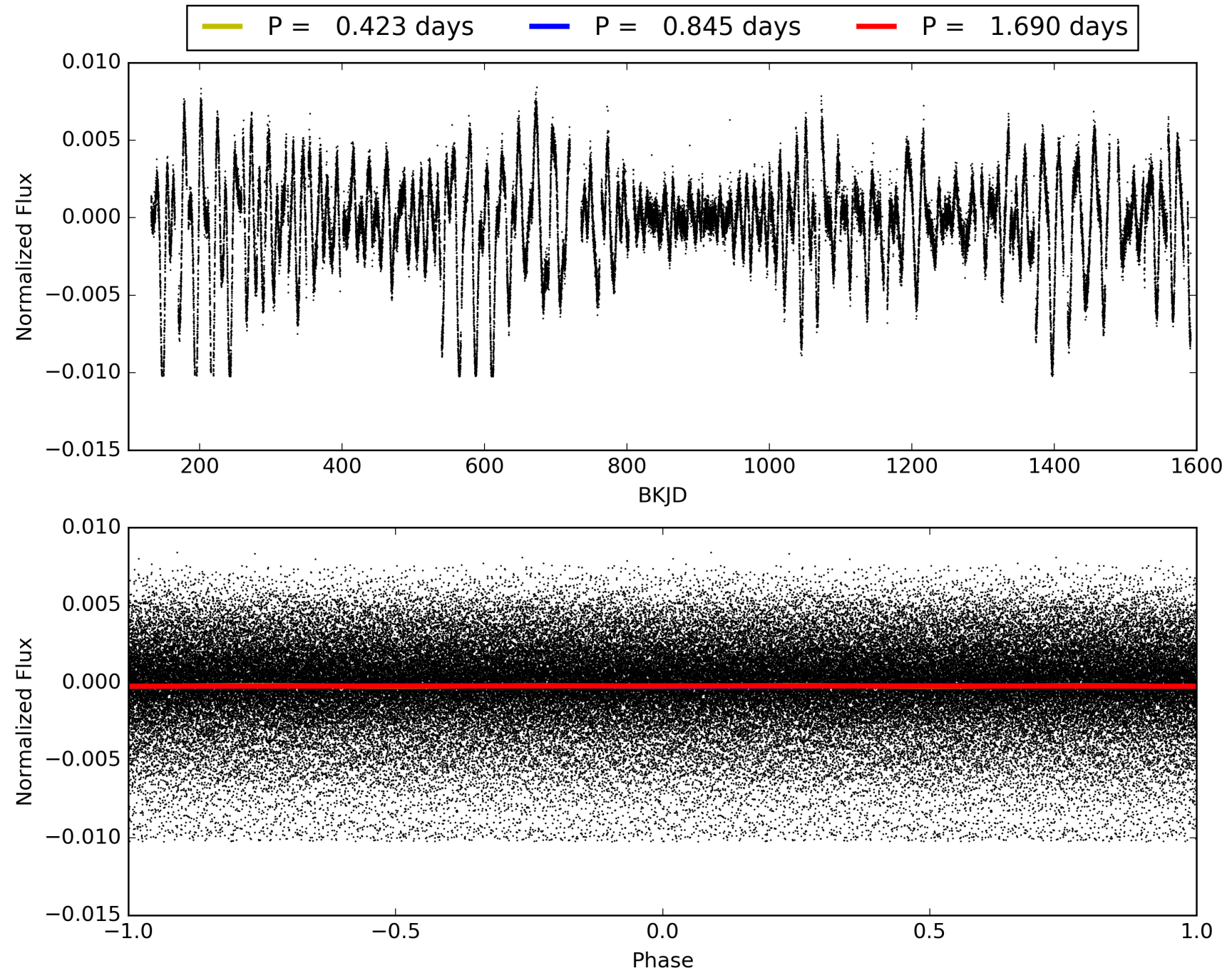
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 11:11:42 Z

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

TCE 006522353-01, PDC Light Curves

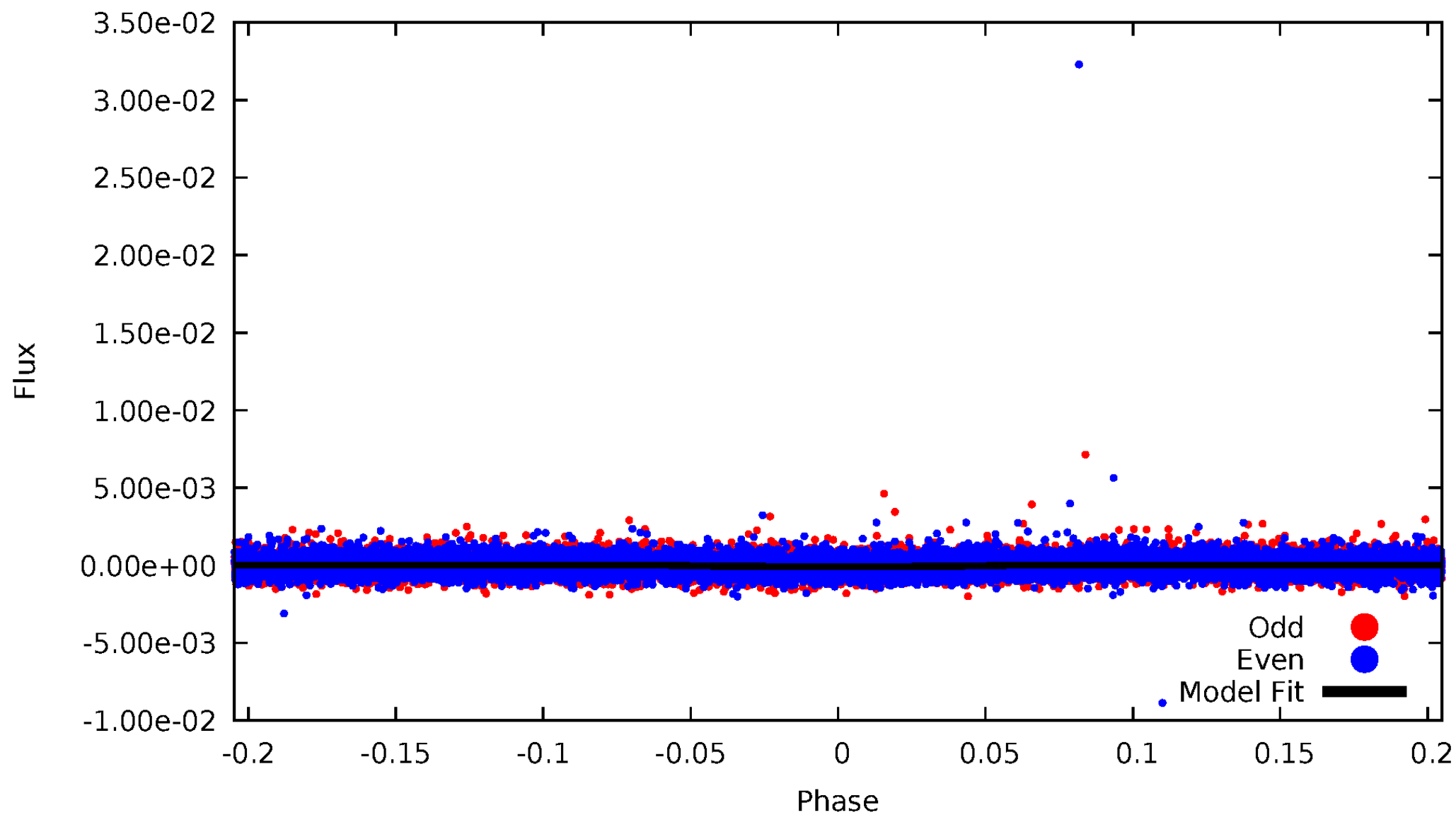


TCE 006522353-01



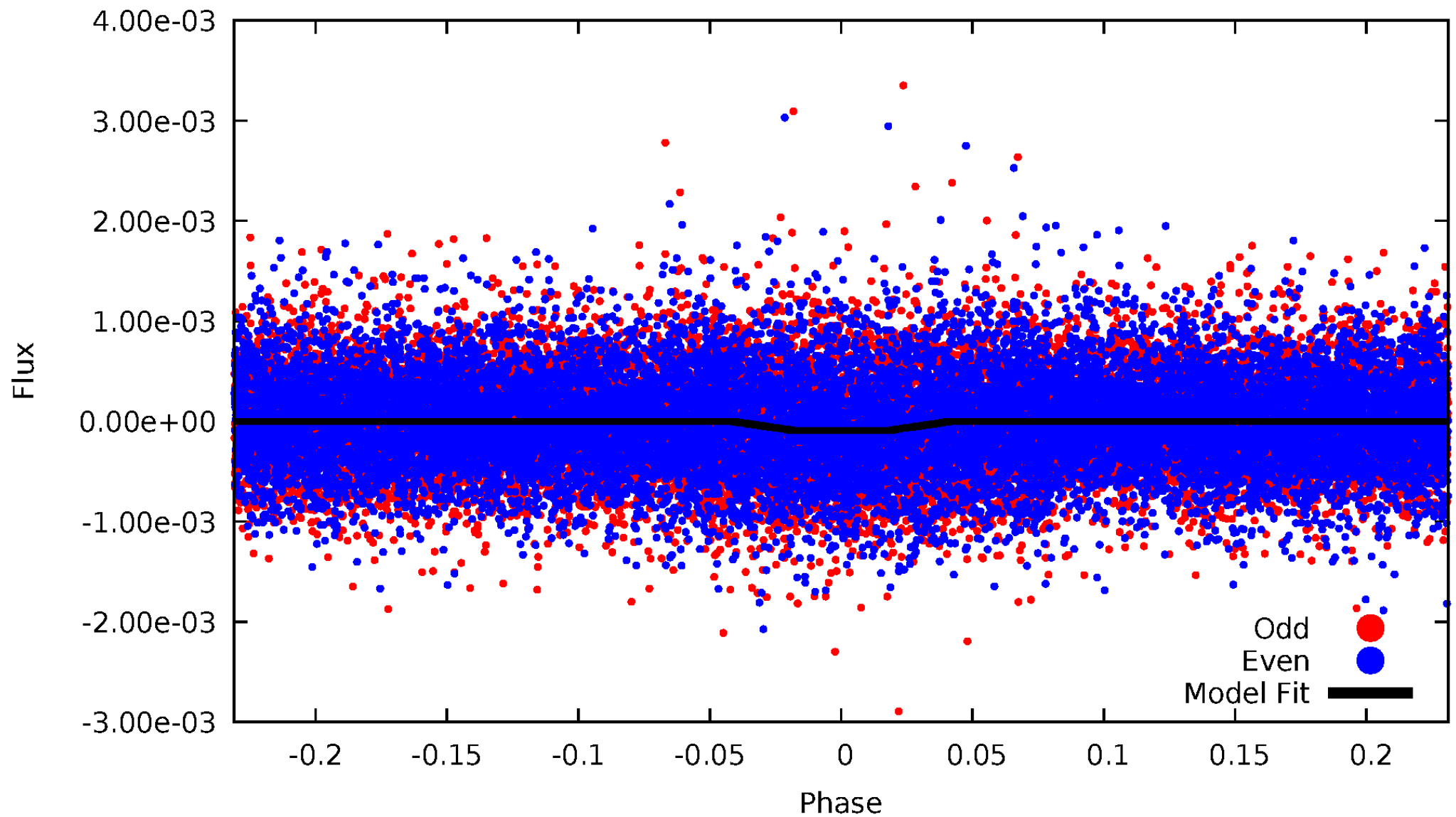
DV Odd/Even

TCE 006522353-01



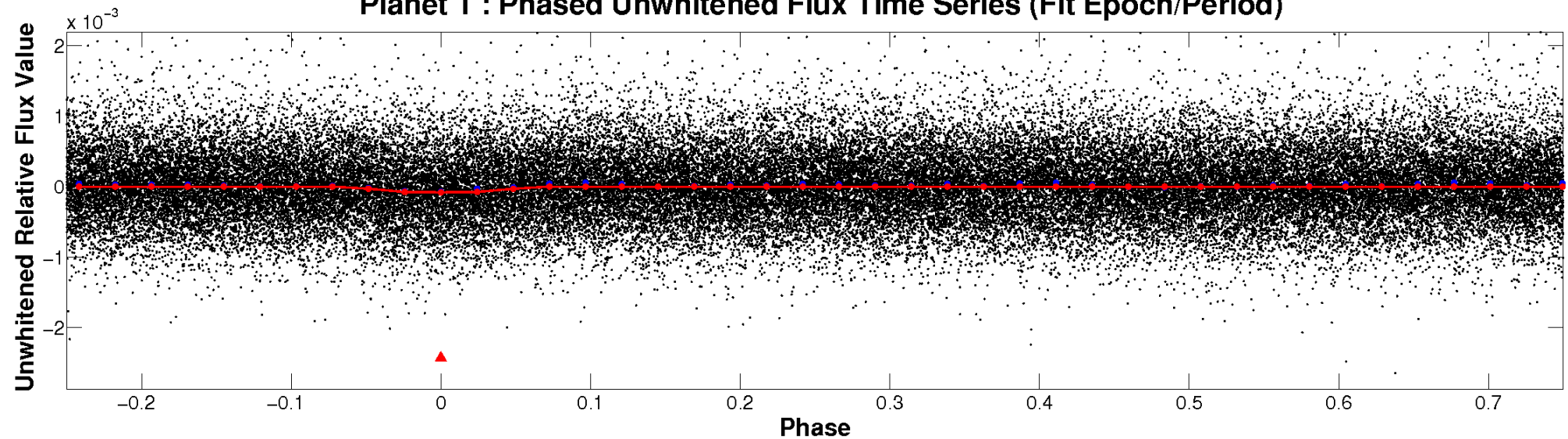
ALT Odd/Even

TCE 006522353-01

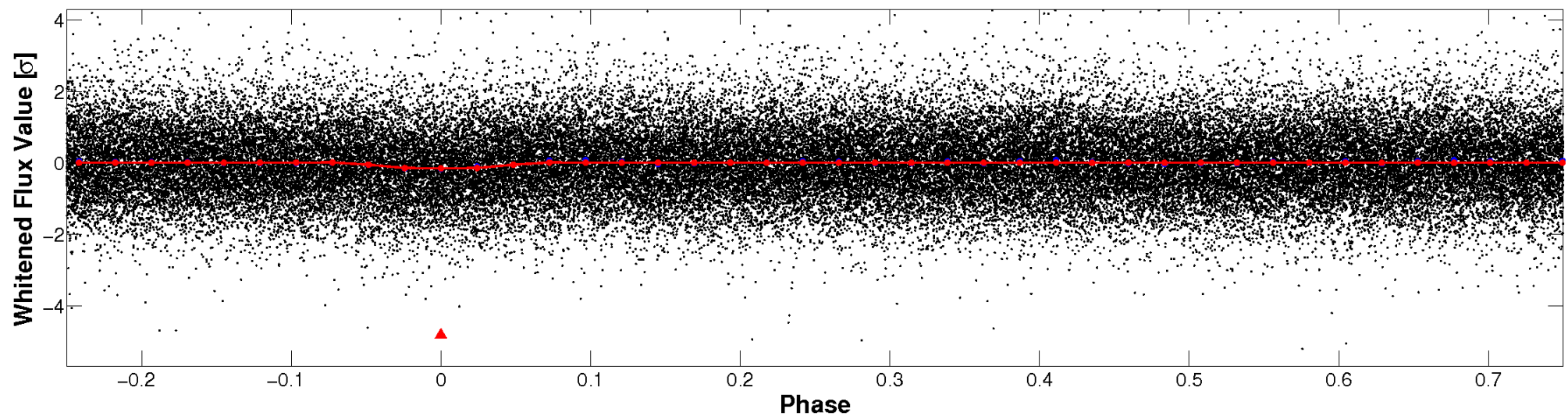


Non-Whitened Vs. Whitened Light Curve

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

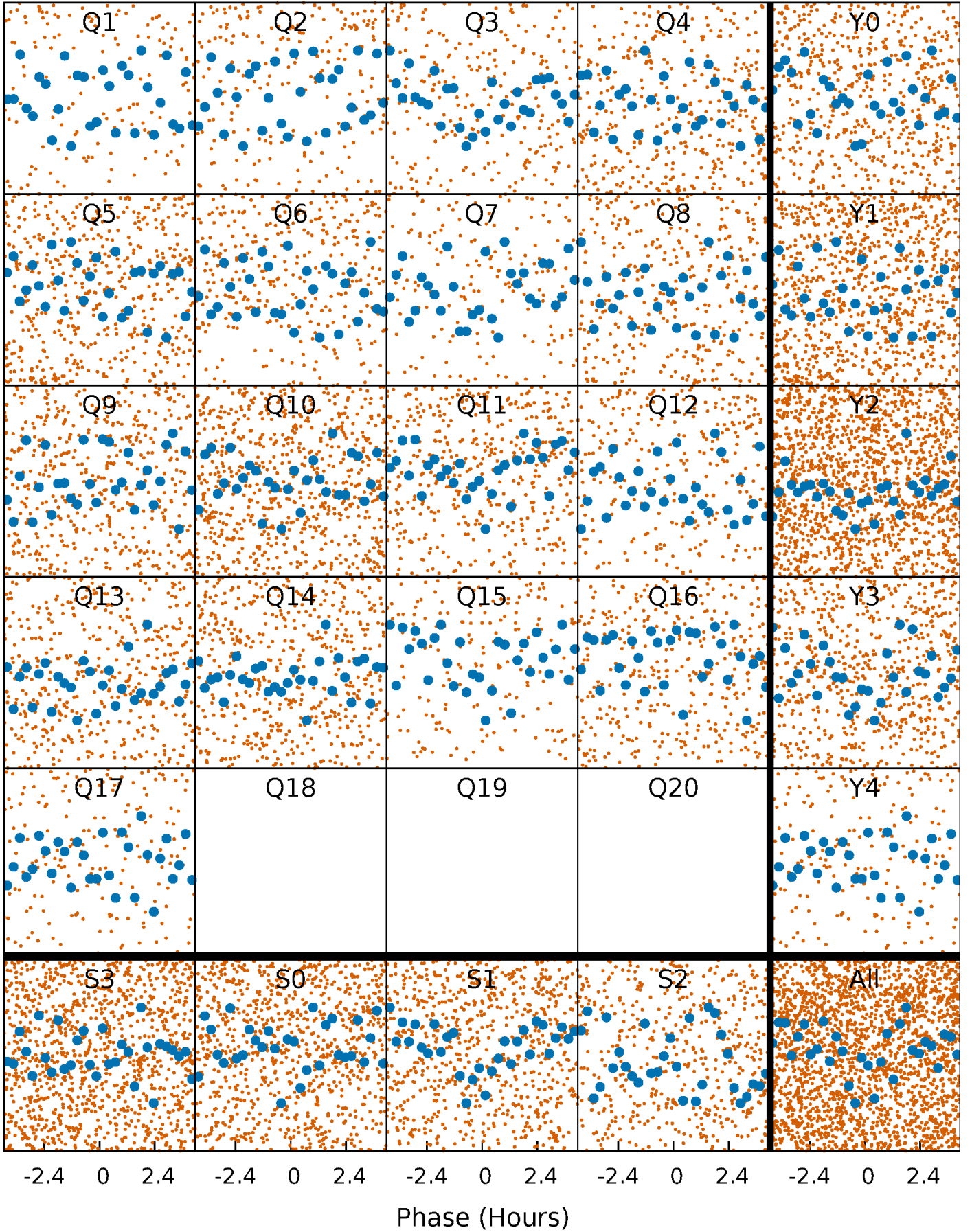


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



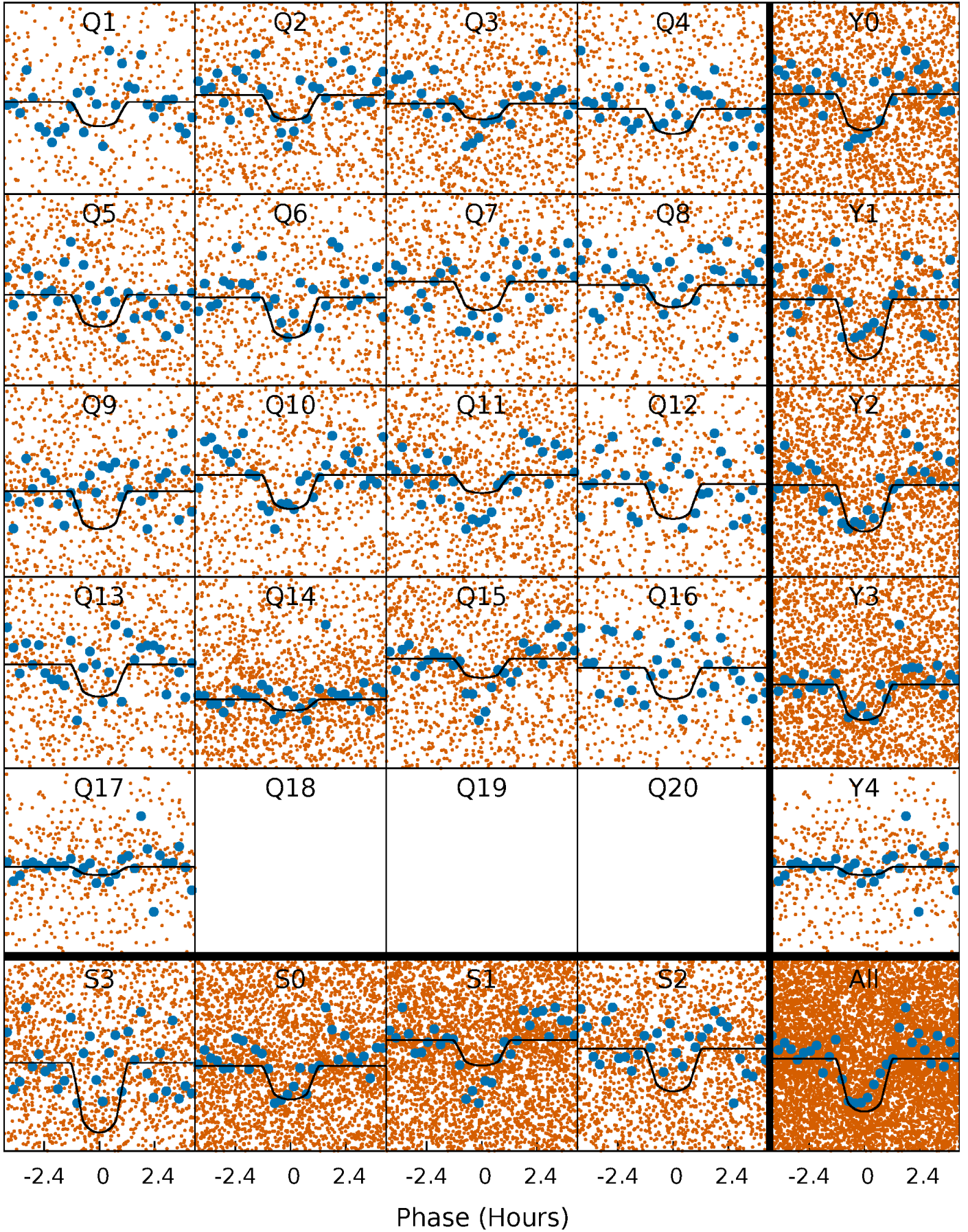
PDC Quarter-Phased Transit Curves

TCE 006522353-01 P= 0.845098 Days $T_0=132.124260$ (BKJD)



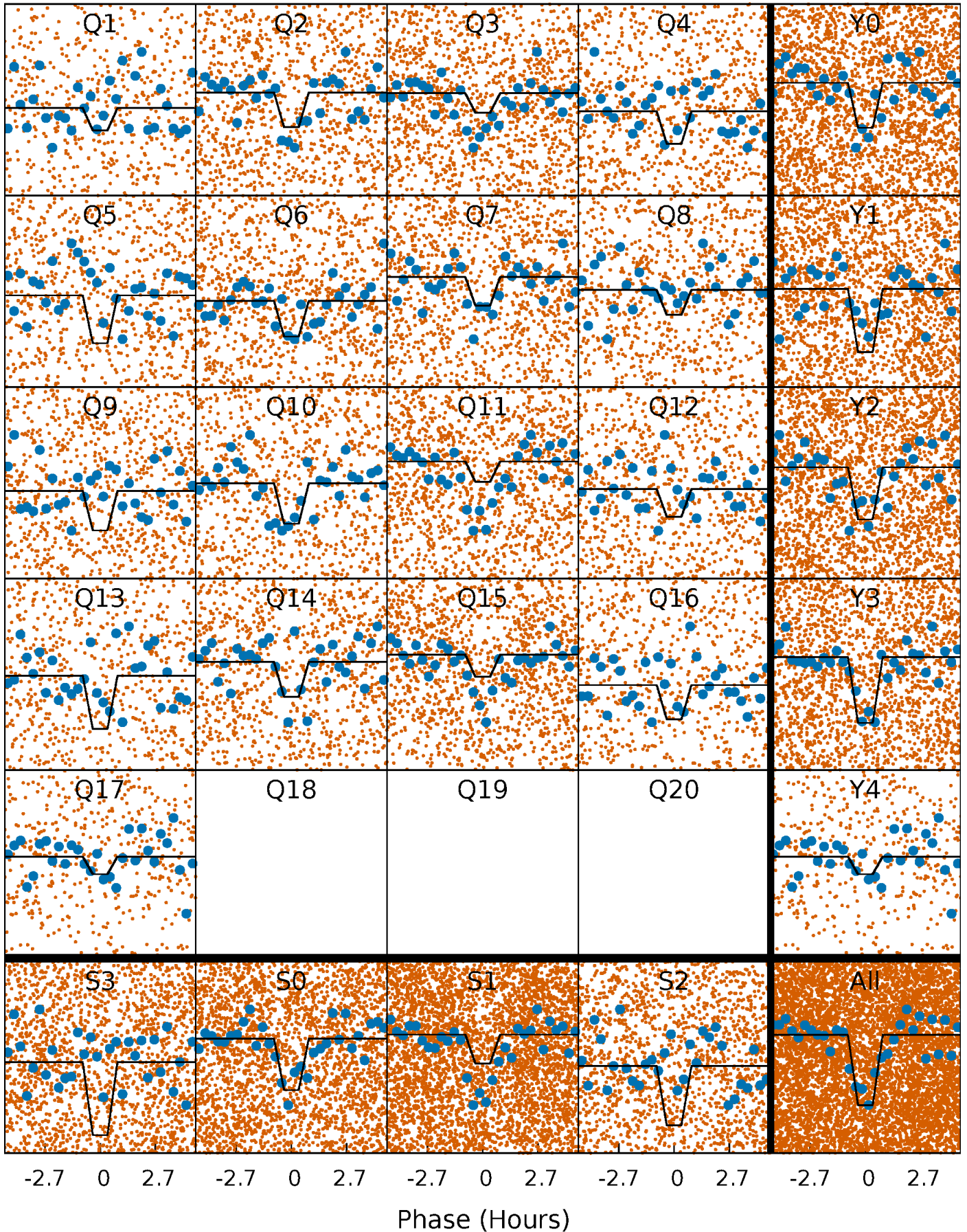
DV Quarter-Phased Transit Curves

TCE 006522353-01 P= 0.845098 Days $T_0=132.124260$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

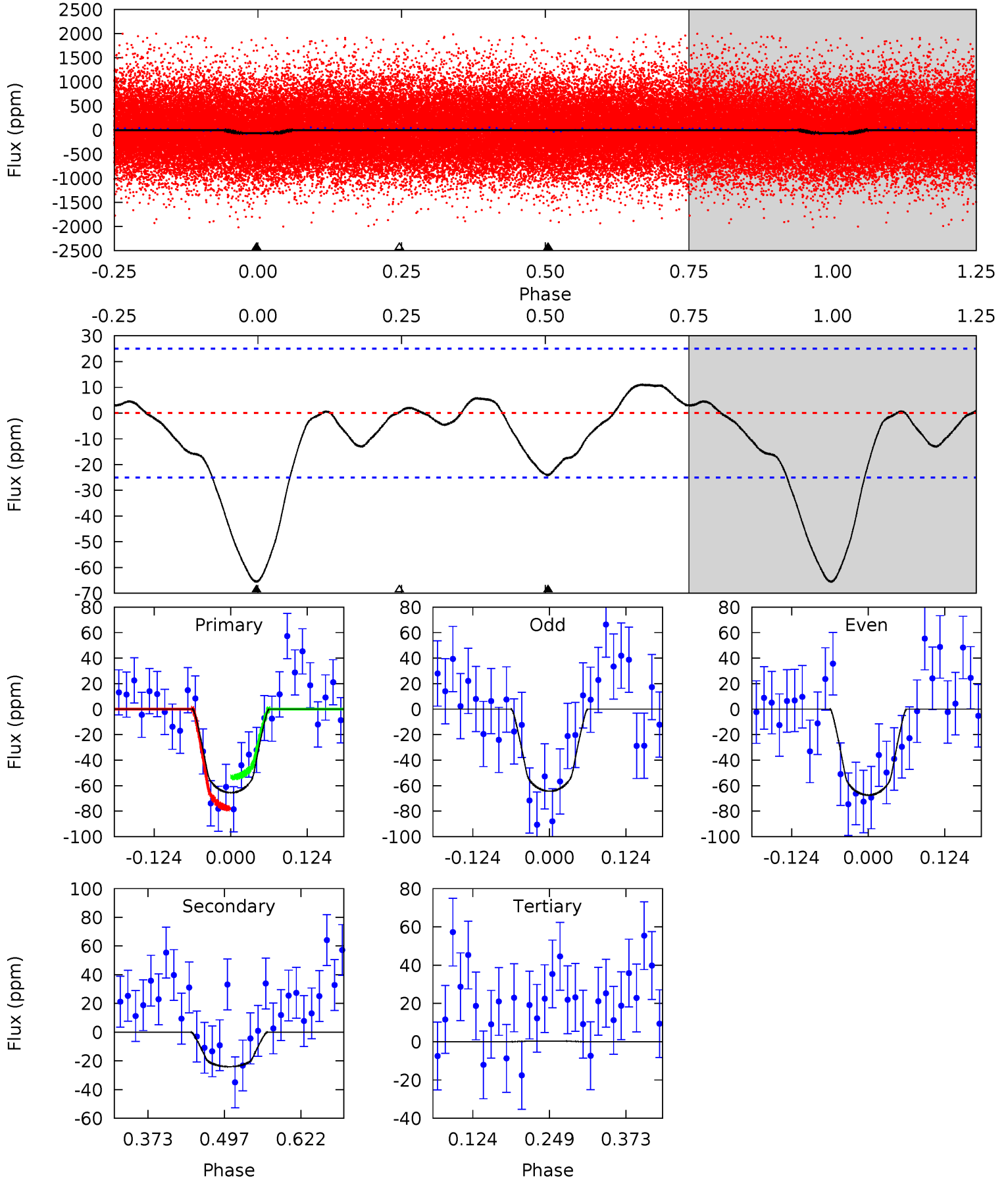
TCE 006522353-01 P= 0.845098 Days $T_0=132.120990$ (BKJD)



DV Model-Shift Uniqueness Test

006522353-01, P = 0.845098 Days, E = 131.279162 Days

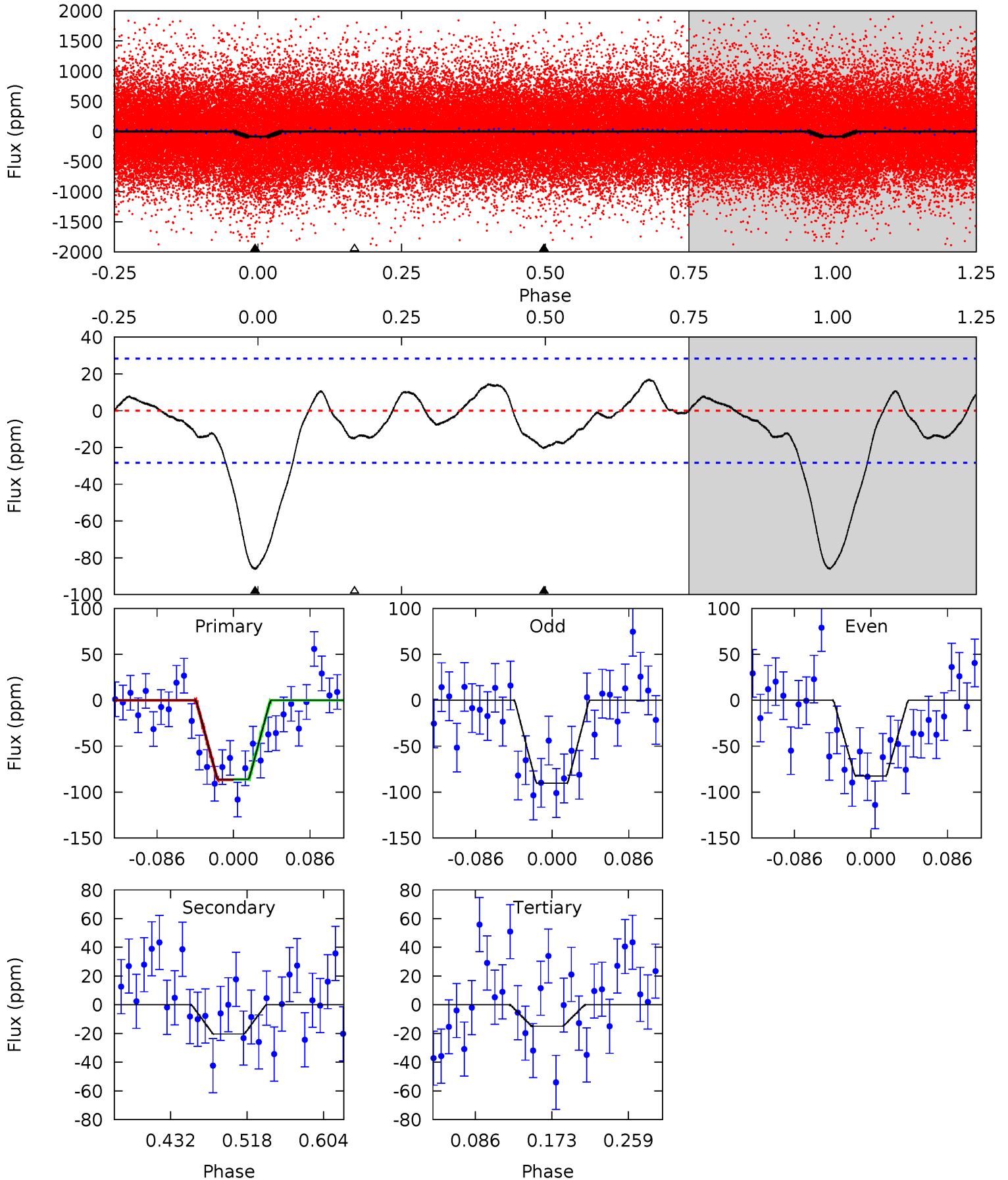
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.8	4.34	-0.06	0	4.52	1.54	1.20	11.9	11.8	4.40	4.34	0.28	1.00	0.14	2.20



Alt Model-Shift Uniqueness Test

006522353-01, P = 0.845098 Days, E = 131.275892 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.0	3.30	2.44	0	4.60	1.72	1.31	11.5	14.0	0.87	3.30	0.63	1.08	0.16	0.02



Stellar Parameters For KIC 006522353

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5252^{+184}_{-184}	$4.593^{+0.022}_{-0.120}$	$0.070^{+0.250}_{-0.300}$	$0.783^{+0.137}_{-0.049}$	$0.896^{+0.058}_{-0.095}$	$2.623^{+0.322}_{-0.926}$
	+4%/-4%	+0%/-3%	+357%/-429%	+17%/-6%	+6%/-11%	+12%/-35%
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 006522353-01 / KOI 6723.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-24 ± 6	$1.05^{+0.73}_{-0.65}$	2251^{+122}_{-91}	3674^{+1743}_{-685}	$3.257^{+18.942}_{-2.188}$
Alt.	-20 ± 6	$0.96^{+0.72}_{-0.54}$	2254^{+110}_{-93}	3702^{+1524}_{-705}	$3.401^{+15.696}_{-2.331}$

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 $A_{\text{obs}} \gg 1.0$

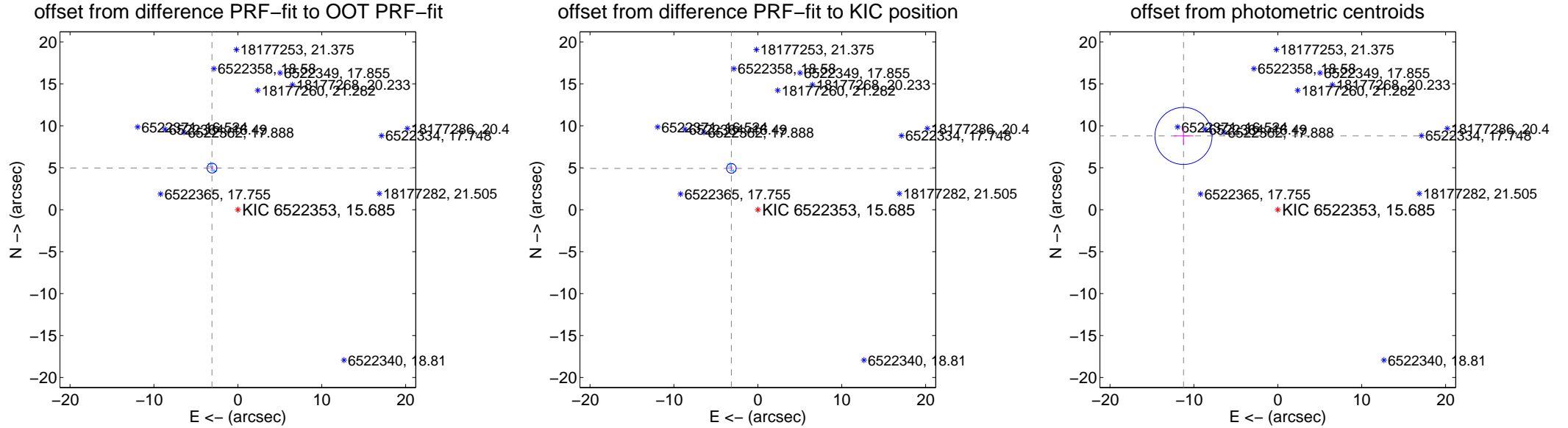
DV Centroid Data

Supplemental centroid analysis for 006522353-01. Kepler magnitude: 15.69. Transit SNR 10.20

There are 4 quarters with good PRF difference image offsets

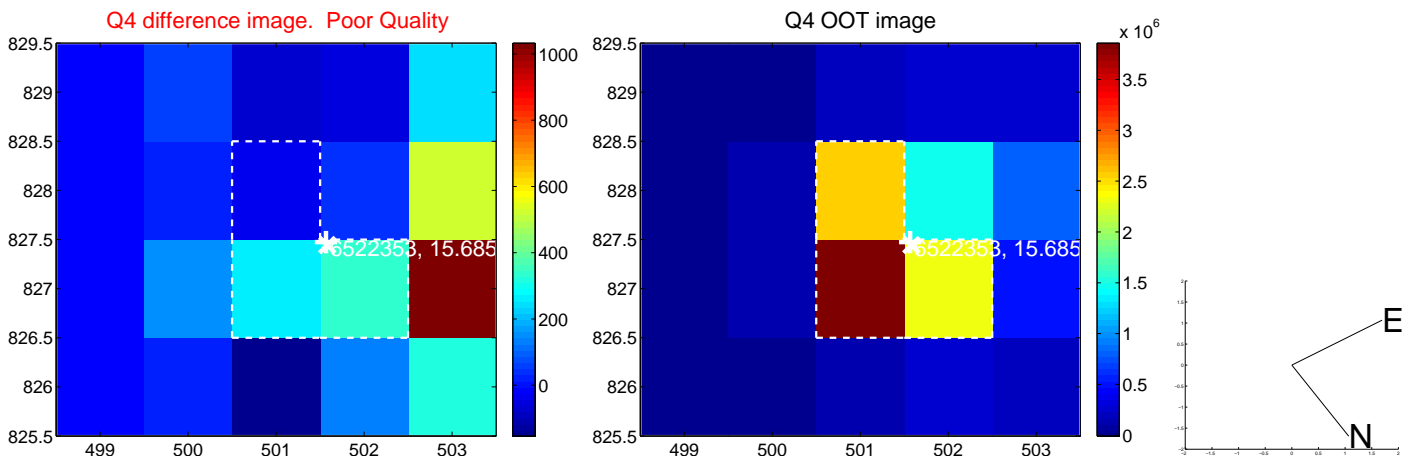
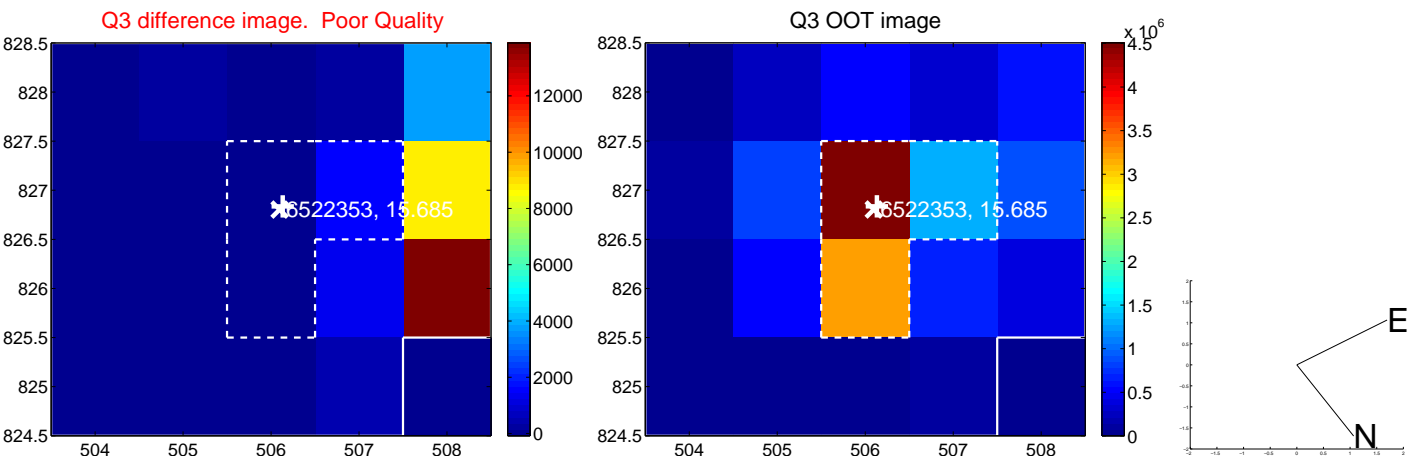
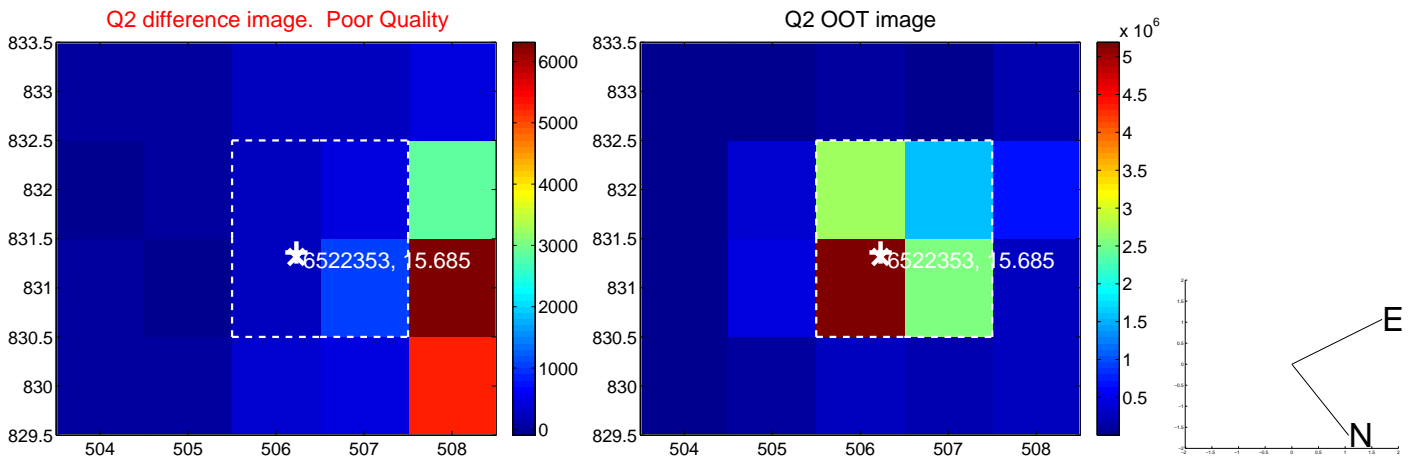
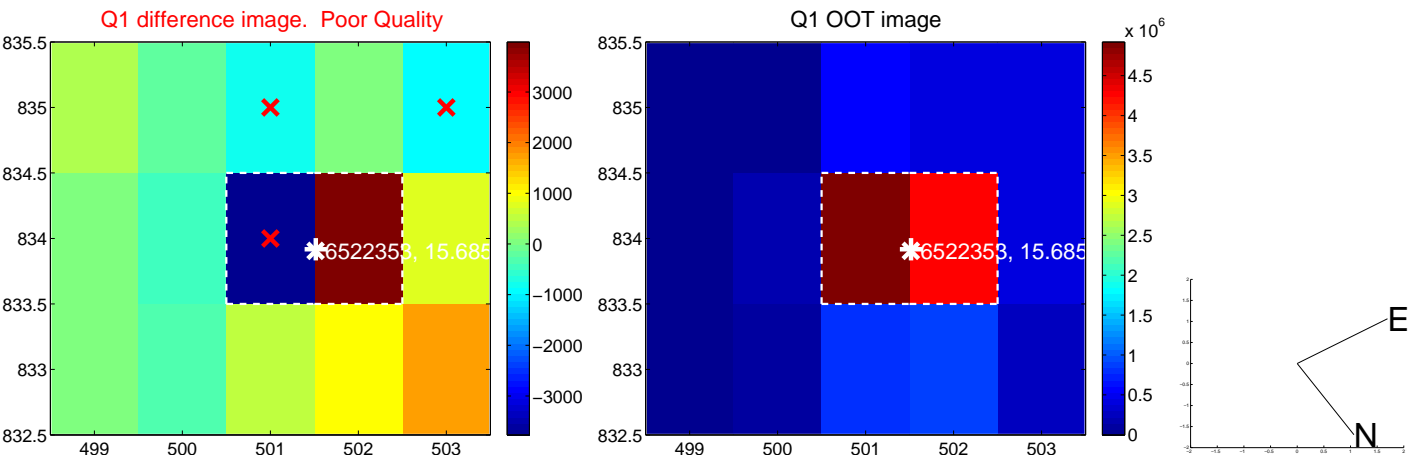
The direct PRF centroid is offset from the target star catalog position by about 0.08 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	5.840 \pm 0.195	29.96	3.082 \pm 0.125	4.960 \pm 0.216
PRF-fit source offset from KIC position	5.852 \pm 0.192	30.52	3.155 \pm 0.118	4.928 \pm 0.215
photometric centroid source offset	14.27 \pm 1.13	12.59	11.24 \pm 1.17	8.80 \pm 1.07

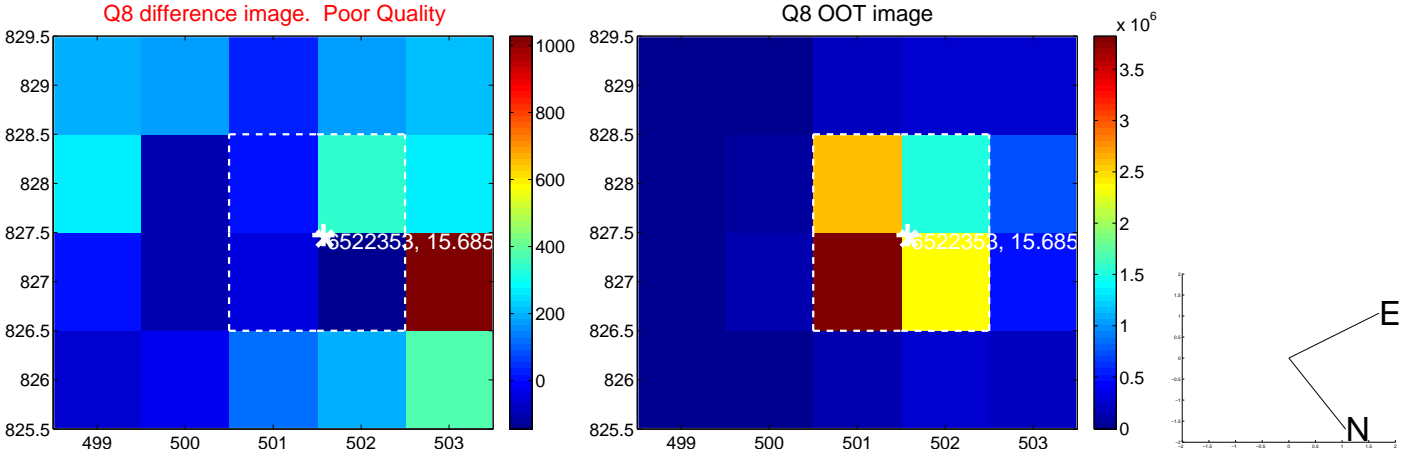
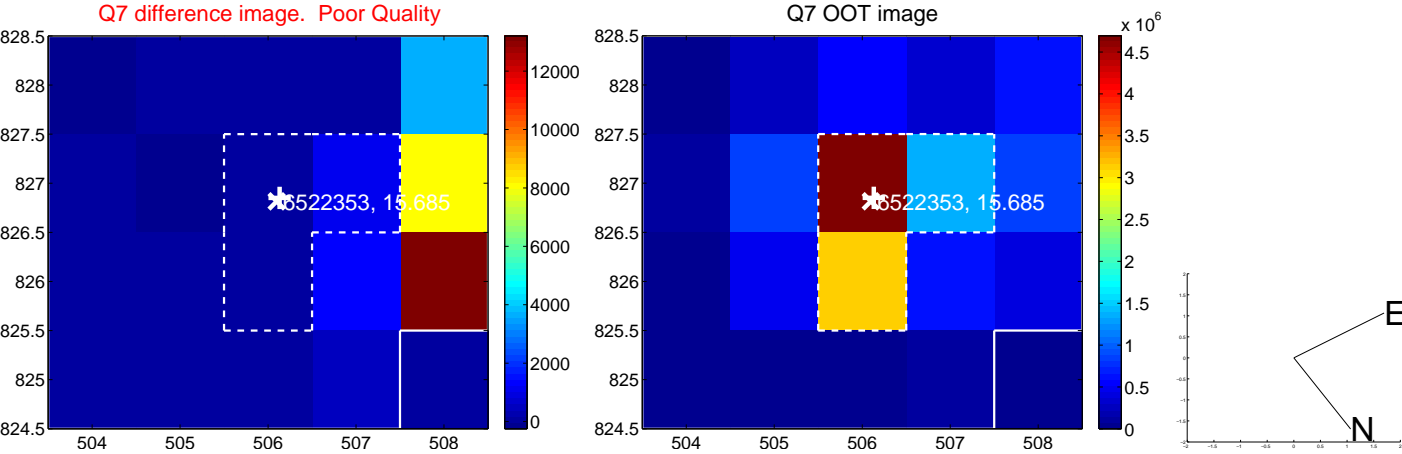
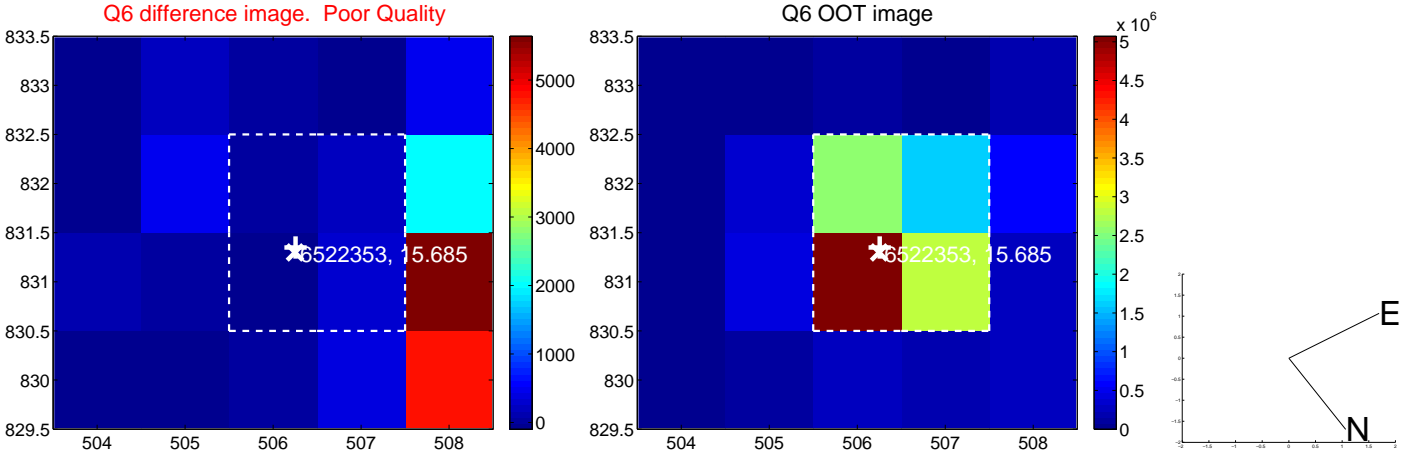
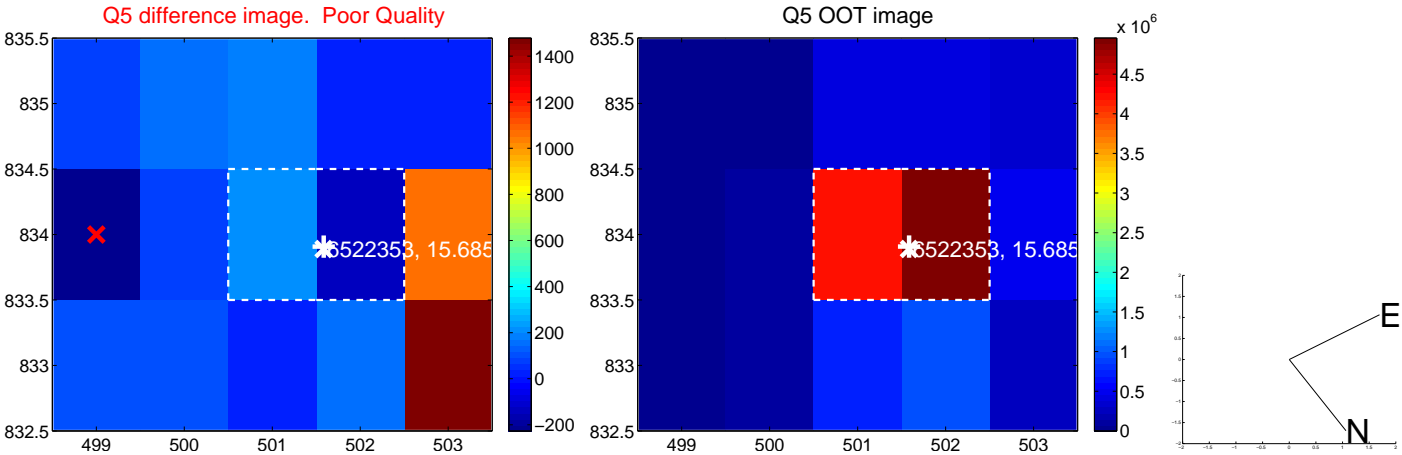


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

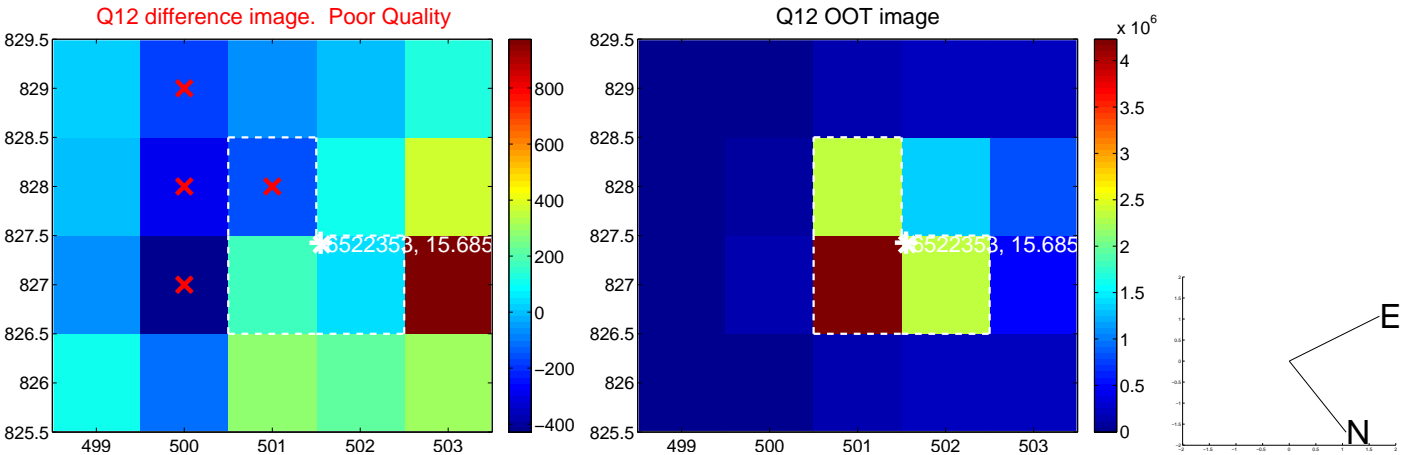
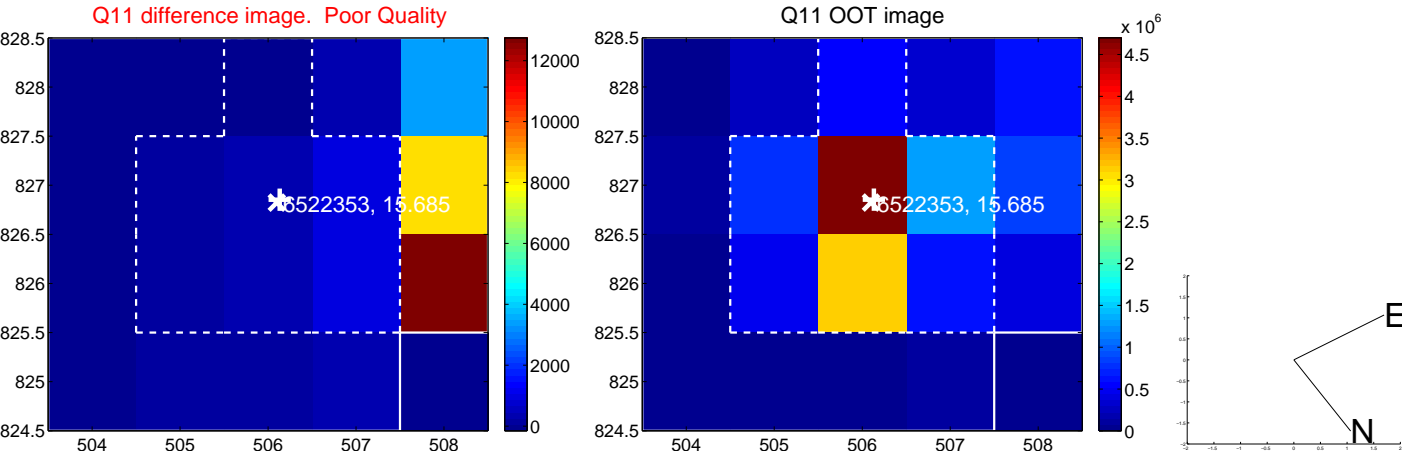
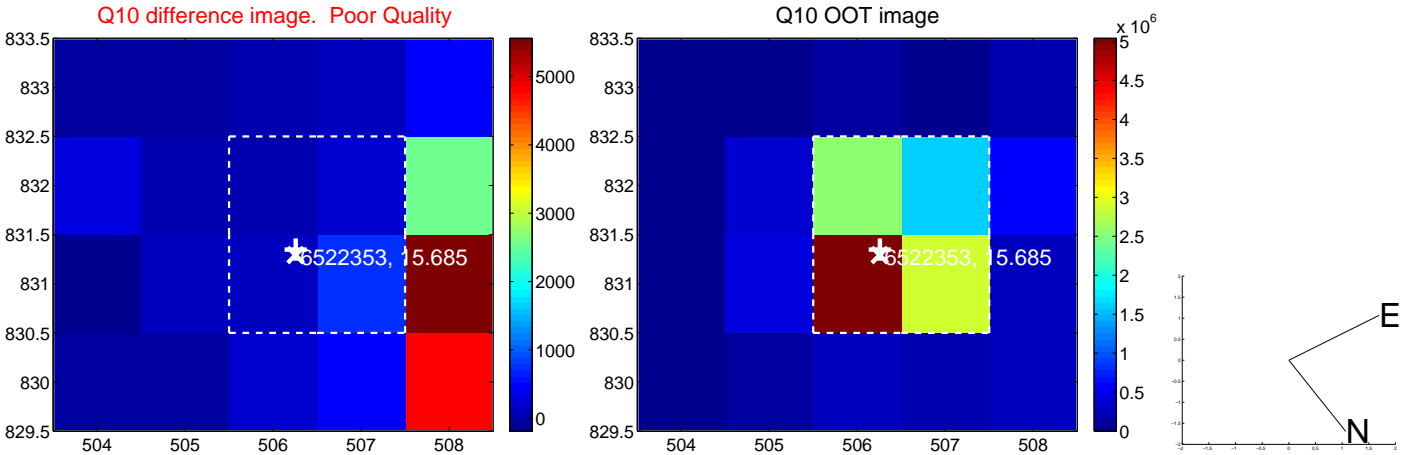
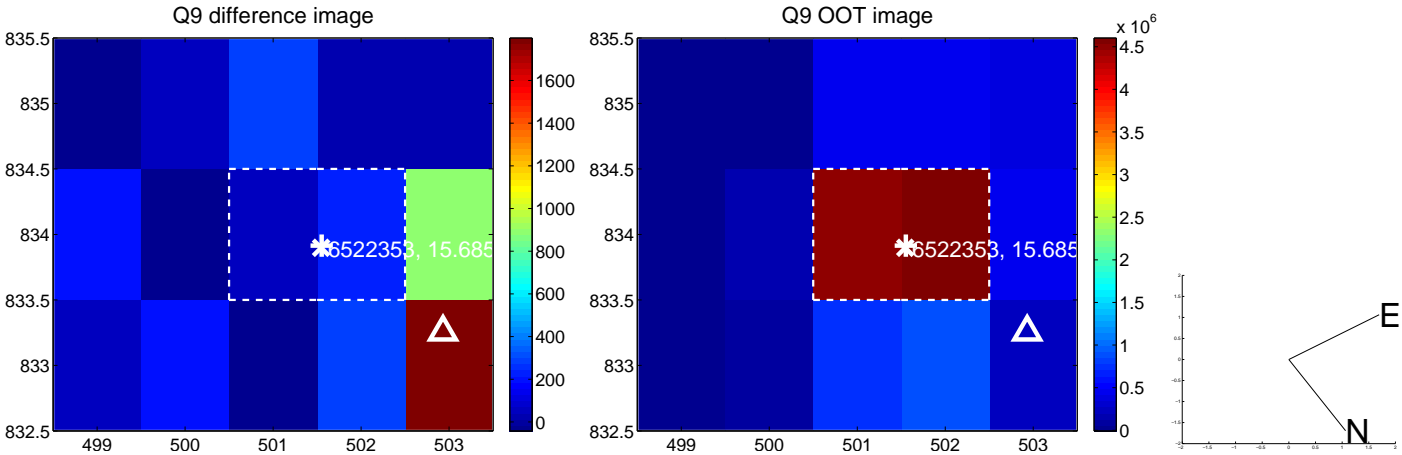
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



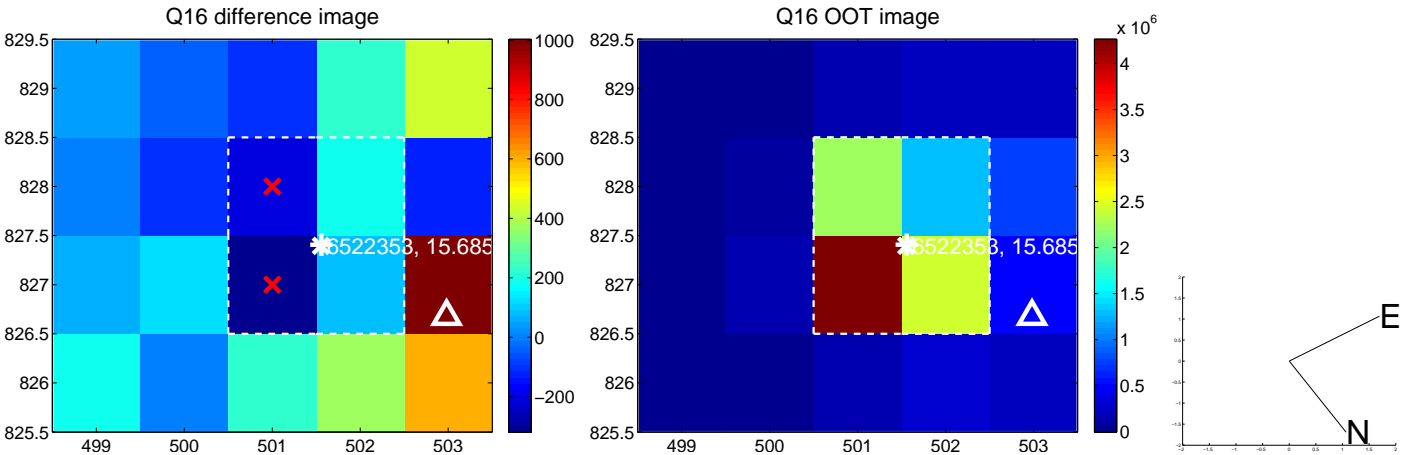
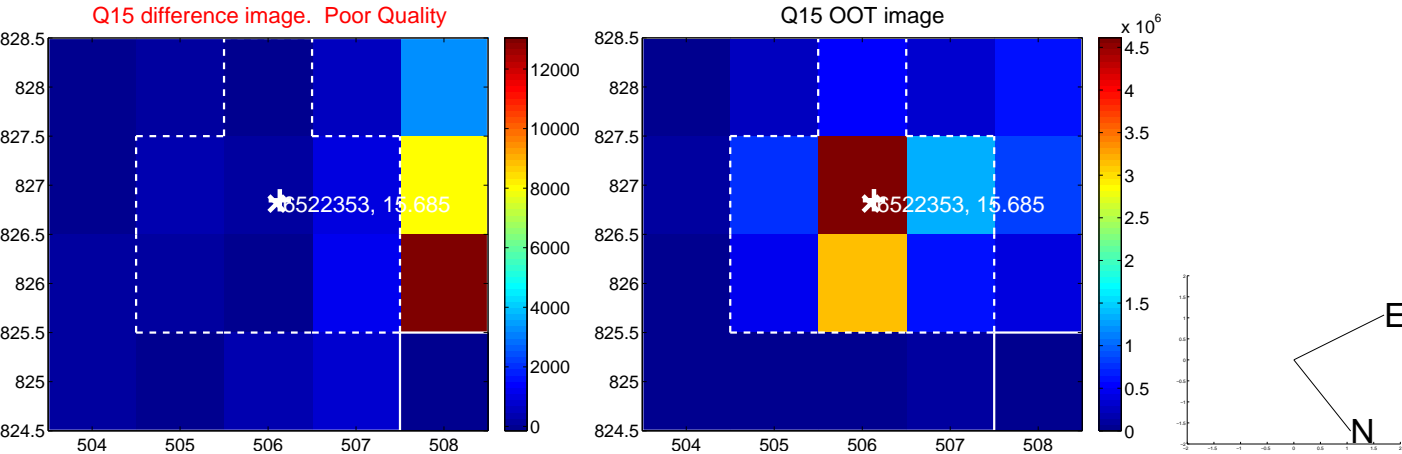
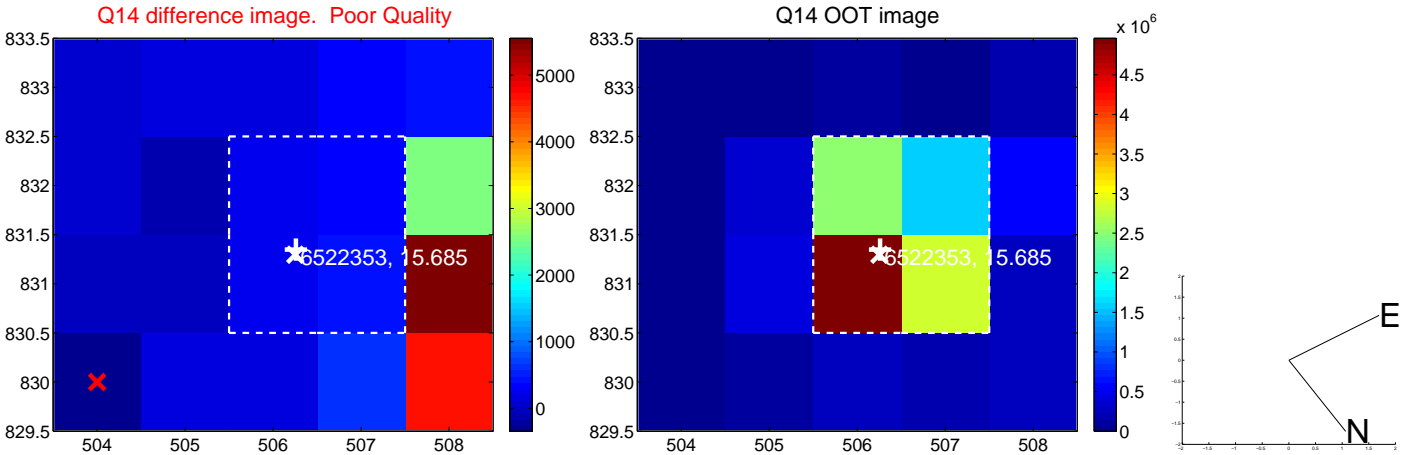
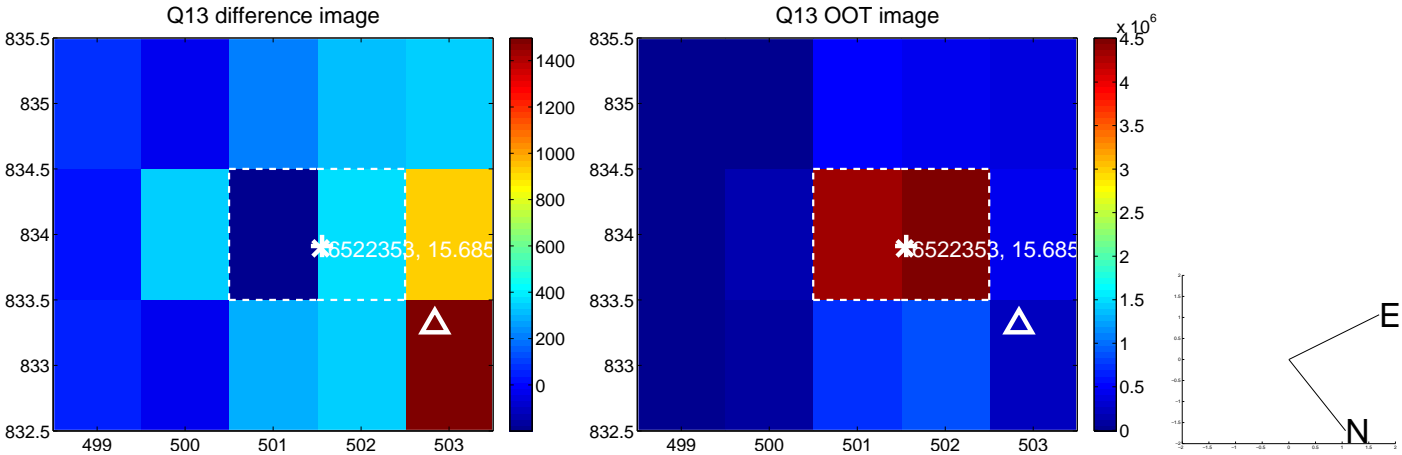
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



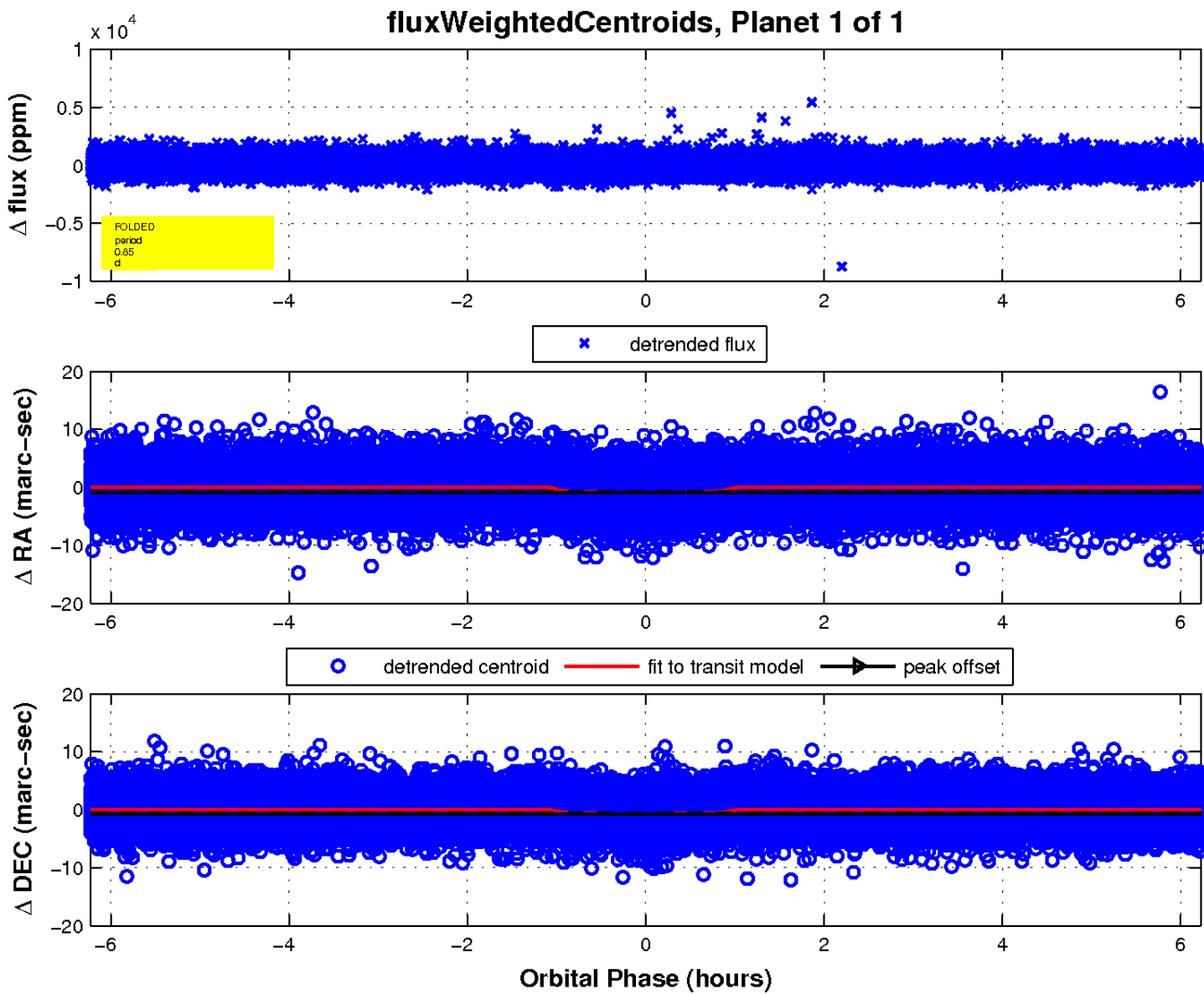
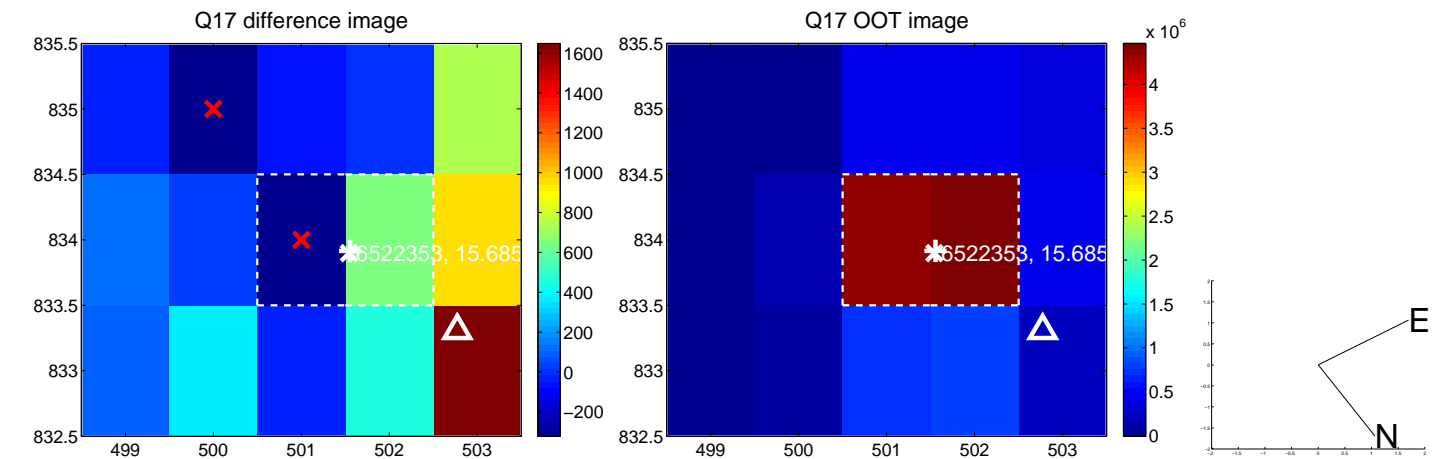
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UKIRT Image

Declination

